

AN OVERVIEW OF E- BANKING IN INDIA- IMPLEMENTATION AND CHALLENGES

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I. ABSTRACT

E-banking or Online banking has revolutionised the banking system in India in the last decade. E-banking uses the internet as the delivery channel by which to conduct banking activity, for example, transferring funds, paying bills, viewing checking and savings account balances, paying mortgages and purchasing financial instruments and certificates of deposits. Through this system, there has been a manifold increase in the efficiency of the banking system of the nation. Without even interacting with the bankers, customers transact from one corner of the country to another corner. This paper aims to analyse the types of E Banking services offered by banks and banking institutions and the issues and risks that arise as a result of the same.

Keywords- *e-banking, internet, risks*

II. INTRODUCTION

Electronic banking has experienced explosive growth and has transformed traditional practices in banking. It is predicted to bring a paradigm shift in marketing practices will result in high performance in the banking industry. Customer satisfaction, customer retention and new customer acquisition are the key factors in Internet banking systems. The rise in the e-commerce and the use of internet in its facilitation along with the enhanced online security of transactions and sensitive information has been the main reason for the penetration of online banking in everyday life.

Indian banks now offer a myriad of E banking facilities to their customers, such as Automated Teller Machines (ATMs), Smart Cards, Tele-banking, Internet Banking, Mobile Banking, Phone Banking, Electronic Clearing Services, Electronic Clearing Cards, Door Step Banking, and Electronic Fund Transfer. The various E Banking facilities offered by banks have revolutionised the lives of customers, but have brought about several risks, both technological and regulatory, as their own problems associated with the same.

III. TYPES OF E-BANKING

The primary types of E- Banking facilities offered by banks are as follows:

1. Informational- This basic form of banking entails marketing information about the bank's products and services on a stand-alone server. The risk of information-leak is low as informational systems typically have no path between the server and the bank's internal network, however, the server may be vulnerable to alteration. Banks have been inculcating appropriate control mechanism to prevent unauthorized alterations to the bank's server or web site.
2. Communicative: This encircles around the concept of interaction between the bank's system and the customer which may be through electronic mail, account enquiry, loan applications, or static file updates (name and address change). Because these servers may have a path to the bank's internal networks, the risk is higher with this configuration than with informational systems. Appropriate mechanisms should be employed to control unauthorized use in bank's internal network and also affect by virus should be controlled.
3. Transactional: This level of Internet banking allows customers to execute transactions. Since a path typically exists between the server and the bank or outsourcer's internal network, this is the highest risk architecture and must have the strongest controls. Customer transactions can include accessing accounts, paying bills, transferring funds etc. These mostly include activities such as Electronic Bill Presentment and Payment (EBPP), Loan application and transactions such as repayment, Investment purchase or sale & Funds transfer between customers own checking and savings accounts, or to another customers account.

Banking Institutions have incorporated Internet technology to expeditiously serve their customers and to make banking a better and more convenient transactions. The Reserve Bank of India constituted a committee which divided the internet banking products provided by banks into two main categories, on the basis of access granted:

- a) Information Only System: Only general information is provided to the customers, such as internet rates, the location of the branches of a bank, loan and deposit calculations etc. There normally takes no interaction between the bank's application system and the customer, and it is limited to the task of downloading information from the websites only. No unauthorised user generally gets entry to the production system of the bank in this system.

- b) Electronic Information Transfer System: These are methods of providing customer-specific transfer of information, such as account balance, transactional details which can be obtained online and also can be changes in to hardcopy. The information is generally of 'read only' format and to access such information the account id and password of the customer of the bank is imperative.
- c) Fully Electronic Transactional System: This system demands an essentially high-degree of control, supervision and protection as it is bi-directional where even the customers can provide information online for update in the banks books. The web-server and the application system should be connected to a secure infrastructure. The technologies used in this system encompasses computerization, network and security inter-bank payment gateway and legal infrastructure. This system includes: ATM services, Smart cards, Mobile Banking systems etc.

IV. FORMS OF ELECTRONIC BANKING:

Internet Banking can be categorised into various forms which are:

- a) Electronic Banking Using Telephone Connections: Telephone banking dates back to sixties and seventies. These services saw rapid growth post the advent of mobile phones which led to the development of information and communication technologies. Electronic banking using a telephone connection can be divided into phone banking (ATS, client advisor) which was the traditional way of dialling the number of the bank to receive information mainly by providing the customer's identity. However, this is now replaced with mobile banking (SMS banking, GSM SIM Toolkit and WAP). Nowadays, bank telephone centre operators work 24 hours a day; a nonstop system operating to provide such services.
- b) Automated Telephone System: A technical system where a telephone is equipped with an accessory adaptor, working on the basis of a menu through which clients can move around using buttons on the telephone. Extensive information is sent to the client by fax either to a telephone number to a number either requested by the client or given by banks. This is a cost-effective method.
- c) SMS Banking: Short text messages sent through the client's mobile phone, can be used for both passive and active operations, is used in SMS Banking. A client automatically receives information about account balance or the confirmation about a certain operation, or on request of a client, mostly concerning current interest rates or currency exchange rates, the bank may

correctly format a message which processes it and answers the client's request by SMS. Passwords are used for this purpose or technologies based on the principle of an electronic key. A client however is required to know the code of every transaction including constant and variable symbols.

- d) Mobile Banking: Mobile phones provide GSM SIM Toolkit whose service is used by clients by taking assistance of an operator supporting this standard in its network. After buying a special SIM card and activating it at the pertinent bank branch the client can begin using this service. The mobile phone menu will be widened to include the Banking Services item, through which it is possible to carry out active or passive banking operations. The precise structure differs from one financial institution to another.
- e) Electronic Banking using Personal Computers: Personal computers facilitate and modernize banking service which can be in the form of home banking, internet banking and mail-banking.
- Home Banking services enables a client to keep abreast of the bank his accounts from a personal computer or one in an office. The advantages of this system are numerous including security, comfort, simplicity of use, openness of the system, wide communication possibilities, networking, definition of users and their rights, automated data transmission and the option to define a combined signature specimen and even provides a multi user application,
 - Internet Banking: Security and protection associated with these are to be catered to. Identification code is required to be given to a client for availing this service. The advantages are with graphic interface, clarity, simplicity, and unambiguity of usage. The intelligibility of texts determines simplicity and speed of understanding of the meaning of menu items, data fields, and general text information displayed to the client..
- f) Payment Instruments: A payment card, an electronic wallet and a self-service zone. A payment card is a widely used payment instruments employed for non-cash payments or cash withdrawal by authorized holders through and these are mainly performed over an extensive network via automated teller machines.
- g) Electronic Wallet: It consists of a chip card which keeps a record of a financial sum of the owner.
- h) Self Service Zone: It is completely an automated alternative work place of a bank with terminals and devices that clients can use to get various bank

services enabling both active and passive operations. Devices for easy use with simple intuitive controls are installed and a payment card in combination with a password along with authentication devices is used to access a self-service zone.

V. RISKS ASSOCIATED WITH E- BANKING

The issues related to regulation of the Banking Sector have cropped up due to the advent of new technologies and progress in banking facilities.

- a) Legal Risk: Legal risks heighten for banks when they try to increase their potentiality and expand the geographical scope of their services faster through electronic banking than through traditional banks. There are times, where they are faced with Jurisdiction issues. Banks might not be fully versed in a jurisdiction's local laws and regulations before they begin to offer services there, either with a license or without a license if one is not required. Additionally, when licenses are not issued, a virtual bank—lacking contact with its host country supervisor—may find it even more difficult to stay up-to-date with regulatory amendments. Causing violation of customer protection laws including data collection and privacy norms and thus results in lawsuits.
- b) Regulatory Risk: The Internet stipulates services from all over the world giving scope to banks to make an attempt at preventing regulation and supervision. Regulators, subsequently require the banks to provide their services, which are from a remote location through the Internet, to be licensed. Licensing would be particularly appropriate where supervision is weak and cooperation between a virtual bank and the home supervisor is not adequate.
- c) Operational Risk: Operational risks go alongside with Management risks which calls for supervision. Security issues can result from inside or outside the system obliging banking regulators and supervisors to guarantee that banks are prepared with technologies to guarantee the confidentiality of data, as well as the integrity of the system and the data. Security practices of banks should be frequently reviewed by professionals and staffs with required proficiency to examine network weaknesses and recovery preparedness. Budgetary impact of new investments should also be considered.
- d) Reputational Risk: Violations of security and disturbances to the system's availability can injure a bank's status. The more a bank depends on on electronic delivery channels, the greater the potential for reputational risks. Even one electronic bank difficulty makes customers to lose faith in electronic delivery channels who then begin considering bank failures as system supervisory

deficiencies. 'Customer education' may aid which makes them aware of the potential problems that are commonly linked with the e-banking system.

- e) Functional Risks: Money laundering, a criminal activity has been reigning the e-banking sector because of the anonymity attached... Guidelines issued by many countries which consist of recommendations for verifying an individual's identity and address before a customer account is opened and for monitoring online transactions though demand vigilance and needs banks to be pro-active, have somewhat helped in combating the situation..

V. INTERNET BANKING FRAUD

Cybercrime is on the rise and the banking sector also has to bear the brunt of fraudulent activities that take place as a result of technological loopholes. The primary threats faced by E Banks are as follows:

- a) ATM skimming: ATM skimming is the process of illegal copying of information from the magnetic strip of an ATM Card for the purpose of fraudulent activity. ATM skimming takes place on a large scale in underdeveloped and developing economies and poses grave risks to customer assets and accounts.
- b) Phishing/ Vishing: A fraudulent practice wherein emails are sent to customers inducing them to reveal personal information, such as passwords and credit card numbers, online, purporting to be from reputable companies.
- c) Identity fraud is also a reigning form of fraudulent activities concerning Internet Banking transactions. Identity appropriation is a serious risk faced by customers and needs to be talked efficiently in the current regulatory regime.
- d) Trojan: Trojans are emails that are known to contain files, pages or attachments that when opened can secretly install a program on the user's computer that can monitor your online activity. This essentially means that the next time the customer enters his/her credit card details online shopping website/ otherwise, the fraudsters will be alerted and informed who can also take a note of the same and later on use it for their own benefit.
- e) Money mule / Additional income email scam: A recent scam involves someone offering via an email or website to pay funds into your account on the understanding you then transfer them overseas. In return, you supposedly get a commission. Many of these scams involve the proceeds of fraud and you should ignore the request. Any customer that participates will become involved in a police investigation and we could close any account involved in this scam. If it looks too good to be true, it probably is a con.

f) Advanced Fee Fraud ('419' scams):

This involves unsolicited letters and email messages offering the recipient a generous reward for helping to move a staggeringly large balance of funds, usually in US Dollars. The transactions typically require the recipient of the letter or email message to pay something like a fee / tax / bribe to complete the deal - this is the Advance Fee. Such fees will be lost.

VI. CONCLUSION

The mobile market as well as the wireless market is currently one of the fastest growing markets in the world. The infusion of technology with our daily activities and the enhanced and escalating use of mobile phones, smart phone devices have given the banking industry a boost along with a new platform. The ability of being able to connect a customer anytime and anywhere to keep them abreast of the status of their account, even providing services on online-money transactions and catering to such needs have now become have services that are now an unstoppable necessity. However, the Online banking system still faces several risks that need to be tackled effectively by governmental mechanisms, both technological and regulatory in order for the banking system to grow and develop effectively. The onus also lies on banks to employ, inculcate and equip their systems with services which will insulate their system from fraudulent activities and that in turn will strengthen the confidence of their customer on them and hence contribute towards increasing their market value.

VII. REFERENCES

1. 'Service Quality Evaluation in Internet Banking: An Empirical Study in India', International Journal on Indian Culture and Business Management, Vol 2 Issue 4. Authors: Mohammed Sadique Khan, Siba Shankar Mahapatra and Sreekumar (2009).
2. 'Issues of E-Banking Transaction: An Empirical Investigation on Customer Satisfaction', Journal of Applied Sciences. Authors: Ahasanul Haque. Available: www.ebsco.com
3. 'E-Banking: The Indian Scenario', Asia Pacific Journal of Marketing and Management Review, Vol.1, December 2012. Authors: Dr. Roshan Lal & Dr. Rajni Saluja. Available: <http://indianresearchjournals.com/pdf/APJMMR/2012/December/2.pdf>
4. Internet Banking: Benefits and Challenges in an Emerging Economy, International Journal of Research in Business Management, Vol. 1 Issue 1, June 2013, 19-26. Authors: Jayshree Chavan.

5. The Use of Information Technology to Transform the Banking Sector in Developing Nations, Journal on Information Technology Development, Vol.11 Issue 4, 2005. Authors: S Kamel.
6. Service Quality Evaluation in Internet Banking: An Empirical Study in India, International Journal of Indian Culture and Business Management, Vol. 2 Issue 1, 2009. Authors: Khan, M S; S. S. Mahapatra and Sreekrumah.

