

INTERNET BANKING: A CONCEPTUAL ANALYSIS

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ABSTRACT

Online banking also known as internet banking is a service that is allowed by the banks to its customers for accessing bank accounts and services offered by them via internet. The invention of online banking was started by the banks in New York in 1980 and its services were offered correctly from 1995. In 1995, the presidential savings bank became the first financial provider to offer Internet banking and soon it spread with well-known banks such as Citibank, Chase Manhattan. Later Indian Banks introduced too. We can observe through this, that paperwork and other hassles are greatly reduced by banking online. People need not have to waste their time going to banks and other transactions, it involves just a click and every information will be in front of you. In proper terms, online banking is a system which allows individual to execute banking process and activities from home through internet. It can be either said that the use of telephones and telecommunications which helps in banking transactions to be done by computer rather than human interaction. It can be also known as home banking, wherein you can check your accounts every now and then. This paper is an attempt to know the usefulness of Internet marketing these days.

***Key words:** Internet, Internet banking, File Transfer Protocol.*

INTERNET: A NEW MEDIUM

Internet is a vast network of individual computers and computer networks connected to and communicated with each other using the same communication protocol-TCP/IP (Transmission Control Protocol/Internet Protocol). When two or more computers are connected a network is created; connecting two or more networks create 'inter network' or Internet. The Internet, as commonly understood, is the largest example of such a system. Internet is often and aptly described as 'Information Superhighway', a means to reach innumerable potential destinations. The destination can be any one of the connected network and host computers.

FTP or File Transfer Protocol is a mechanism for transferring files between computers on the Internet. It is possible to transfer a file to and from a computer (FTP site) without having an account in that machine. Any organization intending to make available to public its documents would normally set up a ftp site from which any one can access the documents for download. Certain ftp sites are available to validated users with an account ID and password.

The most common and basic use of Internet is the exchange of e-mail (electronic mail). It is an extremely powerful and revolutionary result of Internet, which has facilitated almost instantaneous communication with people in any part of the globe. With enhancements like attachment of document, audio, video and voice mail, this segment of Internet is fast expanding as the most used communication medium for the whole world. Many websites offer e-mail as a free facility to individuals. Many corporates have interfaced their private networks with Internet in order to make their e-mail accessible from outside their corporate network.

One of the biggest attractions of Internet as an electronic medium is its openness and freedom. It is a public domain and there is no restriction on who can use it as long as one adheres to its technical parameters. This has also given rise to concerns over the security of data and information transfer and privacy. These concerns are common to any network including closed user group networks. But over the Internet, the dimensions of risk are larger while the control measures are relatively fewer. It will be sufficient to say here that the key components of such concern are,

- (i) authentication, viz., assurance of identity of the person in a deal,
- (ii) authorization, viz., a party doing a transaction is authorized to do so,
- (iii) the privacy or confidentiality of data, information relating to any deal,
- (iv) data integrity, viz., assurance that the data has not been altered and
- (v) no repudiation, viz., a party to the deal cannot deny that it originated the communication or data.

THE GROWTH OF INTERNET BANKING

Internet Banking is a product of e-commerce in the field of banking and financial services. In what can be described as B2C domain for banking industry, Internet Banking offers different online services like balance enquiry, requests for cheque books, recording stop-payment instructions, balance transfer instructions, account opening and other forms of traditional banking services. Mostly, these are traditional services offered through Internet as a new delivery channel. Banks are also offering payment services on behalf of their customers who

shop in different e-shops, e-malls etc. Further, different banks have different levels of such service offered, starting from level-1 where only information disseminated Internet to level -3 where online transactions are put through.

Considering the volume of business e-commerce, particularly in B2B domain, has been generating, it is natural that banking would position itself in an intermediary role in settling the transactions and offering other trade related services. This is true both in respects of B2C and B2B domains. Besides, the traditional role of financial intermediary and settlement agents, banks have also exploited new opportunities offered by Internet in the fields of integrated service providers, payment gateway services, etc. However, the process is still evolving and banks are repositioning themselves based on new emerging e-commerce business models.

In B2B scenario, a new form of e-commerce market place is emerging where various players in the production and distribution chain are positioning themselves and are achieving a kind of integration in business information flow and processing (STP or near STP) leading to efficiencies in the entire supply chain and across industries. Banks are positioning themselves in such a market in order to be a part of the financial settlements arising out of transactions of this market and providing wholesale financial services. This needs integration of business information flow not only across the players in the supply chain, but with the banks as well.

With the integration of business information flow and higher degree of transparency, the banks and other financial services institutions have lost some of the information advantage they used to enjoy and factor in to pricing of their products. However, such institutions have the advantage of long standing relationships, goodwill and brand, which are important sources of assurance in a virtual market. Banks are in fact, converting this goodwill into a business component in e-commerce scenario in providing settlement and other financial services. Some banks have also moved to providing digital certificates for transactions through e-markets.

Banks' strategies in B2B market are responses to different business models emerging in e-commerce. A recent study by Arthur Andersen shows that banks and financial service institutions generally adopt one of three business models to respond to e-business challenges. In the first place, they treat it as an extension of existing business without any significant changes other than procedural and what technology demands. The second strategy takes the same approach as the first but introduces structural changes to the underlying business. In the third approach banks launch e-business platform as a different business from the existing core business and as a different brand of product. There is no definite answer as to which approach is appropriate. Perhaps it depends on the type of market the bank is operating, its existing competencies and the legal and regulatory environment. it is,

however, sure that e-banking is evolving beyond the traditional limits of banking and many new products/services are likely to emerge as e-commerce matures.

With the opening of banking business through a medium like Internet, the traditional banking risks are magnified and modified for banks offering transactional electronic banking thereby influencing the overall risk profile of banking (Pennathur, 2001)⁶. Other ICT issues needed to be addressed are ensuring data protection (notably in online transactions), quick and effective disaster recovery, and the provision of ever more sophisticated e-banking service in response to increased customer expectations in this domain (Rytz and Sylvest, 2008)⁷. Operationally, banks are benefitted through the use of e-banking as it reduces the cost of transaction, improves service quality and helping banks in diversifying their activities (Nath et al. 2001).

INTERNET BANKING: INDIAN SCENARIO

Internet banking, both as a medium of delivery of banking services and as a strategic tool for business development, has gained wide acceptance internationally and is fast catching up in India with more and more banks entering the fray. India can be said to be on the threshold of a major banking revolution with net banking having already been unveiled. A questionnaire administered in the year 2000 to which 46 banks responded, has revealed that at that time, 11 banks in India were providing Internet banking services at different levels, 22 banks proposed to offer Internet banking in near future while the remaining 13 banks had no immediate plans to offer such facility.

In 2000 the total Internet users in the country were estimated at 9 lakh only. However, this was expected to grow exponentially to 90 lakh by 2003. Only about 1% of Internet users did banking online in 1998. This increased to 16.7% in March 2000¹⁸. The growth potential is, therefore, immense. Further incentives provided by banks would dissuade customers from visiting physical branches, and thus get 'hooked' to the convenience of arm-chair banking. The facility of accessing their accounts from anywhere in the world by using a home computer with Internet connection, is particularly fascinating to Non-Resident Indians and High Net worth Individuals having multiple bank accounts.

Costs of banking service through the Internet form a fraction of costs through conventional methods. Rough estimates assume teller cost at Rs 1 per transaction, ATM transaction cost at 45 paise, phone banking at 35 paise, debit cards at 20 paise and Internet banking at 10 paise per transaction. The cost-conscious banks in the country have therefore actively considered use of the Internet as a channel for providing services. Fully

computerized banks, with better management of their customer base are in a stronger position to cross-sell their products through this channel.

PRODUCTS AND SERVICES OFFERED

Banks in India are at different stages of the web-enabled banking cycle. Initially, a bank, which is not having a web size, allows its customer to communicate with it through an e-mail address: communication is limited to a small number of branches and offices which have access to this e-mail account. As yet, many scheduled commercial banks in India are still in the first stage of Internet banking operations.

With gradual adoption of Information Technology, the bank puts up a web-site that provides general information on the banks, its locations, services available e.g., loan and deposits products, application forms for downloading and e-mail option for enquiries and feedback. It is largely a marketing or advertising tool. For example, Vijaya Bank provides information on its web-site about its NRI and other services. Customers are required to fill in applications on the Net and can later receive loans or other products requested for at their local branch. A few banks provide the customer to enquire into his demat account (securities/shares) holding details, transaction details and status of instructions given by him. These web sites still do not allow online transactions for their customers.

Some of the banks permit customers to interact with them and transact electronically with them. Such services include request for opening of accounts, requisition for cheque books, stop payment of cheques, viewing and printing statements of accounts, movement of funds between accounts within the same bank, querying on status of requests, instructions for opening of Letters of Credit and Bank Guarantees etc. These services were initiated by banks like ICICI Bank Ltd., HDFC Bank Ltd. Citibank, Global Trust Bank Ltd., UTI Bank Ltd., Bank of Madura Ltd., Federal Bank Ltd., etc. Further entrants in Internet banking were Allahabad Bank (for its corporate customers through its 'Allnet' service) and Bank of Punjab Ltd. State Bank of India is also providing such services Certain banks like ICICI Bank Ltd., have gone a step further within the transactional stage of Internet banking by allowing transfer of funds by an accounts holder to any other accounts holder of the bank.

Some of the more aggressive players in this area such as ICICI Bank Ltd., HDFC Bank Ltd., UTI Bank Ltd., Citibank, Global Trust Bank Ltd. and Bank of Punjab Ltd. offer the facility of receipt, review and payment of bills on-line; These banks have tied up with a number of utility companies. The 'Infinity' service of ICICI Bank Ltd. also allows online real time shopping mall payments to be made by customers. HDFC Bank Ltd. has made e-

shopping online and real time with the launch of its payment gateway. It has tied up with a number of portals to offer business-to-consumer (B2C) e-commerce transactions. The first online real time e-commerce credit card transaction in the country was carried out on the Easy3 shoppe.com shopping mall, enabled by HDFC Bank Ltd, on a VISA card.

Banks like ICICI Bank Ltd., HDFC Bank Ltd. etc, are looking to position themselves as one stop financial shops. These banks have tied up with computer training companies, computer manufacturers, Internet Services Providers and portals for expanding their Net banking services, and widening their customer base. ICICI Bank Ltd. has set up a web based joint venture for on-line distribution of its retail banking products and services on the Internet, in collaboration with Satyam Info way, a private ISP through a portal named as icicisify.com. The customer base of www.satyamonline.com portal is also available to the bank. Setting up of Internet kiosks and permeation through the cable television route to widen customer base are other priority areas in the agendas of the more aggressive players. Centurion Bank Ltd, has taken up equity stake in the teauction.com portal, which aims to bring together buyers, sellers, registered brokers, suppliers and associations in the tea market and substitute their physical presence at the auctions announced.

Banks providing Internet banking services have been entering into agreements with their customers setting out the terms and conditions of the services. The terms and conditions include information on the access through user-id and secret password, minimum balance and charges, authority to the bank for carrying out transactions performed through the service, liability of the user and the bank, disclosure of personal information for statistical analysis and credit scoring also, non-transferability of the facility, notices and termination, etc.

The race of market supremacy is compelling banks in India to adopt the latest technology on the Internet in a bid to capture new markets and customers. HDFC Bank Ltd. with its 'Freedom- the e-Age Saving Account' Service, Citibank with 'Suvidha' and ICICI Bank Ltd. with its 'Mobile Commerce' service have tied up with cell-phone operators of offer Mobile Banking to their customers. Global Trust Bank Ltd. has also announced that it has tied up with cellular operators to launch mobile banking services. Under Mobile Banking services, customers can scan their accounts to seek balance and payments status or instruct bank to issue cheques, pay bills or deliver statements of accounts. It was estimated that by 2003, cellular phones would have become the premier Internet access device, outselling personal computers. Mobile banking will further minimise the need to visit a bank branch.

THE FUTURE SCENARIO

Compared to bank abroad, Indian bank offering online services still have a long way to go. For online banking to reach a critical mass, there has to be sufficient number of users and the sufficient infrastructure in place. The 'Infinity' product of ICICI Bank Ltd. gets only about 30,000 hits per month, with around 3,000 transactions taking place on the Net per month through this service. Though various security options like line encryption, branch connection encryption, firewalls, digital certificates, automatic sign offs, random pop-ups and disaster recovery sites are in place or are being looked at, there is as yet no Certification Authority in Indian offering Public Key Infrastructure which is absolutely necessary for online banking. The customer can only be assured of a secured conduit for its online activities if an authority certifying digital signatures is in place. The communication bandwidth available today in India is also not enough to meet the needs of high priority services like online banking and trading. Banks offering online facilities need to have an effective disaster recovery plan along with comprehensive risk management measures. Bank offering online facilities also need to calculate their downtime losses, because even a few minutes of downtime in a week could mean substantial losses. Some banks even today do not have uninterrupted power supply unit or systems to take care of prolonged power breakdown. Proper encryption of data and effective use of passwords are also matters that leave a lot to be desired. Systems and processes have to be put in place to ensure that errors do not take place.

Users of Internet Banking Services are required to fill up the application forms online and send a copy of the same by mail or fax to the bank. A contractual agreement is entered into by the customer with the bank for using the Internet banking services. In this way, personal data in the applications forms is being held by the bank providing the service. The contract details are often one-sided, with the bank having the absolute discretion to amend or supplement any of the terms at any time. For these reasons domestic customers for whom other access points such as ATMs, telebanking, personal contact, etc. are available, are often hesitant to use the Internet banking services offered by Indian banks. Internet Banking, as an additional delivery channel, may, therefore, be attractive/appealing as a value added service to domestic customers. Non-resident Indian for whom it is expensive and time consuming to access their bank accounts maintained in India find net banking very convenient and useful.

CONCLUSION

World over, electronic banking is making rapid strides due to evolving communication technology. Penetration of Internet banking is increasing in most countries. Wireless Applications Protocol (WAP) is an

emerging service which banks worldwide are also offering. The stiff competition in this area exposes banks to substantial risks. The need is being felt overseas that transparency and disclosure requirements should be met by the e-banking community. While existing regulations and legislations applicable to traditional banking are being extended to banks' Internet banking and electronic banking services, it is recognized that Internet security, customer authentication and other issues such as technology outsourcing pose unique risks. Central Banks worldwide are addressing such issue with focused attention. Special legislations and regulations are being framed by the regulators and supervisors for proper management of the different types of risks posed by these services. The reliance on outsourcing is an area where overseas regulators and supervisors are focusing their attention, with banks having to regularly review and test business continuity, recovery and incidence response plans in order to maintain their reputation of trust. Consumer protection and data privacy are areas which assume great significance when banking transactions are carried over a medium as insecure as the Internet. Many countries are looking at special consumer protection/data privacy legislation for an e-commerce environment. The presence of 'virtual banks' or 'Internet only banks' and the licensing requirements required for such entities are also areas which are being looked into by overseas authorities. There has also been co-operation among the regulators and supervisors to meet the challenges of 'virtual' cross border e-banking, particularly in the light of the possibility of increased money laundering activities through the medium of Internet. Internet banking is universally seen as a welcome development, and efforts are being made to put in place systems to manage and control the risks involved without restricting this service.

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