

Study of Internet Banking Scenario in India

Dr. Geeta Sharma

Reader, IIPS, Devi Ahilya University, Indore,
MP, India

Abstract:

Financial sector plays an important role in the economic development of a country. A strong and healthy banking system is an important requirement for economic growth. Indian banking industry, today is observing an IT revolution. A combination of regulatory and competitive reasons has led to increasing importance of total banking automation in the Indian Banking Industry. Information Technology has basically been used under two different avenues in Banking. One is Communication and Connectivity and other is Business Process Reengineering. Information technology enables sophisticated product development, better market infrastructure, implementation of reliable techniques for control of risks and helps the financial intermediaries to reach geographically distant and diversified markets. The shift towards internet banking is fuelled by the changing dynamics in India. By 2020 the average age of India will be 29 years and this young consumer base is internet savvy and wants real time online information. Indian banks therefore need to aspire high and move toward implementing a world class internet banking capability. The objective of the present paper is to examine and analyze the progress made by Internet Banking in India. The study is secondary based and analytical in nature.

Keywords: IDS, TCP/IP, SMTP, FTP

I. INTRODUCTION

Internet plays a vital role between banks and customers to receive and deliver information, this form of banking is described as Internet banking (Reserve Bank of India, 2001).

The process in which internet and computer devices are used as a medium to facilitate banking services is termed as internet banking. Internet banking is a web-based service that enables the banks authorized customers to access their account information. It permits the customers to log on to the bank's website with the help of the bank's issued identification and personal identification number (PIN). The banking system verifies the user and provides access to the requested services, the range of products and services offered by each bank on the internet differs widely in their content. Banks have traditionally been in the forefront of harnessing technology to improve their products, services and efficiency. Banks are using electronic and telecommunication networks for delivering a wide range of value added products and services. The delivery channels include direct dial – up connections, private networks, public networks etc and the devices include Personal Computers. With the popularity of PCs, easy access to Internet and World Wide Web (WWW), Internet is increasingly used by banks as a channel for receiving instructions and delivering their products and services to their customers. Most of the banks offer internet banking as a value-added service.

Previously many researchers performed research on internet banking in different parameters in different parts of the globe and described about the internet banking. Various researchers have discussed internet banking concept in following way:

Jun and Cai (2001) defined Internet banking as the use of Internet as a delivery channel for banking services which include opening a deposit account, transferring funds, electronic bill presentation and payment.

Internet banking is an integrated system that provides their customers a flexible, convenient and inexpensive platform with integrated services including online bank balance checking and savings accounts, money market accounts, certificates of deposit, credit cards, home equity loans, home mortgage, insurance, investment services, portfolio management, and other related financial services (Bhattacharjee, 2001).

According to Siu and Mou (2005) the internet (electronic) banking is a prominent example of information technology in the service industry; it is convenient and time saving in comparison to traditional banking. In traditional retail banking, one has to visit branch to conduct banking activity like money transfer, to issue cheque book, DD etc. but with the use of internet in banking, user can conduct these activities from any part of the globe, it requires internet connection and computer only. Apart from these activities user can purchase/sell, pay bills etc. from any convenient place.

Daniel (1999) also studied about e-banking and he described electronic banking as the delivery of banks information and services by banks to customers via different delivery platforms that can be used with different terminal devices such as personal computer and mobile phone with browser or desktop software, telephone or digital television. Further, Zeithaml et. al, (2002) stated about internet banking as a phenomenon where customers can access their bank account via the internet using a PC or mobile phone and web-browser. It has not only created opportunities for businesses to reach out to consumers directly but also allows consumers an immediate access to the electronic markets (Gupta and Bansal, 2012). This result in growth in the internet banking users, almost all banks i.e. private, public and foreign banks are providing this facility to their customer. Banks also advertise or may say promote this service among the customers.

According to Patil (2012) financial institution Internet offerings can be broadly classified into three groups with distinct risk profiles. Informational (basic level of internet banking, the bank has marketing information about the bank products and services, risk is relatively low), Communicative (Internet banking system allows some interaction between the bank's systems and the customer. the risk is higher with this configuration than with informational systems), Transactional (Internet banking allows customers to execute transactions. this is the highest risk architecture). According to Srinivasan (2012) The advent of internet banking offers banking firms a new frontier of opportunities and challenges.

II. LITERATURE REVIEW

Balwinder Singh and Pooja Malhotra (2014) he paper presents data, drawn from a survey of commercial banks websites, on the number of commercial banks that offer Internet banking and on the products and services they offer. It investigates the profile of commercial banks that offer Internet banking, using univariate statistical analysis, relative to other commercial banks with respect to profitability, cost efficiency, and other characteristics. By the end of first quarter, 2004, differences between Internet and non-Internet banks had begun to emerge in funding, in sources of income and expenditures and in measures of performance. It was also found that the profitability and offering of Internet banking does not have any significant correlation.

Jayshree Chavan (2013) paper discusses some challenges in an emerging economy. Paper concluded that one of the benefits that banks experience when using ebanking is increased customer satisfaction. This due to that customers may access their accounts whenever, from anywhere, and they get involved more, this creating relationships with banks. Banks should provide their customers with convenience, meaning offering service through several distribution channels (ATM, Internet, physical branches) and have more functions available online.

Rajpreet Kaur Jassal et. el (2013) This paper aims to explains about the reason behind the security breaches and the participation of both customers and the banks to enable the hackers or crackers to access others network. The present study aims to find various types of flaws in the security of online banking those results in loss of money of account holders and financial institutions. Security breaches are not only because of banks faults and banks inadequate police but customers are equally responsible for it, because customer's awareness regarding security is equally important.

Roshanlal and R saluja (2012) The progress in e-banking in Indian banking industry is measured through various parameters such as Computerization of branches, Automated Teller Machines, Transactions through Retail Electronic Payment Methods etc. Statistical and mathematical tools such as simple growth rate, percentages and averages etc are used. The paper also highlights the challenges faced by Indian banks in adoption of technology and recommendations are made to tackle these challenges. The paper concludes that in years to come e- banking will not only be acceptable mode of banking but preferred mode of banking.

Vikas Chauhan and vipin Choudhary (2015) The present paper attempts to understand the concept of internet banking as well as study the benefit of internet banking from perspective of consumers as Well as banks. Further, this paper discusses the challenges and opportunities associated with the internet banking in Indian context. The discussion Concludes that Concept of Internet banking Is slowly gaining Acceptance in Indian Scenario and Efforts are Being made by government Agencies to make It more Popular among consumers.

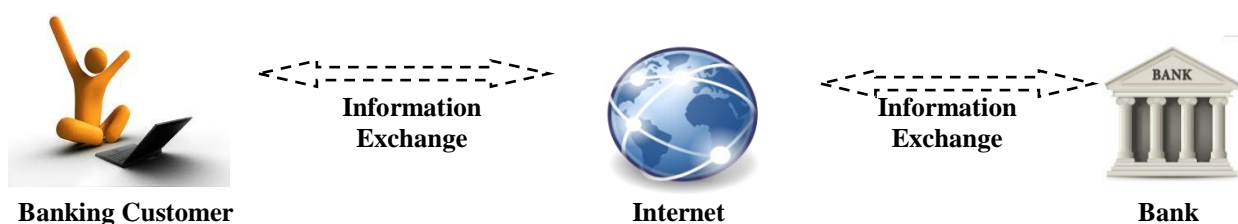
III. INTERNET BANKING BENEFITS

Internet banking provides numbers of benefits to its customers, some of the benefits are: It removes the traditional geographical barriers for customers. The customer can access their account anytime and from any part of the world, Due to new innovative and convenient facility it attracts new customers who are using traditional banking system so far, It facilitate the offering of more services because this is internet based services which is time saving and customer can access and regulate his/her account himself/herself, This facility have zero fee, so no monthly payments are required to forfeit for availing this service, Free of charge bill reimbursement and refunds on ATM surcharges, Simple online submissions for personal accounts, loans and credits, Due to self access system it reduce customer attrition and Increase customer loyalty, High-tech technical advancements in the form of intrusion detection systems (IDS) to virus control equipments have made Online Banking system hazard free. However, regardless of the fact it is vital on the part of every customer to undertake few precautionary measures while transacting online.

IV. TECHNOLOGIES BEHIND INTERNET BANKING

Presently, the banks are using the internet network and use technology like Protocols; World Wide Web (www) in order to provide internet banking to their customer (fig 2.1). The data transmission protocol suite used for the Internet is known as the Transmission Control Protocol/Internet Protocol (TCP/IP).

Figure Process of internet banking sending and receiving information between customer and bank



Source: Prepared by researcher

The Internet is primarily a network of networks. The networks in a particular geographical area are connected into a large regional network. The regional networks are connected via a high speed 'back bone'. The data sent from one region to another is first transmitted to a Network Access Point (NAP) and are then routed over the backbone. Each computer connected to the Internet is given a unique IP address (such as 10.81.203.148) and a hierarchical domain name (such as www. dauniv.ac.in). The Internet can be accessed using various application-level protocols such as FTP (File Transfer Protocol), Telnet (Remote Terminal Control Protocol), Simple Mail Transport Protocol (SMTP), Hypertext Transfer Protocol (HTTP). These protocols run on top of TCP/IP. The most innovative part of the Internet is the World Wide Web (WWW). The web uses hyperlinks, which allow users to move from any place on the web to any other place. The web consists of web pages, which are multimedia pages composed of text, graphics, sound and video. The web pages are made using Hypertext Markup Language (HTML). The web works on a client-server model in which the client software, known as the browser, runs on the local machine and the server software, called the web server, runs on a possibly remote machine. Some of the popular browsers are Microsoft Internet Explorer and Netscape Navigator.

V. STATUS OF INTERNET BANKING IN INDIA

Indian banks have a wonderful history. Banks were started during British mandate; they formed many large and small private banks. After independence, Indian government revealed interest towards banks which results the nationalization of banks, leading to the emergence of the public sector banks. Later on in 90's the banking industry embracing technology in a massive way, led in particular by the new private banks and MNC banks. The Indian banking industry has undergone unprecedented rivalry among unconventional banking organizations. The introduction of latest technologies along with the deregulation of the banking sector has attracted new players to make a foray into the industry rapidly and competently. On online banking has made things much easier and has saved lot of time of bank employees as well as general public. The traditional way of waiting in a queue and filling up all the forms manually, is no hassle now for transacting with any bank. Banks in India are offering wide range of their services and their products through internet banking. Some of the major services and products in India are:

Statements: Provide account statement (account info), Balance enquiry, balance statement and transaction reports used. Customers can even download and print the statement of accounts.

Online Fund Transfer: Transfer funds between accounts, even if they are in different branches or cities. Customer can also transfer funds to any person having an account with the same bank anytime, anywhere, using third party funds transfer option.

Bill Payment Service: Banks Bill Payment is the easiest way to manage bills. Account holder can pay their regular monthly bills i.e. telephone, electricity, mobile phone, insurance etc. at anytime, anywhere for free. Saves time and effort. Make bill payments at customer's convenience from their home or office. Lets account holders check their bill amount before it is debited from their account.

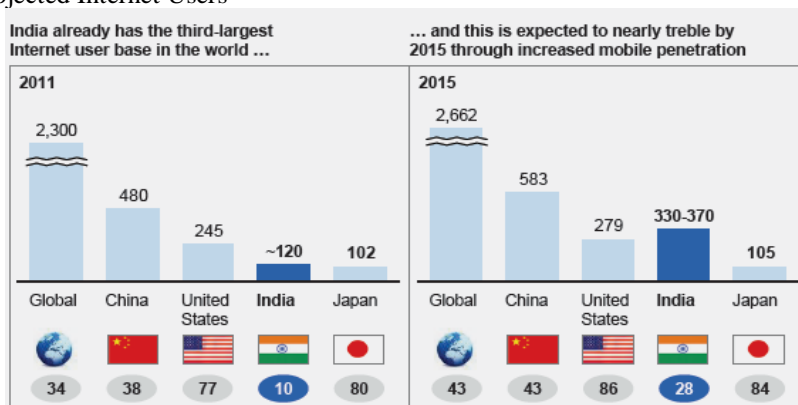
Requests and Intimations: Can electronically submit a request for Cheque-book, Stop payment instructions, Opening a fixed deposit, Opening a recurring deposit, Intimate for the loss of ATM card, Register online for phone and mobile banking, Cheque status, Online application for debit card, Issue a DD or a Banker's cheque from account at special rates.

Demat Account and Share Trading Demat Account: Demat is commonly used abbreviation of 'Dematerialisation', which is a process where by securities like share, debentures are converted from the 'material' (paper documents) into electronic data and stored in the computer of an electronic Depository. A depository is a security 'banks,' where dematerialized physical securities are held in custody, and from where they can be traded. This facilitates faster, risk-free and low cost settlement.

According to a report by Boston Consulting Group (BCG), In India, out of 1.2 billion s, only 200 million people having bank accounts, which is only 17 % of Indian and according to McKinsey report (2011) (fig. 4.1), with 120 million internet , India has third largest internet in the world after China and the US and India targeted for 330-370 million internet users in 2015 which will make it second largest internet . In same report, it is mention that in made positive improvement in e-commerce (fig. 4.2).

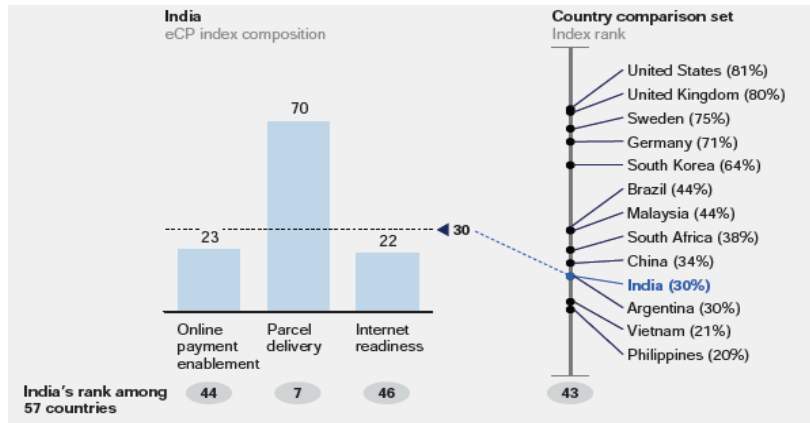
Further it is reported that 7% of account holders in the country are using the Internet for banking transactions, while branch banking has fallen by a full 15 percentage points.

Figure: India's Projected Internet Users



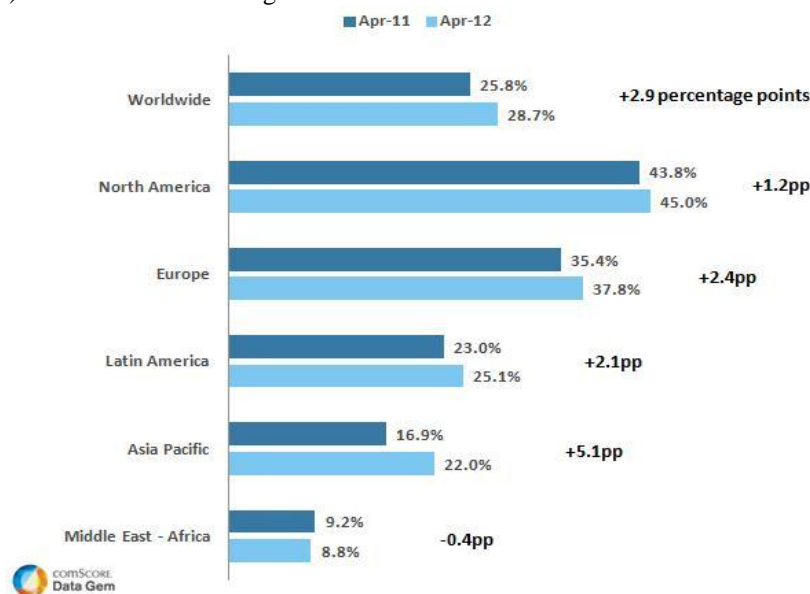
Source: McKinsey Report, 2011

Fig: Commerce Platform Index Indicating Scope for Improvement in Internet



Source: McKinsey Report, 2011

Fig: Growth by (%) reach of online banking sites

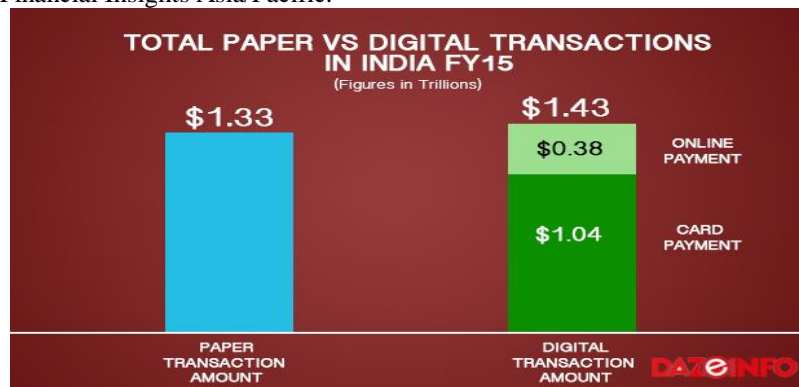


Source: ComScore., 2012

According to comScore, 423.5 million people accessed online banking sites worldwide during April 2012, reaching 28.7 percent of the internet audience. 45 percent of the internet audience in North America accessed bank sites, an increase of 1.2 percentage points, making it the top region for these sites. Europe ranked second by penetration (37.8 percent reach) with Latin America (25.1 percent) rounding up the top three. Asia Pacific saw the strongest growth rate of 5.1 percentage points to 22.0 percent of the internet audience accessing bank sites in April 2012.

When it comes to digital banking in Asia, the Mc Kinsey & company survey said, "India leads growth in Asia in mobile and Internet usage for banking."

According to IDC's Financial Insights, an increase on Internet banking usage across nine countries in Asia Pacific, namely Australia, China, Hong Kong, India, Korea, Malaysia, Singapore, Taiwan and Thailand. "Growth in Internet banking usage has not abated, and it shows no signs of doing so," said Douglas Jaffe, senior research manager for Financial Services for Financial Insights Asia/Pacific.



According to a report by Rajeesh Nair in economic times Online Payment In India Accounted For 14% Of Total Transaction Amount In FY 2015.

The main reason behind this spike in cashless transactions is the growth of eCommerce industry in India, which allowed consumers to purchase products at discounted rates at the realm of their homes. Also, the new generation is shifting towards hi-tech gadgets and technology to make funds transfer as it's easier, hassle-free and instant transaction compared to paying by cash or cheque. With online funds transfer or virtual payment system, people can send or receive payments instantly at the touch of a button rather than visiting banks to withdraw or deposit money.

The majority of cashless payments comes from retail electronic clearing which contributes more than 71% of the overall cashless transactions in FY 2015 Deputy Managing Director (corporate strategy and new businesses) at State Bank of India, Sunil Srivastava says that , "At SBI, about 69% of daily transactions happen through alternative channels, including internet, ATM and mobile banking. We see it rising every year with more young people becoming our customers."

The number of internet users in India is expected to reach 402 million by December 2015, registering a growth of 49% over last year, says a report by industry body IAMAI. This number is expected to further surge to 462 million by June next year as more people come online, especially through their mobile devices. The total internet user base stood at over 300 million in December last year, which grew to 375 million by October this year. "Currently, India has the third largest internet user base in the world but it is estimated that by December, India will overtake the US (as the second-largest base). China currently leads with more than 600 million internet users," it said. The report said mobile internet user base in urban India has grown 65% over last year to reach 197 million, while the rural user base surged 99% to 80 million by October this year. This is expected to grow to 219 million (urban) and 87 million (rural), respectively.

It also found that of all the internet non-users surveyed in the 35 cities as part of this study, 11.4 million said they are willing to access the internet in the next one year with over two-thirds intending to do so through mobile phones.

When we come to conclusion part, it is clear that Indian people shows positive growth in use of internet and internet banking, BCG report says that about 200million people are having bank account in India and in McKinsey report only 7% account holders are using banking transaction online, it means 14million people in India using internet banking. When we see world scenario in internet banking we found that Asia Pacific shows highest growth (+5.1) in internet banking site and McKinsey & company stated that India leads growth in Asia and India has scope to improve in online payment and internet readiness.

VI. THE FUTURE

All the major Banks in India are trying to promote online transactions in the country including the rural parts of the country. Being a huge fan of e-Governance, Indian Prime Minister – Mr. Narendra Modi has initiated a project estimated at INR 20,000 crores to build a broadband highway connecting 2.5 lakh panchayats across the country. Once fully set up, this infrastructure would help the rural India connect with the urban India while boosting the rate of online transactions in the country.

Despite the rosy predictions and increased corporate activity, the Indian Internet banking system is facing many hurdles. The problems include operational risks, security risks, system architecture risks, reputational risks and legal risks (See Exhibit I for Problems in Internet Banking).

Apart from the security issues, there are a host of other problems like:

- PC user base in India is extremely low compared to global standards.
- The Internet user base is limited.
- Lack of infrastructure to advanced technology based banking services.
- The absence of a regulatory framework for Internet banking transactions in India.
- The mindset of the Indian consumer, who prefers personal interactions and is not very comfortable, doing transactions through the Internet.

However, banks are working towards addressing these problems. The security issues can be tackled by having the bank's systems technologically equipped to evade operational and security risks. Reputational risks can be prevented by testing of the system before implementation, developing contingency plans (to handle system disruptions, system hackers, security lapses and virus attacks) and creating back-up facilities. Legal and cross-border risks can be avoided through proper customer identification devices, information screening techniques, periodic reviews on compliance with various laws, and gaining knowledge of various national laws (applicable) and guide the customers through their cross-border dealings.

VII. CONCLUSION

Internet banking seems poised to become an important part of the Indian banking sector in the years to come. The banking today is re-defined and re-engineered with the use of Information Technology and it is sure that the future of banking will offer more sophisticated services to the customers with the continuous product and process innovations. Thus, there is a paradigm shift from the seller's market to buyer's market in the industry and finally it affected at the bankers level to change their approach from "conventional banking to convenience banking" and "mass banking to class banking". The shift has also increased the degree of accessibility of a common man to bank for his variety of needs and requirements. Analysts claim that Internet banking holds lots of potential with the emergence of growing Internet

awareness among customers, integration of banking services with e-commerce service, the increasing reach of the Internet and the entry of global players in the banking sector. Reserve Bank of India has come out with Internet banking related guidelines.

REFERENCE

- [1] Balwinder Singh and Pooja Malhotra (2014) “Adoption of Internet Banking: An Empirical Investigation of Indian Banking Sector”, *The Journal of Internet Banking and Commerce*, ISSN: 1204-5357
- [6] Jayshree Chavan (2013), “Internet Banking- Benefits and Challenges In An Emerging Economy”, *International Journal of Research in Business Management (IJRBM)*”, Vol. 1, Issue 1, June 2013, 19-26
- [7] Roshan Lal and Rajni Saluja (2012), “E-Banking: The Indian Scenario”, *Asia Pacific Journal of Marketing & Management Review*, ISSN 2319 – 2836 Vol.1 (4),
- [8] Chauhan & Choudhary (2015), “Internet Banking Challenges and Opportunities in Indian Context”. *Apeejay Journal of Management Sciences and Technology*, (ISSN-2347-5005)
- [9] Jun, M., & Cai, S. (2001). The key determinants of internet banking service quality: a content analysis. *International Journal of Bank Marketing*, 19(7), 276-291.
- [10] Siu, N. Y. M ., & Mou, J. C. W. (2005). “Measuring service quality in internet banking: the case of Hong Kong”. *Journal of International Consumer Marketing*, 17(4), 99-116.
- [11] Daniel, E. (1999). Provision of electronic banking in the UK and the Republic of Ireland. *International Journal of Bank Marketing*, 17(2), 72-83.