CHAPTER-I

INTRODUCTION

In a world which is becoming increasingly globalised through the use of internet and World Wide Web, internet banking has been gaining ground as a new opportunity for banking institutions. (Suganthi, Balachander and Balachander 2001)

1.1 OVERVIEW

The growing use of the internet for business transactions, have an overwhelming effect on the banking industry where services are now being accessed and remotely rather than through branch banking. The emergence of electronic commerce shows that people are fast becoming reliant on the internet for communication and services. It is not sufficient for banks provide only conventional banking services. Banks have to offer a wider and flexible range of financial products tailored for all types of customers to meet the varied financial requirements.

The technology has come to light (Booz Allen, 1997) as a strategic reserve for achieving higher competence, control of operations, efficiency and profitability for the banks. It is the accomplishment of their anywhere, anytime, anyway banking vision for their customers. This has impelled the banks to squeeze technology to meet the increasing customer hopes and face the tough struggle.

The banking industry has been continually advancing and with the progress of technological advancements, particularly in the area of telecommunications and information technology\(^1\), one of the latest improvement that took a beginning of quiet inevitably the internet banking. This trend has attracted a number of empirical studies (Booz Allen H. , 1997); DeSourdy, 2001) that investigates the developments of electronic banking and its operations. A general consensus exists that e-banking enables banks to provide an economical and direct way of doing banking (Suganthi, B. B. 2000, Dec), particularly in relation to the importance of internet banking, customer loyalty and service quality. However, comprehensive research signifies the relative importance of factors inducing the acceptance of internet banking and other customer inclination.

\(^1\)Information Technology (IT) has been used as an encompassing term in the past to refer to computing technologies and all related artifacts. However in the current era, the role of networking and hence communicating is virtually inseparable from any other aspect of information. Thus, the term ICT is increasingly being used instead of IT or IS.
With the arrival of the internet and the widespread use of personal computers, either is both a chance and confront for the financial services industry, particularly the banking industry. After the diffusion of internet; banking sector has experienced a huge change in the banking industry and is having major effects on banking relationship revolution. Banking is now no longer restricted to the branches where one has to move towards the branch in person, to take out cash or deposit a cheque or ask for a statement of accounts. Internet banking is a new distribution channel for banks in India. The internet banking channel is both an instructive and an operating medium. However, internet banking has not been widely held and adopted in India as expected.

Banking is one of the sectors that are influencing the potential of the internet and has primary changed the banking industry in India by giving people more instant control over the supervision of their finances. During technological advancements have brought about various modifications in the way in which the various products and services delivered to the customers by the bank.

Internet banking services have grown up from simply permit customers to check balances, to operate the assets. Today, banks like ING Direct are functioning entirely online, with no brick and mortar building. With the costs recovered by commanding fewer employees and the lack of facility outlay, these virtual banks can often offer higher interest rates than their conventional counterparts.

1.2 EMERGENCE OF INTERNET BANKING
Indian banking industry, today is in the middle of an IT reform. The technology transforms have put forward the struggle between the banks. This led to ever-increasing total banking computerization in the banking industry. Latest private sector banks and foreign banks have an interface over public sector bank as far as application of technological solutions is concerned. However the latter are in the process of incurring huge outlay on technology.

All banks which intend to propose internet services should take prior consent from RBI. Only those banks which are approved and supervised in India and have a physical existence in India will be allowed to propose internet banking products to residents of India. The Information Technology Act passed by the government of India came into

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2The term “brick and mortar” is used describe businesses with a physical presence in the market place. Traditionally customers travel to the premises of a brick and mortar business to purchase goods. In the case of e-commerce business, customers “visit” the store via the medium of the web.
effect from the 17th of October 2000. The purpose of this act was to provide legal recognition to electronic transactions and other means of Electronic Commerce. Reserve Bank of India laid down “working group” on net banking to scrutinize the different facet of the Internet banking. The Group concentrated on major issues such as (a) technology and safety issue, (b) legal issue, (c) regulatory & supervisory issues.

In contrast, Indian banks have an irreverent internet banking record. ICICI Bank thrust online banking way back in 1996 and a host of other banks soon go behind the suit. But even for the Internet as a whole, 1996 to 1998 marked the diffusion phase, while usage increased only in 1999—due to lower ISP online charges, improved PC access and a tech-friendly atmosphere. (Anup, 2012), Head, Internet Banking, ICICI Bank reveals that “We had embarked on the Internet banking service, the relatively new concept even before the RBI had framed its guidelines”.

<table>
<thead>
<tr>
<th>S.No</th>
<th>Country</th>
<th>Internet users</th>
<th>Penetration</th>
<th>(%)of world users</th>
<th>Population (2008”) Est.</th>
<th>Users growth(2000-08) %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>China</td>
<td>2,53,000,000</td>
<td>19.0</td>
<td>17.3</td>
<td>1,3330,044,605</td>
<td>1,024.4</td>
</tr>
<tr>
<td>2</td>
<td>United States</td>
<td>220,141,969</td>
<td>72.5</td>
<td>15.0</td>
<td>303,824,646</td>
<td>130.9</td>
</tr>
<tr>
<td>3</td>
<td>Japan</td>
<td>94,000,000</td>
<td>73.8</td>
<td>6.4</td>
<td>127,288,419</td>
<td>99.7</td>
</tr>
<tr>
<td>4</td>
<td>India</td>
<td>60,000,000</td>
<td>5.2</td>
<td>4.1</td>
<td>1,147,995,898</td>
<td>1,100.0</td>
</tr>
<tr>
<td>5</td>
<td>Germany</td>
<td>52,533,914</td>
<td>63.8</td>
<td>3.6</td>
<td>82,369,548</td>
<td>118.9</td>
</tr>
</tbody>
</table>

Source: World Internet user statistics, June 2008

Internet usage in India keeps on growing. India has already attained an impact level of internet banking diffusion and usage (Boles de Boer, D., Evans, L and Howell, B., 2000). According to research report in 2001, total internet userbase in India was approximated as 9 lakhs. It was anticipated to reach 90 lakhs by 2003. Only about 1% of internet users did banking online in 1998. The current results of the internet World
Statistics points out that India is among the top five countries with the highest number of internet users. Table 1.1 depicts the number of internet users by country. This is increased to 16.7% in March 2000. (Securities Kotak, 2000)

(IAMAI, 2006) It is based on the above statistics and analytics comments that India had a high growth potential for internet banking; the players focused on increasing and improving their Internet banking services. By 2015, the online population is projected to attain as 70 million. The Information Technology Services is a $1.5 billion industry in India expands at a rate of 55% per annum.

In India, ICICI’s “Infinity” which was already first leader bank to unveil Internet banking for some of its services such as retrieve account information & fund transfer between its branches. In 2001, RBI survey revealed that of 46 major banks operating in India around 50% was either offering Internet banking services at various levels or proposed to in the near future. RBI has been taking steps to impose on banks to open more branches in rural areas. However, the economies of running a brick and mortar branch business model are expensive, as nearly 30% of the cost goes to the upkeep of their real estate. In order to improve their profits, banks need to reduce their operational cost by adopting a ‘click and mortar’ business model that complements traditional banking with internet banking which offers cost-efficient route for offering services rather than a branch banking network. The utilization of technology will also provide new opportunity to enlarge their outreach, especially in the far off and rural areas.

It involves customer’s demands for opening an account, balance enquires, fixed deposits renewal, appeal for cheque book, foreign exchange rates, online bill payments, stop payment application, ask for debit cards, move funds online and monthly statement by email. Internet banking not only ensures savings in the payments of staff, but also add to bank’s capability to multiply their customer base with no investment in the opening of more physical branches.

HDFC through its ‘payment gateway’ feature allowed its internet banking customers to make online and real time payments for their purchases. It also entered into tie ups with various portals to provide this business to customers for more transactions. Centurion bank acquired an equity stake in the market and eliminated the end for their physical presence at various auctions. As more banks entered internet banking arena, the competition between the banks also increased. This compelled the banks to focus on capturing new market and customer and adopting advanced technology on trend. In the light of these developments; industry watchers remarked that internet banking had arrived
in the way. Although, it had a long way to go compared to global standards, it was beginning to be seen as a replacement for traditional banking set up in the future.

Table 1.2 Development of the modern banking system in India

<table>
<thead>
<tr>
<th>PHASE</th>
<th>SITUATION</th>
<th>TREND</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial</td>
<td>Manual Working</td>
<td>• Long lines in Bank branches</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• High rate of errors in transaction</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Low customer satisfaction</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Anarchy &amp; confusion in bank Branches because of improper management and technology&amp; automation</td>
</tr>
<tr>
<td>During 80's</td>
<td>Less automation</td>
<td>• Fewer lines were there because of automation by branches so work was faster.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Rate of error was reduced.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Customer satisfaction level was still low because the offerings were still below the expectations</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• ATMs were less and were attached only to branches.</td>
</tr>
<tr>
<td>During 90's</td>
<td>Full scale automation</td>
<td>• Branch lines were drastically reduced.</td>
</tr>
<tr>
<td></td>
<td>Along with technology integration</td>
<td>• More ATMs were available</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Customers satisfaction level was increased because services are being offered based on customers’ needs and expectations.</td>
</tr>
</tbody>
</table>

Source: (D Panigraphy, 2009)

The banking industry in India is facing unprecedented competition from non-traditional banking institutions, which now offer banking and financial services over the Internet. The deregulation of the banking industry coupled with the emergence of new technologies, is enabling new competitors to enter the financial services market quickly and efficiently.

Indian banks are going for the retail banking in a big way. However, much is still to be achieved. This study, which was conducted by students of IIML, shows some interesting facts:

- Throughout the country, the Internet Banking is in the nascent stage of development (only 50 banks are offering varied kind of Internet banking services).
- In general, these Internet sites offer only the most basic services. 55% of them so called 'entry level' sites, offering little more than company information and basic marketing materials.
- Only 8% offer 'advanced transactions' such as online funds transfer, transactions & cash management services.
- Foreign & Private Banks are much advanced in terms of the number of sites & their level of development.
Online banking acceptance has gained special attention in academic studies during the past five years as banking journals have devoted special issues on the topic (Mukherjee A, 2003). Therefore, time and cost savings and freedom from place have been found to be the main reasons underlying online banking acceptance. Though adoption of Internet banking by Indian banks and their customers would not set the Arabian Sea on fire, no one can deny the obvious benefits that this service offers. Through internet banking, any inquiry or transaction is processed online without any reference to the branch at any time.

The cost of banking service through the internet amounts to a fraction of the cost through conventional methods. Industry estimates assume teller cost at Re 1 per transaction, ATM transaction costs at Re 0.45, phone banking at Re 0.35, debit cards at Re 0.20 and Internet banking at Re 0.10 per transaction. V K Ramani, president, information technology, UTI Bank, another of the early adopters, “No wonders, the cost-conscious banks in the country are now actively considering and using the Internet as a channel for providing services. People were doubtful about even ATM at the beginning, but look how it has pulled out today.” However, he warns that banks cannot expect instant returns, unless the Internet population it does not reach a critical mass. Besides, he also feels that fully computerized banks, with better management of their customer base are in a stronger position to cross-sell their products through this channel.

A number of banks have either adopted e-banking or are on inception of adopting it. The banks started I-banking initially with simple functions such as information about interest rates, checking account balances, then services are extend to online bill payment, transfer of funds between accounts and cash management services for corporate. Over 50% of web users in Indian metropolitan areas are between the age of 19 and 30, with additional users are between the age of 31 and 40. Thus, in India, the Indian customers are gradually moving towards I-banking.

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3 Online banking has been regarded as the most important way to reduce cost & maintain or enhance services for consumers (Hua 2009). It is a process of innovating whereby consumers handle their own banking transactions without visiting bank tellers
Table 1.3: Urban Internet Users in India by occupation in April 2005 (% of total)

<table>
<thead>
<tr>
<th>S.No.</th>
<th>Users</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Senior executive</td>
<td>22%</td>
</tr>
<tr>
<td>2</td>
<td>Junior Executive</td>
<td>22%</td>
</tr>
<tr>
<td>3</td>
<td>Student</td>
<td>20%</td>
</tr>
<tr>
<td>4</td>
<td>Self employed</td>
<td>10%</td>
</tr>
<tr>
<td>5</td>
<td>Business men Industrialist</td>
<td>3%</td>
</tr>
<tr>
<td>6</td>
<td>Small businessman traders</td>
<td>3%</td>
</tr>
<tr>
<td>7</td>
<td>Housewives</td>
<td>2%</td>
</tr>
<tr>
<td>8</td>
<td>Other</td>
<td>18%</td>
</tr>
</tbody>
</table>

Source: (Irani M., 2012)

Table 1.4 Users under the age of 18 are rare (e-Marketer, August 2005)

<table>
<thead>
<tr>
<th>AGE</th>
<th>PERCENTAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-18</td>
<td>0.3%</td>
</tr>
<tr>
<td>19-24</td>
<td>29%</td>
</tr>
<tr>
<td>25-30</td>
<td>32%</td>
</tr>
<tr>
<td>31-40</td>
<td>22%</td>
</tr>
<tr>
<td>42-55</td>
<td>11%</td>
</tr>
<tr>
<td>55+</td>
<td>18%</td>
</tr>
</tbody>
</table>

Source: (M.I., Delhi Times, 2012)

The vast network of Public sector banks has started becoming networked a bit late and the full benefit of the complete computerization of the banking system is expected to be perceived by 2010. Most of the new private sector banks and almost all big foreign banks like Standard Chartered, ANZ Grind lays, ABN AMRO or HSBC has offered international –standard banking products and facilities like a credit card, debit card, ATM, Tele banking and cyber or internet banking.

However, Public sector banks have these facilities limited to the metropolitan or important cites only. The sheer size of the branch-network and wide geographical base of customers and limited ISDN availability have been the obstacles for the Public Sector Banks to offer these products in every corner of the country. Interestingly, the major foreign banks, private banks like UTI and ICICI have taken an aggressive business expansion plan that has resulted in ATMs and tele- banking available in some remote corners of the country.
1.3 INTERNET BANKING-MEANING
(Bradley & Stewart, 2003) “Internet banking is form of electronic banking offered via the internet whereby consumers can perform and transact financial services in a virtual environment.” Internet banking offers advantages as a retail channel, namely accessibility, direct communication, cost reductions and new markets (Anderson 1995; Cronin 1996; Daniel and Storey 1997; Doherty et al., 1999; Hughes 2001). Using internet banking, consumers can conduct fast and convenient financing transaction activities. Internet banking in this study is defined as an internet portal, through which customers can use different kinds of banking services ranging from providing information and bill payment for making investments.

(Supervision B. C., 1998) It defines an Internet banking as “the provision of retail and small value banking products and services through electronic channels. Such products and services can include deposit-taking, lending, account management, the provision of financial advice, electronic bill payment, and the provision of other electronic payment products and services such as electronic money.”

(Aladwani A M, 2001); (Daniel, 1999); (Mol’s, 1998); (Sathye, 1999) It is the type of banking services such as balance reporting, inter-account transfers, bill payment, etc. via a telecommunication network without leaving their homes and organizations (In essence, it is an electronic consumer interface and alternative channel of distributions.

(Ibrahim E, 2006) In its simplest form for electronic banking may mean the provision of information about the bank and its products via a page on the internet.

(Thulani D Tofara C, 2009) Internet banking refers to a system that enable bank customers to get access to their accounts and general information on bank products and services through the use of a bank’s website, without the intervention or inconvenience of sending letters, faxes, original signatures and telephone confirmations.

Internet banking is also called Online banking, e–payment⁴ and e–banking (Ozuru et al, 2010); (Singhal, 2008); (Beer, 2006); (Jun and CAI, 2001); (Hua, 2009); (IAMAI, 2006). The electronic communications used in Internet banking include: Internet, e–mail, e–books, database and mobile phones (Chaffey D, 2006). Cell- phone banking apart from Internet banking is considers the way of the future (Fisher & French, 2007; Masocha et al, 2011).

⁴E–payment is described as a means whereby banking businesses are transacted through automated processes and electronic devices such as personal computers, telephones, and fax machines
It is, therefore, no doubt that e–banking will definitely overwhelm the traditional banking in the near future; since more developing nations seem to direct their focus on building up their infrastructure with specific attention on e–banking, e–commerce and e–learning (Kamel, 2005; Masocha et al, 2011). The development experienced in Internet and other global online networks has thus created new commercial opportunities for e–commerce and creation of completely new sets of global and national trading relationships.

1.3.1 TYPES OF INTERNET BANKING SERVICES

Internet banking users in India provide a host of services which include payment of mobile phone bills, telephone bills, water bills, credit cards bills, rail reservations, movie ticket bookings, account enquiry, fund transfer, payment of insurance premium, online trading, stop payment, renewal requests for cheque books, Demat account drafts etc. As the channel of delivering products and services have several advantages, banks are trying their best to improve their web based services.

(Thulani D Tofara C, 2009)(Yibin, 2003) and (Diniz, 1998) identified three functional levels/kinds of internet banking that are currently employed in the marketplace and these are: Basic Level service, Simple Transactional and Fully Transactional Websites.

- **Basic Level Service Websites** - This has been identified as the first level of internet banking. Typically the bank has the marketing information about the banks’ products for stand-alone server. The risk is very low as informational systems typically have no path between the server and bank’s internal network. It may receive and reply to customers’ queries through e-mail & downloading of various types of application forms.

- **Simple Transactional Websites** - This type of internet banking allows some interaction between the bank’s system and customer. The system provides customer’s specific information and interaction is limited to, email account inquiry, loan application or static file updates. It does not permit any fund transfers, which allow customers to submit their instructions, applications for different services, queries on their account balances, etc., but do not permit any fund-based transactions on their accounts.

- **Fully Transactional Websites** - which allow the customers to operate on their accounts for the transfer of funds, payment of different bills, subscribing to other
products of the bank and to transact purchases and sale of securities, etc. This system requires a high degree of security and control. (Daptardar, 2011).

The above forms of Internet banking services are offered by conventional banks, as an additional method of serving the customer or by new banks, who deliver banking services primarily through the Internet or other electronic delivery channels as the value added services.

1.4.1 PUBLIC SECTOR BANKS

Public sector banks (PSBs) are banks where a majority stake (i.e. more than 50%) is held by a government. The shares of these banks are listed on stock exchanges. There are a total of 26 PSBs in India. The Central Government entered the banking business with the nationalization of the Imperial Bank of India in 1955. A 60%, stake was taken by the Reserve Bank of India and the new bank was named as the State Bank of India. The seven other state banks became the subsidiaries of the new bank when nationalized on 19 July 1960.

The next round of nationalization took place in April 1980 and Government nationalized 6 banks. The total deposits of these banks amounted to around 200 crores. This move led to a further increase in the number of branches in the market, increasing to 91% of the total branch network of the country. In 1992-93, 12 of the nationalized banks reported losses, and the other seven nationalized banks reported marginal profits. 1995-96 saw a similar problem, with nationalized banks reporting a combined loss of Rs. 1160 crores.

1.4.1.1 STATE BANK OF INDIA-PROFILE

The origin of the State Bank of India goes back to the first decade of the nineteenth century with the establishment of the Bank of Calcutta in Calcutta on 2 June 1806. Three years later, the bank received its charter and was re-designed as the Bank of Bengal (2 January 1809). The Bank of Bombay (15 April 1840) and the Bank of Madras (1 July 1843) followed the Bank of Bengal. These three banks remained at the apex of modern banking in India till their amalgamation as the Imperial Bank of India on 27 January 1921.

The State Bank of India, the country’s oldest Bank and a premier in terms of balance sheet size, number of branches, market capitalization and profits is today going through a momentous phase of Change and Transformation – the two hundred year old
Public sector behemoth is today stirring out of its Public Sector legacy and moving with an ability to give the Private and Foreign Banks a run for their money. With about 8500 of its own 10000 branches and another 5100 branches of its Associate Banks already networked, today it offers the largest banking network to the Indian customer. The Bank is also in the process of providing a complete payment solution to its clientele with its over 21000 ATMs, and other electronic channels such as Internet banking, debit cards, mobile banking, etc.

The CNN IBN, Network 18 recognized this momentous transformation journey, the State Bank of India is undertaking, and has awarded the prestigious Indian of the Year – Business, to its Chairman, Mr. O. P. Bhatt on January 2008. Internet Banking - Key Features

<table>
<thead>
<tr>
<th>Internet banking features</th>
<th>Value Added Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Account statement</td>
<td>• Tax Payment</td>
</tr>
<tr>
<td>• Demat Account</td>
<td>• Mutual Funds Investment</td>
</tr>
<tr>
<td>• Cheques Book Request</td>
<td>• SBI e-Tax: Online Tax Payment</td>
</tr>
<tr>
<td>• Funds Transfer</td>
<td>• Credit Card (Visa) Bill Pay</td>
</tr>
<tr>
<td>• Bill Payment</td>
<td></td>
</tr>
<tr>
<td>• TDS Enquiry</td>
<td></td>
</tr>
</tbody>
</table>

1.4.1.2 PUNJAB NATIONAL BANK-PROFILE

Punjab National Bank (PNB) (BSE: 532461, NSE: PNB) is an Indian financial services company based in New Delhi, India. PNB is the third largest bank in India by assets. It was founded in 1894 and is currently the second largest state-owned commercial bank in India ahead of Bank of Baroda with about 5000 branches across 764 cities. It serves over 37 million customers. The bank has been ranked 248th biggest bank in the world by the Bankers Almanac, London. The bank's total assets for financial year 2007 were about US$60 billion. PNB has a banking subsidiary in the UK, as well as branches in Hong Kong, Dubai and Kabul and representative offices in Almaty, Dubai, Oslo, and Shanghai.
Punjab National Bank was registered on 19 May 1894 under the Indian Companies Act with its office in Anarkali Bazaar, Lahore. The PNB Website now claims Lala Lajpat Rai to be the founding father, surpassing Rai Mul Raj and Dyal Singh Majithia. PNB has had the privilege of maintaining accounts of national leaders such as Mahatma Gandhi, Mr. Jawaharlal Nehru, Mr. Lal Bahadur Shastri, Ms. Indira Gandhi, as well as the account of the famous Jalianwala Bagh Committee. In 2014, PNB received permission to upgrade its representative office in the Dubai International Financial Centre to a branch. Punjab National Bank was ranked 26 in the Fortune India 500 ranking of 2011.

1.4.1.3 ORIENTAL BANK OF COMMERCE-PROFILE

Oriental Bank of Commerce, established on 19 February, 1943, in Lahore (then a city of British India, and currently in Pakistan, is one of the public sector banks in India. Oriental Bank of Commerce made a modest beginning under its Founding Father, Late Rai Bahadur Lala SohanLal, and the first Chairman of the Bank. Within four years of coming into existence, the Bank had to face the holocaust of partition. The foundation of customer service, thus laid has ever since remained the Oriental Bank’s prime philosophy and has been nurtured well as a legacy by all its successors, year after year.

The bank was nationalized on 15th April, 1980. At that time total working of the bank was Rs.483 crores having 19th position among the 20 nationalized banks. OBC has a network of 530 branches and 505 ATM’s spreads throughout India, out of which 490 branches offer centralized banking solutions. With High Capital Adequacy Ratio, Oriental Bank of Commerce is known to be a consistent profit-making bank. For its effective services, the National Institute of Bank Management (NIBM) rated OBC Bank as “Customer Friendly” Bank.

Oriental Bank’s I-Banking services have been launched to maximize the customer satisfaction. The Oriental bank’s I-banking services are available to all the customers of bank branches under Centralized Banking Services Solution (CBS). Bank’s URL is www.obconline.co.in The following services are being offered through the Oriental Bank’s I-Banking Services, free of cost:-

1. Account Related Operations for all the accounts in the CBS branches
   - Accounts Related Operations
     - Online Balance Inquiry
     - View transactions
Customer Orientation towards Internet Banking - Scheduled Commercial Banks

- Statement of Account – For a given period, range of cheque no. and amount
- Cheque Status Inquiry
- Clearing Instruments Inquiry
- Stop Payment of cheques

2. Fund Transfer Operations
- Funds Transfer to own accounts
- Funds Transfer to other accounts within CBS Branches of OBC
- Min. Amount : Rs. 100/- per transaction & maximum amount : Rs. 50,000/- per transaction, per day Maximum: Rs.200,000/-

3. Payments - External Payments viz. IRCTC (For Railway Reservation) and Sharekhan.com for Funds Transfer, Facility for Shares purchases. Bank Charges Rs.11/- per ticket. (including Service Tax)

4. Mails
- Customers can send mails for clarifications/queries on Internet Banking.
- Relationship Manager at IBC gives reply to the queries / requests raised by the customers, within 12 hours.

5. Activity and Customize - Customers can view various financial and non-financial activities performed by them during a period of time. Customers can customize their password and add new services to their account.

1.4.1.4 INDIAN OVERSEAS BANK -PROFILE

Indian Overseas Bank (IOB) (BSE: 532388) is a major bank based in Chennai (Madras), with more than 2650 domestic branches, 3 extension counters and six branches overseas as of 31.03.2012. Indian Overseas Bank has an ISO certified in-house Information Technology department, which has developed the software that 2650 branches use to provide online banking to customers; the bank has achieved 100% networking status as well as 100% CBS status for its branches. IOB also has a network of about 1433 ATMs all over India and IOB's International VISA Debit Card is accepted at all ATMs belonging to the Cash Tree and NFS networks. IOB offers internet banking (E-Banking) & Mobile Banking and is one of the banks that the Government of India has approved for
online payment of taxes. The bank’s business has more than doubled in the last four years.\(^5\)

Indian Overseas Bank

<table>
<thead>
<tr>
<th><strong>Type:</strong></th>
<th>Public (BSE: 532388)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Founded:</strong></td>
<td>Madras, February 10,1937</td>
</tr>
<tr>
<td><strong>Headquarters:</strong></td>
<td>Chennai, India</td>
</tr>
<tr>
<td><strong>Chairman &amp; MD:</strong></td>
<td>M. Narender</td>
</tr>
<tr>
<td><strong>Industry:</strong></td>
<td>Banking, Capital Market</td>
</tr>
<tr>
<td><strong>Products:</strong></td>
<td>Loans, credit cards, investment vehicle etc.</td>
</tr>
<tr>
<td><strong>Revenue:</strong></td>
<td>Rs34,550 crore (US $ 6.25 million) (2011)</td>
</tr>
<tr>
<td><strong>Net Income:</strong></td>
<td>Rs 19,578 US $ 3.54 million) (2011)</td>
</tr>
</tbody>
</table>

In 1937, Thiru.M. CT. M. Chidambaram Chettyar establishes the Indian Overseas Bank (IOB) to encourage overseas banking and foreign exchange operations. IOB started up simultaneously at three branches, one each in Karaikudi, Madras (Chennai) and Rangoon (Yangon). It then quickly opened a branch in Penang and another in Singapore. The bank served the Nattukottai Chettiars, who were a mercantile class that at the time had spread from Chettinad in Tamil Nadu state to Ceylon (Sri Lanka), Burma (Myanmar), Malaya, Singapore, Java, Sumatra, and Saigon. It had nine branches in Pune, two in Mumbai and one in Shirpur. The total employee strength was estimated to be a little over 100. The website for the bank as follows: www.iob.in The Internet banking features are as follows:

- Pay Direct / Indirect Taxes
- Transfer funds to accounts within our Bank
- Transfer funds to accounts of other banks
- Pay utility bills

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\(^5\) Information is retrieved from the website of Indian Overseas bank 31.03.2012 “www.iob.in"
1.4.2 PRIVATE SECTOR BANKS
According to investopedia.com “The part of the economy that is not state controlled, and is run by individuals and companies for profit. The private sector encompasses all for-profit businesses that are not owned or operated by the government”. Banks with whom government holds its own stake means equity shares capital like SBI, Bank of Baroda etc. & banks in which government only controls activities through RBI without holding stake in the equity share capital of banks like ICICI Bank, HDFC Bank etc.

1.4.2.1 ICICI BANK-PROFILE
ICICI Bank was originally promoted in 1994 by ICICI Limited, an Indian financial institution, and was its wholly-owned subsidiary. ICICI's shareholding in ICICI Bank was reduced to 46% through a public offering of shares in India in fiscal 1998, an equity offering in the form of ADRs listed on the NYSE in fiscal 2000, ICICI Bank's acquisition of Bank of Madura Limited in an all-stock amalgamation in fiscal 2001, and secondary market sales by ICICI to institutional investors in fiscal 2001 and fiscal 2002. ICICI was formed in 1955 at the initiative of the World Bank, the Government of India and representatives of Indian industry. The principal objective was to create a development financial institution for providing medium-term and long term project financing to Indian businesses.

In October 2001, the Boards of Directors of ICICI and ICICI Bank approved the merger of ICICI and two of its wholly-owned retail finance subsidiaries, ICICI Personal Financial Services Limited and ICICI Capital Services Limited, with ICICI Bank. Consequent to the merger in January 2002, the ICICI group's financial and banking operations, both wholesale and retail, have been integrated into a single entity.

The Bank has a network of 2,760 branches and 9,363 ATMs in India, and has a presence in 19 countries including India. ICICI Bank offers a wide range of banking products and financial services to corporate and retail customers through a variety of delivery channels and through its specialized subsidiaries in the areas of investment banking, life and non-life insurance, venture capital and asset management. The Bank currently has subsidiaries in the United Kingdom, Russia and Canada, branches in the United States, Singapore, Bahrain, Hong Kong, Sri Lanka, Qatar and Dubai International Finance Centre and representative offices in United Arab Emirates, China, South Africa, Bangladesh, Thailand, Malaysia and Indonesia.
Customer Orientation towards Internet Banking - Scheduled Commercial Banks

**Internet Banking–personal features**

- Savings Account
- 3-in-1 Account
- Money Manager
- Loans - Car, Home, Personal
- Get instant loan approval
- Credit Cards
- Fixed Deposits

### 1.4.2.2 HDFC BANK

Housing Development Finance Corporation Limited, more popularly known as HDFC Bank Ltd, was established in the year 1994, as a part of the liberalization of the Indian Banking Industry by Reserve Bank of India (RBI). It was one of the first banks to receive an 'in principle' approval from RBI, for setting up a bank in the private sector. The bank was incorporated with the name 'HDFC Bank Limited', with its registered office in Mumbai. The following year, it started its operations as a Scheduled Commercial Bank. Today, the bank boasts of as many as 1412 branches and over 3275 ATMs across India.

In 2002, HDFC Bank witnessed its merger with Times Bank Limited (a private sector bank promoted by Bennett, Coleman & Co. / Times Group). With this, HDFC and Times became the first two private banks in the New Generation Private Sector Banks to have gone through a merger. In 2008, RBI approved the amalgamation of Centurion Bank of Punjab with HDFC Bank. The HDFC Bank web site (www.hdfcbank.com) also features two versions of a demo facility - one "interactive" and the other "guided" - making it possible for even Internet illiterates to get comfortable with its services.

<table>
<thead>
<tr>
<th>Personal banking</th>
<th>NRI banking</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Demat Account</td>
<td>• Foreign Currency Deposits</td>
</tr>
<tr>
<td>• Safe Deposit Lockers</td>
<td>• Accounts for Returning Indians</td>
</tr>
<tr>
<td>• Loans</td>
<td>• Private Banking</td>
</tr>
<tr>
<td>• Credit Cards</td>
<td>• Portfolio Investment Schemes</td>
</tr>
<tr>
<td>• Debit Cards</td>
<td>• Loans</td>
</tr>
<tr>
<td>• Prepaid Cards</td>
<td>• Payment Services</td>
</tr>
<tr>
<td>• Investments and Insurance</td>
<td>• NetBanking</td>
</tr>
<tr>
<td>• Forex Services</td>
<td>• InstaAlerts</td>
</tr>
<tr>
<td>• Payment Services</td>
<td>• Mobile Banking</td>
</tr>
</tbody>
</table>
1.4.2.3 AXIS BANK- PROFILE

Axis bank was the first of the new private banks to have begun operations in 1994, after the Government of India allowed new private banks to be established. The Bank was promoted jointly by the Administrator of the specified undertaking of the Unit Trust of India (UTI - I), Life Insurance Corporation of India (LIC) and General Insurance Corporation of India (GIC) and other four PSU insurance companies, i.e. National Insurance Company Ltd., The New India Assurance Company Ltd., The Oriental Insurance Company Ltd. and United India Insurance Company Ltd.

The Bank's Registered Office is at Ahmedabad and its Central Office is located at Mumbai. The Bank has a very wide network of more than 905 branches and Extension Counters (as of 30th September 2009). The Bank has a network of over 3894 ATMs (as on 30th September 2009) providing 24 hrs a day banking convenience to its customers. This is one of the largest ATM networks in the country. Axis Bank Ltd. has been promoted by the largest and the best Financial Institution of the country, UTI. The Bank was set up with a capital of Rs. 115 crore, with UTI contributing Rs. 100 crore, LIC - Rs. 7.5 crore and GIC and its four subsidiaries contributing Rs. 1.5 crore each.

Internet banking in Axis Bank

Axis Bank Internet Banking - a one stop solution for all your banking needs. We can now get all our account details, submit requests and undertake a wide range of transactions online. Our E-Banking service makes banking a lot more easy and effective. Features are as follows:

- **Account Details:** View your bank account details, account balance, download statements and more. Also view your Demat, Loan and Credit Card Account Details too all in one place.
- **Fund Transfer:** Transfer fund to your own accounts, other Axis Bank accounts or Other Bank account seamlessly.
• **Request Services:** Give a request for Cheque book, Demand Draft, Stop Cheque Payment, Debit Card Loyalty Point Redemption etc.

• **Investment Services:** View your complete Portfolio with the bank, Create Fixed Deposit, Apply for IPO etc.

• **Value Added Services:** Pay Utility bills for more than 160 billers, Recharge Mobile, Create Virtual Cards, Pay any Visa Credit Card bills, Register for e-statement and SMS banking etc.

• **Net Secure** - Axis bank follows best-in-class online security practices in order to safeguard the information of customers while banking online. They are constantly on task of preventing fraud and thereby making all the net banking transactions completely safe.

### 1.4.2.4 ING VYSYA BANK- PROFILE

ING group originated in 1990 from the merger between National – Nederlanden NV, the largest Dutch Insurance Company and NMB Post Bank Group NV. Combining roots and ambitions, the newly formed company called “Internationale Nederlanden Group”. Market circles soon abbreviated the name to I-N-G. The Company followed suit by changing the statutory name to “ING Group N.V.”.

**ING’s mission** is to be a leading, global, client-focused, innovative and low-cost provider of financial services through the distribution channels of the client’s preference in markets where ING can create value. ING has gained importance for its integrated approach of banking, insurance and asset management.

Born out of three business entities of ING in India, ING Vysya Bank, ING Life Insurance, and ING Investment Management, the Foundation has been able to strike the right balance between supporting organizations financially and contributing time and effort of the employees to nurture and mentor these children, for a better future. An outlet comprises of 468 branches, 13 ECs, 28 Satellite Offices and 357 ATMs as of March 31st 2010. Additionally the bank also has Internet Banking, Mobile Banking and Customer Service Line for Phone Banking Service. Board of Trustee-Mr. Kshitij Jain, MD & CEO, ING Life Insurance. In 2006, Bank has networked all the branches to facilitate ‘AAA’ transactions, i.e. Anywhere, Anytime & Anyhow Banking.

Internet banking services of banks are:-

- Account information
- Bill pay
Customer Orientation towards Internet Banking- Scheduled Commercial Banks

- Funds transfer
- Shop online
- Security

1.5 RATIONALE OF THE STUDY

Banking has always been a highly information intensive activity that relies heavily on information technology (IT) to acquire, process and deliver the information, it provides a way for the banks to differentiate their products and services. Banks find that they have to constantly innovate and update to retain their demanding and discerning customers and to provide convenient, reliable and expedient services. Driven by the challenge to expand and capture a larger share of the banking market, some banks invest in more bricks and motor to enlarge their geographical and market coverage. It is believed that in the future, internet banking will recede in importance as a strategic application to become a competitive necessity that must be adopted by most if not all banking and financial institutions.

The reason was the numerous key advantages that banks could gain by providing electronic banking services. In this way, they had lower transaction costs, 24 hours trading, more extended business territory and also increased efficiency in daily banking processes. At present, banks are faced with competitive environment and in order to succeed in such market places, they must offer a wide array of products with latest technology.

Table 1.5 People per Branch in different countries

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Country</th>
<th>People Per Branch</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>France</td>
<td>1,587</td>
</tr>
<tr>
<td>2</td>
<td>Germany</td>
<td>1,945</td>
</tr>
<tr>
<td>3</td>
<td>US</td>
<td>2,720</td>
</tr>
<tr>
<td>4</td>
<td>Japan</td>
<td>3,968</td>
</tr>
<tr>
<td>5</td>
<td>Hong Kong</td>
<td>4,545</td>
</tr>
<tr>
<td>6</td>
<td>Sweden</td>
<td>4,672</td>
</tr>
<tr>
<td>7</td>
<td>Canada</td>
<td>6,410</td>
</tr>
<tr>
<td>8</td>
<td>India</td>
<td>15,000</td>
</tr>
</tbody>
</table>

(Source: Times of India, 2012)

The number of people per branch in different countries is shown in the Table 1.5 below indicates that India is highly under banked country. Thus, there arises the need for developing and promoting Internet banking in India.
People are cautious and often reluctant to move from traditional ways of banking to internet banking. On the other hand, globalization and its impact on the use of information technology in the banking industry compel banks to “push” clients towards internet banking. Most of the earlier researchers have investigated the diffusion of new banking technologies in developed countries. In India, the comparatively less number of studies have been conducted on the current status of internet banking and internet banking adoption, particularly from the consumer point of view. Basically the scope of the research revolves around studying the factors influencing the customer’s propensity to use internet banking as a primary banking channel. Why some customers find the new channels, unacceptable and which obstacles should be eliminated in order to convince the customers about advantages of using internet banking shall be answered.
CHAPTER -VI

CONCLUSIONS AND RECOMMENDATIONS

This is the most important chapter that concludes the results of the research and gain insight for future studies. On the basis of the result obtained in the study, the present chapter has been divided into three parts. The first part of the chapter deals with the conclusion of the first objective of the study and key findings of non users regarding the reasons and factors related to non-adoption of net banking. The second part of the chapter related to user’s factors towards the adoption of net banking. In the last part, it indicates recommendations by both the customer bases. Finally, the contributions of this study and scope for future research will also be presented in this chapter.

The first objective is to assess the reasons and factors related to non-users of the internet banking services.

6.1 KEY CONCLUSIONS - NON USERS

- The major conclusion for the non users of net banking are discussed. There were a number of reasons for not using net banking. It was observed that the first reason for non adoption is unawareness of net banking benefits, some of them agreed that net banking is not available with banks, followed by non availability of internet connection in their area, while some agreed to the lengthy procedural time of net service and while students said that they are under age, found no utility in opening up net banking account, while the majority of agreed that risk and security concerns related to net banking are the some of the important reasons for not using the internet banking.

Hypothesis 1: Demographic factors like gender, age, occupation, education has no association with response to net banking preferences.

- Results proved that the demographic characteristics like gender, age and occupation are significant, whereas education is insignificant for adoption of net banking among consumers. Therefore, demographic factors considered in the study are significant towards the preferences of net banking customers.
There are other five factors considered in the research for the non adoption of net banking services among non users and these factors are - awareness, accessibility, security, risk and privacy concern and cost.

The first, foremost factor is awareness of net banking service. Awareness of any service more important to and unless people are aware about the service there is no question of adoption. The lack of internet confidence, unaware of its benefits, lack of basic know-how, lack of internet access and lack of information provided by the banks.

Accessibility is the second important factor for net banking because difficulty in accessing the internet and non-availability of internet connection and restricted access, slow connection speed.

Security is also a third important, influential factor for non-users of the survey, it was found people fear of no secure transaction over internet, threat of fraud while transacting online, password leak may occur and loss of personal information to others.

The fourth influential barrier is risk towards the non adoption of net banking. As majority of non users’ fear that misuse of their personal information, internet sellers may charge their credit card extra for net banking usage, there is no trust in digital signature and virus transmission may occur while transacting online.

Cost of any product or service matters a lot for consumers. So, last constraint is cost where both the cost of purchasing computer and net banking connection is an extra burden for the customers for the use of net banking services.

Hypothesis 2: There is no significant difference between non-users and users for the mode of banking.

There exist significant differences between non users and user’s preferences for the mode of banking were found. Among the various modes of banking, user’s preferred net banking and phone banking while non users preferred branch banking and ATM banking.
Hypothesis 3: All the four Public sector banks are equally preferred by non-users.

- All the four Public sector banks are not equally preferred by non-users. Non-user’s among public sector banks, first preference is State Bank of India and Punjab National Bank respectively.

Hypothesis 4: All the four private sector banks are equally preferred by non-users.

- We observe a number of non-users first preference for private bank is HDFC Bank. More number of non-user’s second preference is ICICI Bank.

Hypothesis 5: All the four Public sector banks are equally preferred by both non-user and users.

- The users’ second preference is other public sector banks, not from a list of all the four banks considered in the study, whereas non users second preference is Oriental Bank of Commerce.

Hypothesis 6: All the four private sector banks are equally preferred by non-users and users.

- All the four private sector banks are not equally preferred by non-users. It has been observed that maximum number of non-users prefer HDFC Bank followed by preference is ICICI Bank.

To examine the user’s expectation with respect to the various aspects of Internet banking services.

6.2 KEY CONCLUSIONS–USERS

On the basis of the findings of this research, following conclusion can be drawn which will surely help in improving the better implementation of net banking services in banks to develop and maintain relationship with customers.

- There are eight factors used in the research, such as perceived usefulness, convenience, accessibility, quality of internet connection, easy to understand,
security, trust and internet experience influencing towards the adoption of net banking by users.

- Findings of users show that perceived usefulness is a major influential factor as internet banking enable user’s to accomplish more activities, performance of banking services are quicker, more controlled and improving customer.
- Convenience is another important factor, because users agreed that low service charge, interaction with site clear and understanding easy to do banking transactions, convenient service to do 24 hours and easy to maintain.
- The *place of accessing* of net banking services is also important for users. The majority of the users accesses their internet account mainly from home, then from net cafe and then from the workplace and mobile.
- The *quality of internet connection* also plays an important role as more users also agree that connectivity of the internet is low, easy access to internet, internet enables to handle online financial transactions accurately, internet guarantees that all transactions to the banks have been completed, internet enables to handle their online transactions accurately, website have interactive features to help to achieve every task.
- *Security* is also important for users as more users agree that using internet banking enables to make money transactions is secure, clear and understandable bank’s policy, feel secure sending sensitive information over the internet, security is more important.
- *Trust* is the reliability factor among as user’s agree that safe in website transaction, willing to provide information over the phone only to authorized bank, trust the benefits of internet banking, bank’s website don’t misuse their personal information banks’ website is trustworthy and keep personal information is safe.
- *Internet experience* among users agree to continue to use in future, Mis-happening while transacting, face difficulty earlier, while transacting, even recommend other, no error while transacting, satisfied and use on a regular basis.
- Results from the survey regarding the *bank’s response* towards net banking, indicated that users agree that low waiting time in net banking transactions,
website loads quickly, instant response and improving customer conversations, ethical and professional conduct.

6.3 RECOMMENDATIONS
It is concluded that all these suggestions in the study conducted would help the bank managers in creating a positive attitude towards the net banking services among customers.

Awareness through ads to persuade
Banks needs to launch campaigns to direct awareness regarding the benefits of net banking through advertisements in different media to persuade the customers.

Assure safe and secure against fraud
Security is most vital, influential factor for both the customer base either non users or others. So ensuring, how banks transactions over the internet are safe and secure against fraud and theft. The bank should assure the customer that secure software to log in and transact online.

Assure privacy to be maintained
The issues such as fear of privacy is a crucial issue that needs to be taken care of the customers by assuring customers that their personal information will not be disclosed to any other internet seller and privacy will be maintained.

Easy to operate internet site
The websites should be designed as users-friendly so that the customer can operate with ease. Such an initiative will help the customers to be more familiar with the use of net banking services of bank comfortably.

Demonstrate how can be operated
Banks needs to cooperate with customers if they face difficulties while transacting online initially by demonstrations via video presentation at bank branches to showcase the users-friendliness of such services so that the system can be operated with ease.
**Explain benefits of I-banking**
The benefits of internet banking should be communicated to customers. The convenience and its perceived usefulness should be emphasized to push towards the use of net banking services.

**Inform the different costs**
Internet banks should look for opportunities to lower and transfer the cost savings to customers. Clear and bring up to date information about the different costs involved in the use of net banking service on their websites would help the customer know in advance regarding the cost they are going to bear for the type of internet banking services. Emphasizing the lower charges for online transactions as one of the key benefits should be a feature of promotional efforts.

**Explain fast handling of problems**
Banks need to provide the helpdesk for the retail customers in resolving their queries and complaints should be handled as quickly as possible.

**Design campaigns for positive attitude**
The promotional campaigns should be designed and implemented for creating and developing a positive attitude towards the use of net banking services by customers by offering them value added benefits.

**Encourage time saving and paper reduction**
Banks should encourage customers for the time saving and paper reduction benefits towards the use of net banking services. These practices will attract and motivate the customer towards the adoption of net banking services of banks.

**6.4 CONTRIBUTION**
This study makes a significant contribution across all areas of IT adoption and usage research and practice in banks. These contributions are:

- The development of a conceptual framework that explains and predicts the factors that influence the adoption and acceptance of the internet and its application regarding the new technology in the banking sector in NCR such as net banking.
The empirical support for the proposed hypothesis based on the integrative research framework and literature. It has potential to be generalized to nationwide general organization of study.

The result is an indication of the good explanatory power of the model for intentions and can be used as research models for further study on Internet banking adoption.

6.5 SCOPE FOR FUTURE RESEARCH

Although an attempt has been made in the research to examine the customer orientation towards net banking concept, yet there is an ample of scope for further research work and investigation. Internet banking offers many benefits to the banks viz. vast reach, reduced transaction costs, direct marketing and cross selling, build bank’s brand, etc. It also offers benefits to customers’ viz. reduced cost, convenience, banking with the bank and not the branch, speed, better cash management, etc. The present study will be helpful to throw light on the present customer scenario towards the adoption of net banking services. The study lays down path for future researches as there has been not much of prior study in the subject. Then, there arise a need to understand what factors are influencing the adoption and non-adoption of internet banking for managers, providers and researchers. Therefore, some suggestions are being proposed for doing further research.

The sample size has been taken from only NCR- Faridabad and Delhi; further research may be taken with much larger sample size covering entire India so that better generalization can be made.

Banks have to satisfy their each of its segment groups as they have their own importance. This study has focused on these customer segments such as businessmen, self employed, senior citizens and students. But, broadly this research considers only two customers segment - non users and users. Future studies could be carried out on other customer segment groups such as professionals, corporate customers to examine their intention to adopt internet banking service.

The present study has been considering only the net banking concept in banks. But there are other fields in future like mobile banking, financial services of different banks can be examined.
During the study, it was found that there are other factors influencing the customer behaviour towards the non adoption and adoption of net banking services. Further, other factors or barriers which can be investigated in future research.

There are many other barriers which have not been mentioned by the researcher in the way of adoption of net banking services among non users. Identifying the other reasons and solutions of these barriers may also be considered by the future research.

The study on customer adoption of internet banking services in India can be extended to corporate customers. The comparison can be made between individual customers and corporate customers in terms of the factors influencing their adoption decisions, the criteria for selecting an online banking service and the types of products and services perceived to be useful.

Above mentioned points are the important possible areas of internet banking where research work can be expected.