CHAPTER 4
E-BANKING SCENARIO IN INDIA

1.1 Technology in Indian Banking
1.2 Impact of Technology
1.3 Modes of Distribution
1.4 Indian Position
1.5 Internet Banking & Indian Laws
   (a) Technology and Security Standards
   (b) Legal Issues
   (c) Regulatory and Supervisory Issues
In the present day we are in the period of globalization. MNCs all around the world have chosen globalisation as their prime strategy. Technological development has also facilitated globalisation. The banking industry is also facing same situation. Developments of technology and innovations have always raised the living standard of people. Technological advancement provided a new magnitude to the public. It transformed the mode of service offering. Nowadays IT has been a key driving force of economy all around the world. The effect of IT is very much visible in the banking sector.

Information technology has a vital role to play in the financial sector. The internal facility has emerged as a blessing to the financial sector specifically to banking industry. Banking sector has taken the pioneer step in adaptation of technology to provide newest medium for banking transactions. Bank has altered itself and providing services online. Banks have enriched its value chain with the adaptation of computers, adding ATMs as delivery mechanism and e-banking.

E- Banking refers to the use of internet facility as a distant delivery channel for banking services. The future of banking services can be seen in e-banking. E-Banking facilitates banks to effectively reduce foot-fall of banking customers in their branches. Thus, the number of human contact to solve a customers’ query or to conduct a banking transaction has reduced drastically. The conventional banking branches have transformed into PC networks, so that banking customers can avail every service benefit of bank online as well. Customers can avail numerous banking services through e- banking, such as payment of utility bills, transfer of funds, booking the railway tickets etc.

The number of people using internet services has risen significantly. The numbers of e-banking service users were 12% of 38.5 million internet users in India in 2006 and the number was increased to 16 million by 2007-08.
Table 5: Internet Penetration in India

<table>
<thead>
<tr>
<th>Year</th>
<th>Users</th>
<th>Population</th>
<th>% penetration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>1,400,000</td>
<td>1,094,870,677</td>
<td>0.1 %</td>
</tr>
<tr>
<td>1999</td>
<td>2,800,000</td>
<td>1,094,870,677</td>
<td>0.3 %</td>
</tr>
<tr>
<td>2000</td>
<td>5,500,000</td>
<td>1,094,870,677</td>
<td>0.5 %</td>
</tr>
<tr>
<td>2001</td>
<td>7,000,000</td>
<td>1,094,870,677</td>
<td>0.7 %</td>
</tr>
<tr>
<td>2002</td>
<td>16,500,000</td>
<td>1,094,870,677</td>
<td>1.6 %</td>
</tr>
<tr>
<td>2003</td>
<td>22,500,000</td>
<td>1,094,870,677</td>
<td>2.1 %</td>
</tr>
<tr>
<td>2004</td>
<td>39,200,000</td>
<td>1,094,870,677</td>
<td>3.6 %</td>
</tr>
<tr>
<td>2005</td>
<td>50,600,000</td>
<td>1,112,225,812</td>
<td>4.5 %</td>
</tr>
<tr>
<td>2006</td>
<td>40,000,000</td>
<td>1,112,225,812</td>
<td>3.6 %</td>
</tr>
<tr>
<td>2007</td>
<td>42,000,000</td>
<td>1,129,667,528</td>
<td>3.7 %</td>
</tr>
</tbody>
</table>

4.1 Technology in Indian Banking

The technology development in banking can be outlined as follows:-

1960 - Introduction of Mechanized banking.
1970 – Computerisation of banking industry.
1980 - Introducing banking based on computer linked communication

The use of computer technology impacted the working pattern of bank in a larger way. Since 1966, the development process of computerization in banking industry can be clearly experienced and it started with the signing of first wage settlement with bank union regarding use of ICT or IBM accounting machines for inter-branch reconciliation etc. In 1970, SBI has initiated the process of installing a ledger- posting machine with mainframe computer at its selected branches. In 1983, Reserve bank of India formed a committee on computerisation & mechanisation and Dr. C. Rangrajan was appointed its chairman. Committee’s purpose was to formulate a plan for mechanising the Indian banking industry. The main recommendation of this committee was bank branches, regional & head offices should adapt computerisation and installation of Advanced Ledger Posting Machines. Afterwards, in 1991,
Narisimhan Committee paved the way for banking sector reforms. In 1994, RBI appointed Saraf Committee that recommended the use of EFT, electronic clearing services and extension of MICR even in small towns.

Foreign and private sector banks significantly adopted the use of information technology in the last decade. The primary reason for this is the increased competition and the popularity of the internet phenomenon around the world. The entry of the private & multinational banks who were having better technological based financial services, forced Indian banks to adapt the technological advancement to achieve competitiveness and customer retention.

In 1970, technology was a logical move for the banks with starting ATM & Point of Sales facilities that continued in 1980s with the introduction of Tele-Banking and E-Banking in 1990s. In Feb. 1997, Shared Payment Network System (SPNS) was introduced and this was shared network of ATMs of 11 banks. ‘SWADHAN’ brand name was given to the ATM cards. SPNS has a facility to link with international hub, as, Master Card & VISA. In 1985, The ATM card facility was introduced by CITI Bank in India.

Past ten years experienced drastic changes that made convenience of banking clients the most important aspect of banking business. In India big cities are way ahead in using e-banking. The latest banking delivery channels include private networks, direct dial-up connections, public network etc. The banking devices are ATMs, telephones and personal computers etc. Therefore, technological advancements transformed the branch banking to e-banking that is known as ‘Anywhere Anytime Banking’. Banks achieved greater efficiency in operation through the use of technology.
4.2 Impact of Technology

The effect of technology in banking industry is as follows:

1. Paradigm shift from traditional banking to customize banking as the services can be delivered via computer and

2. Convenient banking i.e. "Anytime, Anywhere banking". A customer can check balance by logging into banks website through a user name and password. In this way he can enquire balance, status of cheques, perform funds transfers, order drafts, request issue of cheque books etc.

It has been experienced that e-banking enhanced the bank- customer relationship as e-banking user customers are more profitable for bank and they do not switch their banks frequently and use more banking products and services. The information gap created due to the human involvement is covered by the information technology and online banking. The advantage of e-banking is the availability of information about banking products & services on their website. This helps the prospective customers to gather this information easily without visiting a bank branch. Now availability of information is comparatively cheaper for the consumer. The result of e-banking is the virtual corporate system which minimized the human contact to maximize the effect.

The entire business of banking and structure has risen significantly. The other reason for this is the current market features, as, entry of a number of private sector banks and MNC banks in the Indian banking industry. But the industry was ruled by public sector banks before these private players. As a result of liberalisation private sector banks gained a strong position in the banking industry. For example, ICICI Bank is the leading bank in the private players of banking sector with more than a million customers, 600 branches and 2000 ATMs all over in India. That leads to the cut- throat competition among the banks for increasing the customer base. The scenario compelled banking industry to adapt technological advancements to provide better and competitive services. Mostly banks operating in the country added information technology with their services to add an additional value to their services.
Most of banks created their image as a departmental store for financial services that are having a long range of financial products and services, such as, deposit schemes, lending services, credit & debit cards, custodial services, advisory services, bill discounting facility etc. Other than these services, banks in India also providing 3rd party financial products, such as, insurance policies & mutual fund units. Banks adopted computerisation of branches and new service delivery mechanism, as e-banking, tele-banking, ATMs, mobile banking etc. to provide more flexible and convenient service with comparatively less cost to their customers.

4.3 Modes of Distribution

Banking industry was one of the pioneers among the technology adopters. Banks were having correct vision to anticipate the future requirement of innovative mechanism to offer banking services. Private sector banks had a major contribution in revolutionising the Indian banking industry. The modes of offering banking products and services are as follows:

1. **Internet Banking**: It is also known as Web Banking or PC Banking or e-Banking. The easy accessibility to internet facility and availability of computer lead the banks to provide their products and services through new delivery medium i.e. internet. Today, all private and public sector banks are providing e-banking services to their clients.

2. **Phone Banking**: It is also known as Tele- Banking or Mobile-Banking or M- Banking. India has experienced tremendous increase in the number of mobile phone users. The rate of penetration of mobiles and landlines has risen significantly and this leads to encourage banks to grab this opportunity and thus offered mobile- banking services. Through this service customers can avail information regarding the bank account by sending a SMS.

3. **Plastic Money**: It is referred to ATM cards, debit cards and credit cards etc. Banks have provided ATM facility to their customers and it is connected via V-SAT. Through using ATM, customers can avail a numerous services, such as, withdrawal of funds, account balance
enquiry, order a cheque book, deposit fund, have information regarding
banking products etc. Even through ATM banks are offering value
added services also.

E-Banking

Nowadays IT is playing an intrinsic role in the banking sector. Now customers
need to only visit the bank’s website to view their bank account. Customers can avail
a numerous services through e-banking, such as, can check account balance online,
online fund transfer, pay bills online etc. According to a research study conducted by
Booz & Allan, “internet is the most economic banking mode”.

E-Banking has following stages:

I. Information Kiosk: The conventional information and data are available
on the bank’s website regarding products and services offered by the bank.

II. Basic I-Banking: Through this internet – banking infrastructure has been
set by the bank to access basic banking services, as, online opening of a
bank account, online payment of bills, access account statement and
enquire bank account balance online.

III. Virtual Medium: This mode of e-banking uses internet facility as a mode
of conducting banking transactions. Customers can buy and sell products
and services offered through payment gateway service of bank.

Now, more or less every bank is having its website to provide its e-banking
services. Today, around 100 banks are providing e-banking services to their
customers. Even, by and large, every banking customer accepted this new mode of
banking. For example, we can refer Syndicate Bank’s performance in e-banking
sector in a year from Mar.2005 to June 2006, the number of e-banking users increased
over 210% i.e. 17,432 users from 8,300 user of previous year.
Table 6: Internet Usage and Population Statistics

<table>
<thead>
<tr>
<th>YEAR</th>
<th>Users</th>
<th>Population</th>
<th>% Pen.</th>
<th>Usage Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>1,400,000</td>
<td>1,094,870,677</td>
<td>0.1%</td>
<td>ITU</td>
</tr>
<tr>
<td>1999</td>
<td>2,800,000</td>
<td>1,094,870,677</td>
<td>0.3%</td>
<td>ITU</td>
</tr>
<tr>
<td>2000</td>
<td>5,500,000</td>
<td>1,094,870,677</td>
<td>0.5%</td>
<td>ITU</td>
</tr>
<tr>
<td>2001</td>
<td>7,000,000</td>
<td>1,094,870,677</td>
<td>0.7%</td>
<td>ITU</td>
</tr>
<tr>
<td>2002</td>
<td>16,500,000</td>
<td>1,094,870,677</td>
<td>1.6%</td>
<td>ITU</td>
</tr>
<tr>
<td>2003</td>
<td>22,500,000</td>
<td>1,094,870,677</td>
<td>2.1%</td>
<td>ITU</td>
</tr>
<tr>
<td>2004</td>
<td>39,200,000</td>
<td>1,094,870,677</td>
<td>3.6%</td>
<td>C.I. Almanac</td>
</tr>
<tr>
<td>2005</td>
<td>50,600,000</td>
<td>1,112,225,812</td>
<td>4.5%</td>
<td>C.I. Almanac</td>
</tr>
<tr>
<td>2006</td>
<td>40,000,000</td>
<td>1,112,225,812</td>
<td>3.6%</td>
<td>IAMAI</td>
</tr>
<tr>
<td>2007</td>
<td>42,000,000</td>
<td>1,129,667,528</td>
<td>3.7%</td>
<td>IWS</td>
</tr>
<tr>
<td>2009</td>
<td>81,000,000</td>
<td>1,156,897,766</td>
<td>7.0%</td>
<td>ITU</td>
</tr>
<tr>
<td>2010</td>
<td>100,000,000</td>
<td>1,173,108,018</td>
<td>8.5%</td>
<td>IWS</td>
</tr>
</tbody>
</table>

India will see its number of Internet users triple to 237 million from the current 81 million by 2015, according to a report.

In a study titled Internet's New Billion, the Boston Consulting Group said Brazil, Russia, India, China and Indonesia will have more than 1.2 billion Internet users by 2015 -- well over three times the number of Internet users in Japan and the US combined. In 2009, the BRICI countries had some 610 million Internet users.

"Internet penetration rates in the BRICI countries will experience compound annual growth of nine to 20 per cent from 2009-2015, driven predominantly by young users who will form the digital-market eco-systems that will be in place for generations to come," the management consulting firm said.

Banking sector has been playing pioneer role in adapting technological advancements to improve the efficiency and products & services offered. It is been long time to work with electronic and telecommunication networks to deliver their various value added banking products and services. Today, most of the physical bank branches transformed themselves from product centered approach to modern e-
banking referred approach. Generally, the banking service delivery mediums include public network, private network, direct dial-up connections and devices for the same include personal computers, telephones, ATMs etc. Banks have been increasingly using internet facility as a medium of receiving customers’ instructions and delivering banking products and services to them.

For attracting and retaining prospecting customers, banks are using e-banking as an influencing tool of value addition. As banks are working in a dynamic competitive environment, it is also useful in elimination of non economical paper handling and telephonic interaction with clients. According to the IAMAI survey, the number of internet users in India is 205 million in 2012 and according to this survey 23% of internet users prefer internet banking to conduct their banking transactions.

### 4.4 Indian position

Indian scenario in banking is not up to the mark in comparison to the developed economies. In 1966, ICICI Bank took the initiative towards starting e-banking services in India. The time period of 1996 to 1998, can be defined as early adoption phase for e-banking in India. But public sector banks were the late adopters of the e-banking services. SBI owns the pride of being pioneer among public sector banks to start providing e-banking services to its customers. Although, it experienced tremendous increase in usage of e-banking in 1999, due to lower ISP internet fee & charges, increased PC penetration and tech-savvy environment.

The process of providing e-banking services in public sector banks being very slow and the banks state that the main reasons for this are the lack of regulatory framework and clarity of e-banking process. Adding to these reasons, lack of commitment and enthusiasm of banks and restraining forces to the change prevailing in the PSU banks are responsible for the slow adaptation of e-banking system in PSU Banks in India.

E-banking is viewed as expansion of conventional banking services. Although, there were many cases that contradicted the legal framework of Indian e-banking, such as, Banking Regulation Act 1949, The Reserve Bank of India Act 1934 and the Foreign Exchange Management Act 1999.
Though, numerous regulatory issues regarding e-commerce has been addressed by the Information Technology Act 2000, still there is unaddressed grey areas prevails that not have been defined properly and even no functional implementation mode has been recommended by Constitutional institutions.

The IT Act 2000 specified the causes for banks to start online banking services and defined security measures for the banks. But it totally depends on the commitment of banks in adopting these measures to provide e-banking.

As well as RBI issued numerous guidelines for e-banking in India and it review them periodically. It is compulsory for banks to have a prior approval from RBI to provide any new online service. Although, this guideline suspended later and banks have given autonomy for e-banking services but they have to ensure that online services offered by them should come under provisions of the Reserve Bank of India.

4.5 Internet Banking and Indian Laws

The misuse of Internet amounts to cyber crime, and India too has been witnessing a sharp increase in cyber crimes in the recent years. The Cyber Law of India provided in the Information Technology Act, 2000. Reserve Bank of India had set up a ‘Working Group on Internet Banking’ to examine different aspects of Internet Banking. The Group had focused on three major areas of e-banking, i.e., (i) technology and security issues, (ii) legal issues and (iii) regulatory and supervisory issues. RBI has accepted the recommendations of the Group to be implemented in a phased manner.

In India, a Bank’s liability would arise out of contract as there is no statute to the point. When liability is contractual it means that the bank is, by virtue of the contract, under an obligation to keep customers’ data secret. If transactions are being done on an open network such as the internet then in case of a security breach, an internet service provider (ISP) may be liable, in addition to the bank.

The viability of a sectoral legislation on data protection in e-banking should be gauged. India can take cue from nations which have favoured ad hoc enactment of sectoral laws over omnibus legislation.
A major problem for banks and Internet banking users, Phishing is an art of tricking someone into giving confidential information and fraudulently acquiring their sensitive information like passwords and credit card details. The IT Act 2000, however, does not specifically define phishing as an offence and thus the law enforcement authorities have to take recourse to the generic provisions of cheating and criminal breach of trust under the Indian Penal Code.

Due to the lack of adequate legal provisions for dealing with growing cyber crimes, banks are working towards intimating net users about e-security. SMS alerts are used to inform customers promptly about their online transactions. Banks have also put in place security measures, as outlined by the Reserve Bank of India in its guidelines for Internet banking. The guidelines talk about the risks associated with Internet banking, technology and security standards, legal issues involved, and regulatory and supervisory concerns. The RBI is empowered to audit the compliance of the Internet banking policy outlined by it.