CHAPTER – 1
INTRODUCTION

This chapter discusses the introduction and concept of E-Banking, history and growth of E-Banking and different channels of e-banking. Regulatory framework has also been discussed. Benefits and drawbacks of e-banking have also been noted.

1.1 Introduction

Sound and effective banking system is a prerequisite of healthy economy. Banking system should not only be hassle free but it should be able to meet new challenges posed by technology and any other external and internal factors. In order to meet these challenges banking industry is enhancing its services through electronic channels. Delivering banking services and products through e-channels is termed as e-banking or electronic banking. E-Banking has the potential to transform the banking as it offers many alluring benefits which can never be obtained by traditional banking. E-Banking ensures conservation of valuable time which is involved in banking transactions. Inspite of improvement in efficiency and convenience due to e-banking, it may prove a double edged sword as it has posed several challenges to regulators and supervisors.

1.2 Service Quality

Banks provide different types of services to their customers. All the banks provide their services in different manner. The way of working is different in every bank. The quality with which banks provide their services to their customers is of utmost importance today. In today’s world of competition every organization has to concentrate on its service quality in order to stand in the market. The organizations that are not able to make their customers available with good service quality are very easily thrown away from the market. Banks are no longer exception to this. Traditionally, banks provided services to customers in their own way and the customers always were convinced with that. This was because of the reason that they had no choice. But now with the entry of private sector in banking, customers’
expectations have increased manifold. In order to provide the customers with good service quality and to improve the previous of transactions, banks have introduced electronic channels into their services. The banking transactions done through electronic channels is known as e-banking. E-banking is the need of the hour now. Customers want to have their work done sitting at their offices and homes. They want to save as much time they can. E-banking offers wide range of services to them which in turn has led to the increasing popularity of e-banking. Banks are able to improve their service quality with the help of e-banking.

1.3 Concept of E-Banking

Intense competition has forced the banks to rethink the way they operated their business. They had to reinvent and improve their products and services to make them more beneficial and cost effective. Technology in the form of electronic banking has made it possible to find alternate banking practices at lower costs. More and more people are using electronic banking products and services and because a larger section of the banks’ future customer base will be made up of computer literate customers, the banks must be able to offer these customers products and services that allow them to do their banking by electronic means. 1

Many experts have tried to define the term electronic banking.

“Delivery of bank services to a customer or to his order at his/her office or home or at any place, even while traveling or viewing a programme in a theatre or seeing a match in a stadium, by using electronic technology, and it can be termed as Electronic Banking”. 2

“E-Banking is use of technology in day-to-day transactions, by the customers to access their banking services electronically, whether it is for payment of bills, transfer of funds, retrieve information and provide services”. 3

E-Banking is a generic term for delivery of banking services and products through electronic channels, such as the telephone, the internet, the cell phone, automated teller machine, etc. The concept and scope of E-Banking is still evolving. It facilitates

an effective payment and accounting system thereby enhancing the speed of delivery of banking services considerably. In simple words, e-banking implies provision of banking products and services through electronic delivery channels.⁴

All these above definitions can be summed up in simple form which explains e-banking as a new medium for the delivery of banks products and services to the customers anytime and anywhere they desire. The basic difference between e-banking and traditional banking is that the customer, who had to visit branches for each and every small needs now will not have to do so and will be able to save lots of his precious time. It is win-win solution, for both the bank and the customer. The customer is not put to inconvenience of traveling, and the time so saved can be effectively utilized in other productive ways, whereas the bank earns by having lower costs on overheads, establishment, premises and maintenance, in turn resulting into reduced per transaction cost.⁵

Technology in Indian banking in the form of e-banking can be used in four major ways viz. for handling a greatly expanded customer base, for reducing substantially the real cost of handling payments, for liberating the banks from the traditional constraints on time and place, and for introducing new products and services. Due to technological advancements, e-banking can be applied to every banking transaction like cash receipts, cash payments, transfer of funds, payment of utility bills, payment of interest and dividends thereby moving society towards electronic banking. The constantly falling cost of acquiring computer power, coupled with the exponential growth of the multi-media, has facilitated the usage and really made it work with unimaginable possibilities.

1.4 Channels of E-Banking

Many developments have taken place in technology area applicable to banking. Banking is no longer confined to the branches, as customers are being provided with additional delivery channels. Banking products and services are delivered through different electronic channels viz. ATM, net banking, mobile banking and phone

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banking. Each of these electronic channels has its own specific advantages in terms of improved customer services and reduced transaction cost.

1.4.1. Automated teller machine (ATM)

To the common man who does not have much knowledge of technology, ATM is a great hit with him. Automated Teller Machine symbolizes a computer terminal activated by a magnetically encoded bank card allowing consumers to make deposits, obtain cash from checking or savings accounts, pay bills, transfer money between accounts, and do routine transactions as they would at a bank teller window. Today bank ATMs do much more than dispense cash in preset increments. Some ATM machines cash checks to the penny, accept envelope-free deposits, and print monthly statements for mortgage, brokerage, or regular banking accounts. Some U.S. Banks have programmed their machines to offer ATM customers access to all of the banking services available on the bank's Internet Web site, effectively duplicating the bank's Web site on the ATM display screen.

Automated Teller Machines (ATMs) are data terminals for convenient money transactions. Don Wetzel of USA is credited as the inventor of the ATM. He created the machine while working for the Docutel Company in Dallas, Texas, during the 1960s.

ATMs are actually kiosk computers with a keypad and screen. The patron is prompted with instructions and given a choice of transactions. An optional receipt can be printed for patron records. Bank access to accounts is provided through telephone networking, a host processor, and a bank computer to verify data. Using an ATM card, a debit card, or a credit card, bank patrons can electronically access their accounts and withdraw or deposit funds, make payments, or check balances. ATMs have eliminated the need to enter a bank for basic transactions and allow access to accounts at machines throughout the United States. Financial institutions started charging fees to use their ATMs in the mid-1990s, making the transactions very profitable for the host banks. The use of ATMs has cut service staff in traditional banks, impacting employment in the industry. As many machines are now commercially owned and leased in public venues, a technical industry for creating, leasing, and maintaining the machines has developed. Innovation in ATMs has
included machines designed for use by the blind, kiosk machines in stores, gas stations, malls, and other public places, and machines with verbal prompts.

An automated teller machine (ATM) is a computerized telecommunications device that provides the customers of a financial institution with access to financial transactions in a public space without the need for a human clerk or bank teller. On most modern ATMs, the customer is identified by inserting a plastic ATM card with a magnetic stripe or a plastic smartcard with a chip that contains a unique card number and some security information, such as an expiration date or CVC (CVV). Security is provided by the customer entering a personal identification number (PIN).

Using an ATM, customers can access their bank accounts in order to make cash withdrawals (or credit card cash advances) and check their account balances. ATMs are known by various casual terms including automated banking machine, cash machine, hole-in-the-wall, cashpoint or Bancomat (in Europe and Russia).

ATMs are placed not only near or inside the premises of banks, but also in locations such as shopping centers/malls, airports, grocery stores, petrol/gas stations, restaurants, or any place large numbers of people may gather. These represent two types of ATM installations: on and off premise. On premise ATMs are typically more advanced, multi-function machines that complement an actual bank branch’s capabilities and thus more expensive. Off premise machines are deployed by financial institutions and also ISOs (or Independent Sales Organizations) where there is usually just a straight need for cash, so they typically are the cheaper mono-function devices.

Most ATMs are connected to interbank networks, enabling people to withdraw and deposit money from machines not belonging to the bank where they have their account or in the country where their accounts are held (enabling cash withdrawals in local currency). ATMs rely on authorization of a financial transaction by the card issuer or other authorizing institution via the communications network. This is often performed through an ISO 8583 messaging system. Many banks charge ATM usage fees. In some cases, these fees are charged solely to users who are not customers of the bank where the ATM is installed; in other cases, they apply to all users. Many people oppose these fees because ATMs are actually less costly for banks than withdrawals from human tellers. Although ATMs were originally developed as just

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5 http://en.wikipedia.org/wiki/Automated_teller_machine

6 http://en.wikipedia.org/wiki/Automated_teller_machine
ATMs can act as an advertising channel for companies to advertise their own products or third-party products and services.

The first bank to introduce the ATM concept in India was the Hongkong and Shanghai Banking Corporation (HSBC). It was in the year 1987. Now, almost every commercial bank provides ATM facility to its customers. The first bank to cross 1,000 marks in installing ATMs in India is ICICI. SBI is following the concept of 'ATMs in Quantity'. But Private Sector Banks have taken the lead. ICICI, UTI, HDFC and IDBI count more than 50% of the total ATMs in India. Public Sector Banks are also taking the installation of ATMs seriously for Indian market. They are either setting up their own ATM centres or entering into tie-ups with other banks.

1.4.2 Mobile banking

In recent years the banking sector has witnessed several technological advancements and this lead to innovative banking channels. Mobile banking is one such channel which has assumed significance in the light of growing use of mobile phones. Mobile banking is all set to make banking more comfortable to the customers. It has been effectively used in various countries as a channel for providing banking products and services. It has gained popularity among service providers and customers as it is cost effective. On the other hand it allows customers to carry out banking operations irrespective of time and place and facilitates expansion of customer base through increased geographical reach. However services offered under m-banking (mobile banking) vary from country to country depending upon the mobile phone penetration and technological advancement. M-banking involves the use of mobile phone to carry out banking transactions. Various stakeholders in m-banking are consumers, merchant outlets, cellular operators, device manufacturers, banking and financial institutions, regulatory agencies and government. While customers look for secure, convenient and swift services, merchants look for faster transactions and settlements.

Mobile banking can be defined as conducting banking and stock market services, administering accounts and accessing customized information through handheld

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electronic communication devices like mobile or cellular phones. It is also referred to as Wireless banking, SMS banking or m-banking. The mobile technology enables the customers to pay the bill, to check account balance and cheque status, account statement enquiries, cheque book requests, to get minimum balance alerts, to request for recent transaction history and interest rates/exchange rates, and to get new product announcements on their mobile itself. At first, banks used mobile banking technology to convey account information to account holders. Wireless Application Protocol (WAP), SMS, SIM Toolkit, Interactive Voice Response (IVR) and stand alone mobile application clients are the common standards in mobile banking. Among them SMS based mobile banking is the most popular one in Asia, especially in China and India, where low cost mobiles are high in number. In this mode two technologies viz. ‘pull’ and ‘push’ are used. Pull technology is used when a customer sends an SMS to the bank by typing his or her specific code or password to access specified account information, the bank replies via an SMS. For example by sending an SMS with keyword “HDFCBAL” HDFC bank customers can get their balance information on their cell phones. By using push technology banks can automatically send alerts to the account holders’ mobile phones. The registered users receive alerts anywhere in the world. In Kerala a private bank provides timely transaction information to the NRIs. The RBI governor, Y V Reddy said that mobile telephony makes the financial transactions quicker, safer and cheaper. He further added that the RBI would consider using mobile technology for financial transactions provide there are enough safeguards. This a good news for mobile phone subscribers (poor or rich), service providers and bankers who are desperately looking out for viable, at the same time far reaching, technology to provide the services. The banks in India have already started offering services like alerts, stock market trends and SMS based services. For that, they charge a nominal fee. Analysts say that mobile banking costs 30% less than traditional banking methods. The technology encourages customers to carry out their basic banking functions without going to the branches. In future Indians can also enjoy the benefits of advanced mobile banking technologies like purchasing and transferring prepaid airtime between the accounts. Though mobile banking offers a wonderful cost effective technological platform, the banks adopting mobile banking technology have to tread cautiously as expensive technology implementation may not yield expected return on investment. Nowadays, even a street vendor owns a mobile phone due to its low price and the price is expected to fall down further. Finally,
technology, especially mobile technology, is able to bridge the divide between poor and rich, urban and rural. It has become great leveler. Before the end of this decade, two-thirds of the world population will have a mobile, it is really a huge market for service providers. Banks should pick up the call from mobile banking technology to reach the rapidly growing mobile population. 9

1.4.3 Phone banking

Phone banking is a service provided by a financial institution which allows its customers to perform transactions over the telephone. Most telephone banking institutions use an automated phone answering system with phone keypad response or voice recognition capability. To guarantee security, the customer must first authenticate through a numeric or verbal password or through security questions asked by a live representative. With the obvious exception of cash withdrawals and deposits, it offers virtually all the features of an automated teller machine: account balance information and list of latest transactions, electronic bill payments, funds transfers between a customer’s accounts, etc.

Usually, customers can also speak to a live representative located in a call centre or a branch, although this feature is not guaranteed to be offered 24/7. In addition to the self-service transactions listed earlier, telephone banking representatives are usually trained to do what was traditionally available only at the branch: loan applications, investment purchases and redemptions, chequebook orders, debit card replacements, change of address, etc. Banks which operate mostly or exclusively by telephone are known as phone banks. One can avail of many services through phone banking like checking account balance, enquiring cheque status, ordering of cheque book or account statements, stopping the payment of any cheque, any query regarding loans, opening up of fixed deposit accounts, transfer of funds between accounts, payment of bills, reporting the loss of ATM card and many more.

1.4.4 Internet banking

Internet banking enables a customer to perform banking transactions through the bank’s website. This is also called virtual banking, net banking, or anywhere banking.

It is like bringing the bank to one’s computer at the place and time of one’s choice. This can be very useful, especially for banking outside bank hours through internet access. The number of customers who chose online banking as their preferred method of dealing with their finances is growing rapidly. Online banking usually offers features like electronic bill payment. There are growing numbers of banks that operate exclusively online due to cost advantage compared to traditional banks.

Various customer services can be offered through internet banking. These include electronic bill presentation and payment, online bill payment for shopping, travel and donation transactions, funds transfers 24x7x365 facility, money transfer to India for NRI customers, all routine transactions regarding banking, cards, loans and investment services and conduct banking services anywhere.

Internet banking helps in overcoming the traditional geographical barriers as it reaches customers residing in different countries. This has raised the question of jurisdiction of law such transactions should be subjected to. It has also added new types of risks traditionally associated with banking. Security of banking transactions, validity of electronic contract, customers’ privacy etc., which have all along been concerns for both bankers and supervisors have assumed greater dimensions given that internet is a public domain, not subject to control by any single authority or group of users.

Internet banking is in its nascent stage in India. In general, the internet banking sites offer only the most basic services. In India, only 55% are entry level sites offering little more than company information and basic marketing materials, only 8% offer advanced transactions such as online funds transfer, transactions and cash management services. Presently foreign and private banks are much advanced in terms of the number of sites and their level of development. At present around five million customers have registered for internet banking services in India. India has a little less than three million active users. And though this is just 0.3% of the total population, it represents a high percentage of the India’s internet user population, thus indicating that the concept of internet banking is surely catching on.\(^\text{10}\)

In India, the Indian customer is steadily moving towards Internet banking. A number of banks have either adopted internet banking or are on the threshold of adopting it.

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Cost of internet banking amounts a fraction of the cost incurred through alternative delivery channels. In the coming years, all low value transactions may occur on the net.

Internet banking costs at Rs.0.10 per transaction. However banks cannot expect instant returns, unless the internet population itself reaches a critical mass. Besides, fully computerized banks with better management of their customer base are in the stronger position to cross sell their products through this channel. Banks in India are investing heavily to develop internet banking infrastructure and building an internet brand image. Internet penetration is growing and the profiles of the users of online banking are very attractive and customers between the 30-40 age group are quite proficient in using this technology. 11

The number of banks offering internet banking has doubled in less than one year due to adoption of core banking solutions fall in hardware prices, peer pressure and RBIs instruction regarding dispensing the prior approval for offering internet banking. Internet banking provides great benefits to both the customers and banks. Banks can reach a larger mass of people at low costs with innovative products allowing customers to access it anywhere anytime. People are accessing banking services increasingly from home and are realizing the comfort and potential of online banking. The ability to pay bills from anywhere, anytime (i.e. beyond traditional working hours and on holidays) with comfort and ease make the function of bill payment a favorite one among the online banking users. If properly marketed, partnering with various utility departments like electricity board, municipalities, corporations and telecom companies etc., the bill payment function has a great potential for internet banking.

Information request and request for services like cheque book issue and stop payment are the other factors, which would improve the penetration of internet banking users.

Internet banking is cost effective, helps improve operational efficiency, connects the corporates with the customers, increase the time to market, has the ability to introduce new products to fulfill customer needs while offering customers access to banking services anywhere, anytime with convenience. Internet banking has the ability to generate income, attract new customers to cross sell, enhance image, reduce customer attrition rate and combat competition.

1.5 Regulatory framework

Law cannot possibly be expected to keep pace with changes in technology. The recent debacle of virtual voyeurism has brought out, amongst other things, the inadequacy and vulnerability of the laws governing use of internet. Fixing liability, recording and reproducing evidence, ascertaining jurisdiction are problems which show little sign of easing. Concerns over security and misuse pertaining to e-banking activity have been mounting as more banks in India foray into electronic banking.

E-banking activities involve not just banks and their customer, but numerous third parties too. Information held by banks about their customers’, their transactions etc changes hands several times. It is impossible for banks to retaining information solely within their own computer networks, let alone a single jurisdiction is impossible. Risks pertaining leakage, tampering or blocking of data are sufficiently high to warrant adequate legal and technical protection. India has no law on data protection leave alone a law governing an area as specific as protection of data in electronic banking. Information security in e-banking presents two main areas of risk: preventing unauthorized transactions and maintaining integrity of customers’ transactions. Data protection falls in the latter category.

Data protection laws primarily aim to safeguard the interest of the individual whose data is handled and processed by others. ‘Interests’ are usually expressed in terms of privacy, autonomy and/or integrity. Data protection laws are ‘framework laws’ providing rather diffused general rules for such processing and making allowances for developing detailed norms as and when the need arises. Such legislation typically regulates all or most stages of the data protection cycle including registration, storage, retrieval, and dissemination of personal data. Data protection legislation of a large number of countries, such as Austria, Ireland, Japan, Luxembourg, Sweden and the UK cover only automated data processing practices.

The Indian Information Technology Act, 2000, basically a framework law, makes hacking a punishable offence under Section 66. Breach of information security is implicitly recognized as a penal offence in the form hacking. The ‘appropriate government’ (central/state) is empowered to declare any ‘computer’, ‘computer system’ or ‘computer network’ as a protected system. A ten year prison term and a
hefty fine await any person who secures access to the ‘secured computer system’ in contravention of the provisions of the law.

Despite the deterrence characterized by the penal provisions of the IT Act, 2000, a lacuna in the law is that organizations and entities can take action against those who breach data security procedure, but they are not obliged to implement data security measures to protect consumers and clients. The IT Act does not lay down any such duty upon banks. Contrastingly, in UK, failure to undertake identification of new customers properly can create an array of risks for the bank. Under the Data Protection Act, 1998 an erring bank may face an action for damages if it fails to “maintain adequate security precautions in respect of the data”. Essentially, a legal duty is thrust upon the banks, to use reasonable care and skill in disseminating information to persons who access the bank’s networks either on the internet or though an ATM card.

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 though ambiguity persists as regards liability of an internet service provider due to dearth of decided case law on the point.

The viability of a sectoral legislation on data protection in e-banking should be gauged. India can take cue from nations which have favored ad hoc enactment of sectoral laws over omnibus legislation.12

1.6 Benefits of e-banking

The Indian banking industry is gearing itself for anywhere/anytime banking which is making banking business distance – independent and seamless. E-Banking has the potential to transform the banking business as it offers such benefits which can never be obtained by traditional banking. Many benefits of e-banking allure customers to move towards the banks offering e-banking services.

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• Anywhere Banking – No matter wherever the customer is in the world, on-line banking is just a web-site away. Balance enquiry, request for services, issuing instructions etc. from anywhere in the world are possible.

• Anytime Banking – Managing funds in real time and most importantly, 24 hours a day, 7 days a week.

• Convenience – This is the primary benefit sought by customers and banks with an extensive branch office system and ATM network would have the opportunity to attract customers who are in convenience segment. Customer satisfaction increases when the customer has access to his account anytime anywhere. Convenience acts as a tremendous psychological benefit all the time.

• Cash/ Card free banking through PC banking – E-banking expands the domain of access to banking services.

• Brings down cost of banking to the customer over a period of time.

• Cash withdrawal from any branch/ATM.

• On-line purchase of goods and services including on-line payment for the same.

• Conservation of time – E-banking saves a lot of time involved in bank transactions.

• Accuracy – E-banking ensures accuracy of transactions. The teller sitting in branch office may run a mistake but electronic channel since includes a machinery will never do a mistake.

1.7 Drawbacks of e-banking13

• The biggest concern is of security and confidentiality, apart from the shifting customer loyalty due to multiple relationships and multiple accounts with banks and the ease at which a customer can change their banks.

• Transparency, disclosure requirements, anti-money laundering adherence to Know Your Customer (KYC) norms, privacy and outsourcing concern all banks around the world apart from the development of security standards.

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• Disadvantages include security, recent phishing attacks, all transactions not being possible through e-channels, slow adoption of e-banking, lack of human interface, loss of opportunity in potential business leads, huge capital requirement, disproportionate level of penetration and customer education.

• Trust of customers in an e-banking venture is an important concern. Many customers hesitate to deal with e-bank as they are not sure of the quality of products and services they will receive.

• There are various banking products like loans and mortgages, withdrawal of cash, etc., that requires to be delivered in physical form after proper authentication of the customer. These issues can drive the customer away from e-banking.

• The privacy of information on the customer’s preferences, credit card and bank account details, etc. These are mainly technological issues, but human factor is important both at the business and the customers’ end in building the trust in the system.

• Authentication of a deal, identification of a customer etc., are important technological and systems issues, which are a major source of concern for e-banking. Equally important are questions of repudiation of a deal, applicability of law, jurisdiction of tax laws etc.

• Accessibility of net in case of internet banking by the customers is an important issue. This is particularly applicable in India where awareness of internet is in its nascent stage.

• As the electronic channels may drive overall banking functions, banks have quickly realized that their current structure, functions and processes may not support internal development efforts.

• Banking sites can be difficult to navigate and it takes some time to read the tutorials in order to become comfortable with the virtual lobby.

1.8 Issues and challenges

The distinctive features of e-banking have given rise to some regulatory and supervisory issues. These issues can be broadly addressed under three broad
categories viz. legal and regulatory issues, security and technology issues, and supervisory and operational issues.

Legal issues cover the areas relating to the jurisdiction of law and validity of electronic contract. To decide on jurisdiction, the question arises whether to apply the law of the area from where the internet access was made or where the transaction has finally took place. Also, where the money has been generated and who should tax the money. Security of electronic banking transactions is one of the most important concerns for the regulators. Security issues include the adoption of internationally accepted state-of-the-art technology standards for access control, encryption/decryption (minimum key length etc.) firewalls, verification of digital signature, public key infrastructure etc. The RBI is equally concerned about the security policy for the Indian banking industry, security awareness and education.

The supervisory and operational issues include risk control measures, advance warning system, information technology audit and re-engine ring of operational procedures. The regulatory agencies would also be concerned whether the nature of products and services offered are within the regulatory framework and whether the transactions conceal money-laundering operations.

Reputational risk is the dilution of a bank’s image in the customer’s mind, which results in the withdrawal of funds and loss of customers. Main reasons for reputation risk are system deficiencies, lack of innovation in products, inadequate information provided to the customers about product and network failure, which denies the customer access to his/her account or failure to respond quickly to a customer’s problem, etc. Deployment of accurate technology, proper maintenance and periodical auditing of information systems are remedies for reputational risk.

Trust is a tremendously valuable asset, which can be leveraged on to address other shortcomings by public sector banks in India. Seamless integration of channels, embracing customer control and threats from new business models like person-to-person lending, emergence of cash, gold etc., are the areas that need to be paid attention. Finally, public and private sector banks should focus on delivery channels
which would dominate future use of channels by customers. Delivery channel integration would pose a challenge and would be the differentiating factor.\textsuperscript{14}

1.9 **History and growth of e-banking**

The first bank in India, though conservative, was established in 1786. From 1786 till today, the journey of Indian Banking System can be segregated into three distinct phases. They are as mentioned below:

- Early phase from 1786 to 1969 of Indian Banks
- Nationalisation of Indian Banks and up to 1991 prior to Indian banking sector Reforms.
- New phase of Indian Banking System with the advent of Indian Financial & Banking Sector Reforms after 1991.

**Phase – I**

The General Bank of India was set up in the year 1786. Next came Bank of Hindustan and Bengal Bank. The East India Company established Bank of Bengal (1809), Bank of Bombay (1840) and Bank of Madras (1843) as independent units and called it Presidency Banks. These three banks were amalgamated in 1920 and Imperial Bank of India was established which started as private shareholders banks, mostly European shareholders. In 1865 Allahabad Bank was established and first time exclusively by Indians, Punjab National Bank Ltd. was set up in 1894 with headquarters at Lahore. Between 1906 and 1913, Bank of India, Central Bank of India, Bank of Baroda, Canara Bank, Indian Bank, and Bank of Mysore were set up. Reserve Bank of India came in 1935.

During the first phase the growth was very slow and banks also experienced periodic failures between 1913 and 1948. There were approximately 1100 banks, mostly small. To streamline the functioning and activities of commercial banks, the Government of India came up with The Banking Companies Act, 1949 which was later changed to Banking Regulation Act 1949 as per amending Act of 1965 (Act No. 23 of 1965). Reserve Bank of India was vested with extensive powers for the supervision of banking in India as the Central Banking Authority. During those days public has

lesser confidence in the banks. As an aftermath deposit mobilisation was slow. Abreast of it the savings bank facility provided by the Postal department was comparatively safer. Moreover, funds were largely given to traders.

**Phase – II**

Government took major steps in this Indian Banking Sector Reform after independence. In 1955, it nationalised Imperial Bank of India with extensive banking facilities on a large scale especially in rural and semi-urban areas. It formed State Bank of India to act as the principal agent of RBI and to handle banking transactions of the Union and State Governments all over the country. Seven banks forming subsidiary of State Bank of India was nationalised in 1960 on 19th July, 1969, major process of nationalisation was carried out. It was the effort of the then Prime Minister of India, Mrs. Indira Gandhi. 14 major commercial banks in the country were nationalized. Second phase of nationalisation Indian Banking Sector Reform was carried out in 1980 with seven more banks. This step brought 80% of the banking segment in India under Government ownership. The following are the steps taken by the Government of India to Regulate Banking Institutions in the Country:

- 1949: Enactment of Banking Regulation Act.
- 1955: Nationalisation of State Bank of India.
- 1959: Nationalisation of SBI subsidiaries.
- 1961: Insurance cover extended to deposits.
- 1971: Creation of credit guarantee corporation.
- 1975: Creation of regional rural banks.
- 1980: Nationalisation of seven banks with deposits over 200 crore.

After the nationalisation of banks, the branches of the public sector bank India rose to approximately 800% in deposits and advances took a huge jump by 11,000%. Banking in the sunshine of Government ownership gave the public implicit faith and immense confidence about the sustainability of these institutions.
Phase – III

This phase features many innovative products and facilities in the banking sector in its reforms measure. In 1991, under the chairmanship of M Narasimham, a committee was set up by his name which worked for the liberalization of banking practices. The country is flooded with foreign banks and their ATM stations. Efforts are being put to give a satisfactory service to customers. Phone banking and net banking is introduced. The entire system became more convenient and swift. Time is given more importance than money. The tremendous advances in technology and the aggressive infusion of information technology had brought in a paradigm shift in banking operations. For the banks, technology has emerged as a strategic resource for achieving higher efficiency, control of operations, productivity and profitability. For customers, it is the realization of their anywhere, anytime, anyway banking dream. This has prompted the banks to embrace technology to meet the increasing customer expectation and face the tough competition. For this purpose banking has shifted to e-banking. Now, everything is being provided to customers electronically.  

Present Status

The branch and ATM network of the public and private sector banks included in the research is shown below:

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<th>BANKS</th>
<th>BRANCH NETWORK</th>
<th>ATM NETWORK</th>
<th>ONLINE BRANCHES</th>
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Source: Websites of all the banks mentioned above.

Among the public sector banks only OBC (Oriental Bank of Commerce) has 100% online branches. Other public sector banks are in the process of going online. The private sector banks have come into the scene with online banking only. They have an edge over public sector banks in this regard.

1.10 Summary

E-banking is changing the banking industry and is having the major effect on banking relationships. E-banking is increasingly becoming a ‘need to have’ than a ‘nice to have’ service. The Indian banking industry although initiated the introduction of modern technology in the early 1980s, is yet to go a long way to introduce e-banking at the grass root level. This is true inspite of earnest efforts of RBI. Still there are very few banks in India that have introduced internet banking in their operations. This may be due to various factors such as illiteracy in India, reluctant to accept changes by the existing staff of banks and slow growth of technology in India. But it is expected that at least by 2010, all banks in India will be fully computerized and networked. The banks will be able to offer an increased range of services online which will be bank’s response to the customers needs. On the whole, e-banking increases operational efficiencies, reduces costs, besides giving a platform for offering value-added services to the customer, thereby fulfilling all the essential prerequisites for a flourishing banking industry.  