CHAPTER – I

Introduction

1.1 Introduction

Banks are the most significant players in the Indian financial market because they are the biggest purveyors of credit and attract most of the savings from the population. Banking plays very important role in the economic development of all the nations of the world because a developed banking system holds the key as well as serves as a barometer of economic health of a country. The banking sector is core competency of the world economy which influences the strength of every nation’s economy in the world economy. The overall development and growth of any economy depends more on the sound services sector. The role of service sector in Indian economic development has increased by several notches from the fact that service sector which was contributing only 20 percent during the independence time, now it is contributing over 50 pc of GDP India. Indian economy is the fastest growing major economy in the world with GDP growth rate of 8.4 percent at the end of third quarter of 2007-08. Hence, Indian banking industry is also growing at the cost of new competitive changes after liberalization, privatization and globalization. Now, banking sector is performing well to make every citizen free from poverty, ignorance, finance problems which had plagued millions of our people for centuries.

Further, the performance of banks is completely linked with the growth of economy and response to the requirements of changing environment to make our economy more competitive. Because with the globalization trends world over, it is difficult for any nation, big or small, developed or developing, to remain isolated from what is happening around and such isolation is nearly impossible for India also. In response to these dynamic changes, India has also adopted liberalization, privatization and globalization (LPG) policy under banking sector reforms in 1991 and hence resulted in improved performance and continuous developments in every sphere of the banking business. Indian banking industry has undergone radical changes due to liberalization and globalization measures (Jain A.K. and Jain P., 2006) and transformation is taking place amid broader changes in banking sector and the banks are benefiting from increasing globalization of financial services (Parry R.T., 2000). Indian
banking has succeeded to gain improvement in many aspects of its business but still information technology is a major challenge to adopt in totality.

1.2 Indian Banking in Global Perspective
The financial crises caused shrink in the world economy by 1.1 pc in 2009 however it is projected to recover by 3.1 pc in the year 2010. The World Economic Outlook of IMF, October 2009 has projected real GDP of United States, United Kingdom, Euro Area, Japan and advanced economies to shrink by more than 2 pc in 2009 where Japan contributes the maximum i.e. 5.4 pc decline. But, India, China and developing economies demonstrate admirable expansion with utmost contribution of China (8.5 pc) however, India is also growing at 5.4 pc rate. Even though all the countries have succeeded to recover in 2010 where again China cultivates at the maximum of 9 pc rate followed by India with 6.4 pc of GDP growth. Overall expansion in world economy is pulled by the strong performance of Asian economies where India also proves its position with utmost contribution from financial sector which contributes more than 50 pc of GDP.

As a result of financial crisis, the banking sector has also undergone dramatic changes which is perceived to be uncertain in future also especially the United States banking. The Report on Trend and Progress of Banking in India, 2008-09 recognizes that at the end of March, 2008 developed countries projected to have below 1 pc Return on Assets (ROA) which is just 0.3 pc in case of United States and Japan while it is above 1 pc in developing countries where Indonesia, Brazil and Turkey confirm above 2 pc ROA. India also has 1 pc ROA at the end of 2008 which is matured from 0.8 pc in 2002. Despite the financial crisis Indian economy is mounting considerably which is mainly because of outstanding contribution of financial sector. But due to the significant changes in global economy, Indian financial sector is also undergoing transformation a major challenge ahead and structural development is a cause of concern. The banking sector can defeat these confronts by developing the technically sound structure.

1.3 Structure of Indian Banking Industry
The banking system plays very important role to develop an economy by enabling it to be competitive and strong enough to face any financial problem and hence forms the core of money market in an advance country. The banking structure of every economy is going to change with the changing environment. In Indian context, there were two phases of nationalization, introduction of RRBs, entry of private sector banks and foreign banks and
now eBanking are some important and major changes that affect the structure as well as functioning of the banks from time to time. Indian banking too has proved many changes in response to the world economy where liberalization, privatization, technology introduction i.e. computerization are the major effects of globalization. Computerization of banking has received high importance in the recent years. Indian banking industry today is in the midst of an IT revolution. A combination of regulatory and competitive forces has led to increasing importance of total banking automation in the Indian banking industry.

Hence there is a paradigm shift in banking in India as they started to realize the need to be ‘Customer focused’ which is imperative for survival and growth. Many aspects of information technology ATMs, tele banking, mobile banking, internet banking along with consumer durable loans, home loans, insurance, demat services etc have started taking place, especially after the entry of private and foreign banks which had advantage of the latest technology. That’s why banking has become more competitive in today’s world market and for our public sector banks, it’s the question of survival.

In India though the money market is still characterized by the existence of both the organized and the unorganized segments, institutions in the organized money market have grown significantly and are playing an increasingly important role. Amongst the institutions in the organized sector of the money market, commercial banks and commercial co-operative banks have been in existence for the past several decades. The Regional Rural Banks (RRBs) came into existence since the middle of seventies. Thus with the phenomenal geographical expansion of the commercial banks and the setting up of the RRBs during the recent past, the organized sector of money market has penetrated into the rural areas as well. Besides the aforesaid institutions which mainly served sources of short term credit to industry, trade, commerce and agriculture, a variety of specialized financial institutions have been set up in the country to cater to the specific needs of industry, agriculture and foreign trade. On the basis of Reserve Bank of India Act, 1934 banks are of two types:

1. Schedules Banks
2. Non-Scheduled Banks

Scheduled Commercial Banks: According to RBI Act 1934, a scheduled bank is that bank which has been included in the second schedule of the Reserve Bank of India. To be eligible for this concession a bank must satisfy the following three conditions:-

- It must have a paid up capital and reserves of an aggregate value of at least Rs. 5 lakhs.
• It must satisfy the RBI that its affairs are not conducted in a manner detrimental to the interests of its depositors.
• It must be a corporation and not a partnership or a single owner firm.

RBI gives these banks number of facilities like credit, rediscount hundi es etc. These banks have to deposit fixed proportion of their demand and time deposits with RBI.

Non-Scheduled Commercial Banks: Non-scheduled commercial banks are the banks having total capital less than Rs.5 lakhs. These banks are not included in the second schedule of the RBI Act, 1934. RBI has no specific control upon these banks. But they have to send details of their business to the RBI every month. These banks are falling gradually in numbers, at present only 3 such banks are working in India.

1.3.1 Commercial Banks

Among the banking institutions in the organized sector, the commercial banks are the oldest institutions having a wide network of branches, commanding utmost public confidence and having the loin’s share in the total banking operations. Initially they were established as corporate bodies with share-holdings by private individuals but subsequently there has been a drift towards state ownership and control. Today 27 banks constitute the strong Public Sector Banks in Indian Commercial Banking (IDBI also included from 2005-06). Up to late sixties, they were mainly engaged in financing organized trade, commerce and industry but since then they are actively participating in financing, agriculture, small business and small borrowers also. The commercial banks operating in India fall under a number of sub-categories on the basis of ownership and control of management as is evident from the chart 1.1

1.3.1.1 Public Sector Banks

Public sector in Indian banking reached its present position in three stages. At the first stage, the then existing Imperial Bank of India was converted into the SBI in 1955 followed by the establishment of its seven subsidiary banks. Secondly, the nationalization of 14 major commercial banks on July19, 1969 was completed and thirdly, 6 more commercial banks were nationalized on April 15, 1980. Bank of India was later on merged with PNB and Global Trust Bank with that of OBC Bank. Now IDBI Ltd is included in public sector banks in 2005 hence this sector constitute 27 banks in all.
CHART 1.1
Indian Banking Structure (As on March 31st 2009)

Source: Report on Trend and Progress of Banking in India, 2008-09
1.3.1.2 Difference between State Bank of India and Nationalized Banks

- Though all the public sector banks are corporate bodies, but the statutes under which they were established are different. The SBI was established under the SBI Act, 1955, the subsidiary banks under the SBI Act, 1959 and the nationalized banks under the Banks Companies (Acquisition and Transfer of Undertakings) Acts of 1970 and 1980.

- Initially, cent percent ownership of the 19 nationalized banks vested in the Govt. of India where as the SBI was owned, to a large extent, by the RBI there was small private ownership in the share capital of the State Bank. The subsidiary banks are owned by the SBI and during recent years SBI and some of the nationalized banks- Oriental Bank of Commerce, Dena Bank, Bank of India has enlarged their capital by issuing shares to the public.

- The SBI acts as an agent of the RBI. According to section 45 of the RBI Act 1934, “the RBI shall appoint the State Bank as its sole agent at all places in India where it does not have an office or branch of its Banking Department and there is a branch of the state bank or branch of a subsidiary bank.” But the nationalized banks have not been conferred with this privilege of acting as agent of the RBI. Since the enforcement of the banking laws (amendment) Act, 1983, the RBI has been empowered to appoint any nationalized to act as its agent at all places in India where it has branch for paying, receiving, collecting, and remitting money, bullion and securities on behalf of any govt. in India and undertaking transactions and other business entrusted by the RBI from time to time.

1.3.1.3 Private Sector Banks

Private Sector Banks are those Banks which are owned by the private sector. The private sector played a strategic role in the growth of joint sector banks in India. In 1951, there were in all 556 private sector banks, of which 474 were non-scheduled and 92 were scheduled. But there was not a single private sector bank at that time. Since then, the number of Public Sector Banks is increasing while those of Private Sector Banks are decreasing. private sector banks include Indian and Foreign banks:

Indian Private Sector Banks

There are two categories of Indian private sector banks as old and new private sector banks. Old private sector banks are 15 at present but from performance point of view they are not sound as showing deterioration in their profitability year after year.
In accordance with the financial sector reforms adopted in 1991 New Private Sector Banks have been permitted to be set up. According to Narasimham Committee New Private Sector Banks should be allowed to be established in India. These New Private Sector Banks will complement the overall Financial Sector Reforms. They will provide a financially viable technologically up to date, customer friendly and efficiently competitive financial intermediation. New private sector banks are those entered in Indian banking industry after liberalization policy of 1991 and now they are 7 in number. In October 2004, Global Trust Bank was merged in Oriental Bank of Commerce as it has been proved to be failure of paying it’s any of the liabilities. Again in 2004-05, Bank of Punjab and Centurion Bank were merged under new name Centurion Bank of Punjab to enjoy the higher market share and to compete in the global market and on 23rd May, 2008, Centurion Bank of Punjab merged with HDFC Bank creating the largest private sector in the country. UTI Bank has changed its name from ‘UTI Bank Ltd.’ To ‘Axis Bank Ltd.’ with effect from 30th July, 2007. Kotak Mahindra Bank and Yes Bank are two new banks entered in new private sector banks group and they all are performing well as competing with the foreign banks working in India.

Foreign Banks
These banks are those incorporated in a foreign country and set up their branches in India. Their principal function is to make credit available for the exports and imports of the country and deal with foreign exchange having their head office in their home country. In India, 32 foreign banks have been established and providing healthy competition to our banks with the use of latest technology. Hence, the liberalization as well as globalization has changed the ways of banking business and the banks are facing fierce competition to stay in foreign markets. They are facing number of challenges to improve their performance on one hand and to serve the customers in new ways with greater efficiency and effectiveness on the other hand. Now days, profitability and social objectives are the two opposing considerations, which a bank is now required to keep in mind. Although, profits today are no longer the be-all and end-all of banking business; nevertheless any concern for healthy growth, long-term viability and lasting contribution of banks must accord due emphasis on profitability.
1.4 Phases of Transformation

1.4.1 Pre-Nationalization of Banks (Before 1969)

The earliest Indian Bank was the Bank of Hindustan set up in 1770. Then in the 19th century the Presidency Banks (Bank of Calcutta in 1806, Bank of Bombay in 1840, and Bank of Madras in 1843) were set up under a charter. Private Banks were allowed in 1900. In 1921 these banks were amalgamated to form the Imperial Bank of India. In 1935 the Reserve Bank of India (RBI) was constituted as the Apex Bank. Up to 1949, it was a private ownership bank, and then with the passage of the Banking Regulations Act 1949, it came under government control. State Bank of India came into existence and became the Bank of the government of India in 1955 with RBI taking control of the Imperial Bank of India. State Bank of India, in turn took over the shares in the private banks floated in the erstwhile princely states.

1.4.2 Nationalization of Banks (1969-1990)

The first phase of nationalization of the banking sector took root in 1949 and culminated in the nationalization of fourteen banks in the year 1969. Before the nationalization of banks, they all were profit maximization oriented but the social aspect was ignored as they served the rich people while the purposes of poor people were not served properly. And this was the main reason to nationalize our banks so that all the people can be served without any discrimination with the main objective of social banking.

The independence to the first nationalization period was marked by the consolidation of the banking sector. From 566 banks in 1951, the number came down to 86 in 1971, as weaker banks were emerged with the healthier ones. The Department of Banking was set up under the Ministry of Finance. In 1974, priority sector norms were introduced and commercial banks were given five years to meet the norm of 33 or 1/3 percent of credit. The lead bank scheme was formulated for making banks responsible for the credit need to specific districts. The twin structure of rural branches of commercial banks and co-operative banks however was not sufficient to meet the needs of the rural economy and hence Regional Rural Banks were promoted in 1975. For commercial banks also the accent was on branch expansion into the semi-urban and more importantly the rural areas.

Priority Sector target was raised to 40 pc for the commercial banks and the focus of lending changed to rural and agriculture lending with social banking becoming the norm in place of profitable commercial banking. Then in 1980, six more banks were brought into the nationalization fold. The measure bore fruit with rural branches increasing to more than 45 pc
of the total branch network in 1979 from 22.2 pc in 1969. The priority sector lending increased to 30.6 pc from earlier 15 pc during the same period.

1.4.3 Banking Sector Reforms (1991-2000)

In 1991 the liberalization wave did not leave the banking sector unchanged. Unprofitable branch expansion, non-performing priority sector lending and loan melas had left large gaps in the banks’ balance sheets. High regulatory requirements had also taken their toll and most banks were completely in the red. Capital was infused operating restrictions were relaxed, competition was promoted, but most importantly the profit motive in banking system was brought in. Responding to the crisis of late 1980s, and to cope up with the above discussed problems in tune with this liberalization wave seeping across the world, a programme of liberalization, privatization and globalization was initiated in July 1991 with the main motive of improvement in productivity, efficiency and competitiveness. In this context, the government decided to review the banking policy and first Narasimham Committee was organized in 1991 which worked out the road map of banking sector reforms. The successful implementation of its various recommendations has given a new dynamism to the banking sector since 1991.

Again with the gradual upgradation of skills, technologies with the high level of globalization, government appointed second Narasimham Committee to further provide banking reforms in the light of changing environment. Then this committee worked out some new reforms in 1998 for the development of Indian banking. The current structure of the banking system which has succeeded is a product of this external and internal change. For well over two decades, after the nationalization of 14 large banks in 1969, no new banks had been allowed to be set up in the private sector even though there has been and is still no legal barrier on the entry of new private sector banks. Progressively over this period, the public sector banks have expanded their branch network considerable and catered to the socio-economic needs of large masses of the population, especially the weaker sections and those in the rural areas. While recognizing the importance and role of public sector banks, there was increasing recognition of the need to introduce greater competition which can lead to higher productivity and efficiency of the banking system. Therefore a stage has now reached when New Private Sector Banks are allowed to be set up with a view to induce competition and market oriented system.
1.4.4 Computerization of Banks

Through the 1991 banking sector reforms, foreign and private banks were allowed to enter freely in Indian banking industry with the main objectives of higher profitability and fierce competition. Deregulation allowed banks to flourish their business and enter into new markets with new technologies involving both individual and institutional customer interaction (DeYoung, Hunter and Udell, 2004) and computerization was the first step to respond technology advancements. Banking which forms a core industry of any economy should be growth oriented. Computerization is a positive step to bank growth. With the aid of computers, the bank work can be done faster. Not only the present work load can be reduced to a great extent but also the bank can expand its working area with the same manpower.

Computerization in banking sector/financial sector dates back to 1963, when Life Insurance Corporation introduced computers for maintenance and processing of insurance policies. Later on Reserve Bank of India and State Bank of India installed computer systems for processing reconciliation of inter branch transactions, processing statistical data and for research purposes, while the rest of the work was left to be handled easily with the help of calculators, accounting machines and cash registers. A number of working groups were appointed in concern to the computerization of banking sector in 1975, 1981, 1988 etc. There was stiff resistance from bank employees’ unions to implement recommendations of these
working groups. At last settlement was made in to permit the banks to use computers for their easy work and database management.

Another landmark in history of computerization was the setting up of Rangarajan Committee on computerization and mechanization of banking service of 1983. The committee headed by Dr. C. Rangarajan, deputy governor of Reserve Bank of India, was to look into modalities of drawing a phased plan of mechanization in banks in view of further expansion. It recommended a three level mechanization structure- branch, regional and head office level.

Further in 1988, Reserve Bank of India appointed the second Rangarajan Committee to review the progress made in computerization in view of growing volumes of computer technology and problems associated with implementation of the recommendations of the first committee. The committee submitted its report in 1989 and recommended a thrust of computerization in banks for the next five years by fully computerizing the branches and use of bank net for several inter and intra bank applications.

In October 1993, settlement on mechanization and computerization was signed between 58 banks under IBA and workmen represented by all India bank employees association. According to the agreement banks were free to computerize some or all operations in branches, administrative offices communication and networking, automated teller machines, notes and cash counting machines, signature verification equipment and pass book printers, demand draft printers and terminals at customer location and equinity terminals. Since then the process of computerization and mechanization has picked up momentum. By the end of 1996, it was estimated that around 5,000 branches would be computerized. Out of these, 750 will be fully computerized with rest being semi-computerized (Report on Trend and Progress 2004-05). And at the end of March 2009, our public sector banks have 95 pc of their branches as fully computerized.

1.4.5 Current Stage of Electronic Banking (Post 2000)

Current stage is of IT advancement because technology continues to make a dramatic and profound impact in service industry and radically shapes how services are delivered (Bitner et al., 2000). The world has become a global village where it has brought a revolution in the banking industry. The banks appear to be on fast track for IT based products and services. Deregulation and Liberalization in the financial sector have stimulated financial innovations. Breath taking developments in the technology of telecommunications and electronic data processing have further accelerated these changes. Technology has become the fuel for rapid
change. IT is no longer considered as mere transaction processing or confined to management information system. In its wider definition, it implies the integration of information system with communication technology and of innovative applications to product manufacturing, design and control.

One sector that has undergone fundamental changes as a consequence of the application of IT is banking. Information technology developments in the banking sector have sped up communication and transactions for clients (Booz et al, 1997). The new technology has radically altered the traditional ways of doing banking business. Increasingly, the customers in retail sector are doing business with their banks from the comfortable confines of their homes or offices. Customers can view the accounts, get account statements, transfer funds, purchase drafts by just making a few key punches. Availability of ATMs and plastic cards to large extent avoid customers going to branch premises. EDI is another development that has made its impact felt in the banking industry. In fact in banking industry, IT is finding its use in five key areas.

- Convenience in product delivery access
- Managing productivity access,
- Product design,
- Adapting to market and customer needs and,
- Access to customer market.

Electronic Funds transfer and delivery versus payment system have been introduced. Bank customers are becoming very demanding and it is the extensive use of technology that will enable banks to satisfy adequately the requirement of customers. With the coming into the effort of the IT Act on October 17, 2000, India had reached the significant milestone on the information super highway. The Act provide legal sanctity. To electronic commerce and lays down penalties for hacking and other crime. India will become the 12th country in the world to have an IT bill in place for recognizing digital signature and facilitating e-commerce.

IT is also helping in cutting costs by providing cheaper ways of delivering products to customers. Banks are moving into the primary services of helping their customers buy things like automobiles, real estates, in all these areas, IT has been enormous help. The younger age group customers are much more amenable to using electronic delivery channels rather than visiting physical branches. Banks have been cautious in launching new services using IT. Banking in India is poised to enter yet another phase of reforms once the door opens further to
foreign players in 2009 which requires further improvement in technology management, human resource management and the ability to foresee rapid changes in the financial landscape and adopt quickly (Madhavankutty G., 2007).

1.5 Transformation in Indian Banks

An economy of a country can’t be successful till it adapts the changing environment to line up with the changing environment, every country makes its own economic policy and India is not an exception as time to time changes in the world economy affected the every sector of Indian economy too. A successful organization or individual is characterized by its common ability to effectively manage and exploit the changing situations. By being innovative, both in thought and action, they show to gain competitive advantage. Since 1960, many changes have occurred in the financial sector of India where banking sector is a part and parcel of the financial sector. Before that, banking sector was facing many crises and was suffering problems to face competition. To meet the changes and make them competitive, banking sector was transformed in many phases start from nationalization of banks and till not end with current phase of automation of services.

Before nationalization i.e. till 1969, the control of banks was in the private hands and much importance was given to profitability, work was manual but interests of poor people were ignored due to much political interference. For this 14 banks were nationalized in 1969 with the government control with the main motive of social banking i.e. to serve the poor people with preference. After that another 6 banks were nationalized in 1980 but still there was not much computerization of the banking business. But after 1985, their performance started to be deteriorating and much regulatory environment has lead them to be ignorant towards social interest. There were number of crises like:

- low profitability
- some branches showing losses continuously year after year
- increasing non performing assets
- poor customer services etc.

Government has appointed a committee named as Narasimham Committee-I in 1991 to evaluate the performance of banks and to recommend some measures to improve their performance. The committee recommended a bundle of measures especially:
- reduction in Statutory Liquidity Ratio and Cash Reserve Ratio
- entry of new private sector banks and foreign banks
- deregulation of interest rates etc.

With the implementation of these recommendations, banking sector has improved its efficiency but with the time span of 8 years, again government of India felt the need of some dozes of further reforms because the banking sector had again down from the directed path and not shown their expected performance. Then second Narasimham Committee was appointed by the government in 1998 to further improve the performance of the banks. The committee recommended some fresh measures with special reference to:
  - merger and acquisition of banks,
  - reduction of NPAs and
  - full computerization of maximum branches of all Indian banks.

After that IT Act was implemented on October 17, 2000 with the motive to provide legal framework for e-commerce. From 1998 till date, globalization has gained momentum share particularly on account of the expected opening up of financial services under World Trade Organization. Four trends have changed the banking sector world over:
  - consolidation of players through merger and acquisition
  - globalization of operations
  - development of new technology
  - universalization of banking

During this period, banking has come under transformation phase in many aspects. It is providing innovative products/services, entry in insurance sector, and stock market, maximum use of IT, mobile e-delivery channels has set into next phase of ebanking. This whole process is transformation process where all known tenors of banking undergo metamorphosis. In order to meet the global challenges of new economic environment and in response to the demanding situations, banks have adopted a variety of measures to make them competitive and adaptable to this changing environment. The term transformation in Indian banking relates to shift of Indian banks from intermediary stage of social banking to the newly conceived technology based, customer-centric and competitive banking. The current transformation process has many aspects including:
  - capital restructuring
  - financial re-engineering
There is certainly a paradigm shift in organizational structure/capital structure, business re-engineering, human resource development, work culture, system and procedures, ethos etc. But the process is still slow due to high establishment cost, resistance to change etc. It will be clearer with the help of Chart 1.3 that highlights the phases of change in each parameter that has occurred due to transformation in the banks.

### Chart 1.3

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<td>(x) Resist to accept cultural changes</td>
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<td>(xi) No knowledge management</td>
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To successfully compete in today’s world market place, there is an urgent need for restructuring each and every aspect of the banking business from organizational structuring to customer services into new structure that will be flexible and capable for responding quickly to the customer needs and this is the only way our banks are responding to the world transformation through these parameters. Although these all parameters have equal importance in transforming the banking business but technology innovations followed by revolutionary improvement in communication network are more responsible for market changes in the way banks reengineer their business models to offer cutting edge services to their customers. IT is playing a crucial role in transforming Indian banking system as IT itself becomes the major cause of transformation which affect all other related parameters too and on the other side, it is IT that makes the banks competitive and able to manage this transformation. Hence, IT is a driver for changes in banking system as it has positive impact on banks’ efficiency as shown in Chart 1.4, where it shows that IT is a catalyst of transformation through all its parameters.

![Chart 1.4](chart.png)

<table>
<thead>
<tr>
<th>Parameters of Transformation</th>
<th>Process</th>
<th>Implications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structure</td>
<td>IT as the catalyst of Transformation</td>
<td>- Improved and efficient structure</td>
</tr>
<tr>
<td>Business Re-engineering</td>
<td></td>
<td>- Improved vision for business</td>
</tr>
<tr>
<td>Human Resource development</td>
<td></td>
<td>- Increased productivity, profitability and efficiency</td>
</tr>
<tr>
<td>Work Culture</td>
<td></td>
<td>- Innovations are taking place</td>
</tr>
<tr>
<td>Information Technology</td>
<td></td>
<td>- International outlook</td>
</tr>
<tr>
<td>System, Process &amp; Procedures</td>
<td></td>
<td>- Inspire employees</td>
</tr>
<tr>
<td>Ethos/Philosophy</td>
<td></td>
<td>- More ethical work culture</td>
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<tr>
<td></td>
<td></td>
<td>- Vision for global economy</td>
</tr>
</tbody>
</table>

There are some challenges too for managing transformation through IT listed in Chart 1.5. In India, communication networks are still not developed properly, infrastructure cost is high and mainly opposition from trade unions of public sector banks are some major bottlenecks that are crucial to solve for Indian banking. Now days our banking is shifting towards core banking system (CBS), where again a problem of poor server facilities, more dependence on e-system reduces our personnel efficiency. Public and old private sector banks are slow in imbibing technology in their operations, whereas new private and foreign banks are early adopters of the technology and increasing the competition (Chopra V.K., 2006). One of the major challenges for not adopting technology is security because it is the biggest obstacle of
the acceptance of online banking. Banks will likely lose their competitiveness if they delay in offering customer services electronically because it is impossible to perceive any bank to deliver products/services without e-channels in the coming future.

Facts reveal that although public sector banks have major contribution in Indian financial system but still remained laggard in the race of adopting new latest technology, a main reason identified for it is that private sector banks spend almost 4-5 pc of its revenue on IT, foreign banks spend 9 pc whereas public sector banks spend only 0.5 pc share of their revenue on IT and very few public sector banks like SBI (5000 ATMs), Bank of India, Bank of Baroda, Punjab National Bank etc. are here that are reorienting their strategies to become more focused (Kumar and Walia, 2006).

Chart 1.5
Effects of Transformation

<table>
<thead>
<tr>
<th>Contents of Transformation</th>
<th>Effective Parameters</th>
<th>Challenges to Manage Transformation with IT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structure</td>
<td></td>
<td>- Heavy initial cost</td>
</tr>
<tr>
<td>Business Re-engineering</td>
<td>- Productivity</td>
<td>- Resistance to change by senior staff/unions</td>
</tr>
<tr>
<td>Human Resource development</td>
<td>- Profitability</td>
<td>- More interference by govt.</td>
</tr>
<tr>
<td>Work Culture</td>
<td>- Customer Satisfaction</td>
<td>- Inadequate infrastructure</td>
</tr>
<tr>
<td>Information Technology</td>
<td>- Expectations</td>
<td>- Less innovative activities and new products and services</td>
</tr>
<tr>
<td>System, Process and Procedures</td>
<td>- Cost Differences</td>
<td>- Increasing NPAs due to more priority sector lending with political interference</td>
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<tr>
<td>Ethos/Philosophy</td>
<td>- Investment Management</td>
<td>- Less knowledge of competition i.e. no competitive strategy</td>
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<td></td>
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<td>- No emphasis on public relations</td>
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<td></td>
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<td>- Lack of technology (adoption and application)</td>
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<td>- Vast branch network</td>
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<td>- Management of Across border changes- cross-cultural differences and need for continuous realignment</td>
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<td>due to volatile changes in the international operating environment.</td>
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<td>- Insecurity/hacking of transactions etc.</td>
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1.6 The ebanking

Bank branches alone are no longer enough to offer services to meet the needs of today’s high demanding and challenging customers (Bradley, L et al, 2003). The most recent deliverance channel to be introduced is electronic or online banking (Daniel, E. 1999). Electronic or online banking is the latest delivery channel to be presented by the retail banks and there is large customer acceptance rate which means delivery of banking services to customers using
electronic technology either at their office or home. The ebanking offers enormous opportunities in every sphere of business as the competitive advantage, member/client retention, increased revenues and reduced costs (Esser, 1999). The Woolwich Bank case study conducted by Shah and Siddiqui (2006) reveals that understanding clients, organisational flexibility, availability of resources, systems security, established brand name, having multiple integrated channels, e-channel specific marketing, systems integration, systematic change management, support from top management, and good client services are the factors critical to success in ebanking.

In ebanking system, banks are expanding their customer base with the help of multiple e-delivery channels like ATMs, Credit/Debit/Smart Cards, Internet banking, Mobile banking, Tele banking, EFTs etc. E-banking is offered by many banking institutions due to pressures from global competitions hence, if delay their actions in offering transactions based services on the internet will lose competitiveness. To be successful, banks have to drive ebanking instead of being pushed into it by others (Yan and Paradi, 1998).

The customers can do their banking not only when they want to do but also from the convenience, comfort, privacy and security of their homes by using internet or other networks, television, telephone/modems. The main motive to use these e-channels is to:

1. handle a greatly expanded business
2. reduce cost of handling various transactions
3. liberate the banks from the traditional constraints on time and place
4. introduce innovative products/services

With this motive, banks are eager to use IT in every dealing hand. These electronic services may be categorized as follows with the detailed information:

1.6.1 ATMs

Development of Automated Teller Machines (ATMs), which permit customers to make transactions by using electronic technology, have started since 1988 when in India, first time Bank of India introduced ATM in Bombay followed by Vijaya Bank at Delhi in 1989 and now almost all the banks have introduced either their own ATMs or shared with other banks to balance their cost of establishment. ATM is the most popular way of banking that serves the customers for 24 hours a day, 7 days in a week. It is convenient and cheaper technology and made the customer visits to a branch less necessary (Hanson and Kalyanam, 2007).
Some banks can’t establish their own ATMs at some places due to lack of funds or other problem, and then they prefer ATM sharing system as this system provides the first real opportunity to serve the customers of more than one bank at the same ATM. ATM sharing in India across banks started with SWADHAN – shared payment network system in Mumbai. ATM provides handsome facilities to the customers like cash withdrawals, make deposits, check balances/details of accounts, mini statements, instructions for bill payment, order a new cheque book, ticket booking (reservation) etc. Besides these, now ATMs can arrange the buying and selling of stocks and advice customers on different savings and investment schemes. An ATM could handle as many 5000 cash transactions without needing replenishment of notes or journal paper.

Benefits to Customers

• ability to draw cash outside normal banking hours for 24 hours a day and 7 days a week
• cheaper as issued free of charges and quicker than using the normal cashier services
• provide various facilities like deposits, ordering new cheque book, balance enquiry etc.
• all customers having bank account with certain limit can apply for this facility
• can get cash anywhere, anytime in the world where there ATM of concerned bank are installed
• provide security as only the card holder knows the PIN
• in case of succession i.e. theft or otherwise (incorrect PIN) the ATM will retain the card

Benefits to Banks

• cost saving as banks incur only Rs.15 per transaction through ATM but Rs.50 if same is made manually
• through this service, banks are more likely to retain existing customers and attract non-bank customers
• more opportunities to earn more from new activities and with increased number of transactions
Some time it is harmful where someone else knows the PIN and there may be technical faults but even then ATMs are the most preferred way of banking today. Now government of India has made banking through shared ATMs free of cost for limited number of transactions for the customers. Indian banking has established total 43,651 ATMs at the end of March, 2009 and these are 67 pc of total branches (Report on Trend and Progress of Banking in India 2008-09).

1.6.2 Plastic Cards

In recent years, plastic cards like debit/credit/smart cards have gained greater acceptance and momentum as a medium of financial transactions. Credit cards provide cash free and anywhere anytime shopping to the customers but with fixed limits prescribed by the banks. Debit card, unlike post paid credit card, is a prepaid card with some stored value. At the end of March, 2009, volume of credit card transactions is 2,59,561 thousands and increases by 13.7 pc as compared to last financial year (Report on Trend and Progress of Banking in India, 2008-09). Issuance of cards is increasing at excellent rate of growth. ICICI in India is the largest cards issuer with customer base of above 3 millions (Ahuja, Gwall and Singh, 2006). Now days these plastic cards are becoming popular by serving the many multi purposes of the customers like provide e-money to purchase goods at any outset which accept this payment system, facilitate to draw cash from member banks, facilitate to buy air tickets etc., settle accounts with restaurants, pay hotel and other bills etc.

Benefits to Customers

• Status symbol
• Enable the cardholder to avail soft credit and making him more mobile without the risk of carrying cash/cheques for shopping
• Save them from extra spending, just to the fixed limits provided by the banks
• Enable the dealers to increase their sales by sharing the goodwill of card issuing banks and by enjoying guarantee of prompt payments.
• Enable the dealers for export promotion activities

Benefits to Banks

• Earn commissions from the dealers as the turnover through its cards
• Earn interest on credit offered to the customers
• Improved customer services
• Publicizes its image and earn goodwill
• Get new customers
• Mobilizes more deposits even from dealers and get resources from foreign exchange earnings when bank issues internationally valid cards.
• Never face a default because the amount spent is debited immediately from the customers’ account.

1.6.3 Electronic Funds Transfer (EFT)
EFT is another e-banking product facilitating transfer of funds from any branch of a bank to any other branch of any bank in the shorter time. Before EFTs, inter-city transfer of money for the customers was made through demand drafts, mail transfers and telegraphic transfers. Due to some limitations imposed on each of these modes, RBI introduces this EFT system on February 7th, 1996 to the speedy transfer of funds from the banks account of one customer to the bank account of other customers. The sender and the receiver of funds may be located in different cities and even bank with different banks but funds transfer within same city is also permitted. At present, this system is available only in major cities in India where public sector banks are the participating banks. Still, the transactions are continuously increasing at outstanding rate and reached to 32,161 thousands transactions at the end of March, 2009, increased at 141.5 pc in one year (Report on Trend and Progress of Banking in India 2008-09).

Benefits to Customers
• Quicker than to visit branches for funds transfer as it transferred funds just in 24 hours.
• More safe as compared to frauds through paper work.
• Accurately transfer the funds, no chance of any fraud and theft as funds are directly transfer from one account to another account, no need of any cash.
• Save time as customers need not to visit branches.

Benefits to Banks
• Reduce paper work
• Reduce over burden of appointing a special person to go to transfer funds from one place to other
• Cost saving as funds are transferred electronically just at the click on mouse
1.6.3.1 Special EFTs (SEFTs)
SEFTs was introduced in April 1st, 2003 to provide for transfer of funds electronically across a large number of bank branches in the country as a forerunner to the nation-wide funds transfer system (NEFT), SEFT system with the settlement being centralized at Mumbai and providing for same day funds settlement with multiple settlements during a day. SEFT covers more than 2500 branches of different banks situated in various cities across the country. Transaction through SEFT rose to above one lakh which indicates its acceptance and usage by the customers (Report on Trends and Progress of Banking in India, 2008-09).

1.6.4 Electronic Clearing Services (ECS)
ECS (ECS – Credit & ECS – Debit Systems) are for bulk payments and are akin to the automated clearing houses (ACH) elsewhere, the EFT and SEFT systems are for individual one-to-one credit transfer based transactions.

1.6.4.1 ECS – Credit Clearing
It is cost effective simple solution for bulk and repetitive payment transactions like salary, pension, commission, dividend, interests etc. by the public or private companies and government departments through banks. This scheme was introduced in Chennai and Mumbai in April 1995 but now ECS is available in 46 centers and has gained greater momentum in usage as during 2008-09 ECS (credit) recorded transaction volume of 88,394 thousands, increased at 12.8 pc as compared to last financial year (Report on Trends and Progress of Banking in India, 2008-09).

1.6.4.2 ECS – Debit Clearing
It was introduced by RBI in March 1996. It covers the payment to utility companies like Telephone, electricity bills etc. This system is still exists only in four metropolitan cities. This system has recorded a volume of 1,60,055 thousands transactions at the end of March, 2009 and increase of 25.9 pc in transactions shows its greater acceptance by the customers as it is time saving system to pay the bills by the customers just ordering the banks to do the same job (Report on Trends and Progress of Banking in India, 2008-09).

Benefits to Customers
- It is simple to make transactions through ECS
- Cost effective and time saving because no need to make the payments personally by standing in long ques.
• No need to make frequent visits to bank for depositing physical paper instruments.
• Make prompt payment and on due dates.
• No fear of lost of cash in transit or anyway.
• No fraudulent encashment.
• Companies get cheaper transactions now and hassle free with the elimination of paper work.

Benefits to Banks
• Get commission on these transactions from parties, company and customer.
• Get more new customers with enhanced goodwill.
• Get more deposits from the big companies too.

Important point to note here is the existing limit per transaction for ECS & EFT has been removed from Nov., 2004 as to facilitate usage of these facilities on a large scale and to take care of various segments of financial sector including the securities market.

1.6.5 Electronic Data Interchange (EDI)
It is already taking place in India between the banks and their customers, adding fuel to the need for non-repudiation services for banking traffic. It is the electronic exchange of business documents like purchase orders, invoices, shipping notices etc. in a standard, computer processable, universally accepted format between trading partners. It is also introduced at customer house, various ports in the country resulting in saving time and every of exporters/importers to collect custom duty, shipping charges, payments of Duty Drawback etc. It can also be used to transmit financial information and payments in electronic form and hence it can also be defined as financial EDI/EFT.

Benefits to Customers
• Huge saving in cost of exchanging trading information.
• Saving in time to collect custom duty, shipping charges etc.
• Reduce frauds in transferring their important trading documents.
• Provide security of payment electronically.

Benefits to Banks
• Enable to earn more income through commission from both the parties.
• Helps to generate deposits from foreign exchange too through the exporter, importers.
• Gain image internationally and nationally.

1.6.6 Tele Banking
Tele banking is new and fast becoming one of the most popular products of e-banking. Customers perform number of non-cash transactions from the convenience of their own office or home in fact from anywhere they have access to a phone. They can check statement information, funds transfer, stop payments, instruct to pay certain bills etc. by using voice recorder and manual phone terminals. Tele banking is providing the services to the customers in time and anywhere anytime which save their cost of personally visiting the banks. On the other hand, banks get more earning through commission for these services and get new customers too.

1.6.7 Mobile Banking
Mobile banking is an extension to application such as phone banking and online banking (Pousttchi K. and Schurig M., 2004). It can be defined as a channel whereby customers interact with a bank through a mobile device e.g. cell phone or PDA (Scornavacca E. and Barnes S.J., 2004). Mobile banking helps the customers to perform a lot of wide range of transactions on cellular phones. To avail the facilities of mobile banking, customer can ask either through SMS or by using WAP (Wireless Application Protocol) technology, which allows online access of the web using mobile device. This technology serve to check details, issue new cheque book, payment of bills, instruction to stop payment, other value added services etc. This system makes banking location independent. It provides 24 hours banking facility to the customers with no time and location constraints at banking environment. It is also a time saving facility and banks are beneficiary to earn good amount of income and gain image in the market. In the present days, it is gaining momentum in usage by the customers. According to marketresearch.com study on ICT front India has total 129.3 Million Telecom Subscribers with Tele-density of 11.8 and approx 62.02 million of these lines are mobile users and hence, there is a wide scope of developing mobile banking in India.

1.6.8 Internet Banking
Internet banking is an improvement over PC-banking and tele banking because it is done over a highly accessible public network. Internet/online banking is an electronic consumer interface and an alternative channel of distributions (Bradley and Stewart, 2003). At the moment, when the number of internet users has reached 39200 thousand with internet
penetration of 3.6 (marketresearch.com), internet banking is in a very preliminary stage in India. Internet is an interconnection of computer communication networks spanning the entire globe, crossing all geographical boundaries. It is accessible to anyone using the internet, not just the bank customers and employees and even anywhere in the world. It allows the customers to open account, pay bills, view account balance, calculate interest, funds transfer, stop payments instructions, re-order cheque books, receiving new banking industry news and receive messages from banks through emails, online demonstration and training system to assist new/potential customers, online share market trading, shopping etc.

Recent days, banks establish their own web-sites and once it becomes popular the bank have ability to exploit new range of revenue rising opportunities like selling products like credit/debit cards, ATMs, small loans etc. Now days, internet banking is gaining much importance and preferred as compared to other products of ebanking but in India its progress is still slow even capturing more customer market with facility of anywhere anytime banking. It is the cheapest way to transact as incur only Rs.0.10 for a transaction even lesser than the cost incurred by transacting through ATMs i.e. Rs.15 (Kumar and Walia, 2006). In India, not all banks are providing Internet banking facility as its establishment cost is high that every bank can’t bear.

Benefits to Customers

- Provide every facility with the utility of anywhere, anytime 24 hours account accessing.
- Provide new information regarding banking industry
- Time and cost saving
- Free bill payments and rebates on ATM surcharge etc.
- Easy online applications for all accounts, including personal loans and mortgages
- Quality customer services with personal attention

Benefits to Banks

- Improve customer access and loyalty by providing timely information just on click of a mouse
- Gain competitive advantages by providing more competitive services
- Once a bank establish its own website and when it becomes popular it helps them to:
  - attract new/potential customers
- exploit new revenue generating opportunities
- providing latest information to gain customer’s attention

• To earn foreign exchange by attracting and providing online services to Non Resident Indians.

• Lesser pressure on employees as they can utilize time required for one physical present customer to deal with several customers over the net which is economical for banks.

• Banks can easily pass on information about their new schemes.

1.6.9 Real Time Gross Settlement System (RTGS)

It was implemented by the RBI in March, 2004. It provides for an electronic based settlement of inter-bank and customer based transactions, with intra-day collateralized liquidity support from the RBI to the participants of the system. RTGS system has also been enabled for Straight through Processing (STP) of customer transactions without manual intervention. The system started with only four banks, besides the RBI, now has about 107 participants comprising of Scheduled Commercial Banks and primary dealers with average volume of transactions of 90,000 (Report on Trends and Progress of Banking in India, 2008-09). It is a single all-India system, with settlement being effected in Mumbai. The payments are settled transaction by transaction.

Benefits

• Settlement is done in real time, hence no delay in transaction.
• The funds settled once can be further used immediately
• It is fully secure system, which uses digital signatures and PKI based encryption
• The system settled both high value and retail payments thus it is less-risky.
• Easy and safe management and transfer of funds.

1.6.10 Electronic Cheques

It is also a new product of e-banking for internet payments. It is the internet version of FEDI (Financial EDI) systems which allow these functions over VANs. The electronic cheques provide internet websites with the ability to perform various functions like present the bill to payer, provide remittance information, allow payments to be made to new businesses with which the payer has never transacted, allow the payers to initiate payments of the invoice, provide interface with financial management software and transaction processing software. E-cheques provide easy and time saving facilities to the customer through internet. There are
safe and no need to carry paper cheques hence no fear of theft etc. Banks are also beneficial from earnings point of view and reduce paper work also.

1.6.11 Core Banking System (CBS)

CBS is a centralized platform, which creates environment where the entire banks’ operations are controlled and run from a centralized hub at head office. The system creates a centralized customer database, which makes anything, anywhere, anyway banking possible. Now public sector banks have achieved 95 pc of their branches as fully computerized at the end of March, 2009 (Report on Trends and Progress of Banking in India, 2008-09).

Benefits

- Faster and efficient customer service.
- Offering multiple delivery channels like ATMs, Cards etc.
- Reducing the operational costs through manpower and space saving.
- Centralizing the bank end process and reporting.
- Creating customer profile database, as a powerful tool for gaining competitive advantage through cross selling opportunities.
- Adoption of risk management by taking care of risk monitoring and risk-reporting requirement.

1.7 Conclusion

Hanson and Kalyanam (2007) points out that ebanking grew rapidly, ATMs made customer visits to a branch less necessary, and then in the late 1990s the rapid growth in banking web sites made a wide range of services available from almost everywhere. The ebanking has gained tremendous interest of the customers by providing convenient, prompt and economical services to the customers with online shopping and payments facilities. According to survey conducted by Consumer Voice in 2006, customers are shifting from public sector banks to new private sector banks mainly due to convenient services of private banks’ and restrictive functioning hours of public sector banks. Despite, ebanking is more beneficial to banks in the form of reduced paper work, off-line customer services, easy and immediate settlement of inter-branch transactions, gain more customers and especially to earn fee based income from various non-banking services. There is a wider scope for further development of internet banking because the global online population is increasing substantially. According to the Internet World Stats, in 2008, there are 1.6 billion internet users worldwide. Hence, internet is progressively fetching a diverse global marketplace with enormous opportunities for financial
services delivery as well as challenges (Aktan B, Teker E. and Erosy P. 2009) and ebanking is the only competitive strategy in the changing environment that the public and old private sector banks have to adopt in either way.

Although information technology is introduced in banking but compared to the automation level in some developed countries, it is imperative to further improve and stabilize the mechanization process in Indian banking industry (Kumar N.K., 2006). Due to various aspects of technology, there is a need to monitor efficiency of the banks to best judge their status in global environment. The banks with adequate electronic base are gaining momentum where the others are fighting for their survival. The lack of comprehensive studies on the transformation issues in India, inspire to evaluate the banks’ success to manage this transformation of technological advancements. The current study is result of increasing focus of the economies towards technological advancements. This study analyzes the comparative efficiency of Indian banking industry in terms of productivity, profitability, costs, customer satisfaction, employee satisfaction and service quality. The major objective of the study is to analyze the role of information technology in managing bank transformation. To achieve this objective, secondary and primary data is analyzed through various statistical techniques. The whole study is organized in seven chapters addressing the set objectives of the study.