CHAPTER I

INTRODUCTION

The main challenge before a developing nation is to foster sustainable growth. For growth or its recovery, the nation’s productive capacity needs to be strengthened and expanded. The success of economic development depends essentially on the extent of mobilization of resources and investment and on the operational efficiency and economic discipline displayed by the various segments of the economy. Banks play a positive role in the economic development of a country as they not only accept and deploy large funds in a fiduciary capacity but also leverage such funds through credit creation. Banking is the fulcrum of an economy and forms the core of the financial sector of an economy. The role of commercial banks is particularly important in underdeveloped countries. Through mobilization of resources and their better allocation, commercial banks play an important role in the development process of underdeveloped countries. Prof. Sayers states that "Banks are not merely purveyors of money but also in an important sense, manufacturers of money". Banks play a substantial role in capital accumulation, firms’ growth and economic prosperity. It’s recognized that a well planned, efficiently organized viable banking system is a necessary condition for creating financial infrastructure of a country in particular and for overall economic development of that country in general. Goldsmith (1969) empirically proved that rough parallelism exists between economic and financial development in the long run. Banks are considered to be the mart of the world, the nerve centre of economies and finance of a nation and the barometer of its economic perspective (Sharma, 1974).

An increase in the performance of banking sector in an economy is replicated in the development of the economy. More recently, Blanka (2011) have identified that financial development has a major role in the sustainable economic growth of Central and Eastern European emerging countries. Even in developed countries financial intermediation has been used in national reconstruction. At the national level Chakraborty (2008) found that investment-output ratio has a positive significant effect on real rate of growth of GDP. Mitra et al., (2008) stressed that a stable and efficient banking sector was an essential precondition to increase the economic level of a country. Murthy (2009) focused on the role of financial services as key to enhancing economic development and reducing poverty in rural areas. World wide experience confirms that the countries with well-developed and market-oriented financial systems have grown faster and more steadily than those with weaker and closely regulated systems (Rohit Sarkar, 2003). In recent years, especially in the light of recent financial crisis occurring in some
countries, measurement and assessment of bank’s efficiency has become one of the most important issues concerning bank’s market-related activities. Globalization of the financial markets and growing competition in the banking sector has posed new challenges in research on the efficiency of financial institutions, including banks. Efficiency analyses, which till the early nineties of the twentieth century were rather rare, are currently the centre of interest for researchers.

Indian banking sector is one of the largest sector in Southern Asian continent is a mixture of public, private and foreign groups. The banking sector is the core segment of the Indian financial system which decides the progress of the country. Banks play a vital role in the mobilization and allocation of resources in an economy. The sound financial position of a bank is the guarantee not only to its depositors but equally important for the whole economy of the nation. Several committees have emphasized the need to improve the performance of the commercial banks. The banking sector in India are still updating its performances in all aspect like qualitative, quantitatively, technically and managerially with pace of global sector in which the commercial banks play its major role. In developing countries most of financial intermediation is carried out by commercial banks while other financial institutions and markets play a relatively insignificant role (Fry, 1995).

The Indian Banking system is unique and perhaps has no parallel in the banking history of any country in the world. Hence, it would be interesting to study the evolution of Indian banking over the last few decades, in terms of organization, functions, resource mobilization, socio-economic role, problems and solutions. The last few decades witnessed many macro-economic developments, monetary and banking policies and the external situation, which influenced the evolution of Indian banking in different ways and in different periods. For this reason, it would be useful to analyze in some detail the evolution of Indian banking with reference to some distinct phases. The first phase covers the period from evolution period to 1968 and the second phase from 1969 to 1991. These two periods constitute the past. The period of banking reforms beginning with 1992 and till date may be regarded as the present or the current phase for the purpose of this analysis. It is the current phase, which provides the basis for looking into the future of Indian banking system.

**First Phase (From evolution till 1969):**

From very ancient times indigenous banking and money lending existed in India in the form of family or individual business. The ancient Hindu Scriptures refer to their existence in the Vedic period. Chanakya’s Arthasasthra (about 300 B.C.) has several references to show that there were in existence powerful guilds of merchant bankers who received deposits, advanced
loans and carried on other banking functions. Moneylenders, who were called as either ‘bankers’ or ‘seths’ or ‘shroffs’ are recorded to have carried on a roaring business in money lending and banking. Later, during the time of the Smritis, which followed the Vedic period and the Epic age, banking became a full-time business and got diversified with bankers performing most of the functions of the present day banks. The Vaish community, who conducted banking business during this period, accepted deposits from the public, granted loans against pledges and personal security, granted simple open loans, acted as bailee for their customers, subscribed to public loans by granting loans to Kings, acted as treasurers and bankers to the state and managed the currency of the country.

Indigenous banking which by the time of the Buddhist period had become fairly well developed received a setback during the Muslim period since the Muslim rulers believed in the Quranic injunction of charging interest as "Haraam' or a great sin. Moreover, the unending wars and royal succession feuds of this period greatly hampered the development of trade and commerce on which the development of banking and money lending were dependent. Banking business was, however, partially rehabilitated during the Mughal period, particularly during the secular and settled reign of Emperor Akbar who gave the much-needed political stability to the country. Further, during the Jahangir’s reign, private banking further developed and it is recorded that there were many enterprising bankers functioning in the country at this time. During Shahjahan’s reign also banking prospered without interruption and large banking houses were established at important trading centers in the country. However, as a staunch practitioner of the Quranic injunctions, Aurangzeb adopted a negative approach towards money lending and banking. Even so, some of the sagacious indigenous bankers were very influential in the country’s life.

The seventeenth century witnessed the advent of English traders into India. The English traders established their own agency houses, at the port towns of Bombay, Calcutta and Madras, which apart from engaging in trade and commerce, also carried on the banking business. The unification of currency in 1835, development of the means of transport and communication causing deflection of trade and commerce along new routes and changing the nature and structure of trade activities in the country, however, contributed to the downfall of the indigenous bankers. Partly to fill the void caused by their downfall and partly to finance the growing financial requirements of English trade, the East India Company now came to favour the establishment of the banking institutions patterned on the Western style.

The first Joint Stock Bank established in the country was the Bank of Hindustan founded in 1770 by the famous English agency house of M/s. Alexander and Company. This bank failed
in 1832 with the failure of firm of Alexander and Co. The Bengal Bank and the Central Bank of India were established in 1785. The Bank of Bengal, the first of the three Presidency Banks, was established in Calcutta in 1806 under the name of Bank of Calcutta. It was renamed in 1809 on the grant of the charter as the Bank of Bengal. The two other presidency banks, namely the Bank of Bombay and the Bank of Madras, were established in 1840 and 1843 respectively. All the Presidency Banks were empowered to issue notes. After the Paper Currency Act of 1862, however, the right of the note issue was taken away from them. The Presidency Banks Act of 1876 placed certain restrictions on the functioning of these banks, which were forbidden from negotiating foreign bills and from giving advances for a period exceeding six months.

The Presidency Banks had branches in important towns of the country. There was, however, considerable duplication and overlapping in their activities, and therefore, public opinion favoured a single presidency bank for the whole country. The banking crisis of 1913 to 1917, also, brought out the serious deficiencies in the existing banking system in the country showing the need for effective co-ordination through the establishment of Central Bank. After repeated efforts, the three Presidency Banks were fused into a single bank under the name of the Imperial Bank of India in 1921. At the time of the amalgamation, the three Presidency Banks had a total of 70 branches, total paid up capital of ₹3.75 crores and reserves totaling ₹3.5 crores. Besides, the three Presidency Banks, some other joint stock banks also came to be established in the later half of the 19th Century with the enactment of the Joint Stock Companies Act 1850. The first Indian bank was Oudh Commercial Bank started in 1881. It was followed by the Punjab National Bank in 1894. The Swadeshi Movement, prompted Indians to start many new banking institutions. The number of joint stock banks in India increased remarkably during the boom of 1906–13. The boom continued till it was overtaken by the period crash of 1913–17 (World War I), a severe crisis faced by the Indian joint stock banks. Again in 1929 there was a serious crisis which resulted in several bank failures. The issue of failures of banks was investigated in detail by the Indian Central Banking Enquiry Committee (1929–31), which emphasized the need for enacting a special Bank Act covering the organization, management, audit and liquidation of banks. The authoritative recommendations of the Committee were an important landmark in the history of banking reforms in India (Ahuja, 2011). The Indian Companies Act 1913 was amended in 1936 to bring control over the mushrooming growth and failure of the banks in the country. But it was not sufficiently effective. The two World Wars proved a boom to the banking industry when many large and small banks were started. A good proportion of them stood the test of time and survived the subsequent
crises, but at least an equal number of them failed. During colonial rule in India, banks were geographically confined to urban areas and provided credit particularly to business and trading class (Gupta, 2001).

The three presidency banks which merged in 1921 to form the Imperial Bank of India, upon India's independence, became the State Bank of India. The Reserve Bank of India (RBI) was established in 1st April 1935 with the passing of the Reserve Bank of India Act 1934. RBI function was to hold the custody of the cash reserves of banks, granting them accommodation in a discretionary way and regulating their operations in accordance with the needs of the economy through instruments of credit control. Though the Reserve Bank of India was constituted in 1935, much could not be done in respect of bank failures. The statistics showed that about 647 banks failed between 1937 and 1947. Eventually, at the time of Independence (in 1947), India inherited an extremely weak banking structure, with the urban-orientation, comprising 544 small non-scheduled banks and 96 scheduled banks, giving bulk finance to the trading sector. Moreover, only a few of them possessed an all-India character, while most of them had limited geographical coverage in their business. In 1949 more than 55 banks either went into liquidation or wound up. Banking did not receive much attention of the policy makers and disjointed efforts were made towards the regulation of the banking industry. During this period major credit of banks were diverted to industrial and trading sector to the neglect of the mainstay sectors like agricultural and small scale industries. There was also critique that banks are restricted to urban sector. To have sound and balanced growth of banking business in the country, the Banking Regulation Act 1949 was passed which prohibited the use of the word "BANK" by financial companies which were not complying with minimum paid-up capital and reserves. The Reserve Bank of India was the first one to be nationalized as the Central Bank of India in January 1st 1949.

With the introduction of economic planning in 1951, the need was felt for aligning monetary and banking activity with the requirements of planning. The objective was to widen and deepen the flow of agricultural and industrial credit. The thrust was on the rejuvenation of the rural economy and the banking system had to be geared to this. The branch expansion by banks and increase in rural credit including credit to the small-scale sector became imperative. The presidency banks were nationalized into the State Bank of India (SBI) in 1955. Later, the State Bank of India (Subsidiary Banks) Act was passed in 1959 enabling the State Bank of India to take over eight former State-associated banks as its subsidiaries. A financial system, which is inherently strong, functionally diverse and displays efficiency and flexibility, is critical to our national objectives of creating a market-driven, productive and competitive economy. The
Reserve Bank of India (RBI) consolidated its role as the agency in charge of supervision and banking control.

The Indian banks made rapid progress in the sixties with few of the Indian banks establishing their branches abroad. The statistics provided by Purohit and Jeevraj (2012) remarked that there was 566 banks on December, 1951 (scheduled banks was 92 and 474 were non-scheduled banks) which declined remarkably to the level of 281 in 1968. Even though Indian Banking System made considerable progress both functionally and in terms of geographical coverage during this period, there were still many rural and semi urban areas which were not served by banks. Moreover, large industries and big and established business houses tended to enjoy a major portion of the credit facilities. Vital Sectors like agriculture, small-scale industries and exports did not receive the attention they deserved. Therefore, in 1968, the government imposed Social Control over banks by amending banking laws. The objective was to achieve efficient distribution of banking resources in conformity with the requirements of the economy and to meet the needs of the priority sectors. Under social control the banking system including smaller banks started gaining strength as evidenced by the absence of voluntary or compulsory mergers of banks. Thus, social control was a milestone in the evolution of banking policy.

Second phase (1969 onwards: Nationalization and after);

The banking system touches the lives of millions and has to be inspired by a larger social purpose and has to subserve national priorities and objectives, such as rapid growth in agriculture, small industries and exports, rising employment level, encouragement of new entrepreneurs and the development of the backward areas. For this purpose, it is necessary for the Government to take direct responsibility for the extension and diversification of banking services and for the working of a substantial part of the banking system (Bank Economists Meet Bank 1987). The swift politico-economic developments culminated in the nationalization, on July, 19, 1969 of the 14 major Indian Scheduled Commercial banks in the private sector. On 15th April, 1980, six more private sector banks were nationalized, thus extending further the area of public control over the Indian Banking System. Nationalization was seen as a major step to ensure adequate credit flow into genuine productive areas in conformity with plan priorities.

The total number of public sector banks in the country increased to 28. These include State Bank of India and its seven subsidiaries and the twenty nationalized banks. The public sector banks accounted for 91 percent of the total deposits and credits of all the commercial banks in India in April 1980. A critical analysis for a comprehensive and uniform credit monitoring was introduced in 1985–86 by the RBI by way of the Health Code System in banks
which, provided information on the quality of advances, the quality of credit portfolio and the extent of advances causing concern in relation to total advances (Sinkey, 2002). Restriction of credit and inability to generate profit led to the financial instability of the sector. The net returns of public sector banks were only 0.17 percent and about 40 percent of credit was allocated for priority sector. The market share of the total deposits of the nationalized banks which was 63.30 percent of the total deposits of the banking sector in India as on 31st December 1984 had come down to 62.75 percent by 31st March 1991 (Indian Banks Association. Financial Analysis of Banks 1984, 1990–91). The market share of equity of the nationalized banks and the public sector banks which was 69.75 percent and 94.43 percent respectively during 1969 had risen to 87.43 percent and 98.71 percent respectively in 1990. The growth in equity of the private sector banks—both Indian and foreign was in fact comparatively low. Besides, inefficiency and lack of competition caused the non-performing assets in the public sector banks to rise from 14 percent in 1969 to 35 percent in 1990.

Financial reforms were initiated as the part of economic relation since mid 1991. The key objective of reforms in the banking sector in India has been to enhance the stability and efficiency of banks. To achieve this objective, various reform measures were initiated that could be categorized broadly into three main groups: (a) enabling measures, (b) strengthening measures and (c) institutional measures. Enabling measures were designed to create an environment where banks could respond optimally to market signals on the basis of commercial considerations. Salient among these included reduction in statutory pre-emption so as to release greater funds for commercial lending, interest rate deregulation to enable price discovery, granting of operational autonomy to banks and liberalization of the entry norms for financial intermediaries. The strengthening measures aimed at reducing the vulnerability of banks in the face of fluctuations in the economic environment. These included, inter alia, capital adequacy, income recognition, asset classification and provisioning norms, exposure norms, improved levels of transparency, and disclosure standards. Institutional framework conducive to development of banks needs to be developed. Salient among these include reforms in the legal framework pertaining to banks and creation of new institutions.

Reforms in the commercial banking sector had two distinct phases. The first phase of reforms implemented subsequent to the release of the Report of the Committee on Financial System, 1992 or Narasimham Committee focused mainly on enabling and strengthening measures. The Committee was guided by the fundamental assumption that the resources of the banks come from the general public and held by the banks in trust. These resources have to be deployed for maximum benefit of their owners, i.e. the depositors. This assumption
automatically implies that even the Government has no business to endanger the solvency, health and efficiency of the nationalized banks. According to the Committee, the poor financial shape and low efficiency of public sector banks was due to: (a) extensive degree of central direction of their operations, particularly in terms of investment, credit allocation and branch expansion and (b) excessive political interference, resulting in failure of commercial banks to operate on the basis of their commercial judgment and in the framework of internal economy. Despite opposition from trade unions and some political parties, the Government accepted all the major recommendations of the Committee some of which have already been implemented.

Further, the second phase of reforms, implemented subsequent to the recommendations of the Committee on Banking Sector Reforms 1998 or Narasimham Committee II placed greater emphasis on structural measures and improvement in standards of disclosure and levels of transparency in order to align the Indian standards with international best practices. Thus the banking sector in India has gradually moved from regulated to deregulate structure with the aim of creating an efficient, competitive and stable financial sector that could then contribute in greater measure to stimulate growth. This reform improved the capital adequacy, profitability and asset quality and also paid greater attention to risk management. Further, deregulation has opened up new opportunities for banks to increase revenues by diversification. India adopted Basel I norms for commercial banks in 1992. The Reserve Bank of India introduced the risk weighted asset as CAR in 1992 initially at lower rate of 4 percent; later it was gradually increased (Basel Committee, 1988). One of the major objectives of banking sector reforms has been to enhance efficiency and productivity through enhanced competition. Following the Narasimham Committee’s recommendations, guidelines to facilitate entry of the private sector banks was issued in 1993 to foster greater competition with a view to achieve higher productivity and efficiency of the banking system.

On-site supervision of banks was introduced in 1995 and CAMELS system of annual supervision was introduced in 1997 and 1998. RBI judged that this system can fully meet 14 of the 25 Basel Core Principles of Supervision and was implementing compliance with the other 11 core principles. In 1996 BCBS (Basel Committee on Banking Supervision) amended the Basel I norms and in 1999 it initiated a complete revision of the Basel I framework, to be known as Basel II. The banking sector which persist its stability during South East Asia crisis in 1997 encouraged the government to review the progress of banking sector reforms and chart out the programme of financial sector reforms necessary to strengthen the Indian financial system for global competition. The ROA of the scheduled commercial banks which has negative figure during 1993 turned to be positive at 0.81 percent in 1998. By 1997, almost all public sector
banks achieved the minimum capital adequacy norms of 8 percent. The gross and net NPAs of banking system as a percentage of advances had declined to 16 percent and 8 percent respectively as on March 1998. In terms of percentage of total assets, gross and net NPAs have declined to 7 percent and 3 percent as on March 1998. The percentage of net NPAs to net advances of public sector banks has declined from 14.4 percent in 1994 to 8.5 percent by 1998 (Purohit and Jeevraj, 2012). Almost 80 percent of the businesses are still controlled by public sector banks (PSBs) which dominate the commercial banking sector. The recent statistics of RBI estimates that the gross NPA ratio of banks may rise to 4.4 percent by March 2014 as compared to 3.42 percent in March 2013 and NPA ratio was 2.94 percent in March 2012. The implementation of Securitization and Reconstruction of Financial Asset and Enforcement of Security Intersect Act (SARFAESI) in 2002 has helped many banks in debt recovery. Assets Reconstruction Company (India) Limited (ARCIL) set up in 2003 had provided a major boost to the efforts to recover the NPAs of the banks.

Banks started to implement the Basel II norms since March 2007. The Basel II framework has been designed to provide operations to banking system for determining the capital requirements for credit risk, market risk and operational risk and enable banks/supervisors to select approaches that are most appropriate for their operations and financial markets. After adequate skills are developed, both at the banks and at the supervisory levels, some banks may be allowed to migrate to the internal rating based (IRB) approach (Reddy 2005). Since March 2009 all commercial banks excluding regional rural and local banks became Basel II compliant which places the Indian banks on the international standard and provides a confidential base. As per Basel II norms, Indian banks should maintain tier I capital of atleast 6 percent. Even the G-10 countries are finding it difficult to implement the Basel II accord in all the banks (Goyal, 2010). Committee on Financial Sector Assessment, Mohan Committee (2009) had suggested significant measures to improve the stability and resilience of Indian financial system. The Basel III capital regulation has been implemented in India from April 1, 2013 in phases and will be fully implemented as on March 31, 2018. These norms lay more focus and importance on quality, consistency and transparency of the capital base.

To sum up, there had been significant improvement in the performance of commercial banks in India over the decades facilitated by the introduction of reform since 1990 in wide range and the gradual improvisation in tightening risk, norms and supervision had indeed led banking system on the right path. The banking sector has been stable without any major crises and relatively transparent and follows the international best practice. In recent years the banking sector has become competitive, dynamic and open to global market and witnessed strong
structural, institutional and legal changes. Competition has been infused by allowing new private sector banks and more liberal entry of foreign banks (at the end of March 2013, there were 7 new private sector banks, 13 old private sector banks and 43 foreign banks as against 23 foreign banks in 1991). Along with these flexibilities certain regulatory reforms were also introduced, which are meant to make banks strong enough to face fluctuations in the economy. Overall, these reforms are aimed at improving the performance of banks.

Another important aspect of reforms in the financial sector has been the increased participation of financial institutions, especially banks, in the capital market. These factors have led to increased inter-linkages across financial institutions and markets. With the increasing integration of various segments of financial markets, the distinctions between banks and other financial intermediaries are also getting increasingly blurred. This augurs well for the overall stability of the financial system. The East Asian crisis has also underlined the need for a balanced financial system wherein financial markets also play an important role in providing necessary liquidity, especially during times of crisis.

**Research gap:**

A number of attempts have been made to study the efficiency and productivity of banking sector in developed countries (Berger and Humphrey, 1997; Berger et al., 1999; Isik and Hassan, 2002; Yildirim and Philippatos, 2007). However, studies analyzing the efficiency of banks in developing countries, including India, are relatively modest. Fethi and Pasiouras (2010) provided an extensive survey on efficiency and productivity studies in banking sector published in various research journals covering the period 1998–2008. They identified 151 studies that use DEA to estimate various measures of bank efficiency and productivity growth, and 30 studies that provide similar estimates at the branch level. More than 75 percent of the studies focus on efficiency and productivity issues of banks in developed countries.

The literature on bank efficiency reveals mixed experiences of liberalization policies undertaken in various countries. A number of studies report the existence of efficiency gains due to liberalization programmes undertaken in various emerging and transition countries including Turkey (Zaim, 1995; Isik and Hassan, 2003), Thailand (Leightner and Lovell, 1998), Hungary (Hasan and Marton, 2003), the Central and Eastern European (CEE) transition countries (Brissimis et al., 2008), Pakistan (Ataullah and Le, 2006), and Egypt (Fethi et al., 2011). However, there are few studies which show no improvement in bank efficiency over the transition period such as, Havrylchyk (2006) for Polish, Kasman and Yildirim (2006) for the CEE transition countries, Fu and Heffernan (2009) for China. Moreover, a number of studies (Burki
and Niazi, 2009; Hsiao et al., 2010) illustrate that the efficiency impact of the reform process may not be immediately visible or uniform over time.

In the Indian context, there are few studies which especially focused on the efficiency measurement of public sector banks (PSBs) using DEA (Das, 1997; Saha and Ravisankar; 2000; Bhattacharya et al., 1997; Sathye, 2003; Sahoo et al., 2007; Singla, 2008; Mahesh and Rajeev, 2009; and Kumar and Charles, 2011). Most of the studies show the evidence of affirmative gesture of reform process on the efficiency of Indian banking sector. While most of the studies provided the evidence of PSBs performing better than its counterpart, private and foreign banks, few other studies have found the PSBs as underperforming compared to other group of banks. The differences in the findings of various studies in Indian context are attributed to many factors including the selection of time period, sample size, selection of inputs and outputs variables and the orientation of efficiency measurement. However, one of the major limitations of all the above studies is that they focused on only one aspect of performance measurement, i.e., efficiency. Controversy is not only concerned with whether deregulation stimulates efficiency but also on different sources of productivity growth. While some studies attribute the growth of productivity to technological progress (Avkiran, 2000; Alam, 2001; Mukherjee et al., 2001; Canhoto and Dermine, 2003; Khumbhakar, Lozano-Vivas, Lovell, and Hasan, 2001; Sturm and Williams, 2004) others are in favour of efficiency improvement (Berg et al., 1992; Gilbert and Wilson, 1998; Isik and Hassan, 2003). Compared to efficiency analysis, the literature on the issue of TFP growth in Indian banking sector is very limited.

The current study contributes to the literature significantly in many ways. Most of the literature in Indian banking sector focused on measurement of efficiency (e.g., Das, 1997; Saha and Ravishankar, 2000; Sathye, 2003; Ram Mohan and Ray, 2003; Sahoo et al., 2007) and a few studies on benchmarking (e.g., Gupta et al., 2008; Kumar and Charles, 2011). A detailed systematic study on the measurement of productivity change in Indian banking sector is comparatively limited. Secondly, in comparison to previous studies (e.g., Galagedera and Edirisuriya, 2005; Sinha, 2008; Zhao et al., 2008), this study considers more recent data for a relatively longer period of latest 22 years of post-liberalization which includes 3 years of global financial crisis period. Further, all above discussed studies looked only on a single aspect of performance but not on the combination of all aspects viz., productivity, profitability, operational, financial management and asset quality, which were focused by the post-liberalization committee’s recommendations. In the light of the above discussion, the present study has focused on estimating the efficiency of commercial banks including public, private and foreign
banks operating in India for the period 1980–1981 to 2012–2013 with five indicators i.e., productivity, profitability, operational, financial management and asset quality.

**Rationale for the study**

The importance of financial systems for economic development is well recognized worldwide (King and Levine, 1993; Levine, 1997; Levine and Zervos, 1998; Rajan and Zingales, 1998) as well as in India (RBI, 2000; Bhattacharya and Sivasubramanian, 2003). They act as intermediaries in channelising funds from surplus units to deficit units. An efficient banking system has significant positive externalities, which increases the efficiency of economic transaction in general. The role of banks in accelerating economic development of the country has been increasingly recognized since the nationalization of fourteen major commercial banks in 1969 and six more in 1980. This facilitated the rapid expansion of banking in terms of its geographical reach covering rural India, in turn leading to significant growth in deposits and advances. Eventually, however, the government used banking sector to finance its own deficit by frequently increasing cash reserve ratios (CRR) and statutory liquidity ratio (SLR). This, in turn, affected the resource position of commercial banks adversely, restricting their lending and thereby the ability to generate profits. Besides, inefficiency and lack of competition caused the non-performing assets in the public sector banks to rise from 14 percent in 1969 to 35 percent in 1990. This problem had to be tackled during the nineties by undertaking an array of financial reforms.

Deregulation of the Indian financial system in 1991 followed by various financial sector reforms during the period 1990 through 1998 led to a major restructuring of the Indian banking industry. The reforms led to sharp changes in various parameters of banking system. Further, on the basis of the recommendations of the Steering Committee set up by RBI, ‘Ownership and Governance’ and the implementation of the ‘New Capital Adequacy Framework’ were formulated and issued to banks on February 15th, 2005. As a result, the restrictions on geographical expansion and ceiling on interest rates were removed. With increased competition, declining margins on current business operations, higher costs and greater risks, banking industry in general, had to face a two pronged challenge. They had, on the one hand, to enhance their productivity and on the other, increase their ability to serve the nation in new ways with greater efficiency and effectiveness. With this in view it becomes necessary to ask whether the performance has improved; in what way; and how much? There is a need to examine the performance of banking sector in terms of its response to the various reforms measures undertaken since 1991. It is extremely important to know the efficiency level of banking operations in determining how the banking industry will respond to these challenges.
and which banking sector are likely to prevail during the ongoing development and integration phase.

Scope of the study

Banking needs to be looked at from the relevance of the Indian economy. Whatever the economy goes through, banks have a significant role to play. The reform process started in 1991 poses challenges before bankers as never before. After liberalization, various new private sector banks and foreign banks have joined the banking industry in India. It is generally believed that there is a decline in profitability and productivity of the PSBs as a result of liberalization. It is believed that PSBs have not only lost their deposits to new generation private sector banks but also to old private sector banks and foreign sector banks. The winds of liberalization have opened up new vistas in the banking industry resulting in the generation of intensely competitive environment. The banking areas have been almost completely flooded with new entrants including private banks, foreign banks, non-banking finance companies (NBFCs), the merchant bankers and chit funds etc. The foreign banks and new private sector banks have spearhead the hi-tech the revolution mainly targeted at the cream corporate-clientele of banks. Since the growth of economy is largely dependent on the performance of these banks, a comparative analysis of public sector, private sector and foreign banks will facilitate in judging the performance of banking sector in India. Also, one of the important objectives of financial sector reforms is to improve the efficiency of banking system (RBI, 2002). Thus it is essential to study the efficiency levels of Indian commercial banks to understand the impact of financial sector reforms on its performance.

Objectives:

Thus, in the light of the above discussion, the specific objectives of the study are:

- To study the financial performance and examine the growth of Indian commercial banks in India in the pre- and post-reform period.
- To analyze the efficiency gains across different groups of banks and evaluate the cost, allocative, technical, pure technical and scale efficiencies.
- To analyse differences in productivity across bank types in the pre- and post-reform periods.
- To examine the major indicators that affects the efficiency.
- To identify the factors which influence banking profitability and study the changes in banking sector during post-financial reform period for different bank groups.
To determine the impact of various market and regulatory initiatives on efficiency improvements of commercial banks since the implementation of financial sector reforms.

To put forward suggestions to improve the performance of banking system in India.

**Hypothesis:**

In the course of the study, the following hypotheses were examined:

- There are no significant differences in the efficiency of privately owned, state owned and foreign banks.
- There are no differences in average technical, pure technical and scale efficiency levels across different bank groups.
- There are no differences in average cost and allocative efficiency levels across different bank groups in the post reform period.
- There are no differences in the productivity levels among the bank groups.
- There is no association between the indicators that affects the efficiency across different bank groups.
- Net profit of the bank depends on cost efficiency, credit allocation, asset size and deposit.
- The reform measures have not caused an improvement in the efficiency level across different bank groups.

**Implications of the study:**

Although the study relates to India, it has a broader appeal. The Indian experience during the liberalization period provides us a unique opportunity to verify whether the reform process really benefits the banking industry from the perspective of developing countries. The results of the study could help other developing nations in initiating reform process to take appropriate strategy to improve the banking efficiency. Looking at different aspect of banking performance would help the policy makers to identify the significant factors influencing the profitability and efficiency and taking steps to improve their efficiency and profitability which ultimately would lead to increase in the rate of economic growth.