Chapter-I

Introduction

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Introduction

The main challenge before a developing nation is to foster sustainable growth. For growth or its recovery, the nation’s productive capacity has to be strengthened and expanded. In the development agenda, an important issue relates to the problem of the provision and delivery of the financial service and credit. Banking is the fulcrum of an Economy. The Banking Industry is one of the basic instruments of economic growth. It must be on a sound footing as it constitutes an important link in various socio-economic activities. Since it is considered the backbone of economic development, any change in its processes is deemed to have repercussions on the country’s growth. The essential part of the banking system is its financial viability. It is not only necessary for its survival but also to discharge its various obligations.

Traditionally, Indian Banking Systems operated primarily in the private sector. From very ancient days, indigenous banking as different from the modern Western Banking had been organized in
the form of family or individual business. The basic inability of the Indian Banking Sector to help, develop the economy and serve the society to the desired level, led to a demand for restructuring of the banking system. But it was only in 1931 that the Central Banking Enquiry Committee asked for linking the prevalent banking business with RBI. In this way, traditional Indian banking system operated primarily in private sector. Until nationalization, the banking system had more or less confined its activities to different classes of people and thus, helped only big borrowers.

The Imperial Bank of India was nationalized and its undertaking was taken over by the State Bank of India (SBI) in 1955. It was done for the purpose of imposing social control with a view to remedy the basic weaknesses of the Indian banking system and to ensure that banks would cater to the needs of the hither to neglect and weaker sections of community instead of big business and those connected with them. On July 19, 1969, 14 major banks and on April 15, 1980, six banks were nationalized. The object other nationalization was to render the largest good to the largest number of people. The present scheduled banking structure has been depicted in the Figure 1.1. From the figure, it becomes clear that there are 27 public sector banks operating in India. Apart from 32 private sector banks, 42 foreign banks and 196 RRBs. In addition to that there are 57 scheduled urban cooperative banks and 16 scheduled state
cooperative banks. Out of the 27 public sector banks, there are 19 nationalized banks and others are SBI and its associates.

Figure 1.1
Scheduled Banking Structure in India
(As on May 16, 2003)

(Source: IBA Bulletin, Special Issue, January 2004)
The present structure of the Indian commercial banks has been shown in the Table 1.1. From the table it is clear that the major share as far as deposits and advances are concerned, is enjoyed by the public sector banks in India. However a note worthy point here is that the share has been continuously declining over the period under study and new generation private sector banks and foreign banks are taking away their shares. In the total assets of the Indian commercial banks the share of public sector banks was 72.92 per cent in the year 2003 which was much higher in the earlier years.

Table 1.1
Structure of Indian Commercial Banks (2003)

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Bank Group</th>
<th>No. of Banks</th>
<th>Deposits</th>
<th>Capital</th>
<th>Reserves</th>
<th>Total Assets</th>
<th>Borrowings</th>
<th>Investments</th>
<th>Loan and Advances</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Public Sector Banks Market</td>
<td>27</td>
<td>1079393.81</td>
<td>76.87</td>
<td>14175.39</td>
<td>51407.16</td>
<td>128235.70</td>
<td>22431.04</td>
<td>545668.10</td>
</tr>
<tr>
<td>2.</td>
<td>Indian Private Sector Banks</td>
<td>30</td>
<td>207173.57</td>
<td>14.75</td>
<td>2921.06</td>
<td>14175.39</td>
<td>65.37</td>
<td>128235.70</td>
<td>549351.18</td>
</tr>
<tr>
<td>3.</td>
<td>Foreign Banks in Indian Market Share</td>
<td>36</td>
<td>69312.82</td>
<td>4.94</td>
<td>4497.79</td>
<td>116401.08</td>
<td>72.92</td>
<td>87606.41</td>
<td>138951.10</td>
</tr>
<tr>
<td>4.</td>
<td>Total Private Sector Banks Market Share</td>
<td>66</td>
<td>276486.39</td>
<td>19.69</td>
<td>7418.85</td>
<td>24880.68</td>
<td>16.87</td>
<td>87606.41</td>
<td>52170.87</td>
</tr>
<tr>
<td>5.</td>
<td>Total Commercial Banks Market Share</td>
<td>93</td>
<td>1355880.20</td>
<td>96.56</td>
<td>21594.24</td>
<td>413680.39</td>
<td>72.92</td>
<td>87606.41</td>
<td>191121.97</td>
</tr>
<tr>
<td>6.</td>
<td>Regional Rural Banks Market Share</td>
<td>196</td>
<td>48338.00</td>
<td>3.44</td>
<td>2308.59</td>
<td>63614.00</td>
<td>96.39</td>
<td>87606.41</td>
<td>21773.00</td>
</tr>
<tr>
<td>7.</td>
<td>Total of All Banks Total Market Share</td>
<td>289</td>
<td>1404218.20</td>
<td>100.00</td>
<td>23902.83</td>
<td>78645.25</td>
<td>100.00</td>
<td>87606.41</td>
<td>762246.15</td>
</tr>
</tbody>
</table>

Source: RBI’s Report on Trend and Progress of Banking in India (2002-03)
Role of Banks in Economic Development

Banks play a very significant role in the economic development of a country. Banks have control over a major part of the supply of money in circulation. In this way, they can influence the nature and character of production in the country. In fact, banks are the mainstay of the economic development of a country.

Figure 1.2
The contribution of the banking sector in the process of economic development can be summarized as under:

1. **Banks help in Capital Formation:**
   Banks mobilize the idle and dormant capital of a community and make it available for productive purposes. In fact, banks have designed a number of schemes to attract the prospective customers to encourage the habit of savings among the people.

2. **Banks are the Creator of Money:**
   Banks are described as factories of credit. They have the power to create money and it helps in the economic development of the country.

3. **Banks act as a link between the organized and unorganized sectors:**
   In India, money market consists of organized and unorganized sectors. Both of them are required to be linked for economic development of the country and this function is performed by banks.

4. **Banks help in the effective implementation of monetary policy:**
The effective implementation of monetary policy can be done only through properly organized banking system of the country.

5. **Banks help in the development of agriculture and industries:**
The development of a country not only depends upon the industrial development but also on development of agriculture. The banks cater to the financial needs of these sectors which result in the economic development of the country.

6. **Banks act as catalyst in social change:**
   In India banks are regarded as catalysts in bringing the desired social change in community. Banks are able to achieve the desired change through it sectoral priorities and other social development programmers.

7. **Banks help in the development of entrepreneurship:**
   Banks have special drives and specific schemes for the development of entrepreneurship. Banks help in boosting their strength and health.

8. **Banks regulate the flow of national savings:**
   Banks regulate the flow of national savings. They ensure the diversion of national savings into productive purposes.

9. **Banks help in mitigating the effects of trade cycles:**
   The effective banking system can help the government in controlling the circulation of money. It helps in mitigating the effects of trade cycles in a country.

10. **Banks help in maintaining the positive balance of trade:**
Banks also help in promoting import and maintaining the balance of trade at favourable position. From the above, it became clear that the banking system occupies an important position in an economy. Bankers are regarded as, “Public Conservators of Commercial Virtues.” A country with an effective banking system has a secure foundation of economic development.

It is a fact that in order to judge the financial maturity, the size of bank assets of the economy plays an active role. The size of bank assets in relation to GDP has important implications for the financial development of any economy. A figure showing the ratio of bank assets to GDP in a few countries is presented as under

**Figure No. 1.3**

**Bank Assets to GDP in Select Countries**

<table>
<thead>
<tr>
<th>Country</th>
<th>Ratio (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>54.00%</td>
</tr>
<tr>
<td>Brazil</td>
<td>55.00%</td>
</tr>
<tr>
<td>India</td>
<td>70.00%</td>
</tr>
<tr>
<td>Mexico</td>
<td>30%</td>
</tr>
<tr>
<td>Thailand</td>
<td>117.00%</td>
</tr>
<tr>
<td>Malaysia</td>
<td>116.00%</td>
</tr>
<tr>
<td>Philippines</td>
<td>91.00%</td>
</tr>
<tr>
<td>UK</td>
<td>311.00%</td>
</tr>
<tr>
<td>USA</td>
<td>66.00%</td>
</tr>
</tbody>
</table>

(Source: Report on Trend and Progress of Banking in India 2002-03)
From the Figure 1.3, it becomes clear that the ratio of bank assets to GDP at market prices is quite favourable in India as compared to those of developing countries in Asia and Latin America.

The nationalization of the banks bestowed upon them variety of new obligations in the area of social banking. The major achievements of the nationalized banks are in the sphere of branch, expansion deposit mobilization and expansion of credit to heather to neglect sectors which are important for the national economy in terms of their contribution to the growth, employment generation and broadening the base of income distribution.

After the nationalization of banks, the major concern was the productivity and profitability of public sector banks. It was believed that the new direction given to the banks since their nationalization in 1969, and the slacking productivity, has led to declining trends in the profits and profitability. It is even held that unless the present trend is reversed, the financial viability of our banking system may be undermined. It was confirmed by the Narasimham Report in 1991, which stated the bank’ profitability has been under severe stress.

But the banking system must be on a sound footing not only to instill public confidence but also to make banks capable of discharging their social responsibility. A number of facors like the entry of the overseas financial intermediaries into domestic financial markets necessitated some kinds of charges. Banking sector being the heart line of the financial market, their upgradation and financial
strength is more vital for an efficient financial system. With these views, RBI and Government had initiated the process of banks reforms by setting up Narasimham Committee 1 in 1991. Thus the bank reforms heralded the beginning of implementing prudential norms consisting of capital adequacy ratio, asset classification, income recognition, and provisioning. Broadly, banking sector reforms have been concerned with improving

1. the policy framework,
2. the financial health, and
3. the institutional infrastructure.

In the Indian context, banking is really the mirror of economic growth of the country. Before liberalization, the Indian banking structure was largely controlled and parameters like branch size and location were given paramount importance. The Indian banking industry has come from a long way from being a sleepy business institution to a highly proactive and dynamic entity. Now, the Indian banking industry is going through a period of intense change, where global trends are affecting the banking business increasing competition, liberalization, rising customer expectations, shrinking spreads, increasing disintermediation, competitive prizing and possibilities macro-volatility. This transformation has been largely brought about by the large dose of liberalization and economic reforms.
Banks reports and worry about non-performing assets and are visibly grappling with an increasingly competitive environment. The importance of primary capital markets in the mid-1990, threatened banks with disintermediation and the rise of non-banking finance companies threaten them in the business of deposit mobilization itself. The focus of public attention has mostly been on the banking sector’s ability to meet these challenges. New entrants are able to take advantage of the benefits of latest technology and adopt business models to leapfrog ahead. Increasing inroads from non-traditional players are being witnessed. The intense competitive retain environment forcing banks to increasing become customer-centric. Banks are embracing technology to improve customer service; design flexible and customized products increase sales opportunities and differentiate themselves in a market where product features are easily cloned. Indian banking system is quite matured today. Needless to say future is going to full of challenges. Therefore, it is required to convert the challenge of change into exciting opportunity. Now, new horizons are sought and new challenges encountered. Banking is a service-oriented business requiring high levels of professional and personal skills and national boundaries are no longer relevant in mobilization and allocation of capital. The public sector banks largely dominate the Indian banking industry. These banks till the early-1990s were involved in the traditional banking business of deposits and credit - lending. They performed a sportive role in the overall growth of the economy.
The root cause for the lackluster performance of banks formed the elements of the banking sector reforms. The need for the restructuring the bank industry was felt greater with the initiation of the real sector reforms process in 1992. It is because to harness the benefits of globalization. There should be an efficient financial sector to support the structural reforms take place in the real economy. The foundation of the banking sector reforms was laid down by M. Narasimham Committee on financial sector reforms. Causal factors for dismissal performance were addressed. To bring about a paradigm shift in the banking sector, the financial sector reforms were initiated.

**Implications of the Reforms for the Banking Sector**

1) Entry barriers were lowered.
2) Interest rates were deregulated.
3) Regulation w.r.t. Branch licensing, credit control, approach to capital market were lowered.
4) The prudential norms were introduced w.r.t. income recognition, asset classification, and provision, capital adequacy to strengthen the banks balance and enhance the transparency.

In fact, the main aim of these regulations was to induce the financial discipline into the operations. The reform measures were not only aimed at liberalizing the regulatory framework but also to keep them in tune with international standards. Further, regulations aimed at enhancing the transparency and accountability in the
operations of the banks is to support the economic growth while the productivity and the profitability do not take back seat in that set up.

To strengthen the banking system in general and public sector banks in particularly, the institution building measures taken are

1. Recapitalization,
2. Improving the quality of the loan portfolio,.
3. Instilling a greater element of competition, and
4. Strengthening the supervisory process.

The Indian Banking Industry is full of competition, due to liberalization. The players are competing like never before. Yesterdays stars are no longer stars, new stars are emerging on the scene.

Now banks have performed better than others to keep ahead in race. So there has arisen a need to improve the performance level lest the banks are likely to be left far behind. It is imperative to know the terms which have been used widely in the study. These are:

**Liberalization**

Liberalisation involves freeing prizes, trade and entry from state controls. In fact, the degree to which an economy is free can be defined by scope of state involvement, either directly by ownership or indirectly by regulation, in markets for products or services. Liberalization does not raise real interests and results in an increased diversity of financial instruments. Unwary investors may be taken by the rather fanciful terms offered. In fact, as a result of liberalization, now there is a pressure on profits and portability of public sector
banks. It can lead to speculation and create problems of systematic failures. In fact, liberalization and deregulation encompasses the following:

1. Interest rate and other price deregulation measures.
2. Removal of direct credit controls and mandatory investment regulations.
3. Measures design to promote entry of new competitors.
4. Supportive merger and ownership policy.
5. Prudential regulation and reliance on indirect tools for controls, and
6. Transparency.

**Productivity**

Productivity is a vital indicator of economic performance. In simple words, it is output-input ratio. It is a relationship between given output and the means used to produce it. Banking is primarily a service industry. There are number of indicators to measure the productivity of banking sector. Measures of productivity at bank or industry level may differ from the indicators of productivity at branch level.

Productivity is affected by man power, mechanization, system and the procedures, costing of operations, customer services and various external aspects. There are number of ratios of compute productivity as:

**Per Employee Indicators (Labour Productivity):**

1. Deposit per employee
(2) Advance per employee
(3) Business per employee
(4) Total expenditure per employee
(5) Total income per employee
(6) Spread per employee
(7) Net profit per employee
(8) Burden per employee

Per Branch Indicators (Branch Productivity):

(1) Deposits per branch
(2) Advance per branch
(3) Business per branch
(4) Total income per branch
(5) Total expenditure per branch
(6) Burden per branch
(7) Net profit per branch
(8) Spread per branch

Profitability

Profitability is a rate expressing profit as a percentage of total assets or sales or any other variable to represent the relationship. In fact, there may be various dimensions of profitability analysis. A large number of ratios can be used in order to measure the banks profitability as:

1. Interest Income to Working Funds Ratio
2. Interest Expended to Working Funds Ratio
3. Spread to Working Funds Ratio
4. Non-Interest Income to Working Funds Ratio
5. Non-Interest Expenditure to Working Funds Ratio
6. Burden to Working Funds Ratio
7. Net Profit to Working Funds Ratio
8. Interest Income to Total Income Ratio
9. Interest Expended to Total Expenditure Ratio
10. Staff Expenditure to Operating Expenditure Ratio.

**Review of Literature**

As banking system plays a pivotal role in the economic development of a nation, it has caught the eyes of many researchers, administrators, departments, committees. Before examining the impact of liberalisation on productivity and profitability of PSBs, it is necessary to review the literature on the subject. A number of studies have been conducted in India which examined the financial performance of the commercial banks. To mention, a few of these are: Divatia and Venkatachalam (1978), Kulkarni (1979), Sheshadari (1980), Varde and Singh (1981), Angadi (1983), Desai (1983), Subramaniam (1984), Devadas (1986), Vashistha (1987), Jagwant Singh (1990), Venkataraman (1994), Chakravorty (1994), Archana Sood (1994), Jitender Kaur Sidhu (1994), Sanjay Kaushik (1995), and Prasanna (1998).

But there is no descriptive study showing the impact of liberalization on public sector banks in India. Banking Commission (1972) reviewed bank operating methods, analyzed profitability and
examined various aspects of banking have influence upon the productivity of banks and banking system.

S.G. Shah (1979)\textsuperscript{1} while discussing the profitability of banks disfavoured the attitude of banks that higher profitability can result from increased spread and that innovations have a team spirit and improvement in the management for improving bank profitability.

S.K. Varghese (1983)\textsuperscript{2} in his study, “Profits and profitability of Indian Commercial Banks in 1970s” has stated that profit and profitability indicators computed from the banks published balance sheets and profit and loss account do not reflect the true financial feature of banks.

He has analyzed the profits and profitability of groups of Indian commercial banks 1970-79 by using operating results, operating margins, growth yield on assets and spread related ratios. According to him, during that period SLR and CRR requirements of Indian and foreign bank groups were the same. The large yield differential between them gives a clue regarding the declining profitability of Indian banks. While discussing the employee’s productivity, he has used five proxy indicators, giving a broad measure of the trend of productivity in Indian commercial banks. These criteria’s were:

(1) Average assets per employee.
(2) Salary/Wages per unit of deposits and advances.
(3) Share of establishment expensive in the total current operating expenses.
(4) Net income per employee.

He held monitory policy measures responsible for the increased in profits and profitability of commercial banks in mid-1970s, GUPTA (1983) has empirically established the fact that for purposes of comparison of profitability levels among different firms within a homogenous industry groups, profitability of sales measure is superior to profitability of asset measure.

V.V. Angadi and V. Johan Devraj (1983) in their study, “Productivity and profitability of banks in India” aimed at assessing the productivity and profitability of Indian scheduled commercial banks during the period of 1969-80. According to them, the profitability of banks is governed by several factors, some of them endogenous and some of them exogenous to the system and yet structural. As far as profitability was concerned various changes had their impact on banks earnings, expenses, and overall profitability during the period under review. A thorough analysis of volume and pattern of expenses has been made. The pattern of aggregate earnings and expenses analyzed above has an impact on the levels of profits made during the period. Regarding productivity, the following indicators were used:

1. Operating profit per Rs.100 of assets
2. Operating profit per Rs. 100 of total earnings
3. Operating profit per Rs. 100 of working funds
4. Operating profit per Rs.100 of deposits
5. Operating profit per Rs.100 of credit, and
6. Profitability per employee.

They concluded that changes in the earnings, expenses, working funds, priority sectors, growth of bank offices, employees, credit deposit ratio, investment deposit ratio, interest rate structure, patterns of deposit etc. During the period under review affected the productivity and profitability of scheduled commercial banks.

Durgadas Roy (1986) in his article entitled bank profitability: social role is no barrier, studied that the productivity and profitability of scheduled commercial banks in India and revealed that during 1970-80, profitability and productivity ratios of foreign banks were the highest.

Kiran Chopra (1987) in her book entitled Managing Profits, Profitability and Productivity in Public Sector Banking, studied the emerging trends in profits and profitability of some selected public sector banks. She is of the opinion that there is a need to introduce management essentials for the better managements of profits and productivity of public sector banks and recommended proper management of both costs as well as earnings.

A.K. Vashisht (1987) in his thesis entitled, “Performance Appraisal of Commercial Banks in India,” evaluated the performance of public sector banks with regard to six indicators viz., branch, expansion, deposit, credit, priority sector advances, DR/advances and net profit, over the period of 1971-83. He has used a composite weighted growth index to rank the banks as excellent, good, fair and poor. In order to improve the performance, he suggested developing
marketing strategies for deposit mobilization, profit planning and SWOT analysis.

Jagwant Singh (1990) in his thesis entitled, “Productivity in Indian Banking Industry,” has discussed the trends and changes in the productivity; in the Indian banking Industry he used 17 indicators to analyze productivity trends. Banking being service industry, greater attention has been paid to employee productivity. He has made cross-sectional and inter-temporal analysis on the basis of these indicators and these have been divided into three categories:

1. Per employee indicators (labour productivity),
2. Per branch indicators,
3. Financial ratios measuring productivity.

The study period (1969-85) was divided into four sub periods. In addition to the comparison of growth rates of various indicators, assessment of relative positions performance has been made on the basis of average T-scores and ranking based on it.

Amandeep (1991) is of the opinion that the PSBs have become an instrument to meet effectively the needs of the development of the economy to affect the total socio-economic transformation, so the profitability of the bank operations has been affected adversely. According to her, the profitability of a bank is determined and affected mainly by two factors: spread and burden. The other factors determining bank’s profitability are credit policy, priority sector lending, massiv geographical expansion, increasing establishment expenses, low non-fund income, deposit composition etc.
chosen 11 factors affecting Bank’s profitability to identify the most significant variable affecting bank profitability. She has used correlations and regression analysis. She concluded that priority sector lending was not a drag on bank’s profitability.

She recommended the banks to focus attention on the management of spreads, burden, establishment expenses, non-fund income and deposit composition. According to her banks need to adequately charges for various non-fund services (like merchant banking, consultancy, and factoring services) with proper cost benefit analysis, to have maximum profitability.

C.R. Kothari (1991)\textsuperscript{9} in his book entitled, \textit{Social Banking and Productivity}, analyzed the productivity, profitability and social objectives in public sector banks and stressed the need for better profitability in banks to ensure the bank’s role in the development of an economy.

Imran Saleem (1995)\textsuperscript{10} is of the opinion that Indian financial system is characterized by predominance of public sector units and high degree of regulations, motivated mainly by socio-economic considerations, as a result of liberalization, the existing institutional arrangement of banking sector has become deficient in various ways the major issues related to international competitiveness consists of financial soundness, operational efficiency, viability, profitability. Mainly Indian banking system by two major factors \textit{i.e.} external and internal. Internal factors including lack of proper supervision, low productivity and performance of employees etc. whereas the external
having bearing on the profitability have centred on pre-emption in the form SLR, CRR, and the administered structure of interest rates. The main rationale behind the banking sector reform was to improve the operational and allocation efficiency of the system.

According to him, the remedial measures are required to mitigate the indigenous factors, which affect the performance of banking sector adversely. In order to enhance the productivity and profitability in the long run, educational and training programmes for the employees should be introduced. Further, he says that the dense should be given greater autonomy to recover the money they advanced. Last but not the least, the political interference should be reduced to have better productivity and profitability.

Sanjay Kaushik (1995) in his thesis entitled, “Social objectives and profitability of Indian banks,” has discussed the effect of social objective/obligations on the profits and profitability of the Indian commercial banking industry. He is of the opinion, that the nationalization of the banks had a more dampening effect on profitability. The profitability of nationalized banks is adversely affected by a hot of factors, including social objectives. So, to know there relative significance, he has used a multivariate approach viz., ratio analysis, per annum growth rates, correlation analysis, regression analysis and factor analysis. Banks profitability has been taken as indicated by followed factors i.e.

1. Net Profit as a percentage of working funds.
2. Net Profit as a percentage of total deposits.
3. Net Profit as a percentage of total business.

He used the following measures to analyze the productivity:

1. Deposits per employee.
2. Loans per employee.
3. Total business per employee.
4. Deposits per branch.
5. Loans per branch.
6. Total business per branch.

He concluded that the social obligation was not a major drag on profitability of banks. He suggested various measures to improve the profitability.

R.R. Krishna (1996)\textsuperscript{12} has defined the profitability analysis in detail. According to him, it is a rate expressing profit as a percentage of total aspects or sales or any other variable to represent assets or sales. What should be used in the numerator and the denominator to compute the profit rate depends upon the objective for which it is being measured.

Prasanth Athma (1997)\textsuperscript{13} in his doctoral dissertation, “Performance of Public Sector Commercial Banks – a Case Study of State Bank of Hyderabad,” has evaluated the performance of SBH by selecting certain parameters like deposit mobilization, analyses of advances, credit deposit ratios, interest spreads, employee productivity, customer services, profit as a percentage of working funds etc. One major conclusion drawn by him is that the profits of SBH showed an increasing trend, indicating a more than a
proportionate increase in spread, then in burden. He has stated that there is a gradual increase in the percentage of profit on the working funds over the study period showing the efforts made by the bank (1980—94). In increasing the profits by recovering the operating costs fully. According to him, there is a decline in operating costs, responsiveness of the SBH during the study period which is a clear symptom of cost effectiveness/productivity which has resulted in a profit though many banks were in red during the year 1992-93 and 1993-94 due to introduction of banking sector reforms.

B.S. Padmanabhan (1998)\textsuperscript{14} is of the opinion that the need for toning up the banking sector operations began to be felt particularly in the context of liberalization and structural reforms initiated in 1991. The recommendations of Narsimham Committee aimed at improving the productivity, efficiency, profitability half the banking system on the one hand and providing it greater operational flexibility and functional autonomy in the decision-making on the other. So, various constraints caused by external factors having a bearing on the profitability of the banking system, were eased. As a result, the operating profits of 27 PSBs improved from Rs. 3,135 crore. In 1992-93 to Rs. 7.569 crore in 1995-96. The chief merit of the reformed process was cautious sequencing of reforms. The second part of Narsimham Committee (submitted on April 23, 1998), set for the second phase of banking sector reforms. The profitability of the banks suffered as a result of huge backlog of NPAs. Other factors affecting the profitability include a large number of unremunerative
branches, low productivity, over manning and archaic methods of operations.

With increasing competition from Indian and foreign private banks, margins have come under pressure. And productivity and efficiency has come to the fore. According to him, professionalism in the bank management should be encouraged in order to increase the profitability of the banks.

In a technical paper presented by K.R. Ramamurthy (1998),\textsuperscript{15} he states that the banking structure and profitability structure of the banking system across the country have a bearing on the profitability of the banks. When banks are considered as groups in terms of big, medium and small, bigger banks have greater scope for economies of scale. He is of the opinion that one of the main determinants of banks profitability is the network of branches, frequently termed as franchise strength. He concludes that Indian banks have

- higher interest spreads than banks abroad,
- higher operating costs than banks abroad, and
- higher risk provision level.

During 1996-97, there was a turnaround for Indian banks with the 27 PSBs collectively registering a Rs. 3,466.75 crore turnaround by posting an aggregate net profit of Rs. 3,095.40 crore.

As far as the impact of liberalization is concerned, the author is of the view that productivity as measured in terms of per employee business for the banking system as a whole went up from Rs. 45.33 crore to Rs. 73.40 crore. During the post reform period of 1992-96, the
nationalized banks have the highest productivity in the pre-reform period (1991-92) but the position has been different in 1995-96.

The SBI group always lagged behind both in pre-reform and post-reform period in order to measure profitability, various measures like increase in business in relation to increase/decrease in establishment expenses, income, profit per branch, per employee etc.

Within the nationalized banks, the profit making banks achieved per employee profits of Rs. 0.30 lakh, higher than that of all scheduled commercial banks. SBI achieved Rs.0.36 lakh or profits per employee, but the 27 PSBs including SBI posted a negative figure i.e. a loss of Rs. 0.04 lakh per employee regarding various issues in productivity and profitability, he comments that narrowing spreads is a cause of concern for banks. The negative ROA of Indian banks as a whole during the post-reform period require a correction. Loss-making nationalized banks should aimed for at least ROA of profit-making banks while the profit-making banks should aim at international level of ROA. Banks should not make frequent visits to the market to raise the capital. While the internal generation of capital is linked to profitability, he says that the relationship between the diversification and improvement in the profitability is a pertinent issue which needs to be addressed by the bankers. Another major issue is to reduce the operating cost.

To improve their profitability and market share, the banks should have to guard themselves against the phenomenon of adverse
selection of borrowers. Banks should evolve strategies for the deterioration of asset quality and recovery of NPAs.

Kewaljeet Singh (1999) in his article, “Profitability performance of nationalized banks: Some Issues,” makes an attempt to analyze the profitability performance of the State Bank of Patiala keeping in mind the changing economic reward. According to him, percentage in growth in gross income after the reform process started in 1991-92 decreased from a growth of 201.92 per cent during 1985 to 1989-90 to a growth of 74.80 per cent during 1990-91 to 1994-95 (the period of liberalization). As a result of liberalization, there is continuous decline in the profits of commercial banks.

Meenakshi Malhotra (1999) in her study, “Banking Sector Reforms – Experience of PSBs,” has analyzed the performance of PSBs as a result of banking sector reforms her study is divided into two parts. In the first part, a brief review of banking reforms has been made. The major reforms being deregulation of lending/deposit rates deregulation of entry, revamping of branch licensing policy, measures to improve the financial health, measure to improve the operating efficiency and reserve pre-emption.

In the second part, she has discussed the impact of banking sector reforms on PSBs, after dividing the reform period of 1992-98 into two phases. Phase I pertaining to the period 1992-93 to 1995-96 and phase II pertaining to thereafter. The profitability of the banks became negative from 0.28 per cent in 1991-92 to -0.99 per cent in 1992-93 and further 1.15 per cent in 1993-95. The situation started
improving in 1994-95 but the negative trend continued again in 1995-96 (-0.07%), however, the profitability has improved during 1996-97 and 1997-98.

It was concluded by her that the positive effect of reforms had been felt by the banks so far as their profitability performance was concerned. To increase their income, PSBs have moved to

- Diversion from fund-based activities to fee-based activities.
- Increase in service charges on current account, saving account, bills, L/Cs.
- Shifting of functional objectives from social banking to commercial banking.
- Restructuring of branch network.
- Capital restructuring exercises.
- Structural reorganization exercises.

M.R. Sholvapur in his article, “Profitability Analysis of Bank Branches (spread burden approach)” in 1999\(^1\) observes that profits alone justify the survival and growth of banks. The major activities are carried out at branch level. So it is important that it must be given proper attention. He says that various loss incurring branches must be ex-rayed.

Rohit Rao in his detailed study regarding banks (1999)\(^1\) has concluded that public sector banks remained in the comfort of a controlled economy up to liberalization in India. But with the economy opening up, there has been a change in mind set. Now there is a change in paradigm in Indian banking. He is of the opinion that
as the economy wilted, the Indian banking industry in 1997-98 managed to emerged pretty much unscathed.

The year 1997-98 marked the sixth year of financial sector reforms in which public sector banks continued to clean up their balance sheets as well as strengthen their capital base. It was reflected in reduced NPAs and improved CAR, the operating profits of PSBs increased by 15.5 per cent. He says that after liberalization, banking is no more a cushy job; now PSBs have to evolve clearly define goals and strategy, not only to grow the business but to sustain it. He is of the opinion that various PSBs suffered on account of Asian flu which dragged down the rupee.

According to him now only way to increase or even maintain profitability is to increase volumes. Despite improved profitability (1997-98), the PSBs that are listed are quoting much below their issue price. The level of NPAs of PSBs that dominate the market is unsatisfactory with international standards. Out of 27 PSBs, ten had NPAs in double digits.

According to CRISIL study, conducted in 2002, it was concluded that lower operating expenses improved the profitability of banks, contrary to the popular perception that only trading profits helped the banking sector shore up their bottom lines. The reduction in operating expenses became possible the rough large scale VRS implemented by PSBs. As this reduction in operating expenses seems sustainable, a brighter future for the banking sector in India is expected. The study concluded that the banking sector is now
reaping the benefits of rationalization of employee costs, and undertaking various other cost-reduction initiative. The study pointed out that banks ability to repeat and sustain such initiatives would be a deciding factor in maintaining their productivity and profitability in the years to come.

Need and Scope of the Study

The PSBs account for the major share of banking business in this country. But the PSBs are functioning under pressure from government, regulatory agencies, and the public. 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 belived 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. Only four banks, viz. State Bank of India, Bank of Baroda, Punjab National Bank, Canara Bank had more than 5 per cent market share in March, 1999. PSBs witnessed substantial loss in their market share deposit and still are losing, will have really struggle for retaining their position in the next millennium. So, there is need to have a look on PSBs for post-liberalization period.

As far as scope of the study is concerned, it covers all the 27 PSBs functioning in India. These are:

1. Allahabad Bank
2. Andhra Bank
3. Bank of Baroda
4. Bank of India
5. Bank of Maharashtra
6. Canara Bank
7. Central Bank of India
8. Corporation Bank
9. Dena Bank
10. Indian Bank
11. Indian Overseas Bank
12. Oriented Bank of Commerce
13. Punjab and Sindh Bank
14. Punjab National Bank
15. State Bank of Bikaner and Jaipur
16. State Bank of Hyderabad
17. State Bank of Indore
18. State Bank of Mysore
19. State Bank of Patiala
20. State Bank of Saurashtra
21. State Bank of Travancore
22. State Bank of India
23. Syndicate Bank
24. United Commercial Bank
25. Union Bank of India
26. United Bank of India
27. Vijaya Bank

The period of the study is 12 years spanning from 1996 to 2007. As observed from the review of the literature, no study has been carried out regarding the impact of liberalization on the productivity and profitability of public sector banks so it becomes imperative to know the impact. Studies which have been carried out prior to liberalization are related to one or the other aspect of public sector banks. Even the researches carried out in the post-liberalization period ignored this important aspect and failed to give the variables and their impact on PSBs. The derivations of studies in pre-liberalisation period are going to be used as per as the requirements of the present 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. Presently, there are 32 private banks and 42 foreign banks operating in the country besides public sector banks which mop up the bulk of the banking business, which accounts for 76 per cent of the total deposits and 72 per cent of the total advances. Presently, this sector contributes about 8 per cent to the GDP of the economy.

The public sector banks have strong distribution network all over the country. But the strength of the earlier periods has now become a concern for these banks. As compared to the tech-equipped distribution network of the new private sector banks and foreign banks, these banks have found it difficult to upgrade them on the
technology front. These banks are also facing the problem of surplus manpower. Most of these banks have coming out with VRS to bring down their number of employees and improve the efficiency ratios.

The inefficiencies of PSBs were exposed only when the market was thrown open for competition and new glares started eating up their share. But given their size and strong network, most of these can change their perception. Since the growth of economy is largely dependent on the performance of these banks, even with the growth of new private and foreign players, these banks will have an important role to play.

The economic liberalization process has increasingly exposed Indian industry to international competition and in case of some industries; this has greatly sequenced their margins rendering them in capable of repaying the loans taken by them from banks, with the deficiencies noticed in managing credit risks.

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.

Objectives of the Study

The broad objectives of this study are as under:
1. To evaluate profitability and productivity of PSBs in the *viz-à-viz* post-liberalization period.

2. To identify the various factors affecting the profitability and productivity of PSBs in the post-liberalization period.

3. To examine the contribution of various factors towards the profitability and productivity of PSBs in the *viz-à-viz* post-liberalization period.

4. To make suggestions for the improvement in the profitability and productivity of PSBs.

5. To create a platform for future research in this area.

**Hypotheses of the Study**

Keeping in mind the survey of literature and objectives of the study, the following hypotheses emerge:

1. The productivity and profitability of PSBs has suffered in the post-liberalization period.

2. There has been a change in the nature of the factors affecting the productivity and profitability of PSBs in the post-liberalization period.

3. Various new generation private banks and foreign banks have posed a great challenge to PSBs in the post-liberalization period by introducing various innovative schemes.

4. Various PSBs have started various innovative schemes, hitherto unknown even to the private sector banks.

**Research Methodology**
The study has been conducted on the basis of primary as well as secondary data. But the secondary data has formed the major source of study. The secondary data has been compiled from statistical tables relating to banks, RBI bulletins, CMIE reports, economic surveys of various years, PNB monthly review, SBI monthly review, reports on currency and finance, Prajnan, abhigyan, agenda and proceeding of state level bankers committees, and other published resources.

Information from primary resources, wherever necessary, has been collected through proper interviews with the managers of various public sector banks. The collected data have been processed on computer. To reach certain relevant results, the data collected from all resources have been tabulated, analyzed and interpreted with the help of appropriate statistical techniques.

The performance of a bank can be measured by number of indicators. Profitability is the most important indicator because it gives an insight into the broad indication of the capability of a bank to increase its earnings. For measuring the profits and profitability of commercial banks, the present study employs three methods *viz.* Trend Analysis, Ratio Analysis and Concentration Indices.

**Trend Analysis:**

Trend analysis becomes imperative to evaluate the overall profits and profitability performance of commercial banks. It clearly indicates the magnitude and direction of operations observe a period of time; it also helps to identify certain banks in respect of their level
of efficiency in operations. It shows the trend pattern in order to identify the historical development. The study attempts to assess the profits and profitability of banks, through trend analysis of the following parameters:

1. Advances
2. Deposits
3. Total Assets
4. Expenditure
5. Spread
6. Burden
7. Income
8. Net Profit

As the operations of the commercial banks normally grow from year to year and each year enables it to have an enlarged base to compound the growth rate, therefore exponential growth function shall be fitted to analyze the trends in selected parameters.

The equation of the exponential curve\(^{21}\) is of the form,

\[ Y = ab^x \]

Putting the equation in logarithmic form, we get

\[ \log Y = \log a + x \log b \]

To obtain the values of constants ‘a’ and ‘b’, the two ‘normal equations’ to be solved are:

\[
\begin{align*}
\sum \log Y &= n \log a + \log b \sum x \\
\sum (x \log Y) &= \log a \sum x + \log b \sum x^2
\end{align*}
\]

where ‘a’ is the \(Y\) intercept and ‘b’ the slope of the curve.
Under the growth function, growth rate is actually equal to \( \log b \), which implies that there is growth over the period, provided \( \log b > 0 \). Antilog of \( \log b \) gives the value of ‘\( b \)’ and the growth rate in percentage form shall be equal to:

\[
[(\text{Antilog of Log } b) \times 100] - 100
\]

Apart from the exponential growth rate, percentage growth rate over the base year will be calculated to analyze the trends on year-to-year basis.

The percentage growth rate over the base year is given as:

\[
\frac{V_c - V_b}{V_b} \times 100
\]

where: \( V_c = \) Value of the given parameter in the current year.

\( V_b = \) Value of the given parameter in the base year.

**Ratio Analysis:**

To measure the profitability of banks, analysis of relevant ratios is commonly used. Ratio analysis is quite reliable and it provides various relationships amongst the various aspects in the context of banking business, which can be further used to draw results. The ratios also provide a convenient means of analysis and expression of the various operational aspects of banks.

Three sets of ratios have been employed for assessing the profitability of commercial banks, *viz.* spread ratios, burden ratios and profitability ratios.

**Spread Ratios**
Spread is the difference between interest earned (on loans and advances) and interest paid (on deposits and borrowing) by the banks, it is very useful in determining the profitability of banks. It is the net amount available to the banks for meeting their expenses. In order to analyze the profitability performance of commercial banks, it becomes imperative to study the magnitude of this spread and its components i.e. interest and interest paid in relation to total working funds of banks. The spread ratios which have been employed are as under:

1. Interest Earned as percentage of working funds.
2. Interest paid as percentage of working funds.
3. Spread as percentage of working funds.

**Burden Ratios**

Burden is the difference between non-interest expenditure and non-interest income of the banks. It represents non-interest expenditure not covered by non-interest income and is an important factor in determining the profitability of banks. The burden ratios which have been employed are as under:

1. Non-Interest Expenditure as percentage of working funds.
2. Non-Interest Income as percentage of working funds.
3. Burden as percentage of working funds.

**Profitability Ratios**

Profitability is the ratio of earnings to the funds used. It indicates the efficiency with which a bank deploys its total resources
to maximize its profits. The profitability ratios which have been employed are as under:

1. Net Profit as percentage of total income.
2. Net Profit as percentage of total deposits.
3. Net Profit as percentage of working funds.

Apart from these ratios, other ratios have also been used, where even necessary. To have a better view of the performance of banks, these ratios have been analyzed and interpreted by calculating Mean (X), Standard Deviation (S.D.) and Co-efficient of variation (C.V.) at two levels.

- At the level i.e. by computing X, S.D. and C.V. for the period under study for each bank separately.
- At the yearly level by computing X, S.D. and C.V. for each year for the average bank.

\[
\text{Mean (X)} = \frac{\sum X}{N}
\]

where \(\sum X\) = Sum of series of observations

\(N\) = Number of items

\[
\text{S.D. (}\sigma\text{)} = \frac{\sum X^2}{N} - (\overline{X})^2
\]

where \(x = (X-\overline{X})\), \(\overline{X}\) is the mean of the series and

\((X-\overline{X})\) is the deviation from the mean.

\(N\) = Number of items

\[
\text{C.V.} = \frac{\sigma}{\overline{X}} \times 100
\]

where \(\sigma\) is Standard Deviation (S.D.) and \(\overline{X}\) is the mean of the series.

**Concentration Indices**
In order to judge the overall performance of all the PSBs, it becomes imperative to know the relative efficiency of each bank. For this purpose, Herfindhal’s index of concentration has been computed. Herfindhal’s index of concentration has been defined as below:

\[
    H_i = \frac{n \cdot \sum V_i^2}{\sum_{i=1}^{n} \sum V_i}
\]

where \( H_i = \) Overall index.

\( V_i = \) ‘i’th unit’s share of variable

\( n = \) Number of units

The study seeks to assess the relative performance of various banks, with respect to following 19 parameters:

1. Net Profit (in absolute volume)
2. Total Income (in absolute volume)
3. Total Expenditure (in absolute volume)
4. Spread (in absolute volume)
5. Burden (in absolute volume)
6. Deposits (in absolute volume)
7. Advances (in absolute volume)
8. Net Profit (per branch)
9. Total Income (per branch)
10. Total Expenditure (per branch)
11. Spread (per branch)
12. Burden (per branch)
Overall Profitability Performance

In order to judge the overall profitability performance of various nationalized banks, following seven indices have been applied:

1. Index of Interest Earned to working funds
2. Index of Interest paid to working funds
3. Index of Spread to working funds
4. Index of Non-Interest Expenditure to working funds
5. Index of Non-Interest Income to working funds
6. Index of Burden to working funds
7. Index of Net Profit to working funds.

To compute these indices, first of all the respective ratios have been calculated over the period 1996-2007, then these ratios have been averaged bank-wise and the respective indices be computed by the method given below:

\[
\text{Index} = \frac{\text{Average Ratio for the concerned nationalized bank}}{\text{Average Ratio for aggregate of all nationalized banks}}
\]
Further, the study seeks to classify the banks with regard to these selected profitability indices at four performance levels viz., excellent, good, fair and poor. Excellent performance level includes the banks lying at the top 25 per cent area of the normal distribution \( i.e. \) where growth index value is greater than \( (X+0.6745\sigma) \). Good performance category stands for banks whose growth index score lies between 50-75 per cent area of the normal distribution \( i.e. \) where growth index value is between \( X \) to \( (X + 6745\sigma) \). Fair category includes those banks whose growth index lies between 25-50 per cent area under normal curve \( i.e. \) where growth index value is between \( (X-0.6745\sigma) \) to \( X \). Poor category comprises the banks which shows their growth lying at the bottom 25 per cent area of the normal distribution \( i.e. \) where growth index value lies below \( (X-0.6745\sigma) \).

In order to study the productivity aspect the following indicators have been used:

**Per Employee Indicators (Labour Productivity)**

1. Deposit per employee
2. Advance per employee
3. Business per employee
4. Total expenditure per employee
5. Total income per employee
6. Spread per employee
7. Net profit per employee
8. Burden per employee
Per Branch Indicators (Branch Productivity)

1. Deposits per branch
2. Advance per Branch
3. Business per Branch
4. Total Income per Branch
5. Total Expenditure per Branch
6. Burden per Branch
7. Net Profit per Branch
8. Spread per Branch

For further results, T-Scores have been used. The combining of scores from separate tests has often posed a difficult problem in transforming raw scores into some form of standard scores. There are number of scales that can be used. One such scale i.e. T-Scale is based on T-Scores.

T-Scores are normalized standard scores converted into a distribution with a mean of 50 and $\sigma$ of 10. In the scaling of individual items, the mean, as we know is at zero and $\sigma$ is 1.00. The point of reference, therefore, is zero and unit of measurement is 1. If the point of reference is moved from the mean of normal curve to a point $5\sigma$ below the mean, this new reference point becomes zero in the scale and the mean is 5.

In the present study following formula for determining T-Scores has been used.

$$T\text{-Score}=50 + \frac{10}{\sigma} (X-\bar{X})$$
where $\sigma$ is the standard deviation of the raw scores, $X$ is the specific score in question and $\bar{X}$ is the mean of the group of scores.

Three types of average scores have been worked out. These are:

**Average T-Scores of Employee Productivity:**

These scores are based on per employee indicators of productivity. Various indicators have been used, for the purpose of computation of average T-Scores. On the basis of T-Scores of these per employee indicators, average T-Scores are calculated and ranking is done accordingly.

**Average T-Scores of Branch Productivity:**

Average T-Scores of branch productivity are based on various branch indicators used in this study. The average of these T-Scores has been calculated. Equivalent average scores indicate the same level of performance. Ranks have been given on the basis of average T-Scores.

**Average T-Scores for Total Productivity:**

Average T-Scores on the basis of T-Scores computed for the above mentioned two categories have been calculated as a measure of total productivity. The limitation of this measure is that all the indicators have been given equal weights. This ensures the simplicity, as it will not be easy to determine commonly acceptable individual weights. However, greater importance should be attached to employee productivity.

**Limitation of the Study**
The following are the main limitations of the study:

1. In the present study, the productivity and profitability of only PSBs, have been examined. No private sector banks and foreign banks has been considered for this purpose. Therefore, the study does not reflect the overall picture of productivity and profitability of the banking sector.

2. The study is based on secondary data as published in various publications of RBI and IBA. These data are based on historical accounting concept, which ignores the impact of inflation. Results would have been different, in case, due consideration was given to price level changes.

3. In the present study, only the quantitative aspects of productivity and profitability have been examined. Qualitative aspects such as motivation of employees, customer satisfaction, image of the bank have not been considered which play definite role in performance of a bank.

Chapter Plan

The present study comprises of six chapters:

Chapter-1 Introduction:

It provides an introduction of the study and review the available literature. It also defines the basic terms apart from giving the need, objectives, scope and research methodology.

Chapter-2 Liberalisation:
It deals with the rationale behind liberalization. It also discusses various implications of liberalization.

**Chapter-3 Productivity Analysis:**

In this chapter an analysis of the productivity of various PSBs has been made by using relevant ratios and statistical tools.

**Chapter-4 Profitability analysis:**

In this chapter detailed profitability analysis has been made by using ratio analysis, trend analysis and concentration indices.

**Chapter-5 Changing Paradigm of Public Sector Banks:**

It deals with the prevailing environment in the banking sector and discusses the various implications of the changed banking environment.

**Chapter-6 Summary, Conclusions and Recommendations:**

It summarizes the findings of the study and suggests various measures in order to improve the productivity and profitability of various PSBs.

**Bibliography**

**References**


