Chapter 1

Introduction

1.1 STUDY RATIONALE

Finance is the lifeblood of economic development. It helps in capital formation and capital accumulation, which are essential for the growth of an economy. For ensuring capital formation, the financial resources of a country needs to be mobilized in such a way that they are put in productive channels. Amongst the financial institutions, commercial banks constitute the heart of financial structure since they have the ability to add to the money supply. This characteristic distinguishes commercial banks from other financial institutions. Commercial banks play an important role in the economic development of a country. The history of the economic growth of different countries of the world shows that banking institutions have played a significant role in national development. In a developing country like India too, banking sector have been assigned an important role to achieve certain socio-economic objectives.
The origin and development of banking in India was linked up with the big industrial and commercial houses and as a matter of fact, the funds of commercial banks were mostly invested in ventures with which the promoters were interested. Keeping in mind the increasing importance of economic development in our country, fourteen major banks were nationalized in 1969 with the primary object of emphasizing their role as instrument of social economic transformation of the country. Following this six more banks were nationalized in April 1980. In the post nationalization period, there had been a perceptible improvement in the structure composition of the banking sector. What the Indian banking has achieved in forms of the parameters like branch expansion, mobilizing of savings, deployment of credit, reduction in regional disparities, lending towards the priority sector have been simply remarkable and demonstrates the inherent potentialities of the banking sector to serve as a catalytic agent of socio-economic transformation of the country. The geographical and functional coverage of the Indian banking system has been immense, but at the same time there has been a growing concern about the viability and efficiency of the banking system. The progress and achievement of the Indian commercial banks can be observed from the selected performance indicators as given in the Table 1.1. Verghese in her study has observed that the Indian banks registered a low profitability during the seventies and suggested for improving profitability of the commercial banks. However, commercial banks in India have improved a lot in term of profitability. The return on assets was 1 percent in the year 2007-08 as against 0.2 percent in the year 1969. There
Table 1.1

Selected Indicators of Bank Performance of Scheduled Commercial Banks in India

<table>
<thead>
<tr>
<th>Indicators</th>
<th>June 1969</th>
<th>March 1991</th>
<th>March 2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. No. of Bank Branches</td>
<td>8,262</td>
<td>60,220</td>
<td>76,050</td>
</tr>
<tr>
<td>2. Population per Branch</td>
<td>64,000</td>
<td>14,000</td>
<td>15,000</td>
</tr>
<tr>
<td>3. Deposits (Rs. in crores)</td>
<td>4,646</td>
<td>2,01,198</td>
<td>31,96,939</td>
</tr>
<tr>
<td>4. Credits (Rs. in crores)</td>
<td>3,599</td>
<td>1,21,865</td>
<td>23,61,914</td>
</tr>
<tr>
<td>5. Per-capita Deposits (Rs.)</td>
<td>88</td>
<td>2,368</td>
<td>28,327</td>
</tr>
<tr>
<td>6. Per-capita Credits (Rs.)</td>
<td>68</td>
<td>1,434</td>
<td>20,928</td>
</tr>
<tr>
<td>7. Deposit as percentage of</td>
<td>15.5</td>
<td>48.3</td>
<td>84.4</td>
</tr>
<tr>
<td>National Income</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Credit-deposit ratio</td>
<td>77.50</td>
<td>60.60</td>
<td>73.90</td>
</tr>
<tr>
<td>9. Return on Assets (in %)</td>
<td>0.20</td>
<td>0.21</td>
<td>1.00</td>
</tr>
</tbody>
</table>

(Source: Computed and Compiled from various issues of IBA Bulletin and Basic Statistical Returns of Scheduled Commercial Banks in India.)

has been a shift from the social welfare objective to the commercial viability and since 1980 there has been continuous effort by banks to improve profitability. The Indian banks have been going through a second banking revolution since 1991, the first being in 1969, to make banking institutions viable and efficient. Reforms in the banking sector have been initiated with the objective of improving commercial viability and operating efficiency vis-à-vis fulfilling the social welfare objectives. It aims at upgrading the operating standards, health and financial soundness of banks to internationally accepted levels in an increasingly globalize market. The first phase of reform (1991) was completed and the second phase of reforms (1998) are
underway. The second generation banking reforms concentrated on strengthening the banking structure, technological up gradation and human resource development.

1.2 PERFORMANCE EVALUATION OF INDIAN BANKS

Performance evaluation is an important prerequisite for the development of any institution. Commercial banks, being no exception, need evaluation in the context of the reforms that have started in the year 1991. The gradual rationalization of interest rate structure, introduction of new money market instruments, reduction of Statutory Liquidity Ratio and Cash Reserve Ratio, diversification of banking business into new activities and adherence to the prudential norms on capital adequacy and asset quality have enhanced the responsibility of the Indian banks. It is therefore desired to examine the performance of Indian banks to observe the distinct characteristics and assess their efficiency. This will enable the policy makers and banks to manage the future development more efficiently.

The performance indicators provided by the Reserve Bank of India in the annual publication of “Report on Trend and Progress of Banking in India” cover two aspects of performance i.e. productivity and profitability of banks. Bank productivity is indicated through capital structure, asset structure and business generated through employee strength. Mahapatra\textsuperscript{7} (1998) has observed that an analysis of profit and profitability of a bank provides an insight into its effectiveness in the utilization of funds and efficiency of the employees and
management. The profitability of bank is indicated through several profitability ratios such as interest income to working funds, operating profits to working funds, net profit to total assets, capital to risk weighted assets, net non-performing assets to net advances, business per employee, profit per employee etc.

1.3 OBJECTIVES OF THE STUDY

The main objective of the present study is to examine whether there has been improvement in performance and efficiency of Indian commercial banks in the post reform period as a result of reform measures. Keeping this in mind, the following objectives have been set out.

1. To examine the performance of public, private and foreign sector banks in terms of inputs and outputs in pre-reform and post-reform period.

2. To find out the causes of inefficiency and poor profitability in banks if that exist in any bank group.

3. To review the impact of banking policies in improving the operational efficiency of banks.

4. To suggest remedial measures to improve efficiency in banks.
1.4 HYPOTHESES

On the basis of the objectives and scope of the study, the following hypotheses are framed and tested in due course of the study.

1. There is no significant difference in performance of commercial banks in pre-reform and post-reform period.
2. Banking policy is not a dominant factor in influencing the bank profitability and efficiency.
3. There is no significant difference in financial performance among public sector, private sector and foreign banks.
4. The size of banks matters on the profitability and efficiency of banks.

1.5 METHODOLOGY

1.5.1 Sample and Data. The study is based on financial and other qualitative data available from secondary sources such as Reserve Bank of India, Indian Banks Association and Government of India publications. The study includes all scheduled commercial banks in public sector, private sector and foreign sector functioning in India. The break-up of the banks as on 31st March 2008 is shown in Table 1.2 (List of the banks is shown in Annexure-1). The sample of the proposed study includes all public sector banks, private sector banks and foreign sector banks grouped into five groups viz. State Bank if India (SBI), Nationalized, Old Private sector, New Private Sector and Foreign Bank Groups; and data of these
groups for 28 years that is from 1980 to 2007-08 has been used. Data for new private sector banks are available from the financial year 1995-96. Hence, private sector banks’ data for a period of 13 years has been used in our study. Thus, the total number of observations is 125 as shown in table 1.3. The break-up of the sample is shown in Table 1.3.

**Table 1.2**

Break-up of Banks  
*(As on 31st March 2008)*

<table>
<thead>
<tr>
<th>Banks</th>
<th>Number of Banks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Public Sector Banks:</td>
<td></td>
</tr>
<tr>
<td>a. State Bank Group</td>
<td>8</td>
</tr>
<tr>
<td>b. Nationalized Bank</td>
<td>19</td>
</tr>
<tr>
<td>c. Other</td>
<td>1</td>
</tr>
<tr>
<td>2. Private Sector Banks:</td>
<td></td>
</tr>
<tr>
<td>a. Old</td>
<td>15</td>
</tr>
<tr>
<td>b. New</td>
<td>8</td>
</tr>
<tr>
<td>3. Foreign Banks:</td>
<td>28</td>
</tr>
<tr>
<td>Total:</td>
<td>79</td>
</tr>
</tbody>
</table>

**Table 1.3**

Break-up of the Sample

<table>
<thead>
<tr>
<th>Bank Groups</th>
<th>Number of Observations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. State Bank Group</td>
<td>28</td>
</tr>
<tr>
<td>2. Nationalized Bank Group</td>
<td>28</td>
</tr>
<tr>
<td>3. Old Private Sector Bank Group</td>
<td>28</td>
</tr>
<tr>
<td>4. New Private Sector Bank Group</td>
<td>13</td>
</tr>
<tr>
<td>5. Foreign Bank Group</td>
<td>28</td>
</tr>
<tr>
<td>Total</td>
<td>125</td>
</tr>
</tbody>
</table>
1.5.2 Period of the Study. The period covered in this study is from 1980 to 2007-08. The period has been divided into 1980 to 1990-91 as pre-reform period and 1991-92 to 2007-08 as post-reform period.

1.5.3 Techniques of Analysis. The study adopts an integrated approach by using traditional tools such as ratio analysis and modern tools like Data Envelopment Analysis and statistical analysis. Ratio analysis includes profitability ratios, expense ratios, and other performance related ratios. Statistical analysis shall be of both parametric and non-parametric depending on suitability and applicability of the data type.

The studies made by different authors/researchers show that there are various methods of studying the performance of commercial banks. In fact with the passage of time new techniques and methods have been adopted to study the performance of commercial banks. The initial phase witnesses the use of ratios and trend analysis followed by regression analysis to understand the relationship among various bank related variables and its implications on profitability. The latest technique preferred by researchers in studying the performance and efficiency of banks is Data Envelopment Analysis. These methods have their merits and limitations. A brief discussion on these has been made here to justify the methodology that has been adopted in this work.

The performance of business is the result of many individual decisions made continually by its management. The assessment of business performance
involves analyzing the financial and economic effects of these decisions and judging the result through the use of comparative measures. These decisions involve three areas: (1) the investment of resources, (2) the operation of business through the use of these resources, and (3) the proper mix of financing with which to provide the resources.  

Financial analysis is largely based on ratios as tools for making fair comparisons. However, the selection of ratios is very important and needs careful examination. To be really helpful and practically useful, the selected ratios should be small, simple and logically consistent, so that valid and fair comparisons can be made and useful results obtained.

Despite the increasing interest in studying the banking industry, there are controversies with regard to output and input function to deposit. Some define it as input while others define it as output. For instance, Berg et al.\textsuperscript{9} (1991) argued that deposits should be treated as an output mainly because they represent a resource consuming activity while Berger et. al.\textsuperscript{10} (1993) argued that deposit should be treated as an input in the models that take account of interest paid on purchased funds. Attempts to define these concepts were made by Sealey and Lindley\textsuperscript{11} (1977), Colwell and Davis\textsuperscript{12} (1992) and later by Berger and Humphrey\textsuperscript{13} (1997).

1.5.4 Basis of Analysis. The study has been based on comparative analysis of public sector and private sector banks in India. Public sector banks have been divided into two groups viz. State Bank Group and Nationalized group that
includes nationalized banks and IDBI Bank, which has got a commercial bank status of late. Private sector banks refer to domestic private banks and foreign banks. Domestic private banks have been grouped into old economy banks and new economy banks on the basis of private sector banks up to 1992 and after 1992. Performance of commercial banks is analyzed on the basis of comparison of selected indicators such as deposits per rupee man-power cost, advances per rupee man-power cost, business per rupee manpower costs, profit, interest income and non-interest income, interest cost, manpower cost and facility cost in relation to assets. These techniques are used for different groups as mentioned so as to infer on the sectoral performance i.e. performance of various bank groups. Statistical techniques such as Analysis of Variance (ANOVA) and t-test are used to test the significance of differences.

The Data Envelopment Analysis, which is a non-parametric test, is used on the basis of inputs and outputs. Using these inputs and outputs, the efficient frontiers of the different bank groups are estimated for pre-reform and post-reform period. Conclusions are drawn on that basis.

1.5.5 Data Envelopment Analysis. The discussion made above shows that there is debate in the literature over input and output of a bank. Most banking studies have used either the production approach or intermediation approach. In view of the banking activity as a transformation of a particular set of inputs (e.g., capital, labour and deposits) into a particular set of outputs (e.g., loans and investments), the relative efficiency of banks can be analyzed by using DEA, a
non-parametric test. A key advantage of DEA over other approaches is that it can more easily accommodate both multiple inputs and multiple outputs. As a result, it is particularly useful for analysis of bank efficiency where there are multiple inputs and outputs.

DEA is a methodology based upon an interesting application of linear programming. It was originally developed for performance measurement of a set of firms that use a variety of identical outputs (Ramanathan, 2003). It is a linear programming based technique for measuring the performance efficiency of organizational units which are termed as Decision Making Units (DMUs). DEA is an approach to measure the relative efficiency of DMUs such as local authorities, hospitals, schools, banks and similar organizations or units where the units are homogenous. The first DEA study was made by Farrell (1957), where he used the single input and single output model. Charnes, Cooper and Rhodes (1978) introduced the multiple input and output model to measure the relative efficiency of DMUs. Since then, DEA has become increasingly popular in measuring efficiency of banking industries and several studies have been conducted by various scholars and researchers. The basic efficiency measure used in DEA is the ratio of total outputs to total inputs, i.e.

\[
\text{Efficiency} = \frac{\text{Outputs}}{\text{Inputs}} - 1
\]
Any resources used by a unit may be included as input and products or services produced may be included as output. The most efficient DMU is assigned with a score of one or 100 percent and other DMUs are expressed in relation to the most efficient unit. Any number of inputs and outputs may be included for the study purpose but should be limited considering the number of DMUs. In our present study we have restricted it to two input factors and one output factor as the total numbers of DMUs are five viz. SBI, Nationalized, Old Private Sector, New Private Sector and Foreign Bank groups. Inputs include total assets and manpower cost as these two reflects the total capital and the manpower employed. Output has been denoted by profit as our study is based on financial performance and profit is undoubtedly the best indicator to assess the financial performance. The CCR (Charnes, Cooper and Rhodes) Model has been used in the present study which is output oriented. The efficiency is equal to ratio of total sums of weighted outputs to total sum of weighted inputs.

1.6 LIMITATIONS OF THE STUDY

The present study, like other studies has certain limitations that need to be mentioned to understand the present work. These are stated below.

(a). The study has been done on the basis of broad classification of public sector, private sector and foreign banks. Further, public sector banks are grouped into State Bank group and Nationalized group. Similarly, private sector banks are grouped into old private sector and new private sector banks. As the study has
coverage for the period 1980 to 2008, some banks have been found included or excluded during the period and the data sources have updated accordingly. Therefore, the banks in the groups for study have not remained same for the period of study. However, this is not a serious drawback to interfere the conclusion as the study has used inputs and outputs model.

(b) The present study uses the accounting ratios, data envelopment analysis, input and output models for analysis purpose. These tools are not free from their limitations. However, our attempt is to put the best of efforts with our limited resources so as to generalize from the study.

(c) Non-financial parameters like achievements of social importance such as branch expansion, priority sector lending, Non-performing assets are not included in the study though the impact of these are reflected in the profitability. This has been made to focus on the main issues of the study and avoid any sort of dilution.

(d) As data on non-performing assets for the pre-reform period covered under our study is not available from the Reserve Bank of India or Indian Banks association, this aspect is excluded in our study. However, the net impact of non-performing asset in a bank is reflected in its interest income and profitability and these are included in our study. Therefore, the purpose of the study will not be affected by such omissions.

(e) The study is based on data available through secondary sources. It is believed that the data are reliable, as the data have been sourced from authentic
sources. However, variations have been found in between different sources. The researcher has examined and scrutinized such issues to make the study more accurate and meaningful.

1.7 REPORT PRESENTATION

The thesis is presented in seven chapters. The present chapter “Introduction” deals with study rationale, objectives, hypotheses and methodology of the study. It also includes the limitations of the study. The second chapter “The Growth and Development of Indian Commercial Banks” discusses the growth and development of commercial banks in India during pre-nationalization and post-nationalization period, banking structure and policies and the reforms that have taken place in the banking sector. Third chapter of the thesis is on “Review of Literature” and presents a review of literature on profitability, performance and efficiency of banks for the period 1963-2008 and examines the gap that exists. Chapter four under the caption of “Performance Evaluation of Commercial Banks-Concept and Practice” deals with the concepts of performance evaluation, profitability, criteria of performance evaluation and measurement of performance. Fifth and sixth chapter presents the analysis part of the work. In the fifth chapter “Performance Analysis of Banks: Trends and Ratios”, the performance of commercial banks have been analyzed with the help of ratio analysis and trend analysis and hypotheses are tested. Sixth chapter, under the heading of “Analysis of Sectoral Performance” analyzes the performance and
efficiency of the Indian commercial banks. This has been done sector wise i.e. public sector having two groups- SBI group and nationalized banks and private sector having private domestic and private foreign banks. Private sector has been also further grouped into old private sector banks and new private sector banks. A comparative analysis has been made to trace out the factors responsible for influencing performance and efficiency of the banks. The seventh chapter "Summary and Conclusion" presents the summary and findings of the study. This chapter presents the limitations and implications of the study. Implications of the study include the suggestions so that policy makers, decision makers, academicians and researchers may get the benefit of the study. In addition to the above-discussed chapters, the report contains list of contents, tables, figures and a bibliography at the end.

1.8 SUMMARY

Commercial banks constitute the heart of financial structure and play an important role in the economic development of a country. Since nationalization of banks in the year 1969, commercial banks have developed a lot and contributed significantly to the growth and development of economy. However, there is growing concern about the viability and efficiency of the banking system. There were many reforms in the banking sector and reform measures taken since 1991 are very vital for the overall improvement of banking system. The present study examines the performance of Indian banks to observe the distinct characteristics and efficiency of the banking system. A set of objectives and hypotheses has been
formulated for this purpose. The study is based on data of All Scheduled Commercial Banks in India and grouped into five categories namely, State Bank Group, Nationalized Bank Group, Old Private Sector Bank Group, New Private Sector Bank Group and Foreign Bank Group. Data for a period of 28 years i.e. 1980 to 2007-08 have been covered. The analysis has been done by ratio analysis, statistical analysis and data envelopment analysis. The work is presented in seven chapters.
REFERENCES:


Reports

a. Reserve Bank of India, Basic Statistical Returns of Scheduled Commercial Banks in India- 2006, 35.