CHAPTER 3
REVIEW OF LITERATURE

A number of research studies have been conducted in India on the aspect of performance of banks. Some important studies relating to the present topic are reviewed in this chapter.

Shetty (1979)\textsuperscript{22} critically examines the extent to which the banking system in India has been able to achieve the objectives set before it initially by the scheme of ‘social control’ over commercial banks introduced in early 1968 and subsequently by the nationalisation of major Indian banks. The present paper makes an attempt at analysing the performance of commercial banks during the post-nationalisation period i.e. 1969-1978 in regard to branches, deposits, and credit etc. aspects of banks.

Angadi (1986)\textsuperscript{23} has discussed the changes in profits of Indian Scheduled commercial banks in his paper in relation to two denominators i.e. working funds and current operating earnings. He has concluded that the significant factors affecting profitability of the banks are to be found outside the policy constraints or exogenous factors i.e. the earnings and expenses of the banks. The rise in expenses responsiveness was followed by the rise in earnings responsiveness but the rate of increase in the former was much higher than in the latter. Similarly the fall in the expenses responsiveness was followed by the fall in the responsiveness of earnings. However, the fall in the former was much less than the fall in the latter. This trend in responsiveness of earnings and expenses explains the deteriorating profitability of the banks during 1963-1982.

\textsuperscript{22} Shetty, S. L., Performance of Commercial Banks Since Nationalisation of Major Banks in 1969, NIBM, 1979
\textsuperscript{23} Angadi V.B., Policy Constraints and Banks' Profitability, Economic and Political Weekly, Vol.XXI, No.24, June 14,1986

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Nag and Shivaswamy (1990)\textsuperscript{24} in their paper try to collate information on various aspects of functioning of foreign banks in India. The foreign banks’ achievements are compared with those of Indian Scheduled Commercial Banks for the period 1982-88. This paper also identifies two segments of this group of banks in India and compares their assets and liabilities portfolio as well as traces the differential growth performance of the three segments.

Jayaraman (1991)\textsuperscript{25} in his paper compares the performance of each of the six public and private sector banks with broad indicators like growth in deposits, business, net profit, etc. and other performance indicators like staff productivity, business per branch, etc.

Malhotra and Kaur (1992)\textsuperscript{26} have conducted the study with a view to quantifying the impact of various instruments of monetary policy on the profitability of commercial banks during the period 1960-84. The study has been accomplished with the help of step-wise multiple regression analysis. Further Beta co-efficients have been calculated to compare the relative impact of various policy measures. The reserve requirement ratio (cash reserve ratio and statutory liquidity ratio) has been found to be the most significant instrument of credit control having the negative impact on the banks’ profitability. Although priority sector financing also had a negative impact but its magnitude was much less as compared to reserve ratio. The study makes a case for reducing the reserve requirement ratio to increase the diversion of funds towards industries, which had a significantly positive impact on banks’ profitability.

\textsuperscript{24} Nag, A.K., and Shivaswamy, K., ‘Foreign Banks in India – Recent Performance’, Reserve Bank of India Occasional Papers, Vol. 11, No. 4, December 1990, pp 297-328
\textsuperscript{26} Malhotra, Minakshi (Sood) & Kaur Gian, Impact of Monetary Policy on the Profitability of commercial Banks in India, Artha Vijnana, March 1992 V 34 N 1, 57-68
Hansda (1995)\textsuperscript{27} in his paper attempts to identify the strategic variables from the performance variability of public sector banks during the period 1991-94 by using the methodology of principal component. Their performance is sought to be judged on the basis of productivity, financial management, profitability and sustainability. The study finds that there was no relative change in the position of 18 of 28 public sector banks during the period 1991-94.

Ajit and Bangar’s (1997)\textsuperscript{28} paper analyses, in historical perspective, the role of banks in financial intermediation in India. The analysis of the structure and progress of banks during the pre- as well as post nationalisation period brings out the important structural factors, which affect their performance. An examination of important financial parameters of banks – cost and return on various assets – brings out the easing of external constraints on the working of banks and the gradual upward movement in spreads (net interest income) in post financial sector reform period. The impact of financial sector reforms (including prudential regulations) on performance of banks (both group-wise and bank-wise) for the period of 1991-92 to 1995-96 and issues confronting the banking industry are also examined. Net profits of most of the PSBs have declined during the same period, while that of private sector banks, including foreign banks have shown improvement. Spread as a proportion of working funds has shown decline in all banking groups during this period. They mention that the major achievement of financial sector reform in India is the avoidance of financial instability during the reform period. This was mainly due to proper sequencing of reforms and at the same time putting in place a sound supervision system. Being a late starter in the reform process, India had the benefit of knowledge of the experiences of other reformers, including developing countries like Malaysia & Indonesia.

\textsuperscript{27} Hansda Sanjay K. Performance Variability of Public Sector Banks: Need for Strategic Planning Reserve Bank of India Occasional Papers Vol. 16, No.4, December 1995 pp 313 – 327
Das (1997) examines the efficiency of PSBs in India since nationalisation using longitudinal data for 1970-96 period. A non-parametric programming approach is used to calculate the overall, technical, allocative, pure technical and scale efficiencies of PSBs. The results indicate that in general State bank group is more efficient than the nationalised banks. Though the overall efficiency has declined in the post deregulation period, it is not a statistically significant change. Most of the PSBs improved their allocative efficiency significantly in the deregulation period. He also mentions that deregulation is not the only change to affect the efficiency of a bank. There are many factors in the economy, which influence and shape the performance of a bank favourably or unfavourably depending on the banks’ risk exposure. The main source of inefficiency was technical in nature, rather than allocative. Inefficiency in PSBs is due to underutilisation or wasting of resources rather than incorrect input combination. PSBs improved their allocative efficiency significantly in the post liberalisation period.

Sarkar and Das (1997) examined in their paper the interbank performance differences in the efficiency of banking sector with respect to profitability, productivity & financial management for the year 1994-95. For each of the performance criteria area specific efficiency index has been worked out based on 15 indicators, using Principal Component Analysis. The result shows that there is a wide variation in efficiency among the banks according to their ownership pattern. The performance of PSBs was relatively poor compared to other bank groups. There was a wide variation in performance within the foreign banks. It is possible that though the PSBs did relatively poor compared to others, their performance may have improved over the years given the fact that many of these banks have shown improved balance sheet behaviour in the recent years. Apart from internal factors, the performance of PSBs is influenced by several

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29 Das, Abhiman, 'Technical, Allocative and Scale Efficiency of PSBs in India', Reserve Bank of India Occasional Papers, Vol. 18, No. 2 & 3, Special Issue, 1997, pp 279-301
external factors such as the policy conditions relating to the allocation of credit to
certain priority sectors and their entrenchment into the rural areas. They add that
with the progressive liberalisation of the financial sector, Indian banking is fast
moving towards global standards.

Leightner and Knox (1998) have used the best practice production
frontiers, to construct Malmquist growth indexes and productivity indexes for
each Thai bank for the period 1989-1994. They have used these indexes for two
different specifications of the services banks provide: one derived from the
objectives of the banks themselves i.e. profit maximising objective, and the other
derived from the objective of the Bank of Thailand i.e. financing growth
objective. They found that when bank objectives were used, the average bank in
Thailand experienced relatively rapid growth production and total factor
productivity. When Bank of Thailand objectives were used, similar levels of rapid
growth relative to best practices were found, but total factor productivity declines.
They conclude that under the right conditions financial liberalisation can lead to
growth in banks’ ability to increase their profits and in their ability to finance
economic growth and most importantly strong growth should not be blindly
accepted as good. Instead, regulators need to keep careful watch in order to
prevent growth unwisely based on speculation.

D’Souza (2002) evaluated the performance of public sector, private
sector and foreign banks during the period 1991 to 1999-2000. The efficiency of
the banks was measured in terms of spread / working funds ratio and turnover /
employees ratio. The efficiency of the banks with reference to the spread working
funds ratio has declined in the post-reform period. The public sector banks have
been responsible for this decline in efficiency, as the efficiency of the private and
foreign banks has improved over the course of 1990s. Though the turnover /

31 Leightner, Jonathan E. and Knox, Lovell C.A., 'The Impact of financial Liberalization on the
32 D’Souza, Errol, “How Well Have Public Sector Banks Done? A Note”, Economic and Political
Weekly, Vol.XXXVII, March 2-8, 2002, No.9, pp 867-70
employee ratio has risen in the public sector banks, the turnover per employee in
the private and foreign banks doubled relative to the ratio for public sector banks
during the same period. However, the profitability of the public sector banks in
the late nineties improved relatively to that of private and foreign banks.

Manickavasagam and Vethirajan (2002) have discussed in their paper
about the performance of commercial banks in India during march 2000 and
march 2001 with respect to ratio of Net Profits / Total Assets, net spread to Total
Assets, CAR, NNPAs / Net Credit Ratio, etc. They observe that the overall
performance of commercial banks in India has improved in the said period.

Ram Mohan (2002) in his work has evaluated the performance of PSBs
in absolute terms and relative to other categories of banks during the period 1991-
92 to 1999-2000 and 1994-95 to 1999-2000 respectively. He has used various
performance indicators like interest spread, intermediation cost, non-performing
assets, provisions and contingencies, net profit etc. as percentage of total assets to
document performance of PSBs in absolute terms and to evaluate the performance
of PSBs relative other categories of banks. He has concluded that Public sector
banks have improved their performance in both absolute and relative terms. This
study also attempts to understand the factors underlying their improved
performance.

Bhide, Prasad and Ghosh (2002) in their paper have discussed challenges
and issues arising as a result of the ongoing financial sector reforms and also the
weaknesses in the system. They have also pointed out the ways to cope up with
the critical issues, which will arise as a result of the reform process. They have
examined different weaknesses of banking system like interest rate deregulation,
non-performing assets, directed lending, ownership structure, corporate governance etc. This paper has studied the issues of consolidation, recapitalisation, prudential regulation, weak banks, non-performing loans, legal framework, ownership issues, regulation and supervision, corporate governance, and deposit insurance etc. This paper emphasises to strike a balance: tread a careful middle path between the ex-cathedra overzeal for intervention and a complacent belief to self-rectify its deficiencies.

Garai, Basu and Ghosh (2002)\textsuperscript{36} are made an attempt for comparative appraisal of the financial performance of Indian banks by deriving suitable performance scores on the basis of some activity based financial ratios. The multivariate discriminant analysis technique is employed for the years 1995-96, 1996-97 and 1997-98. The discriminant scores, which linearly combine the properly defined variables taking weighted aggregate of them, are called performance scores, in this particular case. Selected banks are ranked on the basis of their performance. The six financial ratios are considered to examine the group difference, they are: Total Income/Total Assets, Interest Income/Interest Expense, Net NPAs/Gross NPAs, Net Advances/Net NPAs, (total income-interest expense)/Intermediation Cost, (total income-interest expense)/ Provisions and Contingencies etc. It is revealed that, in general, public sector banks are trailing behind private sector banks. Albeit, most foreign banks are able to secure higher ranks in comparison with the banks in other groups.

Nayak (2002)\textsuperscript{37} seeks to examine and compare the foreign banks’ achievement vis-à-vis with those of Indian segment of banking industry in respect of liquidity, productivity and profitability for the period from 1985-86 to 1997-98. The ratio analysis tool has been employed to analyse the data. He has concluded


\textsuperscript{37} Nayak, D. N., Liquidity, Productivity and Profitability of Foreign Banks and Domestic Banks in India – A Comparative Analysis, Banking and Financial Sector Reforms in India, Amalesh Banerjee & Singh, Shrawan Kumar (ed.), Deep & Deep Publications Pvt. Ltd. New Delhi

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that the performance of foreign banks in terms of various indicators is impressive but it should be noted that the foreign banks contribute less to priority sector lending and more involvement in profitable activities.

Misra (2003)\textsuperscript{38} traces the operational efficiency of public sector banks in India after the reform period. Using benchmark ratios, the paper makes a comparative study of operational efficiency of nationalised banks for the period 2001-03. The study has also used the Data Envelopment Analysis to assess the comparative efficiency of banks with respect to their efficient frontiers. The Capital Adequacy Ratio, NPA Ratio, Return on Assets, Overhead Efficiency Ratio, Cost-Income Ratio, and Intermediation Ratio have been used as benchmark ratios in this paper. He concludes that the aggregate efficiency score indicates a marginal increase of operational efficiency of 19 nationalised banks over study period.

Naidu and Nair (2003)\textsuperscript{39} in their paper seek to examine empirically whether the technical efficiency of scheduled commercial banks in India has improved after the implementation of Narasimham Committee recommendations. The period of study is classified into two sub-periods – 1968-69 to 1990-91 and 1991-92 to 1998-99. The first period presents the financially repressed phase while the second period represents the liberalised phase. The scheduled commercial banks are classified into four bank groups – SBI group, nationalised banks, domestic private banks and foreign banks. The stochastic production function for the banking industry is used and then bank-wise technical efficiency is computed. Result has shown that technical efficiency levels of both public sector bank groups has recorded a decline in the post liberalisation period, however the technical efficiency levels of both domestic private sector banks and foreign banks has increased slightly. The decline in standard deviation computed

\textsuperscript{38} Misra, Dr. Arun Kumar, Benchmarking Operational Efficiency of Banks, Bank Economists Conference- 2003, pp 308-314
\textsuperscript{39} Dr. V. Nagarajan Naidu and Manju S Nair, Financial Sector Reform and Banking Sector Performance in India: A Study on Technical Efficiency of Commercial Banks between pre and post Reform period – Asian Economic Review, August 2003, Vol. 45, No 2, pp 230-236
from the mean levels of technical efficiency of bank groups in the post liberalisation period as compared to the pre liberalisation period shows that the differences in technical efficiency levels among bank groups has declined in the post liberalisation period indicating enhanced competition among bank groups.

Gurumoorthy (2004)\textsuperscript{40} in his study attempted to analyse the income, expenditure, operating profit and non-performing assets of public sector banks, foreign banks, old private sector banks and new private sector banks for the five year period of 1997-98 to 2001-02. Percentage analysis is used to measure the growth of financial performance in terms of the income, expenditure and operating profit. It is concluded that the financial performance of banks is improving and they are strengthening themselves to oblige all prudential norms suggested by various committees and RBI. Financial sector reforms have contributed to strengthen the competition in the banking sector. Competition has contributed to better and efficient business in banks.

Mohan (2004)\textsuperscript{41} in his paper taken the performance review of different areas of financial sectors like banking, debt market, foreign exchange market, NBFCs, DFIs, PDs, etc. There is analysis of various indicators commercial banks like deposits, total investments, non-SLR investments, loans and advances as a ratio of total assets/liabilities, capital adequacy ratio, gross as well as net NPL, earnings, expenses, operating expenses, spread, net profit, etc. have also been discussed in this paper. He has concluded that the reform process has strengthened the health of financial intermediaries, deepened financial markets and enhanced the instruments available in the financial system. At the level of individual institutions as well as the systemic level, there has been considerable reinforcement of the framework for stability. There have also been discernible improvements in the competitiveness, efficiency and productivity of the Indian

financial system. He has also emphasised that though there is considerable improvement, the current level of efficiency of Indian financial sector is far from satisfactory. Reduction in transaction costs and improving the credit delivery mechanism are two areas, which require focused attention at current stage of reform. There is need for the consolidation of the banking system in India. Another area of concern relates to the decline in direct bank credit towards disadvantaged but socially important sectors such as agriculture and small-scale industries.

Mehta and Mathur (2004)\(^{42}\) have tried to seek how the policy environment in the nineties had impacted the commercial banking sector in terms of profitability. For measuring the profit and profitability of commercial banks, the study employs ratio analysis method. The total 103 banks have been considered for this study to evaluate the profitability performance of Indian commercial banks, three sets of ratios have been employed first spread ratios, second burden ratio, and third profitability ratios. They have concluded that the most of the times foreign banks and new private banks have done well as compared to the nationalised banks and SBI group as far as profitability performance is concerned over the period 1991-2000.

Kapoor (2004)\(^{43}\) has made an attempt to evaluate the relative performance of public, private and foreign banks in the light of banking policy in the pre and post-reforms period. As far as the public sector banks are concerned, the analysis covers the time period from the year 1982 to 1999-2000. However, in the case of private sector and foreign banks the analysis covers the period 1985 to 1999-2000. Thirty indicators are used in the case of public sector banks and twenty-seven in the case of private and foreign banks. The average values of an indicator during pre and post reform era are computed by calculating the average in the pre


\(^{43}\) Kapoor, Dr. G.P. Commercial Banking, A.P.H. Publishing Corporation 2004
and post reform era separately. In the case of group wise analysis the average values of the indicators are computed by taking the total of the numerator variable divided by the total denominator variable.

The analysis suggests that in the pre reform period the public sector banks performed better than the domestic private sector banks with respect to most of the branch-based, employee-based and profitability indicators. However, in the post-reform period on account of relatively improved performance of the domestic private sector banks, the difference between the mean values of the different parameters registered by the two banking groups was narrowed down. In spite of it, the public sector banks continued to record higher mean values than the domestic private sector banks with respect to most of the indicators in the post reform period.

The analysis reveals that the foreign banks on an average have continued to perform better than the public sector banks with respect to most of the branch-based, employee-based and profitability indicators. Though the performance of the public sector banks has improved in the late nineties, yet, there continued to exist significant difference between the mean values of most of the indicators registered by the two groups.

Ketkar, Naulas and Agarwal (2004) have examined the impact of liberalisation on the relative efficiency of Indian banks. Using the Data Envelopment Analysis methodology, performance is evaluated in terms of relative of Indian state-controlled nationalised, private, and foreign banks from 1990 to 1995. The method constructs a frontier based on actual data. Firms on the frontier are efficient, while firms off the frontier are inefficient. Efficiency is measured as the ratio of weighted outputs to weighted inputs and can take the values between zero and one. The overall inefficiency for the whole sample is rather stable for the

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period examined. Efficiency levels fell in all state-controlled banks but most of the nationalised banks maintained their efficiency levels. The foreign banks appear to be the most efficient group and surprisingly domestic private banks to be the most inefficient ones. This study analyses short-term impact of liberalisation on the efficiency of the Indian banking sector.

Madhumathi and Kumar (2003-04)\textsuperscript{45} have analysed the commercial banks operating in India with respect to their financial ratios. The study through factor analysis reveals the most important factors a bank needs to consider and deliberate on. Further, cluster analysis brings out three clusters into which a bank can fall in, namely, niche banks, sound banks and mass banks. This paper summarises that all banks need to invest in IT and non-IT infrastructure. It is also mentioned that all customers are not looking for sophisticated banking. Moreover, they want safety of their money and assured constant returns. Banks will have to decide what kind of customers they want to focus on, or else their further infrastructure investments will be ill focused resulting in inefficiency.

Sreekantradhya (2004)\textsuperscript{46} have observed the performance of the new generation private sector banks during the period 1994-95 to 1999-2000. He employed the following indicators of efficiency to assess the performance of new private sector banks as well as profitability based indicators like gross profit as percentage of total assets, net profit as percentage of total assets and earnings / cost based indicators like interest income as percentage of total assets, interest expended as percentage of total assets, net interest income (spread) as percentage of total assets, intermediation cost as percentage of total assets, percentage of wage bill to total expenses and cost-income ratio. The position of these banks vis-a-vis other bank groups in respect of NPAs and CRAR is also looked into. He has concluded that the performance of the new generation private sector banks is

\textsuperscript{45} Madhumathi R., & Kumar, Lakshmi (2003-04) Multifactor Evaluation and Forecasting of Bank Performance in India, Prajnan, Vol. XXXII, No. 4, pp 316-331

\textsuperscript{46} Sreekantradhya, B.S., "Banking and Finance-Perspectives on Reforms", Deep & Deep Publications, New Delhi, pp 13-23, 2004
better than that of all other bank groups, except the foreign banks in India. He has also warned that because of new technology, low manpower cost, low wage bill, branches mostly in urban and metropolitan areas and limited priority sector lending though many indicators of new generation private sector banks show better performance than other bank groups, it would be difficult to conclude that their performance is superior than others.

Reddy and Reddy (2005) have discussed the financial performance of SBI during the period 1990-91 to 2003-04. The study is undertaken to focus the key responsibility areas of deposit mobilisation, credit deployment, non-performing assets, profitability and productivity. In the post reform era, SBI has mobilised deposits rapidly, it recorded tremendous growth in its advances, the credit-deposit ratio of SBI shows a definite declining trend, the Gross and Net NPAs of SBI are gradually decreasing in terms of percentage whereas they are rising in terms of rupees, the net profit of SBI recorded a continuous rise excepting the years 1999 and 2001 and the productivity in SBI both in terms of per branch and per employee has shown a continuously increasing trend. This study has also analysed the performance of commercial banks in the post reform period. The profitability is studied with the ratios of operating profit to total assets and net profit to total assets whereas efficiency is studied with the ratios of net interest income to total assets and operating income to total assets. They have concluded that the performance related to above mentioned ratios of commercial banks has improved in the post reform period.

Sathye (2005) in his paper attempts to study the impact of privatisation on performance and efficiency of Indian Banks for five years period i.e. 1998-2002. The financial performance of the banks was measured by using the standard financial performance measures such as return on assets. The efficiency of banks

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was measured using accounting ratios, i.e. deposits per employee. The Synchronic approach is used in which the performance of state-owned firms is compared with the firms that were privatised or with the firms that were already in private ownership. He confines himself to the use of the difference of the means test since the dataset is not large enough to allow the use of more robust multivariate statistical procedures. This study reveals that the financial performance of partially privatised banks and their efficiency were significantly higher than that of the public banks, in the quality of advances significant difference was not found in these two groups, partially privatised banks also seem to be catching up fast with private banks as no significant difference was found in financial performance and efficiency between them and gradual privatisation and well-developed financial markets seem to have contributed to Indian success.

Khan and Rahmatullah (2005)* in their paper make an attempt to examine the performance of scheduled commercial banks in general and public sector banks in particular during the post reform period from 1997 to 2003. The parameters used in their study to evaluate the performance of banks in India are Capital Adequacy and asset quality, efficiency, profitability and participation in rural areas. They concluded that the asset quality, capital position, profitability and efficiency have improved considerably during the reform period. Although banks in India still face the problem of overhang of NPAs, high spread and low profitability in comparison with banks in other emerging market economies. However, in spite of good performance of banks, it is distressing to note that their participation in rural areas, in terms of offices, growth of credit, deposits and credit-deposit ratio, have significantly declined during the reform period. Further, the fall in rural credit-deposit ratio has been more alarming in the case of poorer states.

Das, Nag and Ray (2005) have empirically estimated and analysed various efficiency scores of Indian banks during 1997-2003 using data envelopment analysis. In spite of gradual liberalisation aimed at strengthening the operational efficiency of the financial system in the 1990s, it is observed that Indian banks are still not much differentiated in terms of input- or output oriented technical efficiency and cost efficiency. However, they differ sharply in respect of revenue and profit efficiencies. Bank size, ownership, and being listed on the stock exchange are some of the factors that have a positive impact on average profit efficiency, to some extent revenue efficiency scores. Finally, the median efficiency scores of Indian banks, in general, and of bigger banks, in particular, have improved during the post-reform period.

Sensarma (2005) in this paper examines efficiency of all scheduled commercial banks in India for the period 1986-2003. It employs the technique of stochastic frontier analysis to estimate bank-specific cost and profit efficiency. The study concludes that while cost efficiency of the banking industry has increased during the period, profit efficiency has undergone a decline. This is expected in an emerging economy undergoing a process of deregulation. In terms of bank groups, domestic banks appear to be more efficient than foreign banks. Public banks have shown higher cost efficiency than private banks, whereas it has been the other way round in the case of profit efficiency. New private and foreign banks exhibit the least efficiency in term of both measures.

The review of literature shows that the studies can be classified into two parts, those made before 1991 and those carried out after 1991. The studies (Shetty, Angadi, Nag and Shivaswamy, Jayaraman) were made before 1991 and remaining all studies was made after 1991.

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In most of the studies analysis was based on the ratios analysis. In order to evaluate the performance of commercial banks some indicators are selected and the results are derived accordingly. There are other researchers who have used various methods such as principal component analysis, multiple regression analysis, non-parametric programming approach, Malmquist growth indexes and productivity indexes, multivariate discriminant analysis, benchmark ratio analysis, data envelopment analysis, stochastic production function, synchronic approach, stochastic frontier analysis etc. to evaluate the performance of the commercial banks.

Most of the analysis of the studies while evaluating the performance of the commercial banks based on the limited number of indicators except study by the Kapoor. But in the present study, thirteen comprehensive indicators showing performance of the commercial banks with reference to profitability, efficiency and productivity have used and ranking based on these indicators for each bank as well as indicator is also done.