CHAPTER-2

REVIEW OF LITERATURE

Research on banking performance and efficiency has advanced greatly in the past three decades. The large number of studies on the subject worldwide is largely justified by the importance of a properly functioning financial system to the economy in general. Specifically, the financial system’s role in channelising resources to productive sectors where liquidity is relatively scarce, its function to engine the payment system, and also the part it plays in long term growth are the major factors motivating research into the efficiency of its productive structure. Among the research studies on Indian banking some worthwhile studies relating to the present topic are being reviewed. This chapter is intended to furnish a proper orientation to the study by associating available research findings with the proposed research problem. The available literature were perused and presented as macroeconomic and microeconomic studies.

2.1. Macroeconomic studies

Khusro et al (1971) measured the operational efficiency of commercial banks for 18 years (1951-1968) before nationalization in terms of the elasticity of bank deposit with respect to advance ie the percentage increase in a bank deposit following a one percent increase in the advance for banking system as a whole. It was evident that Canara bank yielded a high coefficient of efficiency followed by Syndicate bank, a one percent rise in the system’s advance leading to 1.5 and 1.4 percent rise in their deposits respectively.

Divatia and Venkatachalam (1978) constructed composite indices using factor analysis to measure an individual bank’s performance in comparison to the industry. The study comprised of fifteen PSBs and the efficiency indices were compiled separately for productivity, profitability and social objectives using a total of 18 indicators. It was observed that banks differed significantly in ranking position in terms of productivity, profitability and social obligations criteria.

Sheshadri (1980) conducted an econometric analysis of profitability of commercial banks for the year 1976. The study revealed that past profitability appeared to be the most
important explanatory variable statistically thereby proxy the persisting hypothesis of profitability. The two major indicators of social banking namely share of rural and semi urban branches and share of priority loans have negative influence on profitability behavior and, in the case of latter this is statistically significant too, though in magnitude, it has lesser impact compared to the former. Among the social factors analysed, measures which are of intensive nature like greater share of priority sector are more desirable from profitability point of view than those which are of extensive nature such as indiscriminate expansion of banking facilities in rural areas.

Shah (1987) studied the efficiency of bank branches in relation to social objectives resorting to principal component analysis. He reported that priority sector advance to total advance, agricultural advance to total advance and agricultural deposits to total deposits were positively related to social efficiency in rural branches whereas small industries and business advances were negatively correlated with social efficiency. However in urban branches negative aforesaid variables reflected lower efficiency.

Yue (1992) analysed the performance of Missouri banks using DEA window analysis for a seven year span from 1984 to 1990 and identified the best and worst banks in terms of seven year average. DEA scores choosing 3 year period as a window.

Amandeep (1993) analysed the emerging trends in profitability by examining the different factors responsible for the erosion of bank profitability. A number of indicators were calculated and trend analysis and concentration indices were used to measure the performance of banks. Further, the study also applied different multivariate statistical techniques to analyse the various variables influencing the profitability of banks. The sample comprised of only 20 nationalised banks and the data of selected variables were pooled together for each bank for the two periods of time namely 1976-78 and 1983-1985. Based on the empirical results, the study concluded that priority sector lending and rural lending were not responsible for declining profitability. Rather high establishment costs and low efficiency of banking operations were the key factors affecting profitability of banks.
Bilgrami (1995) while analyzing the variability in CD ratio of Public sector banks during 1969-1992 reported that national CD ratio which was 77.89 in 1969 declined to 59.58 % in 1992 and the variation was wide between the regions.

Hansda (1995) constructed a composite index to judge the relative performance of 28 public sector banks for three years in the post liberalisation period from 1991-92 to 1993-94. The study considered 25 indicators under five categories, namely, labour productivity, branch productivity, financial productivity, profitability and growth. The methodology used was principal component analysis.

Ray and Sanyal (1995) conducted an econometric investigation of scale efficiency in Indian commercial banking based on the data for the year 1989-90. They fitted a trans log function as well as a hybrid of TL function and miniflex Laurents approximation to cost data in the single equation framework as well as in the frame work of a systems of equations (which included cost share equation). The study concluded that substantial scale economies exist among the sample banks and it would be more cost effective to expand output at existing branches than to expand output through opening of new branches.

Nouglas and Ketkar (1996) analysed the technical and scale efficiency of public sector banks using Data Envelopment Analysis. They used the cross sectional data of 18 public sector banks for the year 1993. It was observed that the overall technical efficiency was approximated 3.75 per cent, of which 1.5 percent was on account of pure technical efficiency and 2.25 percent was due to scale inefficiency. Also a majority of the public sector banks were found to be operating under increasing returns to scale.

Raut and Das (1996) considered profit as composite index of bank’s performance in its various areas of operations. Even though the different groups witnessed a proliferation of their profit volume for the period 1980-1992 the annualized growth rate of profit was observed to be highest at 54.42 per cent for foreign banks followed by private banks (43.09%) nationalized banks (33.81%) and SBI group (32.81%) during the period under review. They noticed that along with spread, a primary factor as well as positive determinant of profitability and management a negative determinant.
Bhattacharya et al (1997) evaluated the impact of limited liberalisation initiated before the deregulation in the nineties on the performance of different categories of banks using Data Envelopment analysis. The authors used advances, investments, and deposits as outputs and interest expenses and operating expenses as inputs. They constructed a grand frontier for the entire period and measured technical efficiency of the banks. The study covered 70 banks in the period 1986-91. They found that PSBs had the highest efficiency among the three categories, with private and foreign banks with lower efficiencies. However, PSBs started showing a decline in efficiency, private banks showed no change and foreign banks showed a sharp rise in efficiency after 1987. They did not consider technical change explicitly in the model. The main results accord with the general perception that in the nationalised era, public sector banks were successful in achieving their principal objective of deposit and loan expansion.

Using the data for Indian banks for 1994-95, Chatterjee (1997) studied the effect of output expansion from the existing branches as also through opening of new branches. He concluded that the Indian banks could reap cost efficiency gains by expanding their business at the existing branches and keeping the output mix unaltered. If new branches are opened to expand output, only the small and medium sized private sector banks may prove efficient. Indian banks thus appear to possess significant unrealized potential scale economies and can expand their business without expanding their branch network.

Das (1997) examined the efficiency of public sector banks in India since nationalization using longitudinal data (1970-1996). A non parametric programming approach was used to calculate the overall, technical, pure technical and scale efficiencies of public sector banks using labour and loanable funds (deposits plus borrowings) as inputs and margin (total interest earned-total interest paid) and commission, exchange, brokerage as outputs. The results indicated that in general the State Bank of India and its associates are more efficient than Nationalised banks. Though the overall efficiency declined in the post regulation period, it was not statistically significant. Most of the public sector banks improved their allocative efficiency significantly in the deregulation period. Finally, inefficiency that existed in these banks was more the result of technical rather than allocative efficiency.
Public sector banks in 1996 had the scope of producing 1.3 times as much output from the same inputs.

Munjappa (1997) attempted to estimate empirically the social and budgeted cost on priority sector lending. The annual social cost reflects the social burden due to concessional lending under priority sector. They reflects society’s sacrifice in terms of opportunity cost for uplifting the neglected sectors of the economy. The study revealed that the social burden of the society has increased substantially during the period and in monetary terms it increased from 26 crores in 1969 to 21559 crores in 1994. The society has foregone to the line of 19500 crores as additional income during the period.

Ramamoorthy(1997) studied the profitability and productivity in Indian banking system for a period of 4 years ending in 1996. He reported declining trend that the ROA turned around 1.08% in 1992-93 to 0.15 % in 1995-96. ROA levels of PSBs as a group (-0.071) are negative though private and foreign banks maintain ROA level of more than 1%.

Sarkar and Das (1997) examined the interbank performance differences to the efficiency of the banking sector with respect to profitability, productivity and financial management for the year 1994-95.For each of the performance criteria, an area specific criterion was worked out based on 15 indicators using principal component analysis. The results showed that there was wide variation in efficiency among the banks according to ownership pattern. The performance of public sector banks was relatively poor and resembled a homogenous group compared to other groups. There were wide variations in the performance of foreign banks.

Bhatia and Verma (1998) made an attempt to determine empirically the factors influencing the profitability of PSBs by making use of the technique of regression analysis.Net profit as percentage of working funds has been used to measure bank’s profitability during 1971-1995. The analysis revealed that priority sector advances, fixed/current deposit ratio and establishment expenses affected the profitability of PSBs negatively. Net spread influenced the profitability positively and significantly. High credit deposit ratio had a positive non significant influence.
Sooden (1998-99) studied the extent of regional disparities in commercial banks during the years 1975 to 1985 and 1986 to 1996. Six indicators of banking development were selected and ultimately with the help of principal component analysis, indices of banking development for 21 states of India were made. Analysis of deposits, credit and branches pointed out that they registered higher growth rate in the first half of the study (1975-85) than the latter half.

Das (1999), while analyzing the data for the period 1992-1998 found that the banks in India have succeeded in achieving a reduction in their burden in raising working funds. Spreads, however, constitute the driving factor behind the profitability of Indian banks and in the competitive environment banks must assign high importance to customer services to become more profitable through higher non-interest income in the form of commissions, brokerages, etc. There is scope for reduction in establishment expenses, particularly wage bills, and mechanization of banks can enhance productivity. The risk averse behaviour of the banks in response to tightening prudential regulations have contributed to the shifts in the bank’s preference for investments as opposed to loans and advances. The Indian banking system, however, is gradually getting used to the risk-return trade off in a liberalized market economy while improving its performance simultaneously. There has been evidence of convergence in the performance of banks in the recent years, with weak banks coming under greater pressures to meet the minimum efficiency standards.

Denizer et al (1999) tested the hypothesis that liberalization policies in the banking sector leads to efficiency increases in the core processes of the Turkish Banking system for the period 1970-1994. This study applied two stage DEA methodology to the banking sector facilitates investigation of both production and intermediation function of the banks to determine the relationship of these two components of bank operation. The Turkish banking system had relatively lower efficiency scores in intermediation than production eventhough both showed a drastic declining trend with the exception of technical efficiency in intermediation function. Among the two functions of banks intermediation reacted somewhat favourably to the new policy. The fact that the macroeconomic environment has not been stable, probably, affected the financial system efficiency. The macroeconomic stability may be a pre requisite for liberalization policies to lead to efficiency gains.
The study of the RBI (1999) revealed that incidence of NPAs in priority sector was much higher since they constituted 30-32 per cent of gross bank credit during 1997. Higher NPAs in priority sector advances had pushed up the overall proportion of NPAs by about 3-4%.

The RBI (1999-2000) provides the Central bank’s perspective on how deregulation had impacted on bank performance. In the period 1990-1996, the study found a decline in overall efficiency. After deregulation in the period 1996-2000 banks improved their performance by decreasing interest spreads, widely used measure of efficiency in banking and a tendency towards their convergence across all bank groups except foreign banks., intermediation costs as a percentage of total assets also declined, capital adequacy and asset quality improved.

Das (1999-2000) estimated the frontier efficiency measures of Public sector banks for the year ending March 1998 under the framework of Data Envelopment Analysis-Intermediation approach. It was observed that during 1998 PSBs had the scope of producing 1.23 times as much output from the same input. The results indicated that banks in the State bank group were more efficient than nationalized banks. The overall inefficiency that existed in PSBs (42.82%) was more as a result of technical and allocative inefficiency.

Saha and Ravisankar (2000) rated 25 Public sector banks using Data Envelopment Analysis for the period 1991-92 to 1994-95. It was observed that barring a few exceptions, the public sector banks had in general improved their efficiency scores over the period.

Kannan etal (2001) tried to identify the determinants of spreads of scheduled commercial banks in India using the data for the period 1995-96 to 1999-2000. The study revealed that size did not correlate with higher spread and higher fee income enabled the banks to tolerate lower spread. With regard to the regulatory requirement variables it was found that capital played an important role in affecting PSBs and non performing assets were uniformly important across all bank groups in influencing the spread.

Machiraju (2001) while analyzing the efficiency revealed that the ROA of SCBs was 1.58 in 1998 which fared favourably in international comparison, a return higher than US and
Australian banks. The net interest margin of Indian PSBs was next only to US banks but higher than Australian banks. The operating cost was high for PSBs in India only next to US and Australia.

Manju (2001) estimated the total factor productivity with the help of dynamic Cobb Douglas production function considering the intermediary approach of banking services. The results indicated that returns to scale has declined for all bank groups during the post reform period compared to pre reform period. Only State Bank of India showed increasing returns to scale in both periods. The total factor productivity has increased for State Bank of India, Nationalised banks and other scheduled commercial banks in the post reform period. For Foreign banks there was decline in total factor productivity. However Foreign banks still retains the highest in both periods. Thus the trends in returns to scale and total factor productivity reveals that the input contribution to total output has declined for all bank groups along with an improvement in total factor productivity. This implies the fact that there has been more technological progress and changes in technical efficiency after the implementation of reforms in the Indian banking sector.

Sharma et al (2001) concluded a study on recovery management in rural credit. They observed that with increase in NPAs the turnover of assets becomes gradually slow and the very essence of banking ie credit creation will be hampered. Moreover as a result of higher provisions due to incremental NPAs, higher interest have to be charged from performing borrowers as the cost of servicing the resources. When the interest rate is higher than the market rate, the rural financial institution is left with the option of adverse selection ie availability of low rated borrowers for their credit expansion which again increased the risk of creating new NPAs. NPAs affect profitability through a loss in interest income to the extent of interest accrued on NPAs, since income recognition is limited to standard assets. A substantial portion of nonperforming assets in loan portfolio affects solvency as accretion to owned funds is reduced due to higher provision and consequently less profit. As the level NPAs to total assets increases, the level of liquidity risk also increases.

Ambumani and Niranjana (2002) analysed the growth of priority sector lending and profit and found that when the priority sector lending increased from 24.04% in 1969 to 46.15% in
1984, the profit declined from 1.2% to 0.3%. When the priority sector lending was reduced to 41.93 per cent the profit percentage has increased to 0.60 per cent, thus pointing out the adverse effect of priority sector lending on profitability. During the period December 1969 to March 1993 the priority sector lending registered a higher growth rate (21.11%) against total advances (18.4%) The interest income loss due to priority sector lending was estimated to 6483.01 crores in which 91 per cent of the income loss was accounted for agriculture, export and small scale industries.

Bhide etal(2002) while evaluating the banking sector in India observed that there has been a commendable improvement in profitability of the PSBs ,measured in term of operating profits and net profits. It was pointed out that the intermediation process has also improved, as evident from the ratio of net interest income to total assets. The profile of assets and the extent of net non performing loans as percentage to total assets also exhibited improvement during the period 1992-93 to 1999-2000.

Chaudhuri (2002) analysed some of the issues of growth and profitability of Indian PSBs taking into account the financial contours in 1990-91 and 2000-01. The study revealed that in spite of the reforms and entry of private sector banks PSBs continued to dominate albeit to a diminished degree. The PSBs share which accounted for 91 percent came down to slightly less than 80 per cent after a period of 10 years. The corresponding change for private banks was from 3 per cent to 12 percent and for foreign banks from 6 per cent to 8 per cent. The study revealed that in 1995-96, PSBs together reported a net loss of 0.07 per cent of total assets. In 1997-98 the average ROA for PSBs had risen to 0.77per cent but ever since then there had been steady erosion of profitability and ROA came down to 0.42 per cent in 2000-01. The ROE also showed a significant slippage in profitability to a region of 8-12 per cent for most of the stronger PSB’s was serious except PNB with 20 per cent. The leverage (borrowed capital to equity) of Indian PSBs was particularly higher and in the range of 20-25 times and hence the weak ROAs nevertheless translate into very bad ROEs.

Das (2002) showed the adverse impact of financial sector reforms on priority sector lending. It was evident that the percentage share of the priority sectors in the total bank credit has
been found increasing but at a decreasing rate in period II (1991-1997) in comparison to period I (1981-1990), as the corresponding growth rates were observed to be 2.96 and 1.83 respectively for the period I and II. Further the average amount of rupees per account of priority sector lending by PSBs had also shown the same trend as the corresponding growth rates were 14.68 and 5.07 respectively.

Das (2002a) explored the inter relationship among capital, non performing loans and productivity for the period 1995-1996 to 2000-2001 using data envelopment analysis considering deposits, borrowings, fixed assets for the first model, while an additional input as provisions and contingencies in the second model and bank credit and investments as the output, a Malmquist total factor productivity index to measure productivity. The study revealed that capital, risk and productivity change to be intertwined, with each reinforcing and to a degree, complementing the other. The results implied that inadequately capitalized banks have lower productivity and are subject to a high degree of regulatory pressure than adequately capitalized ones. The results lend some credence to the belief that lowering government ownership tends to improve productivity. CRAR was found to have a significant and negative effect on the asset quality of PSBs in totality. This implies that PSBs as a whole, relatively more capital (lower leverage) tends to be associated with less credit risk. Contrary to widely held beliefs, loans to priority sector do not necessarily lead to high NNPA especially for small banks. The loans to the priority sector are subject to regulatory stipulation, banks have to advance of 40 per cent of their demand and time liabilities to this sector; the short fall having dovetailed to bonds of selected financial institutions. To that extent that small banks are not able to meet the stipulations, the banks tend to invest the same in risk free bonds of selected institutions, which would then imply an inverse relationship between NNPA and priority sector loans.

Dasgupta and Ray (2002) studied the impact of financial reforms on banking sector and came to the conclusion that growth rate of Indian banks was high inspite of extremely low profit due to high interest rate. Further added that exclusive reliance on market oriented growth and automatic trickledown theory are inadequate. The crux of the problem is how to reconcile the experience of financial reforms for economic growth with social justice.
D’Sousa (2002) in his study evaluated the performance of public, private and foreign banks during the period 1991-92 to 1999-2000. The efficiency of the banking system was measured in terms of Spread/Working funds ratio and Turnover/Employees ratio. With reference to Spread/Working funds ratio, the efficiency of commercial banks as a whole has declined in the post reform period. The public sector banks were responsible for the decline in efficiency, as the efficiency of private and foreign banks improved over the course of 1990’s. Though the turnover/employees ratio has risen in PSBs, it was doubled in other banks during the decade. However, the analysis revealed that the profitability of PSBs in late nineties improved relatively to that of private and foreign banks.

Garai et al (2002) applied multivariate discriminant analysis using the data on financial ratios such as Total income to Total assets, Interest income to Interest expenses, Total income excluding interest expenses to Intermediation cost, Total income excluding interest expenses to Provisions and contingencies, Net nonperforming assets to Gross nonperforming assets and Net advances to Net nonperforming assets for 3 financial years from 1995-96 for obtaining performance score for ranking 68 Indian scheduled commercial banks. The study revealed that members of the foreign bank groups assumed first ten positions and public sector banks occupied last eighteen ranks with a few exceptions.

Nayak (2002) compared the achievements of foreign banks with the Indian segment of banking industry for the period 1991-98 in respect of liquidity, productivity and profitability and confirmed that productivity and profitability are higher for foreign banks which may be due to the factors of lower contribution to priority sectors, involvement in profitable activities and public policies. Even though the performance is impressive, the impact of foreign banks on Indian economy is limited as they provide hardly 10 per cent of total advances of Scheduled commercial banks.

Mukherjee et al (2002) made an attempt to explore technical efficiency and benchmark the performance of 68 commercial banks for the period 1996-1999. It was detected that in India, public sector banks were more efficient than both private and foreign banks. Also the performance of public sector banks had improved over study period. Besides this publically owned banks were rated uniformly in terms of self appraisal and peer group appraisal.
Pedgaonkar (2002) attempted to test whether entry and expansion of private sector banks increased the dynamic efficiency through reorganization of operations using the data for a decade from 1987. The study used deposit per employee and credit per employee as measure of labour productivity earning as percentage of assets and establishment expenses as percentage of total expenditure for depicting productivity based on certain financial ratios. The analysis of comparison of various indicators revealed that new private banks top in terms of almost all the indicators followed by foreign banks. Nationalised banks have shown the least score next to SBI group.

Ram Mohan (2002) found a trend towards convergence in performance between public and private sector banks using financial measures of performance in the period 1994-95 to 1999-2000. The key indicators used were interest spread, intermediation cost, nonperforming assets and net profit, all measured as a percentage of total assets. Even though the performance of public sector banks is inferior, they are catching up and the gap was becoming narrower. In the year 2002, the gross NPA of scheduled banks stood at Rs 71000 crores (RBI, 2002) Although the net NPAs of the commercial banks in India have witnessed a decline over the past several years, they are still high as compared to developed country standards of 2 percent. Some argue that, the high level of NPAs in PSBs was due to the higher proportion of NPAs in priority sector advances by PSBs which was attributed to the directed and pre-approved nature of loans sanctioned under government sponsored programmes, absence of any security, lack of effective follow up due to large number of accounts, legal recovery measures being considered not cost effective, absence of repayment culture consequent to loan waiver schemes.

Verma and Verma (2002) analysed the profitability trends and identified empirically factors influencing profitability of SBI group, other nationalized banks and foreign banks in India using tabular and regression analysis for the period 1971-1998. The study revealed that priority sector advances (in case of public sector banks) and spread and burden were the major and significant factors that influenced the profitability of banks. Besides these, C/D ratio and composition of bank deposits FD/CD and to some extent the establishment expenses were responsible for determining the profitability of banks.
Ahmed (2003) evaluated productivity in terms of cost responsiveness and returns on working fund for the period 1985-86 to 2000-01. The results showed that there was a sudden spurt in cost responsiveness for all the banks groups in 1992-93 owing to banking sector reforms following by a decline in 1994-1996 period which was deeper in the case of private and foreign banks and there after the cost effectiveness was hampered for the period 1998-2001. The return on working fund which showed productivity of capital showed an increasing trend over the period.

Ketkar et al (2003) analysed the efficiency and productivity growth of Indian banking system using intermediation approach of Data Envelopment Analysis taking deposits, labour and physical capital as inputs and investments and advances as outputs. The analysis revealed that the overall technical efficiency was 69% which was stable over the period from 1990 to 1995. Foreign banks appeared to be most efficient and it showed increase in efficiency over the period. The size has been positively correlated to pure technical efficiency and the number of branches negatively.

Pathak (2003) on comparing the financial performance of private sector banks used 4 types of indicators viz. financial, operational, profitability and productivity for 5 year period ending on 2001. Among the sample of 5 banks, HDFC bank emerged as the top performer followed by ICICI bank.

Sathye (2003) used the DEA to examine efficiency of Indian banks during 1997-98 and found that the overall mean efficiency was 0.83 and 0.62 respectively for production and intermediation approaches respectively. Public sector banks have a higher mean efficiency in production approach of 0.89 as compared to private banks (0.78) and foreign banks (0.84). Private banks are less efficient than public and foreign banks. According to intermediation role public sector banks have a lower mean efficiency (0.60) than foreign banks(0.80) but still higher than the private bank (0.45).The study recommends that the existing policy of bringing down non performing assets as well as curtailing the establishment expenses through voluntary retirement scheme for bank staff and
rationalization of rural branches are steps in the right direction which could help Indian banks to improve efficiency over a period of time so as to achieve world’s best practice.

Choudhari and Tripathy (2003-2004) attempted to use Data Envelopment Analysis-output oriented model to evaluate the relative performance of public sector banks on five indicators for the period 1998-2000. The Corporation bank was found to be in the efficient frontier in all the indicators followed by Oriental bank of commerce. The results of the analysis showed that most of the banks formed efficient frontier in profitability and financial indicators compared to productivity, growth and liquidity indicators which means that more emphasis is given to profitability and financial management.

Madhumathi and Kumar (2003-04) analysed the commercial banks operating in India with respect to their financial ratios for 2000-2002 using 18 variables published by RBI. It showed that 75 per cent of the variance was explained by six extracted factors where maximum weight age of 15.7 per cent for growth in earnings quality followed by capital adequacy and operational efficiency with a loading of 13 per cent each. The other factors were growth in assets quality (12 per cent), growth in investment quality (12 per cent) and growth in interest income (9 per cent).

Kantawala (2004) analysed the risk of public sector banks and derived factors having relationship with risk index considering the data from 1993-2003. The study revealed that size did not have any significant effect on risk index, both rank correlation coefficient and regression coefficient suggested that profitability, solvency and liquidity ratios had significant relationship and impact respectively on risk index. Among the profitability ratios, net profit margin, spread/WF, Spread/total income, Interest income/WF, Interest expense/WF and Non Interest income/Total Income were found to have significant effect. Similar was the case for all the three solvency ratios viz Earning assets/Equity, Earning assets /Total assets and Earning assets/WF. Amongst the liquidity ratios Cash+money at call/WF, Advances/WF and Cash+money at call+advances+Investments / WF were found to have significant effect on risk index.
Kapoor (2004) attempted a comparative analysis of Public sector banks, Old private sector banks and Foreign banks for the pre reform period (1985-1990-91) and post reform period (1991-92 to 99-2000). The analysis suggests that in the pre reform period the public sector banks performed better than domestic private banks with respect to most of branch-based indicators, employee-based indicators and profitability indicators. However, in the post reform period on account of relatively improved performance of the domestic private banks, the difference between the mean values of different parameters registered by both banking groups narrowed down. However, in spite of it, the Public sector banks continued to record higher mean values than the domestic private banks with respect to most of the indicators in the post reform period. The analysis revealed that the Foreign banks on an average continued to perform significantly better than public sector banks even though the performance of Public sector banks has improved in the late nineties. The study also noticed that the ratio of net NPAs to net advance fell in 1999-2000 from 1996-97 in the case of Public sector banks but the opposite is observed in domestic private sector banks. In contrast the problem of NPAs is of low intensity in foreign banks.

Matthews and Tripe (2004) studied the Papua New Guinea (PNG) banking system using DEA with deposits and operating (non interest) expenses as inputs and net loans(net of provisions for doubtful debts) net interest income and noninterest income as output for the period 1994-2001 for different types of banks and compared with banks of Australia and New Zealand. The study revealed while some of the banks showed as efficient, others are rather less so, particularly the locally owned banks which are expected to undertake a broader range of (particularly deposit)business. They also noted that there was no particular indication of any improvement in efficiency through time. When compared to the efficiency of banks of Australia and New Zealand, it was seen that PNG banks were less efficient for reasons that appear to relate to their particular emphasis on deposit business.

Ramashasthri et al (2004) examined the variability of each source of income and also verified whether noninterest income succeeded in reducing the stability of total income during the period 1997-2003. The analysis revealed that the interest income has fallen from 87.3 per cent in 1997 to 81.7 per cent in 2003. On the other hand, non interest income
has increased from 12.6 to 18.3 per cent in the corresponding period. In regard to the question whether noninterest income has helped in stabilizing the total income of banks it was seen that with respect to state bank group, foreign banks and old private sector banks the non interest income has helped in stabilizing total operating income.

Ram Mohan and Ray (2004) attempted a comparison of performance among three categories of banks-public, private and foreign –using physical quantities of inputs and outputs and comparing the revenue maximization efficiency of banks during 1992-2000. They concluded that public sector banks performed significantly higher than private sector banks but not differently from foreign banks on this measure and this is attributed to technical efficiency rather than higher allocative efficiency.

Reddy (2004) examined the competitiveness in the deregulated period 1996 to 2002 using DEA window analysis. The results indicated that there is an increase in technical efficiency and scale efficiency of most of the banks. Most of the banks facing decreasing returns to scale especially Public sector banks due to widespread of branches with little connectivity. The foreign and new private banks exhibit productive scale size as they are new entrants into the banking industry with well connected bank branches than public sector and old private sector banks. Tobit analysis revealed that both pure technical efficiency and scale efficiency was influenced negatively by branches per bank, whereas positively influenced by total assets, share of priority sector advance and asset quality.

Ansari (2005) analysed the performance of commercial banks in post reform period (1991-2003) taking into account profitability, efficiency and stability. The profitability of Indian banks in terms of ratio of Operating cost to Total assets, as well as, in terms of Net profit to Total assets, despite fluctuations in the late 1990’s, has increased unambiguously since 2000-01. As a measure of efficiency the spread declined across all categories of banks but intermediation cost declined except in the case of foreign banks. There has been significant improvement in the overall capital adequacy of banks after the introduction of the CRAR norms and Indian banks are in a better position to absorb any shock. The asset profile of SCBs has undergone drastic improvement after the reforms with 91.2% of total assets being in the standard category.
Chakrabarti and Chawla (2005) applied the increasingly popular methodology of DEA to evaluate the relative efficiency of Indian banks during 1990-2002 period. Two alternative model specification were used for the analysis. The quantity approach based on production view of banking to performance measurement considered interest expenses and operating expenses as inputs and advances, investments and deposits as output. The value approach based on intermediation view of banking used interest and noninterest expenses as inputs and interest and noninterest income as output. From the quantity perspective the Indian banks seemed to be the best while the foreign banks were the worst performers. On a value basis the foreign banks as a group was more efficient than other banks groups followed by Indian private banks.

Chen et al. (2005) examined the cost, technical and allocative efficiency of 43 Chinese banks over a period of 1993-2000. The goal of this analysis was to identify the change in the Chinese banks efficiency following the programme of deregulation initiated by the government in 1995. Results showed that state owned banks and small banks are more efficient than medium sized Chinese banks. In addition technical efficiency consistently dominates the allocative efficiency of Chinese banks. The financial deregulation in 1995 was found to increase cost efficiency levels including both technical and allocative efficiency.

Joy (2005) conducted research on performance evaluation of banks for the period 1992-2002. He concluded that the performance of public sector banks appeared to be unsatisfactory even though they stood first in social commitment. The private sector banks improved their performance to a greater extent due to the emergence of new generation banks in 1995-96. The compound annual growth rate of deposit, advance, investment, net profit and branches all favoured the growth of private sector banks. The foreign banks could not hold good in CAGR proportions which means that even though they stood first in many averages proportion, the market share was declining year after year. The study also reported a higher CAGR in favour of public sector banks for the labour productivity variables. The CD ratio and net NPA to Net Advance of public sector banks showed a negative trend and the trend was positive for private sector and foreign banks.
Khathik and Singh (2005) attempted the financial appraisal of IDBI through financial ratio analysis such as capital adequacy, SLR, CRR, CD ratio, priority sector advance to total advance, Net NPA to Total advance for the period 1997-2001. The study revealed that earning position and liquidity position was sound and capital adequacy was maintained at a comfortable level since the inception and ratios kept on increasing.

Ram Mohan (2005) stated that internationally, a return of 1 per cent on assets is considered outstanding. India’s banking system in 2002 was the second most profitable in the world after that of U.S. Most recent research places the optimal size between US $10bn- US$25 bn in US. It is possible that technological progress as well as deregulation has resulted in a higher size than optimal than before. Average size of Indian banks in comparison with international banks is quite small, for example SBI, India’s largest bank ranks 82nd amongst the top global banks.

Reddy (2005) analysed the data for the period 1996-2002 using Data Envelopment Analysis to compute Malmquist Total Factor productivity, considering total expenses excluding provisions as the only input and total deposits, total advances and commission fees as output, Overall there was stagnation in Total factor Productivity growth (-0.8 per cent per annum) The contribution of technological progress towards productivity is declining, however, technical efficiency and scale efficiency have improved for all banks. There was seven percent increase per annum in pure technical efficiency and 5.5 percent increase in scale efficiency among banks. The highest TFP growth has been observed among public sector banks, followed by old private sector banks(mostly in terms of increasing efficiency in catching up with new private and foreign banks through cost cutting and computerization which increases deposits, loans and profit, while both new private banks and foreign banks recorded decline in TFP growth.

The total assets considered for the study of 80 banks for the period 1996-2002 showed that the growth of new private banks was significant (794) per cent), followed by old private sector banks (174 per cent) and foreign banks (144 per cent) and least growth recorded in public sector banks (128 per cent). Overall profitability of all banks improved significantly.
Net profit as percentage of total assets increased from 0.15 to 0.79 per cent even though there was a simultaneous decrease in total income and total expenses from 10.87 to 10.36 and 10.72 to 9.57 percent respectively. Interest margins have decreased from 3.15 to 2.52 per cent as a result of faster reduction of interest earned as compared to interest expended by the banks due to high competition in raising deposits and loan disbursements. The increased competition also helped in reducing operating expenses and provisions and contingencies as a percentage of total assets. These indicated overall efficiency of the banking system has improved considerably due to the entry of new foreign banks and private banks on the one hand and deregulation of interest rates on deposits and loans on the other hand.

Sharma (2005) studied the impact of NPAs on the profitability of banks applying multiple regression models and concluded that NPAs not only affected the performance of banks but also put irreparable harm on the entire economy. The results showed that NPA and difference between spread and burden explained 90 % of the variations in profitability. Impact of NPA on other variables was also analysed and found that NPAs put negative impact on productivity, achievement of capital adequacy etc

Das and Ghosh (2006) employed different approaches of DEA to differentiate how efficiency scores vary with changes in inputs and outputs. The results showed a large asymmetry between Indian banks regarding technical efficiency during the post reform period of 1992-2002. Technical efficiency was found to be higher under value added approach than under intermediation approach. Under the latter approach, Indian banks were marked with persistent and apparently declining trend in technical efficiency.

Naidu and Manju (2006) while analyzing the trend of operating profit for the period 1969-1999 of Scheduled commercial banks estimated that the annual average growth rate was maximum for Other Scheduled Commercial banks(59 per cent) followed by State Bank of India(55.28 per cent ), Nationalised banks(47.11 per cent ) and Foreign banks.(44.81 per cent).Disaggregated analysis revealed that after liberalization maximum growth was achieved by State bank of India(137.76per cent) followed by Other Scheduled Commercial banks(123.39 per cent) Nationalised banks (119.03 per cent) and Foreign banks.
(101.45 per cent) which shows a favourable impact of liberalization on all categories of banks and more in the case of State Bank of India.

Shiralashetu and Akash (2006) revealed that problems of NPA are more in Public sector banks compared to private and foreign banks. Similarly the problem of NPA are more in non priority sector than in priority and public sector. Further the SSI sector has the largest share of total NPA of priority sector. As a result the financial health of banks is affected adversely. Hence banks in India should apply the principles of financial management to solve the problem of mounting NPA.

Ram Mohan (2007) studied the impact of financial sector reforms on the efficiency and stability of Indian banking. As reported public sector banks have shown remarkable transformation in the post reforms period. Profitability is comparable to international banks, efficiency and stability improved and there is convergence between PSBs and private banks. While considering net returns on assets, profitability in PSBs rose from -0.4 per cent in 1992-2005 to 0.8 in 2005-06 with the peak of 1.12 per cent in 2003-04 wherein a return of 1 per cent on assets is considered a benchmark of excellence internationally. The intermediation costs as a proportion of assets have declined from a high 2.99 per cent in 1995-96 to 2.06 per cent in 2005-06. The spread for PSBs has risen from 2.72 per cent in 1992-95 to 2.85 per cent in 2005-06, which is against the expectations of reduction in the wake of deregulation. The cost to income ratio has fallen steeply from 68.27 per cent in 1992-95 to 45.1 per cent in 2003-04. Again internationally cost to income ratio of below 50 per cent is considered commendable. In the areas of performing assets the net NPA/Total assets ratio has declined from 3.65 per cent in 1996-97 to 0.72 per cent in 2005-06. At the outset of reforms, the PSBs were struggling to meet the capital adequacy norms of 8 per cent but it has risen to 12.4 per cent in 2006.

Public sector banks have shown remarkable transformation in the post reform period. Profitability is comparable to international banks, efficiency and stability improved and there is convergence between PSBs and private sector banks.
In macro economics, they talk of the impossible trinity of the three variables, monetary policy, exchange rate and capital account convertibility, not all three can be controlled. One could posit a similar impossible trinity in banking—you can’t have high volume growth, high spread and low NPAs together. If the spreads are high, then volume growth will be low. If the volume growth is high, then can expect high NPAs.

The impossible seems to have become possible because of the peculiarities of Indian market. High spreads continue because of the surge in liquidity and public confidence in bank deposits relative to other savings opportunities, high volume growth is the result of turnaround in economic prospects and the fact that the retail market has developed only recently and low NPAs can be ascribed to the large presence of retail loans, the improved economic environment with the SME sector esp having become stronger through restructuring and better risk management.

Sufian (2007) examined long term trend in efficiency of Singapore banking sector using DEA window analysis and distinguished the three different types of efficiency namely technical, pure technical and scale efficiency. Given that the sample is small, the DEA window analysis allows a greater degrees of freedom to the sample. The results suggested that Singapore baking groups exhibited an overall efficiency of 88.4 per cent.

Kumar and Gulathi (2008) analysed the technical, pure technical and scale efficiencies in Indian Public sector banks using DEA with net interest income and noninterest income as outputs and physical capital, labour and loanable funds as inputs for the period 1992-2005. The results of logistic regression analysis revealed that factors like market share, profitability and asset quality have no significant impact on overall technical efficiency of Indian public sector banks.

Rao (2008) made a comparison of relative performance of public and private sector banks for the period 1992-1993 to 2002-03 for various indicators. The market share of different bank groups indicates that the percentage share of number of offices remained the same with more than 90 per cent for public sector banks. With regard to total business and total assets a slightly declining trend for public sector banks and an increasing trend for private
sector banks was noticed, still more than 75 per cent is contributed by public sector banks. The market share of net profit also declined from 77.36 per cent to 72.02 percent during the period. A comparison of branch and employee level productivity reveals that on an average private sector banks were much ahead of public sector banks in efficiency. On analyzing the profitability of both bank groups, private sector banks appeared to be better in all the indicators except net interest margin. However the growth rate of public sector banks appears to be better than private banks for most of the efficiency indicators.

Bodia and Verma (2008-09) analysed the earning quality of scheduled commercial banks in India using ratios on lines of CAMEL model for the period 1991-92 to 2005-06. The study revealed that foreign banks have an edge over their domestic counterparts in terms of Operating Profit to Average Working funds Ratio (3.07 per cent), Spread to Total Assets Ratio (3.69 per cent) and Noninterest Income to Total income Ratio (21.85 per cent). Public sector banks enjoy the same in terms of Net Profit to Average Assets ratio (0.49 per cent) and Interest income to Total Income ratio (86.24 per cent).

Das and Ghosh (2009) conducted a study on financial deregulation and profit efficiency using non parametric DEA with deposits, no of employees, fixed assets, and equity as inputs and investments and advances as outputs. The results indicated higher level of efficiency in costs and lower levels in profits (1992-2004), reflecting the importance of inefficiencies in the revenue side of banking. The proximate determinants of profit efficiency appear to suggest that big and state owned banks performed reasonably well and are more likely to operate at higher levels of profit efficiency. A close association was observed between efficiency and soundness as determined by capital adequacy ratio.

Mishra and Ray (2009) conducted study for the period 2001 to 2006 for selected banks and concluded that financial position is reasonable. Debt equity ratio is maintained at an adequate level throughout and NPA also witnessed a decline during the study period. The ROI remains at a very low position which is a worrying factor. They concluded that banks in India have to use three mantras for success and meet the future challenges such as tapping into rural market, risk management under Basle perspective and consolidation.
Reddy (2009) reported that the reform measures have had a major impact on the efficiency and stability of the banking system in India. The present capital adequacy is comparable to those at international level. There has been marked improvement in asset quality with gross NPA to gross advance for the banking system reduced from 14.4 per cent in 1998 to 7.2 per cent in 2004. The reform measures have also resulted in an improvement in profitability of banks. The ROA rose from 0.4 in 1991-92 to 1.2 per cent in 2003-04. The ROA ranged from 0.9 to 1.5 per cent for banks in 2004 globally. The banking sector reforms also emphasized the need to review the man power resources and rationalization of the requirement by drawing a realistic plan so as to reduce the operational cost and improve profitability.

Manju and Naidu (2010) attempted a comparative study of the performance of scheduled commercial banks in India for the perform (1969-1991) and post reform period (1992-2008). All banks witnessed a positive annual average growth rate of income and expenditure in both pre and post reform period. In the post reform period, growth of income is more favourable to private and foreign banks in India. For expenditure the average annual growth rate of expenditure had declined drastically for all bank groups except other scheduled commercial banks between two periods of comparison. It was also reported that the reforms made a more relative improvement in creating spread for private and foreign banks in India. Compared to private and foreign banks the burden was low for public sector banks. During the post reform period maximum growth of operating profit was for other scheduled commercial banks followed by public sector banks. The analysis on determinants of profitability it was found that the ratio of investment to total assets and capital labour ratio had positive influence on Public and private sector banks. Whereas the influence was negative for ratio of officers to total staff and ratio of rural and semi urban branches to total number of branches. It was noticed that the ratio of credit for agriculture and small scale industry to total credit had positive effect only in the case of private banks. In the case of foreign banks capital to labour ratio and liquid assets positively influenced profitability. Contrary to OSB, rural and semi urban branches positively influenced profitability even though not significant. On estimating the returns to scale based on regression co efficient, it was declining for all the bank groups after liberalization. SBI alone showed an increasing
returns to scale in both periods. The net profit to assets ratio showed that the performance of foreign and other scheduled banks are comparatively better than public sector banks.

Ray and Das (2010) used non parametric DEA to assess cost and profit efficiency in Indian banking. The inputs used were funds, labour, capital and qualified inputs. The outputs were investments, earning on advances and other income. The results showed that a relatively higher cost efficiency during the post reform period 1997-2003. There is no definite evidence that privatization enhanced efficiency in the case of Indian banks.

Das and Drine (2011) analysed the cost efficiency of Indian banking sector applying stochastic frontier approach using interest cost, labour cost and capital cost as inputs and the outputs are total loans and investments for the period 1992-2007. The study revealed that the public sector banks are the most efficient banks followed by domestic private banks and foreign banks in intermediation approach which is contrary to international evidence. On assessing the determinants of profitability the ratio of rural and semi urban branches to total branches have a positive and significant association with profitability of all categories of banks. Ratio of credit to agriculture and small scale industries showed negative association for State Bank of India and Nationalised Banks(significant) and positively associated in the case of Private banks.

Dwivedi and Charyulu (2011) confined the study to constant returns to scale assumption of DEA to identify the bank groups that are on the output frontier given the intermediation role of banks. The two outputs included were advance and noninterest income and the three inputs were number of branches, total operating expenses and deposits. The mean technical efficiency of banks increased from 95.6 percent in 2005 to 97.9 in 2010. The nationalized banks, new private banks and foreign banks showed 100 percent efficiency over the whole period and they performed equally in relative terms. The scheduled commercial banks together improved their efficiency upto 2007-2008 and after that there was a slight decline in the last two subsequent years which was due to decline in the efficiency of old private sector banks.
Haron (2011) attempted to investigate technical and scale efficiency of commercial banks in Malaysia during the period 2000-2006 using DEA considering intermediation approach. The results suggest that the degree of scale efficiency was found to be lower than technical efficiency which indicates that inefficiency was more due to scale rather than operating below the production frontier. In addition the results suggest that domestic banks were more efficient than foreign banks. The source of inefficiency of domestic banks has been technical inefficiency implying that domestic banks have been producing below the production frontier. In contrast foreign bank’s inefficiency was due to scale inefficiency. Further it was reported that 79.6 per cent of the banks experiencing decreasing returns to scale, 7.5 per cent increasing returns to scale while 12.9 per cent at the optimal scale. Most of technical inefficiency exhibited comes from operating at the wrong scale ie either operating at a scale that was too large (DRS) and operating at a scale that was too small (IRS).

Bhandari (2012) analysed the total factor productivity improvement achieved by Indian commercial banks from 1998-99 to 2006-07 using Data Envelopment analysis. The results suggested that the Public sector banks on an average adjusted to the changing environment better and improved their performance relative to their counterparts under private and foreign ownership. It is also revealed that this has an important policy implication in that the government should be cautious in liberalizing the Indian banking sector and not blindly invite foreign players.

Ray (2012) used the nonparametric approach of Data Envelopment Analysis to measure total factor productivity growth and its components to assess the impact of liberalization on different ownership categories of banks in India for the period from 1992-2009. It was evident that there was a general increase in total factor productivity of all categories of banks and the rate of productivity growth was higher among foreign banks than domestic banks. As a group, Public sector banks were most efficient despite the fact that SBI, the iconic bank in that category was excluded from the analysis. The improvement in technical efficiency was the main factor behind productivity growth. The broad conclusion was that it is possible to promote financial soundness by introducing proper prudential norms and to
improve operational efficiency without wholesale privatisation by allowing competition between Public, Private and Foreign banks.

2.2. Micro economic studies

A number of research studies at micro level have been conducted on various aspects of banking in India. However, literature based on micro level investigation relating directly or indirectly to the subject are scanty. A few prominent studies are reviewed.

Upadhya and Kaveri (1982) have observed that bank funds are not fully used for business purpose, which affects significant impact. A majority of the borrowers use a part of the bank finance for consumption purposes. Hence it is advisable to grant consumption loans to reduce misutilization.

Siddaiah (1984) observed that the concept of social banking has been experimented upon and some progress has been achieved in the process of transformation of class banking into mass banking but ,so far, social banking has not become a reality of the day in its true spirit, The study reveals that the non institutional agencies are still playing a predominant role in rural economy and rural credit structure in particular.

Nayan (1985) has found that objectives of bringing the benefits of banking services to the doorsteps of weaker sections of the society are a great challenge to the management of commercial banks, particularly public sector banks. Periodical monitoring of the performance is required to ensure steady progress towards achievement of social objectives and also to improve the operational efficiency and health of commercial banks.

Mitra (1985) has concluded an evaluation study in Singhbhum district (Bihar) and observed that the success of any social banking programme mainly depends on two factors such as organisational and managerial efficiency of the delivery system and people’s participation in the programme through proper motivation and through development of rural entrepreneurship.

Husain’s study (1986) has led to the conclusion that the performance of Indian banking industry has been quite impressive in terms of branch expansion, mobilization of savings
and extension of credit especially to priority sector. But at the same time, the banking suffers from organizational, managerial and functional problems. The poor capital base, low profitability, mounting over dues and bad customer service are some of the serious drawbacks which threaten the future of commercial banking.

Minocha (1986) has indicated that the methodology of crossing the poverty line to measure reduction in people below poverty line is questionable. Those who are provided loans and subsidy are deemed to have crossed the poverty line. However, a large number of assisted households may slide down below the poverty line and it is observed that in many cases the assets are disposed off as there was no continuous flow of income to the family.

Chawla(1987) in his Ph.D. research work has highlighted the outstanding achievement in the priority sector lending in terms of quantitative target but he has observed that within the priority sector the relatively well-off have got the maximum benefits, whereas the poorest of the poor have remained credit starved.

Pany (1985) investigated the agricultural credit needs of the farmers and the deficiency of institutional credit in Orissa. It was demonstrated that more credit were given to technically developed regions by the financial institutions and comparatively lesser credit to the backward areas. The repayment performance of borrowers was poor mainly because of the diversion of credit for nonproductive purposes.

Singh (1987), in his study in Patiala District tried to analyse the reasons underlying the presence of professional money lenders as a source of credit in rural areas. The study reveals that moneylenders continue to operate in remote interiors of rural India due to immediate availability of finance, ignorance, non provision of loans for the genuine unproductive needs from institutional agencies.

Desai et al (1989) analysed the external financing of resource inflows and found that formal credit claimed an overwhelming share of 72-95 percent for different samples in Malpur taluk of Gujarat. Among informal credit sources, money lender’s credit accounted for the larger share than other sources and informal sources were relatively more important for marginal and small farmers. The observed demand for credit reveals that it is related to farm
size and large farmers borrow more for expenses in crop farming than expenses for purchase of farm assets and household assets. While analyzing the borrowing experiences of the sample households it was seen that the major reason for borrowing are insufficient income periods of deficit within the period of one year and unforeseen family living expenditure which accounted for nearly 95 per cent. The discussion recalled that neither the rate of return on family resources nor the share of modern inputs nor the share of surplus households nor the average amount/ratio of surplus to deficit increased with the farm size of the households. This is largely due to higher extent of fragmentation, lower share of high yielding crops in cropping pattern and perhaps inferior management practices among large farmers who relatively relied upon more on hired labour.

Rayudu and Naik (1991) analysed the manner in which rural credit was managed by rural institutions, the sources of rural credit and the performance of the financial institutions. It revealed that the institutional credit agencies assume a socially oriented dynamic role in backward areas. In their attempt to assess the utilization of funds, they observed that the consumption loans formed a large part of the debt of rural poor and the production loans were often a small fraction of their indebtedness.

Dua (1996) found out that in the case of 68 per cent of the respondents the amount of loan was inadequate. For 29.78 percent the asset did not exist at the time of survey and in 6.89 percent the asset is partially disposed. There was no misutilisation of loan in the case of 63.33 per cent of the sample. The reason for diversion highlighted that 12.89 per cent diverted the loan for consumption purposes, 7.78 per cent in better investments, and 3.3 per cent due to delay in disbursement and 4.44 per cent used for repaying old debts. Out of the total sample 46.23 per cent were found to be defaulters. In maximum cases of default, the loaners were willful defaulters. On the whole 10.89 per cent loaners could not repay the installments because of insufficient incremental income, and 9.78 per cent are hopeful of writing off of loans. It was observed that default is more in the case of sponsored cases than direct financing. It is disgusting that time lag between application and disbursement of loan has gone upto 365 days. In activities allied to agriculture, undue importance is being given to dairy loans.
Narasaiah (1999) examined the performance of Regional Rural banks and pointed out that in spite of praiseworthy progress achieved by Commercial banks, there existed considerable number of rural poor still depending on non-institutional credit even for productive purpose. They emphasized that a simple and uncomplicated credit structure that would provide adequate and timely finance at a very low rate of interest was essential to uplift the poorest of the poor in the rural areas. It was also revealed by the study that the rural masses should be properly educated about the credit agencies whom they had to approach for financial help.

Kunjukunju and Mohanan (2002) estimated that more than one-third of the credit requirement was not met by rural credit agencies. The credit requirements of the borrowers of the services sector were not met to the extent of 40.2 per cent as against 26.9 per cent in the case of agriculture and allied sectors. The average time taken by banks to disburse the loans to the respondents worked out to be 43 days and 26.3 per cent got loans within 15 days and 28.1 per cent between 16-30 days. While analyzing the problem connected with institutions, it became evident that recommendation by an influential person is the foremost problem followed by undue delay and lack of co-operation by bank officials. The major financial problem was high interest on loans and demand for personal security and insistence on land as security. An examination of the credit utilized revealed that 70.1 per cent of the borrower’s fully utilized the loan whereas 25.3 per cent could partially utilize the loans. The average credit utilized by the respondents represented 88.9 per cent of the loans disbursed. The percentage of loans misused was highest among the borrowers of Primary Agricultural Credit Society (24.3 per cent) and lowest from Commercial banks (6.1 per cent) The extent in agriculture sector was 24.3 per cent and that of services sector 24.3 per cent The corresponding amount misutilised was 21.6 and 5.9 percent of the amount availed. The reason for misutilisation was inadequacy of credit (26 per cent) followed by urgent domestic needs (25 per cent) and lack of supervision and guidance, (23 per cent). An analysis of over dues revealed that the extent was 23 per cent and the average amount of over dues worked out to be Rs.6269. Regarding the reasons for overdues, 42 per cent reported that income from loan based activity was not sufficient and 25 percent due to diversion of loans for consumption purposes.
Mabil (2003) conducted a primary study in Kerala during 2000-2001 among beneficiaries of Bank finance and revealed that 90 per cent had utilized for the purpose for which it was availed. The average amount of loan sanctioned was Rs.79712 for the sample as a whole and the occupation wise the highest amount of assistance for Professional and Self employed which was Rs.101095 followed by Small business (Rs.100692) and for Agriculture it was Rs.65992. There was default in the repayment of loans among 39 per cent of the repayment of loans. 55 per cent of the sample borrowers depended on Private money lenders for their immediate need. The dependence on private money lenders was found to be more among small businessmen (56 per cent) and Agriculture to the extent of 19 per cent. The majority borrowed for consumption purposes (46 per cent) followed by Business (38 per cent) and Old debts repayment (16 per cent). The sample beneficiaries depended on money lenders because they could get loans without delay (83 per cent) and without much difficulty (14 per cent). Regarding the magnitude of delay of sanctioning of loans 21 per cent received within 2 weeks, 45 per cent within a month and 34 per cent about 3 months.

Prathibha Kumari (2010) while analyzing the extent of priority sector advances in Kerala reported that about 64 per cent of the respondents availed priority sector advances and sector wise, agriculture was the major component (37 per cent) followed by small scale industries (34 per cent) and services sector (29 per cent). Considering the source of credit, about 70 per cent were the beneficiaries of commercial banks. It is worth noticing that 10 per cent of the loans are still availed from moneylenders in spite of all efforts made by government to support priority sectors. The lenders from the unorganized sector play a significant role even among the customers of the banks. The mean amount of loan comes to 102852 and the highest was for priority sector which was Rs.128256. Sector wise distribution, the size of the loan was lowest for agriculture and highest for small scale industries with significant difference.

The average size of holding of the respondents of the whole sample was 77 cents and district wise it is worth noticing it is only 8 cents for Trivandrum district. The borrower’s possession of assets other than land indicated that the major class of 40 per cent had assets ranging from 1-3 lakhs followed by 23 per cent each with assets 5-10 lakhs and 3-5 lakhs.
The classification of borrowers based on monthly income revealed that maximum of 45 per cent belonged to the class Rs.5000-10000 followed by 29 per cent in the category of less than Rs.5000. The expenditure pattern showed that the maximum of 53 per cent spend an income between Rs.2500-50000 followed by 30 per cent spending income of Rs. 50000-100000.

The earlier studies at the macro level on evaluating the performance of commercial banks differ from one another in the selection of period, selection of banks, selection of indicators and selection of statistical tools and techniques. A glance at the related literature on performance of the Indian banking sector provides the statistical tools relevant for the analysis and at the same time reveals certain shortcomings. Several studies are not analysed in a comprehensive manner taking into account the various socio economic dimensions covering a long span of development. The present study envisages to use various statistical techniques to analyse the problem from different angles for one and a half decade so as to get a clear picture of socio economic performance. Further a micro level study is also envisaged to examine whether what is found at macro level is also true at the microlevel.