CHAPTER - II

REVIEW OF LITERATURE

Rapid changes in financial services industry make it important to determine the efficiency of financial institutions (Berger et al. 1993). Banks play an important role in the financial markets of the developing countries and it is very important to evaluate whether banks operate efficiently or not. Efficiency of commercial banks depends upon the business. Business of Commercial Banks consists of Deposits and Advances. There are many research studies that try to look into the efficiency of banks operating within a country and across the countries. These studies can be differentiated on the basis of used methodologies, considered variables, type and number of banks included in the sample. Some worthwhile studies relating to the present topic are being reviewed here.

Many theoretical and empirical studies indicate that in the development of the economy, financial sector plays an important role. A number of economists linked the efficiency and development of the financial institutions with economic growth and also established channels through which the financial system affects economic growth (McKinnon, 1973; Levin, 1997; Tsuru, 2000; Ahmed and Bebe, 2007). A positive relationship between financial sector development and economic growth was established by economists in various empirical studies (Gold Smith, 1969; King and Levube, 1993a, 1993b; Levine et al., 1999; Khan and Senhadji, 2000).

Kalish (III) and Gilbert (1973) studied the impact and size and organisational form of the commercial bank on its efficiency. Cost and output of the banks were collected for this purpose. They used 898 commercial banks that took part in the Federal Reserve’s Functional Cost Analysis Program in 1968. Banks were categorised into unit banks, branch banks and holding company subsidiaries on the basis of their organisational form and the amount of assets they had. The minimum Average Cost (AC) at which bank of the same size and organisational form can operate is called as technical efficiency of the bank while the excess Average Cost of the bank over minimum Average Cost represents the operational inefficiency of the bank.
Bhat (1974)\(^2\) analysed the performance of commercial banks in financing agricultural sector during 1969-72. The analysis reveals that these banks performed well in providing finance to the agricultural sector. However, their performance in the recovery of loans from this sector was found to be very poor. The researcher suggested that in order to improve the recovery position from the agricultural sector, bank managers should become more efficient, delay in the disbursal of credit should be avoided and above all, flexibility in the lending and recovery procedures should be ensured.

An evaluation of the performance of the nationalised banks in financing small-scale industries was made by Joshi (1975)\(^3\). The study, which covered a time period from 1969 to 1974, revealed that the commercial banks finance to small scale industries increased by more than threefold during the reference period. Further, it was observed that the number of small-scale units financed by banks and the number of borrowal accounts increased respectively by more than five and three times during the period under study.

Mello (1980)\(^4\) evaluated the performance of Banks in providing credit to the weaker sections. It was observed that the post nationalisation branch expansion and credit policy of the public sector banks facilitated the channelization of their funds in favour of priority sector, especially in rural and semi-urban areas. Further, a shift was noticed in the sectoral deployment of credit from industry to agriculture, from large-scale to small-scale industry and from urban to rural areas.

Rawat (1980)\(^5\) identified the problems faced by commercial banks in the disbursal of credit to agriculture sector in India. He observed that inadequate coordination among various types of institutions, lack of systematic and up-to-date land records and the absence of suitable marketing outlets assuring fair prices for agricultural produce etc were some of the important problems faced by commercial banks in financing agriculture in India. The researcher suggested that Government should take steps to solve these problems.

Wali (1980)\(^6\) brought out the situation regarding the flow of institutional credit to the rural poor and highlighting the gaps in its delivery system. It was
suggested that for the efficient delivery of credit, there should be separate reservation of credit for different sections of rural poor. Further, the banks should build up awareness and motivation among the rural poor with respect to their production and investment needs.

**Patel and Shete (1984)**\(^7\) analysed the sector wise performance of commercial banks in financing the priority sector during the period from 1969 to 1980. The analysis pointed out that the percentage share of priority sector in overall credit increased considerably during the reference period. Among the sub-sectors the most perceptible increase was registered in direct finance to agriculture. On the contrary, the percentage share of some sub-sectors like indirect finance to agriculture, small scale industries and education remained stagnant during the reference period. The analysis further revealed that though quantitatively the banks showed an impressive achievement, yet qualitatively their performance remained somewhat poor.

**Oka (1985)**\(^8\) analysed the trends in the growth and composition of commercial banks’ agricultural advances in India during 1969-81. He observed that the commercial banks witnessed a phenomenal progress in lending to agricultural sector, especially by way of direct finance. The combined share of marginal and small farmers in total agricultural finance went up substantially during the reference period. But, the overall recovery of agricultural lending was found to be very poor. Further, there persisted very wide inter-regional and inter-sectoral disparities in the distributional pattern of agricultural credit.

**Neil C. Churchill and Virginia L. Lewis (1986)**\(^9\) discussed the bank lending to new and growing enterprises. This paper confirms and expands on an earlier study (Churchill and Lewis 1985) into the profitability of bank lending to small businesses – those under $ 50 million in sales. The earlier study found that bank lending to small companies was more costly than lending to large corporations due primarily to administrative costs and risk that were higher (per dollar and loan) than the interest differential charged. It was found, however, that the larger deposit balances left with the bank not only offset these costs but made lending to small firms 2.76 percentage points more profitable. This suggested that small businesses should be able to
continue to borrow from large banks in spite of the consolidation now taking place in the banking industry.

The focal point of the study made by Vashisht (1987)\textsuperscript{10} was to critically evaluate the trends and progress of commercial banks in India during the period 1971 to 1983. The ratio analysis is used to evaluate the performance of commercial banks with respect to different indicators. However, overall performance of each bank is assessed with the help of Relative Growth Indices. The analysis revealed that commercial banks did very well with respect to branch expansion, deposit mobilisation, credit disbursement and priority sector advances. However, it was observed that those banks are plagued with the problem of declining profitability. Indian Overseas Bank secured the top position and Dena Bank was placed at the bottom with respect to overall performance indices.

The studies conducted in 1988 by Dadibhai\textsuperscript{11} and Giri and Dasgupt\textsuperscript{12} exhibited that the benefits of the flow of institutional credit to agriculture in India, were largely enjoyed by the relatively prosperous regions and better-off section in each region. Consequently, there existed wide inter-state/region and inter-class variations in the flow of credit to agriculture sector.

Amandeep (1990)\textsuperscript{13} evaluated the profits and profitability of nationalised banks. The study analysed the factors that influence the profitability of banks and suggested that in order to improve the banks’ profitability, the banks need to focus attention on the management of spread, burden, establishment expenses, and income and deposit composition. The study observed that priority sector lending and rural banking do not have an adverse effect on the banks’ profitability to a significant extent. Hence, advances to the priority sector and opening of rural branches may be extended in the larger interests of the society.

Chakrabarty (1990)\textsuperscript{14} studied the impact of credit policy on profitability and viability of Indian banking system. The analysis indicated that banks have become loss-making units and whatever profit is recorded is at the cost of long-term viability of the banking system. It is suggested that the only alternative left is to make the
necessary changes in the credit policy in general, and interest rate structure in particular, which alone can improve the overall profitability of the banks.

RBI (1990) estimated the extent to which scheduled castes and scheduled tribes benefited from the Scheduled Commercial Bank Advances during the year 1986-87. A detailed region-wise, state-wise, purpose-wise and bank-group wise data was collected for the purpose. The analysis revealed that an overall aggregate level, only about 5 per cent of SC/ST population in the country benefited from the priority sector lending of Scheduled Commercial Banks. An important achievement of priority sector advances, as indicated by the study, was that the diversity between average amount disbursed to SC/ST borrower and a priority sector borrower belonging to general category has come down significantly.

The paper written by Padwal (1991) addresses itself to the Indian banking experiences during the decades of seventies and eighties and emerging scenario in the nineties. It is observed, that high cost of branch expansion and growing percentage of credit portfolio to generally low yielding assets, increasing cost of personnel administration and establishment have adversely affected banks’ profitability. It was noticed that though deregulation in banking sector is expected to help to widen credit markets, to reduce the segmentation in them, enhance saving mobilisation and stimulate competition, yet the past trends do not show this happening in the country. The researcher is of the view that Indian banking industry may need to undergo major changes before it becomes ready to face full liberalisation of the financial sector.

Subrahmanyam (1991) observed that the liberalisation measures of the late 80’s have not led to promote the efficiency and stability in the banking sector. In order to have better performance of banking sector, it is important that further doses of liberalisation should be introduced in this sector. The problems relating to operating expenses and interest rates structure are also reviewed in detail. It is suggested that the main focus of reforms should be the restoration of financial health of the banks but not privatisation as such.

Anand (1992) in his article calculated the economics of priority sector lending and in view of that, he looked into the question whether priority sector advances are the main cause of low profitability of banks or not. He concluded that
fixation of concessional rates at very low levels is not advisable as this often leads to diversion of loans away from agriculture and also causes inflation. However, the analysis revealed that priority sector advances have not been and are not a drag on profitability.

Boovendran (1993)\(^{19}\) suggested that the liberalisation of the Indian economy would be more effective and meaningful if the complex rules and regulations relating to maintenance of Cash Reserve Ratio / Statutory Liquidity Ratio were simplified. The banks will be greatly benefited further if Time Liabilities and Statutory Liquidity Ratio are also redefined.

Jain (1993)\(^{20}\) studied the various aspects of bank marketing and suggested the areas where weaker and underdeveloped sections needed support. Researcher focused on the specific expectation of various types of banking customers and highlighted the emerging issues relating to banker-customer relationship. The researcher also pointed out that disparities in branch expansion and credit deployment should be reduced.

Khusro Committee (1993)\(^{21}\) was constituted to review the working of agricultural credit system in India in the year 1986 but the report was tabled in Parliament in the year 1993. The committee recommended the DRI scheme should continue to support the national plans for agricultural development. It was also of the opinion that the human resource development should be emphasised for improving the quality of agricultural credit system. It had emphasised the need for effective pre-lending appraisal and strict monitoring of loans and recoveries. The committee was of the view that the norms and procedures related to rural lending should be reviewed and simplified. It opined that more autonomy should be given to the branch managers with respect to sanctioning of loans. The committee also suggested that information system should be improved in the banks. The crop insurance scheme should be started and a separate credit guarantee scheme should be formulated (covering co-operative credit institutions). It further recommended that the schemes, which are created for meeting the rural credit, such as IRDP etc should be thoroughly reviewed.

In December 1991 the RBI constituted, a Committee to examine the adequacy of institutional credit to small-scale industries and other related aspects. The committee popularly known as Nayak Committee (1993)\(^{22}\) recommended that the
village and tiny industries with credit limits up to Rs. 1 lakh should have first claim on priority sector credit to small-scale industries, which can use working capital efficiently. The committee also suggested certain procedural changes to create mutual confidence between banks and SSI entrepreneurs.

**Thomas O. Stanley, Craig Roger and Bruce L. McManis (1993)** studies a measure of the strategic loan portfolio management of full service U.S. banks with foreign owners. The increased globalisation of the banking industry, coupled with the enactment of the 1978 International Banking Act led to a large number of studies concerned with the motivation structure and operational characteristics of U.S. banking facilities owned by foreign interest. One of the findings generally consistent across all of the studies that addressed bank operations was that there was essentially no difference in the composition of the loan portfolios of foreign owned banks when compared to their domestic counterparts. However, this study finds significant differences in loan composition for the subsidiary form of foreign owned banks when compared to its domestic peers.

**English et al., (1993)** assessed output efficiency of individual banks rather than the estimation of technical and allocative input efficiency of banks. Their technique focused on revenues. This allowed them to look explicitly at the output efficiency of banks. Output distance function introduced by shepherd (1970) was used as main analytical tool. For the study, data were collected from the Federal Reserve Functional Cost Analysis Program for 1982. They got information on quantities and prices of outputs and inputs. For outputs, they included real estate loans, commercial loans, consumer installment loans, investment in US securities. These quantities were measured in annual average dollar value. Output prices were constructed from the data by taking the ratio of interest income to output quality. Interest bearing small deposits (less than $100,000), labour, occupancy expense and purchased or borrowed funds (greater than $100,000) were used as inputs. From analysis, they found that on average the banks in their sample were technically inefficient and their results were consistent with input efficiency studies. They also determined that the banks with greater assets were technically more efficient than those with relatively less assets and banks on the average were allocatively inefficient i.e., output mix of banks is not revenue maximising at existing prices. They suggested that banks could increase
revenue by increasing investment income at the expense of decrease in both consumer and commercial loans and by increasing total loans relative to investment on average.

Debnath (1994) critically analysed the approach of commercial banks, in managing the non-performing assets. It was observed that the credit management efforts of the banks so far have proved ineffective in checking the problem of growing non-performing assets. An altogether new managerial approach was suggested for managing credit asset.

Srinivasan (1995) studied the experience of public sector banks in priority sector lending during the period from 1969 to 1989. The study highlighted the achievements of the banks in securing the desired allocation pattern of credit in different sectors and sub-sectors. He derived home the point that the burden of priority sector lending is borne mainly by the public sector banks and other institutional agencies. It was observed that the regional rural banks and the co-operatives have not played their due role owing to certain structural deficiencies in their working. The study revealed that there was a fall in spatial and sectoral imbalances in banking operations over a period of time.

Miller and Noulas (1996) used DEA to estimate the technical efficiency of 201 large sized banks operating in United States. For this estimation, they used data about inputs (total transaction deposits, total non-transaction deposits, total interest expense and total non-interest expense) and outputs (commercial and industrial loans, Consumer loans, real estate loans, investments, total interest income and non – interest income) of the banks from 1984 to 1990. They estimated overall technical, pure technical and scale efficiency for the banks and found large mean estimated scores of scale efficiency as compared to overall technical and pure technical efficiency scores. They also found that the pure technical inefficiency was twice as compared to scale inefficiency and also reported the number of banks operating under decreasing returns to scale, increasing returns to scale and constant returns to scale. From second stage regressions, they found that the profitability and size (measured by total assets) of the banks were significant contributors to overall technical, pure technical and scale efficiencies of the banks.
Agarwal et al., (1997)\textsuperscript{28} in their article reviewed the structure, performance and problems of rural credit on account of financial sector reforms in the country in context to the largest developments in agriculture sector. It was observed that on account of market oriented economy and capital intensive technology, the demand of credit for agriculture and rural development will increase sharply in the coming years. In view of the new changes, it may not be practical for commercial banks, in particular, to aim at a narrow business base leaving the vast rural sector neglected. It was suggested that it would be risky if they deploy their lendable resources in financial speculation. It was concluded that there existed a large gap between the demand for and supply of agricultural credit.

Kohli (1997)\textsuperscript{29} reviewed both the theory and empirical evidence on directed credit programmes to small-scale enterprises and analysed it in the Indian context. After making a comparison between implementation of such programmes in East Asia and India, some policy conclusions for the Indian financial sector are suggested. The cost and benefits of priority sector lending in India was calculated and was argued that credit policy in India needs to be re-appraised and geared towards more specific objectives. These objectives should be defined locally so that on the basis of that the banks are able to decide as to which firms or industries are to be financed. In addition to it, the researcher suggested for an introduction of the system of periodic review of targeted firms and industries, designing a sharply focused credit policy with incentives structured to reduce moral hazard and ensure good performance, and streamlining of the monitoring and supervisory functions of the banks.

Satyanarayana (1997)\textsuperscript{30} has discussed the feasible non-performing asset (NPA) levels of banks for Capital Account Convertibility. It is observed that public sector banks in India may not be able to bring down their gross non-performing assets to 5 per cent as prescribed by Tarapore Committee on Capital Account Convertibility. It is argued that the prescribed level of 5 per cent of non-performing assets defies the market logic on the one hand and ignores the limitations of working in very slow and very ineffective legal social and political climate of recovery on the other. It is observed, that whereas the strong banks exhibit confidence, moving towards internationally competitive levels of capital adequacy, profitability and adequate
coverage of non-performing assets, the position of weak banks is precarious in this regard.

Ayadi et al., (1998) measured the bank performance in Nigeria by applying Data Envelopment Analysis (DEA) to ten banks by using financial data from 1991 to 1994. They used interest paid on deposits, total expenses and total deposits as inputs while total loans, interest and non-interest incomes were considered as outputs. They reported that banks in existence for long period of time are relatively efficient than other banks in the sample and banks having poor management showed bad performance and is key determinant of the bad performance of banks in Nigeria.

Bhatia and Verma (1998) made an attempt to determine empirically the factors influencing profitability of public sector banks in India by making use of the technique of multiple regression analysis. Net profit as percentage of working funds has been used to measure the bank profitability during 1971 to 1995. The analysis revealed the priority sector advances; fixed / current deposit ratio and establishment expenses affected the profitability of public sector banks negatively. Net spread, which to a great extent depends on the management acumen ship of the bank staff, influenced the profitability of banks positively and significantly. High credit-deposit ratio was also observed to be influencing profitability positively. However, its impact was found to be statistically non-significant.

Shajahan (1998) concluded in his study that banking sector reforms since the beginning of the 1990’s have almost brought the priority sector credit to a halt. It is mainly on account of the falling share of the poorer states in total credit deployment, that the overall priority sector bank credit appears to have deteriorated. The manner, in which priority sector is targeted by linking it to total bank credit rather than to bank deposits, the position of the poorer states with respect to priority sector bank credit seemed to have worsened.

Sonya Williams Stanton (1998) studied the underinvestment problem and patterns in bank lending. Bank capital typically declines in recessions due to loan losses, and this effectively increases financial leverage. As a result, system-wide underinvestment by banks is a contributing factor in “credit crunches”. In the cross section, banks with more opportunities subject to underinvestment experience lower
loan growth. Cross-sectional differences in the use of subordinated debt and in the extent of securitisation provide additional evidence in support of the underinvestment hypothesis.

The study made by Subba Rao and Augustine (1998) revealed that the portfolio behaviours of commercial banks has undergone radical changes with the introduction of financial sector reforms. As compared to the pre-reform period the credit-deposit ratio in the post-reform period has come down further. The study revealed that the distribution of bank credit to industry (medium and large) classified by size of credit limits was highly skewed. It was observed that the share of credit with limit up to Rs. 1 crore gradually declined during the period 1991-95. In contrast, the share of units with credit limits up to or above Rs. 10 cores gradually increased during the period under reference. The data on outstanding credit of commercial banks classified by occupation and interest ranges revealed that more than 75 per cent of credit to industry was contracted at interest rate exceeding 15 per cent in each of the years. Further, it was observed that the shares of the bank borrowings in total companies’ borrowings have declined over the year.

Mujumdar (1998) in his article emphasised the importance of priority sector lending for the growth of the economy as a whole. He was of the view that public sector banks must support these sectors irrespective of the fact that whether there are credit target or not. In view of the Ninth Plan priorities, it is important that credit policy should be so framed that agriculture and other priority sectors must get their due share in the reform period.

Avkiran (1999b) used two DEA models under the assumptions of variable returns to scale to measure the average X-efficiency of Australian trading banks from 1986 to 1995. In model A, he used interest expense and non-interest expense as inputs while net interest income and non-interest income as output of the bank. In model B, he used deposits and staff number as inputs of the bank while net loans and non-interest income as outputs of the banks. He found mean annual DEA scores ranging from 78.99% to 91.58% in model A and from 37.23% to 70.43% in model B. According to him, DEA efficiency estimates are sensitive to the input and output variables of the model. In this study, in one case merger has positive impact on the
efficiency of the bank while in another case it has negative impact on the efficiency of bank. Similarly in one case merger raise the efficiency of the bank in first year and fall in the next years while in another case merger has no effect on the efficiency of the bank.

Mendes and Rebelo (1999)\(^{38}\) used the stochastic cost frontier methodology to study the performance of 221 Portuguese banks from 1990 to 1995. They found that the increased competition in the banking sector did not improve the cost efficiency of banks. Similarly no clear existence of predictable association between size and cost efficiency was found in the banks.

The focus of the study made by Das (1999)\(^{39}\) was to compare the inter-bank performance of the public sector banks for three years (1992, 1995 and 1998) in the post-reform period. He found a certain convergence-taking place in the performance of the banks during the period under study. It was observed that whereas an increase emphasis on non-interest income is a welcome change but the banks behaviour to opt for risk free investments over risky loans may have serious effects of the economy.

Khanna (1999)\(^{40}\) while studying the impact of financial sector reforms on industrial sector in India observed that the banking sector reforms have failed to achieve their goal of making this sector more efficient. It was observed that there has been hardening of interest rates instead of the cheaper credit that was promised. The analysis revealed that the cost of bank finance has risen sharply after the reforms and the availability of the credit to private sector too has been curtailed. Bank loans as a proportion of total financing to commercial sector declined in 1993 and 1994 as compared to 1988 and 1989. The reforms have number of adverse effects on the industrial sector.

Kohli (1999)\(^{41}\) while evaluating the effectiveness of bank branch licensing policy in the background of financial sector reforms observed that in view of change in banking perspective in India, performance evaluation parameters have also changed. Earlier performance indicators, like deposits, priority sector lending and branch expansion, have yielded to new ones i.e. efficiency and profitability. It was observed that Indonesian Bank Raykat could be accepted as a model relevant for rural branches of public sector banks in India. It was suggested that a strategy of either a
closure of the public sector banks or gradual substitution by private sector banks should be adopted in order to make rural banking more viable.

**Puhazhendhi and Jayaraman (1999)**[^1] in their paper reviewed the performance of rural credit delivery system in the three focused area viz. agriculture-sector, non-agricultural-sector and poverty alleviation. The challenges that the banks are likely to encounter in the next decade are discussed. The analysis revealed that though rural credit has increased very rapidly in the country, yet the declining trend registered in the priority sector lending, especially agricultural loans, is going to have serious repercussions on the economy. The regression analysis revealed that there was significant and positive impact on the gross value of output in agriculture. The study suggested that for overcoming the different challenges, the focus of commercial banks with respect to rural credit system should be on such strategies, which may lead to the operational efficiency, better recovery performance, small farmer coverage and balanced sectional development.

**Rajaraman, et al., (1999)**[^2] explained inter-bank variations in net non-performing assets (NPA) for the year 1996-97. The study was performed by a specification that included intercept dummies by ownership category, bank-specific prudential and efficiency indicators, and region of operation as measured by percentage branches in each of a set of state clusters. The analysis revealed that the foreign banks of Asian and West-Asian origin performed no better than domestic private sector banks in terms of NPAs. The findings show that the banks’ specific characteristics, such as ownership or adherence to prudential norms, do not suffice to explain inter-bank variations in NPAs. It was concluded that the sustainable reforms in the financial sector and improvement in the performing efficiency of the domestic banks are very essential.

**Jackson and Fethi (2000)**[^3] analysed performance of Turkish banking sector by applying DEA and then explored the determinants of efficiency from a set of explanatory variables (bank size, number of branches, profitability, ownership and capital adequacy ratio) by the use of tobit model. They defined performance of a bank in terms of its ability to produce outputs with minimum use of inputs. For this study, they used the data of year 1998 and considered number of employees and sum of non-
labour expenses as inputs of the bank while loans, demand deposits and time deposits were considered as outputs of the bank. Under CRS specification of DEA, the estimated mean efficiency score for 48 banks was 0.67 while under VRS specification: they found 0.77 as mean efficiency score for Turkish banks. From tobit analysis, they found significant negative impact of capital adequacy ratio and significant positive impact of profitability and size of the bank on estimated efficiency.

The main objective of the study done by Bilgrami (2000)\textsuperscript{45} was to examine the credit-deposit trends in the public sector banks in the pre and post-economic reform scenario. The credit-deposit ratio, despite a significant reduction in cash-reserve ratio and statutory-liquidity ratio in the post-reform period, exhibited a declining trend. Further, it was observed that the level of profitability, efficiency, and customer services in the public sector bank have deteriorated in the post-reform period. The main reason behind the sluggish growth rate of bank deposits during the post-reform period in the growth of non-banking financial intermediaries including financial companies, mutual funds, and stock markets and of private sector banks. The entry of new private and foreign banks and their quality of customer services have also affected the level of deposits and advances in the public sector banks. Another important reason for slow affected the level of deposits in the public sector banks has been that all these banks have touched the saturation level in mobilising saving through bank expansion programmes. But this is not the case for “NEW” banks. During pre-reform period, they were functioning much below their potential in deposit mobilisation owing to restrictions on branch expansion programme. The post-reform period has provided these new banks much freedom and hence they are now capable of attracting more saving.

Nettime and Kuruba (2000)\textsuperscript{46} observed that the pace of reforms in banking sector in India is definitely encouraging and giving positive signals of structural changes in the financial sector. However, it was opined that the reforms would be successful only if the level of NPAs is reduced. In order to tackle the problem of NPAs there is need for legal reforms. It is the attitude and efficiency of the banking authorities, which have to go a long way in making the banking reforms operationally and functionally effective.
Patel (2000)\textsuperscript{47} has highlighted the problem of bad loans and growing level of non-performing assets in the commercial banks in the post-reform period. It was observed that it is important for the banks and supervisory authorities to adopt more effective lending practices. At the same time it was also emphasized that corporate entities should be made more accountable through following more stringent disclosure and transparency practices and corporate governance principles. An efficient legal machinery, the larger number of Debt Recovery Tribunals (DRT) and Settlement Advisory Committees (SAC) and Credit Information Bureau in Banks can prove effective in quick recoveries of dues.

Ronald E. Shrieves and Drew Dahl (2000)\textsuperscript{48} studied the determinants of international credit allocation: an analysis of US lending by Japanese banks, 1988 to 1994. The central issues addressed are the extent and causes of interdependency between Japanese banks’ domestic and US lending. The researcher examined the hypotheses that domestic and US credit allocations by Japanese banks during the late 1980s and early 1990s are related through their mutual dependence on capital availability, and that the unique information role of banks as financial intermediaries leads to complementarities between their domestic and international lending. Both hypotheses receive support. Related conclusions are that economic and regulatory conditions in Japan strongly influence the extent of Japanese banks’ US lending.

James E. McNulty, Aigbe O. Akhigbe and James A. Verbrug (2001)\textsuperscript{49} the researcher makes a number of studies and banking practitioners have questioned the ability of small banks to survive in a deregulated environment. Researchers consider the hypothesis that small community banks actually have an information advantage in evaluating and monitoring loan quality. Researchers call this the information advantage hypothesis (IAH). Researchers evaluate four loan quality measures for a sample of all Florida banks for the period from 1986 to 1996. There is no systematic evidence that loan quality is greater at small banks. Loan loss provisions are also lower at small banks in non metropolitan areas than at other banks, which is consistent with the IAH. However, other measures of loan quality – non-performing loans and other real estate owned – are higher at small banks.
Sogaia and Ramasastri (2000) examined the trends in excess capacity in banking industry during the period 1992-93 to 1995-96, by comparing return on earning assets of banks with a minimum threshold return. To analyse trends in excess capacity in banking industry two indicators are used, i.e., percentage of banks functioning at sub-optimal level (with return on assets less than threshold rate) to total number of banks (percentage number), and percentage of earning assets (advances + investments) of banks functioning at sub-optimal level to total earning assets of all banks (percentage of assets). These percentages are computed for banking industry as a whole. They are also computed for four groups of banks. The analysis revealed that excess capacity in the Indian banking industry registered a decreasing trend during the year 1992-93 to 1995-96. Further, the analysis revealed that big banks are moving from sub-optimal level to optimal level.

Yener Altunbas, Ming-Hau Liu, Philip Molyneux and Rama Seth (2000) studied Efficiency and risk in Japanese banking. This paper investigates the impact of risk and quality factors on banks’ cost by using the stochastic cost frontier methodology to evaluate scale and X-inefficiencies, as well as technical change for a sample of Japanese commercial banks between 1993 and 1996. Loan-loss provisions are included in the cost frontier model to control for output quality, with a financial capital and a liquidity ratio included to control risk. Following the approach suggested in Mester (1996) researchers’ show that if risk and quality factors are not taken into account optimal bank size tends to be overstated. That is, optimal bank size is considerably smaller when risk and quality factors are taken in to account when modeling the cost characteristics of Japanese banks. Researchers also find that the level of financial capital has the biggest influence on the scale efficiency estimates. X-efficiency estimates, in contrast, appear less sensitive to risk and quality factors. Researchers’ results also suggest that scale inefficiencies dominate X-inefficiencies. There are important findings because they contrast with the results of previous studies on Japanese banking. In particular, the results indicate an alternative policy prescription, namely, that the largest banks should shrink to benefit from scale advantages. It also seems that financial capital has the largest banks should shrink to benefit from scale advantages. It also seems that financial capital has the largest influence an optimal bank size.
The objective of the study made by Das (2001)\textsuperscript{52} was to evaluate the performance of public sector banks with respect to priority sector credit and the expansion of banking services to the un-banked areas during the pre and post-reform period. It is observed that the percentage share of the priority sectors in total bank credit has been found increasing but at a decreasing rate in the post-reform period as compared to pre-reform period. It is concluded that the impact of financial sector reforms on regional equalities and priority sector lending has been much adverse.

Nayak (2001)\textsuperscript{53} made an attempt to compare liquidity, productivity and profitability of foreign and domestic banks in India during 1985-86 to 1996-97. The study is based on bank-wise secondary data on number of variables like employees, branches, total assets, interest paid and expended, total deposits and advances, profits and expenses. The results revealed that productivity in terms of labour, branches and profitability was higher in foreign banks than the domestic banks. Foreign banks are least involved in socio-economic policies of the government, on account of which they registered higher profits.

Singh (2001)\textsuperscript{54} made an attempt to assess the impact of the reforms on the operational performance and efficiency of the commercial banks in India. The ratio analysis has been used as a major tool for assessing the performance of the selected commercial banks. The study revealed that total income as a percentage of working funds and/or total assets, and spread as a percentage of total income / working funds / total advances / total deposits have improved in the post-reform period against the pre-reform period in most of the banks. Total income interest earned, other income, spread, total expenses, interest expended, operating expenses and establishment expenses are comparatively more consistent in the post-reform period. The hypothesis that the profitability position has improved in post-reform period may be accepted to some extent. It was observed that in the public sector banks the size of NPAs has also reduced to some extent and quality of service has improved in the post-reform period. The priority sector lending has registered a decline in the deregulation era.

Bloem and Gorter (2001)\textsuperscript{55} suggested that a more or less predictable level of non-performing loans, though it may vary slightly from year to year, is caused by an inevitable number of ‘wrong economic decisions’ by individuals and plain bad luck
(inclement weather, unexpected price changes for certain products, etc.). Under such circumstances, the holders of loans can make an allowance for a normal share of non-performance in the form of bad loan provisions, or they may spread the risk by taking out insurance. Enterprises may well be able to pass a large portion of these costs to customers in the form of higher prices. For instance, the interest margin applied by financial institutions will include a premium for the risk of nonperformance on granted loans. At this time, banks’ non-performing loans increase, profits decline and substantial losses to capital may become apparent. Eventually, the economy reaches a trough and turns towards a new expansionary phase, as a result the risk of future losses reaches a low point, even though banks may still appear relatively unhealthy at this stage in the cycle.

**Bhide, Prasad and Ghosh (2002)** while evaluating the banking sector reforms in India observed that there has been a commendable improvement in the profitability of the public sector banking system, measured in terms of operating profits and net profits. It was pointed out that the inter-mediation process has also improved, as is evident from the ratio of net-interest income to total assets of public sector banks. The profile of assets portfolio and the extent of the non-performing loans as percentages to total assets also exhibited improvement during the period from 1992-'93 to 1999-'00. According to the study externality of the reforms process has been the building up of the institutional architecture in terms of market and creation of enabling environment through technological and legal infrastructure and improving the managerial competency. They further identified the different shortcomings of the banking system and pointed out that faulty debt recovery process, inefficient legal system and inadequate risk management techniques etc. are the major weaknesses. It was observed that the reforms could not be entirely painless.

The purpose of the article written by **Das (2002)** had been to understand the inter relationships between risk-taking and productivity in the public sector banks in India. The study covers the time period from 1995-'96 to 2000-'01. The analysis revealed that capital adequacy has a negative and significant effect on asset quality when the public sector banks were considered in totality. Secondly, it is observed that non-performing assets play a major role in influencing the capital levels of the small as well as big banks. Thirdly, it is observed that capital and non-performing assets
remain crucial factors in influencing productivity. Finally, regulatory pressure, both with regard to capital and non-performing assets play a significant role in influencing the capital adequacy and asset quality of the public sector banks.

**Ommen (2002)**\(^{58}\) reviewed the highlights of reforms under two broad heads, banking financial markets. It was noted that despite the reduction in SLR in 1990’s still a large percentage of deposits is deployed in government securities. It was observed that the era of priority sector lending, subsidised interest, differential interest etc. has virtually come to an end. There is a remarkable increase in personal loans from the banks reflecting a shift from rural to urban clients in the metropolitan areas. Regional imbalances in credit allocation have deepened and so also have class disparities.

**Isik Hasan (2002b)**\(^{59}\) estimated cost, allocative, technical, pure technical and scale efficiency of Turkish banking industry from 1988 to 1996 by using Data Envelopment Analysis. Following intermediation approach, they considered labour, capital and loanable funds as inputs of the bank and short term loans, long term loans, risk adjusted off balance sheet items and other earning assets as outputs of the bank. After analysis, they found that the state and foreign owned banks performed better than the private domestic banks. They also found for Turkish banking industry poor efficiency score of banks overtime and positive impact of ratio of loans to total assets on the efficiency of the banks. According to them, government should promote competition in banking sector by enforcing financial reforms to improve the efficiency of banks.

In the Indian context, **Rajaraman and Vasishtha (2002)**\(^{60}\) in an empirical study provided an evidence of significant bivariate relationship between an operating inefficiency indicator and the problem loans of public sector banks. In a similar manner, largely from lenders’ perspective, Das and Ghosh (2003) empirically examined non-performing loans of India’s public sector banks in terms of various indicators such as asset size, credit growth and macroeconomic condition, and operating efficiency indicators. **Sergio (1996)** in a study of non-performing loans in Italy found evidence that, an increase in the riskiness of loan assets is rooted in a bank’s lending policy adducing to relatively unselective and inadequate assessment of
sectoral prospects. Interestingly, ‘this study refuted that business cycle could be a primary reason for banks’ NPLs’. The study emphasised that increase in bad debts as a consequence of recession alone is not empirically demonstrated. It was viewed that the bank-firm relationship will thus; prove effective not so much because it overcomes informational asymmetry but because it recoups certain canons of appraisal. In a study of loan losses of US banks, McGoven (1993) argued that ‘character’ has historically been a paramount factor of credit and a major determinant in the decision to lend money.

Banks have suffered loan losses through relaxed lending standards, unguaranteed credits, the influence of the 1980s culture, and the borrowers’ perceptions. It was suggested that bankers should make a fairly accurate personality-morale profile assessment of prospective and current borrowers and guarantors. Besides considering personal interaction, the banker should:

(i) try to draw some conclusions about staff morale and loyalty,
(ii) study the person’s personal credit report,
(iii) do trade-credit reference checking,
(iv) check references from present and former bankers, and
(v) determine how the borrower handles stress. In addition, banks can minimise risks by securing the borrower’s guarantee, using Government guaranteed loan programs, and requiring conservative loan-to-value ratios.

Albert Park and Minggao Shen (2003) studied the Joint liability lending and the rise and fall of China’s township and village enterprises. Albert and Minggao present a new explanation for the rise and fall of collectively owned enterprises based on the changing lending preferences of banks. Until the mid-1990s, bank loans to collective firms exhibited the key features of joint liability lending, supported by the sanctioning ability of local government leaders. However, subsequent changes in collateral, firm performance, interest rates and financial competition led banks to prefer individual lending to private firms. This explanation is supported by empirical analysis of the determinants of bank lending preferences, the involvement of township leaders in lending and the ability of firms to obtain loans.
The focal point of the study made by David C. Smith (2003)\textsuperscript{62} was to critically evaluate the characteristics of loans to Japanese borrowers during the period late 1990s using a relatively unexplored, contract-specific data set. The researcher find that Japanese banks charge less on loans to Japanese borrowers than do foreign banks, holding constant many of the risk characteristics of the borrower. Moreover, Japanese banks vary pricing less across these risks than do foreign banks, suggesting that Japanese banks tend not to distinguish good risks from bad. Taken together, the results suggest that problems at Japanese banks stem from the behaviour of the banks themselves, not simply from poor economic conditions. Researcher also documents a significant shortening in the maturity of Japanese loans in the late 1990s.

Sathye (2003)\textsuperscript{63} measure the productive efficiency of Indian banks. He used input oriented model of Data Envelopment Analysis under the assumption of Variable Returns to Scale. Indian Bank’s Association published data of the year 1997-98 were used for the study. He used two models to calculate the efficiency scores of public, private and foreign owned banks. In one model, he used interest expenses and non interest expenses as inputs of the banks while net interest income and non interest income as outputs of the bank. In second model, he used deposits and staff number as inputs and net loans and non interest income as outputs of the banks. In first model estimated mean efficiency score was 0.83 while in second model it was 0.62. He found, most of foreign owned banks on the estimated frontier. He also found that the efficiency scores of private owned banks were lower as compared to public owned and foreign owned banks. According to him, lower score of private sector banks could be due to their expansion.

Tor Jacobson and Kasper Roszbach (2003)\textsuperscript{64} studies the bank lending policy, credit scoring and value-at-risk. This paper builds on the credit-scoring literature and proposes a method to calculate portfolio credit risk. Individual default risk estimates are used to compose a value-at-risk (VaR) measure of credit risk. In general, credit-scoring models suffer from a sample-section bias. The starting point is therefore to estimate an unbiased scoring model using the bivariate probit approach. The paper uses a large data set with Swedish consumer credit data that contains extensive financial and personal information on both rejected and approved applicants. Researchers study how marginal changes in a default-risk-based
acceptance rule would shift the size of the bank’s loan portfolio, its VaR exposure and average credit losses. Finally, researchers compare the risk in the sample portfolio with that in an efficiently provided portfolio of equal size. The results show that the size of a small consumer loan does not affect associated default risk, implying that the bank provides loans in a way that is not consistent with default-risk minimisation. VaR calculations indicate that an efficient selection (by means of a default-risk-based rule) of loan applicants can reduce credit risk by up to 80%.

Maghyereh (2004) estimated the efficiency of Jordon banking sector after 1990’s Financial Liberalisation by using Non – parametric Data Envelopment Analysis. He used data of eight commercial banks from 1984 to 2001 for this purpose. For the study, be considered three inputs (number of employees, value of fixed assets and deposits) and three outputs (Loans and Liquid Assets, Investment and Other Income) of the bank by employing intermediation approach. The range of yearly estimated DEA technical and pure technical efficiency score of all banks for his study was 0.847 to 0.987 and for scale efficiency was from 0.903 to 0.999. After efficiency estimation, be used Tobit Model to determine the impact of important factors. From analysis, be found positive impact of size, Profitability, Market Power of the Bank and Financial Liberalisation on the efficiency of Commercial Banks.

Alaullah et al., (2004) made a comparative analysis of commercial banks in India and Pakistan during 1998-1998. To measure technical efficiency, they used Data Envelopment Analysis and employed two input-output specifications for efficiency measurement. In one specification (loan based model), operating and interest expenses were used as inputs while loans and advances (along investment) were considered as outputs of the commercial bank. In second specification (income based model), operating and interest expenses were considered as inputs while interest and non interest income worked as outputs of the commercial bank. They decomposed technical efficiency into pure technical efficiency and scale efficiency. From analysis, they found that the efficiency score in loan based model was much higher as compared to the income based model. At the same time, results also indicated the presence of space for improvement in the efficiency of banks in these countries.
According to Beck et al., (2005) \cite{Beck2005}, in Nigeria in early 1990’s more than 50% of total banking assets were privatised. They studied the impact of privatisation on bank performance and compared the same bank before and after privatisation. At the same time, they also compared this privatized banks with privately owned banks in Nigeria. They used non-performing loans, return on assets and return on equity as performance indicators. For the study, annual data of 69 banks for the period from 1990 to 2001 were used. According to their analysis, return on equity significantly increased while non-performing loans decreased significantly due to privatisation. They also found that the older and smaller banks performance worse than the new and larger banks. According to them, larger banks perform better due to economics of scale and scope while new banks due to ability of capturing of new profit opportunities. They also reported that banks focused on retail banking performed significantly poor than the banks focused on lending to government and on fee based business. So the results of their study indicated a performance improvement of banks due to privatisation while before privatisation, these banks performed significantly bad as compared to privately owned banks.

According to Coccorese (2005) \cite{Coccorese2005}, to enhance efficiency, Italian banks had been forced to search scale and scope economies. From 1988 to 2000, number of
commercial banks dropped from 1100 to 841 but this reduction in number of banks was balanced with the increase of the number of bank branches. He carried out this study to analyse the Italian banking sector, where half of total loans were managed by eight largest firms operating at national level. For analysis, he considered all other operating firms as ninth competitor. The main purpose of his analysis was to verify whether large banks have some market power in term of price-cost margins or not. He used price setting model with the assumption of product differentiation and price between firms. He supposed that each banks quantity (value of loans) demanded was a function of the price (interest rate earned on loans i.e., ratio between interest revenue and total loans) charged by the bank, its competitor's price (i.e. ratio between all banks aggregate interest revenue and loan) and other exogenous factors (gross domestic product, number of branches) which affect demand. About cost function, he assumed that it was affected by output (quantity demanded) and price of inputs (deposits, labour and physical capital). By subtracting cost function from the multiple of quantity demanded and its price, he got the profit function. He concluded that banks quantity demanded was negatively influenced by its own price while positively with the price of the competitor and both were statistically significant at 1% level of significance. In this function, he also reported a positive and significant relationship of quantity demanded with number of branches of the bank while gross domestic product also has positive and significant relationship with quantity demanded when time was included in the equation as a trend variable. From the cost equation, he concluded that banks were operating on that part of the average costs curve that lie above the marginal cost curve (i.e. in the region of economies of scale) and made banking business unattractive for new entrants. From his analysis, he concluded that degree of competition in Italian Banking Sector was considerable and rejected the concern that the concentration in market resulted in anti-competitive consequences. From his analysis, he also concluded that there was not any conflict between competition and concentration in Italian Banking Sector.

Francesco M. Paris (2005) suggested the internal models like Credit Metrics and KMV, implemented by banks to manage credit risk and assess regulatory capital, are significant examples of how practitioners apply modern portfolio theory (MPT) to the management of bank loan-portfolios.
From a theoretical perspective there are several reasons suggesting to be careful in extending MPT to the case of bank loan-portfolios selection in order to avoid misleading results. Specifically, loans’ log-returns are non-normally distributed random variables; furthermore, decision-makers not necessarily perform a quadratic utility function. Because both of those reason the traditional mean-variance approach is inadequate in building up optimal loan-portfolios. Such a conclusion is even more relevant if specific categories of loans are considered. This paper researchers deal with the problem of selecting optimal portfolios of consumer-loans by developing a state preference model. It allows us not to explicitly consider the distributional properties of loans’ log-returns. The model is a static one having the objective to select the loan-portfolio maximizing the expected utility of wealth allocated by the bank managers, subject to a number of constraints accounting for fundamental strategic choices implemented by the bank managers. In this study show that flexibility is the main characteristic of our model. In fact, adding constraints gives new optimal portfolios without reducing the expected utility of the decision maker. Researchers will explain that such a result does not spend on constraints’ misspecification but on the risk structure implied in the state preference approach.

J.P. Niinimaki (2005)\textsuperscript{71} in his article calculated the Hidden loan losses, moral hazard and financial crises. This paper introduces two methods of hiding loan losses and analyzes how they affect a bank’s loan interest income, payments on deposits, liquidity and moral hazard. The analysis reveals that a hiding method represents a Ponzi scheme. Contrary to classic theory, e.g. Diamond (1984), moral hazard may arise even though a bank’s loan portfolio is diversified. Alternative instruments to eliminate hiding are investigated. Under specific circumstances, a Ponzi scheme may provide a socially optimal method to create liquidity and prevent a failure of a solvent but illiquid bank.

Kshirsagar, K.G (2005)\textsuperscript{72} studied, Rural Credit Delivery in Maharashtra: Experiences with Formal and Informal Lending Institutions, the rural credit sector in Maharashtra not only encompasses the traditional formal and informal but also the new generation lending institutions. The present paper specifically focuses on the credit experiences of various categories of formers and landless households with these
lending institutions with the objective of suggesting the policy measures for ensuring smooth flow of credit to them. The study provides two differing views about the functioning of various lending institutions in Maharashtra. While new generation lending institutions such as Self-Help Groups (SHGs) have shown high.

**Burki and Niazi (2006)**\(^7\) analysed the impact of financial reforms on the efficiency of state, private and foreign banks of Pakistan by using data of 40 banks for the period 1991-2000. They used DEA to estimate the efficient frontier by using loans and advances, investments and contra accounts as outputs of the bank and labor, physical capital, operating cost and financial capital, operating cost and financial capital as inputs of the bank. By using respective year’s data about inputs and outputs of the banks, efficiency frontier was estimated for that year and for each year, banks cost, allocate, technical, pure technical and scale efficiency were computed. To study the impact of banks size, interest income to earning assets, loans to deposit ratio, foreign and private ownership on the estimated efficiency scores, they used tobit model and found positive impact of all these variables on the estimated efficiency scores.

**J. Dermine and C. Neto de Carvalho (2006)**\(^7\) studied Bank loan losses-given-default: a case study. The empirical literature on credit risk has relied mostly on the corporate bond market to estimate losses in the event of default. The reason for this is that, as bank loans are private instruments, few data on loan losses are publicly available. The contribution of this paper is to apply mortality analysis to a unique set of micro-data on defaulted bank loans of a European bank. The empirical results relate to the timing of recoveries on bad and doubtful bank loans, the distribution of cumulative recovery rates, their economic determinants and the direct costs incurred by that bank on recoveries on bad and doubtful loans.

**Matej Blasko and Joseph F. Sinkey, Jr. (2006)**\(^7\) studied the Bank asset structure, real-estate lending and risk-taking. The banking industry changed substantially in the 1990s as the number of banks declined rapidly, and commercial banks dramatically shifted their assets to real-estate loans. The portfolio restructuring seems to be followed mainly by capital-constrained banks as real-estate banks have lower risk-based-capital ratios relative to those of our benchmark group. Trading off
credit risk for interest-rate risk is only one of the ways to arbitrage regulatory capital. Researchers also show that real-estate banks keep higher ratios of fixed-rate loans to total assets and face higher probabilities of insolvency. The increasing proportion of banks specializing in real-estate lending, the incentives of regulatory discipline, and the weaknesses of risk-management strategies could stress the condition of the banking system during periods of large unexpected increases in interest-rates and are important issues for regulators and bank managers.

Pasiouras (2006) estimated the technical and scale efficiency of Greek commercial banks by using data of these banks from 2000 to 2004. For efficiency estimation, he used DEA and proposed five models. Four models were based on the intermediation approach while one was based on the profit orientation approach. In the models under intermediation approach, fixed assets, number of employees, loan loss provisions, customer deposits and short term funding were considered as outputs of the bank. In the model under profit oriented approach, he used employees expenses, other non-interest expenses and loan loss provisions as inputs while net interest income, net commission income and other operating income as outputs of the bank. To explain the efficiency of banks, he used Tobit model. From estimated tobit model, he found significant positive impact of equity to assets, and loans to assets ratio of the bank on the estimated efficiency of banks.

Linda Allen and Stavros Peristiani (2007) studied the Loan under pricing and provision of merger advisory services. Researchers studied and investigate the primary and secondary syndicated bank loan market to analyses the effect on pricing when the financial institution commingles syndicated lending with merger advisory services. In particular, researchers investigate the connection between the acquirer’s choice of financial advisor in a merger and future financing commitments. Researchers find evidence of under pricing of syndicated bank loans in both the primary and secondary market. In the primary market, they show that non-acquisition is charged a lower all-in-spread relative to acquisition loans if there has been a prior lending relationship. Consistent with this finding, researchers find that syndicated bank loans for non-acquisition purposes arranged by the acquirer’s advisor after the merger announcement date trade in the secondary market at a significant discount. Since the terms on these non-acquisition loans are not set upon merger announcement,
they are most subject to risk shifting and under pricing agency problems. These finding offer evidence consistent with the existence of loss leader and potentially conflicted loans (priced at below-market terms) that are offered by the acquirer’s relationship bank advisor in order to win merger advisory business.

_Pasiouras et al., (2007)_ used DEA to analyze the technical, allocative and cost efficiency of 16 Greek cooperative banks over the period 2000 to 2004. Following intermediation approach, fixed assets, deposits and number of employees were considered as inputs of the banks while loans, liquid assets and investments were considered as outputs of the banks. Estimated yearly average cost efficiency score for cooperative banks ranged from 0.802 to 0.836 in their study. According to them, major source of cost inefficiency was model to find out the influence of the internal and external factors on its efficiency. From estimated tobit model, among bank specific variables, they found positive impact of equity to assets, number of ATMs, loans to assets and assets of the bank on the estimated efficiency of banks.

_Saibal Ghosh (2007)_ in his work evaluated and suggested that whether financial liberalisation promotes improved credit risk management in Indian banking in the form of fewer problem loans. Using annual data on state-owned banks for the period 1996-2005, the paper finds that, after controlling for a myriad of factors, financial liberalisation is influential in lowering banks’ problem loans. Robustness tests reinforce these findings.

_Naik Janardhan, G.(2007)_ in his study emphasise the operating efficiency of banks in India. Banks play a major role in the mobilisation and allocation of savings in the country. The efficiency with which banks perform these functions is a real gain to the economy. The performance and efficiency of a bank can be evaluated from different angles, such as profitability, interest earned, other incomes generated, interest expanded, spread, cost of funds, operating expenses including wage bill, employee productivity, provisioning and return on assets. All these parameters were greatly altered during 1991 to 2004, when a series of reforms in the banking sector were initiated by the Reserve Bank of India, as a part of the economy liberalisation process. This empirical study covering a decade (1994-95 to 2003-03), tries to
investigate the impact of reforms on the performance of Scheduled Commercial
Banks excluding Regional Rural Banks.

**Ganesan, P.** in his study states Scheduled Commercial Banks between 1995
and 2008 indicates that out of priority sector activities, small scale industries receive a
less attention in terms of number of accounts, credit outstanding and ratio of credit
outstanding to total priority sector credit and total bank credit. The various empirical
and descriptive studies have established various factors influencing the business
customers in the selection of their banks for their operations and major influences
vary from study to study. An attempt is made to examine the following objectives:

(a) To study the level of importance attached by small enterprise customers on
the various product and services offered by the bank; and

(b) To map the importance level of two groups of customers having
association with banks with greater than 10 years and less than 10 years.

It is concluded the products are pushed back by the services in general, self-
service technologies in particular. These two business customer groups have
difference with somewhat high importance level for startup financing and safety.

**Das (2007)** in his study emphasis that an attempt has been made in this paper
to evaluate the performance of public sector banks with regard to expansions of
banking services to the unbanked areas in regional perspective and to evaluate the
performance with regard to advances to the priority sector during the pre and post
1991 periods. The regional disparity in the distribution of bank offices and population
has been studied with the help of Gini’s co-efficient of concentration. At the national
level the population pressure per bank office was observed to be 19.41 thousand
persons in 1981.

**Saibal Ghosh (2007)** has discussed the loan loss provisions, earnings,
capital management and signaling: evidence from Indian Banks. The debate on bank
capital regulation has in recent years devoted specific attention to the role that bank
loan loss provisions play as a part of the overall minimum capital regulatory
framework. The paper examines this issue in the Indian context, exploring the
available evidence about bank loan loss provisioning in the Indian context. Using data
on Indian banks for 1997-2005, evidence is found in favour of both earnings and capital management by Indian banks.

Christophe J. Godlewski and Laurent Weill (2008) studied Syndicated loans in emerging markets. In this case researchers studied the considerable expansion of the volume of syndicated loans in emerging markets in the recent years. Researchers provide the first analysis of the determinants of the decision of banks to syndicate loan on a sample of loan facilities from 50 emerging countries. Researchers show the significant role of loan characteristics and of financial development, banking regulation, and legal institutions, in the decision to syndicate a loan. Researchers support the efforts of authorities to increase banking competition and efficiency, and to implement binding banking regulation on capital requirement to promote the expansion of syndicated loans.

David Ruthenberg and Yoram Landskroner (2008) studied the Loan pricing under Basel II in an imperfectly competitive banking market. The new Basel Accord (2006), established new and revised capital requirements for banks. In this paper researchers analyse and estimate the possible effects of the new rules on the pricing of bank loans. Researchers relate to the two approaches for capital requirements (internal and standardised) and distinguish between retail and corporate customers. Our loan-equation is based on a model of a banking firm facing uncertainty operating in an imperfectly competitive loan market. Researchers use Israeli economic data and data of a leading Israeli bank. The main results indicate that high quality corporate and retail customers will enjoy a reduction in loan interest rates in (big) banks which, most probably, will adopt the IRB approach. On the other hand high risk customers will benefit by shifting to (small) banks that adopt the standardised approach.

Fotios Pasiouras (2008) studied estimating the technical and scale efficiency of Greek commercial banks: the impact of credit risk, off-balance sheet activities, and international operations. This paper uses data envelopment analysis (DEA) to investigate the efficiency of the Greek commercial banking industry over the period 2000-2004. Researchers’ results indicate that the inclusion of loan loss provisions as an input increases the efficiency scores, but off-balance sheet items do not have a
significant impact. The differences between the efficiency scores obtained through the profit-oriented and the intermediation approaches are in general small. Banks that have expanded their operation abroad appear to be more technical efficient than those operating only at a national level. Higher capitalization, loan activity, and market power increase the efficiency of banks. The number of branches has a positive and significant impact on efficiency, but the number of ATMs does not. The results are mixed with respect to variables indicating whether the banks are operating abroad through subsidiaries or branches.

Shashanka Bhide and H.P. Mahesh (2008)87 India’s financial sector reforms, introduced in 1992, may have influenced the performance of commercial banks through a variety of channels. The present study is an attempt to examine the efficiency levels of Indian for the period 1985-2004, they employ stochastic frontier analysis to estimate bank specific cost, profit and advance efficiencies. Our results show that while loan advance efficiency has not shown much improvement after deregulation, cost and profit efficiencies show varying trends for different bank groups. Public sector banks rank first in two of the three efficiency measures, indicating that, as opposed to the general perception, these banks do not lag behind their private counterparts in efficiency. Our results also show that competition has a significant impact on the efficiency levels of commercial banks across all three efficiency measures. The impact of various factors captured in the study is clearly based on performance in a given setting, and the rapid changes in the financial sector that are underway will keep influencing the performance of the banking industry.

Ram Pratap Sinha (2008)88 studied Priority Sector Lending of Indian Commercial Banks: Some Empirical Results. Since the mid – seventies, the introduction of Priority Sector Lending quota for the Commercial Banks provided a major instrument for allocation of financial resources to agriculture, small scale enterprises and schemes of self-employment. However, the introduction of banking sector reform posed new challenges before the commercial banks as they had to conform to the New Prudent Asset Classification, Income Recognition, Provisioning and Capital Adequacy Standards and Still Maintain Priority Sector Lending quota.
The present paper is an attempt to compare select Public and Private Sector Commercial Banks in respect of priority sector lending for the period 2000 – 01 to 2004 – 05. For comparison purposes the following indicators have been used:

(i) Technical Efficiency
(ii) Scale Efficiency and
(iii) Malmquist Total Factor Productivity Index.

The results obtained from the exercise indicate substantial fluctuations in mean efficiency scores for the observed years. In particular, the mean technical efficiency score have declined during 2004 – ‘05. The mean technical efficiency scores of the observed Public Sector Banks. Under constant returns to scale, the overall mean technical efficiency score of the observed Private Sector Banks is about 95% of the observed Public Sector Banks. Under variable returns to scale, the figure is about 98%. The mean scale efficiency of the observed Private Sector Commercial Banks is about 97% of the Public Sector Commercial Banks. In so far as total factor productivity growth is concerned, the observed Private Sector Commercial Banks exhibited marginally higher Malmquist TFP Index than the observed Public Sector Banks. All the observed Commercial Banks registered Positive Total Factor Productivity Growth during the period.

Yener Altunbas, Leonardo Gambacorta and David Marques-Ibanez (2009) studied Bank risk and monetary policy. In this study researchers find evidence of a bank lending channel operating in the euro area via bank risk. Financial innovation and the wider use of new ways of transferring credit risk have tended to diminish the informational content of standard bank balance sheet indicators. Researchers show that bank risk conditions, as perceived by financial market investors, need to be considered, together with the other indicators (i.e., size, liquidity and capitalisation), traditionally used in the bank lending channel literature to assess banks’ ability and willingness to supply new loans. Using a large sample of European banks, researchers find that banks characterised by lower expected default frequency are able to offer a larger amount of credit and to better insulate their loan supply from monetary policy changes.
Jens Grunert and Martin Weber (2009)\textsuperscript{90} studied the Recovery rates of commercial lending: empirical evidence for German companies. There are very few studies concerning the recovery rate of bank loans. Prediction models of recovery rates are increasing in importance because of the Basel II-framework, the impact on credit risk management, and the calculation of loan rates. In this study, they focus the analyses on the distribution of recovery rates and the impact of the quota of collateral, the creditworthiness of the borrower, the size of the company and the intensity of the client relationship on the recovery rate. All our hypotheses can be confirmed. A higher quota of collateral leads to a higher recovery rate, whereas the risk premium of the borrower and the size of the company are negatively related to the recovery rate. Borrowers with an intense client relationship with the bank exhibit a higher recovery rate.

Liang Han, Staurt Fraser and David J. Storey (2009)\textsuperscript{91} studied Are good or bad borrowers discouraged from applying loans? Evidence from US small business credit markets. This paper takes the concept of a discouraged borrower originally formulated by Kon and Storey (Kon, Y., Storey, D.J., 2003. A theory of discouraged borrowers, Small Business Economics 21, 37-49) and examines whether discouragement is an efficient self-rationing mechanism. Using US data it finds riskier borrowers have higher probabilities of discouragement, which increase with longer financial relationships, suggesting discouragement is an efficient self-rationing mechanism. It also finds low risk borrowers are less likely to be discouraged in concentrated markets than in competitive markets and that, in concentrated markets, high risk borrowers are more likely to be discouraged the longer their financial relationships. Researchers conclude discouragement is more efficient in concentrated, than in competitive, markets.

Tanbir Ahmed Chowdhury (2009)\textsuperscript{92} studied in a developing country like Bangladesh the banking system as a whole play a vital role in the progress of economic development. In this paper they have tried to analyse the development and growth of Selected Private Commercial Banks of Bangladesh. It is observed that all the selected private commercial banks are able to achieve a stable growth of branches, employees, deposits, loans and advances, net income, earnings per share during the period of 2002-'06. Seven trend equations have been tested for different activities of
the private commercial banks. Among them the trend value of branches, employees, deposits and net income are positive in case of all the selected banks. Square of correlation coefficient ($r^2$) has also been tested for all trend equations. The $r^2$ of branches, deposits and net income is more than 0.5. It indicates the prospect of private commercial banks in Bangladesh is very bright.

Yener Altunbas, Leonardo Gambacorta and David Marques (2009) discussed the Securitisation and the Bank Lending Channel, in European Countries. The dramatic increase in securitisation activity experienced in Europe in the years following the introduction of the euro has altered the liquidity, credit and maturity transformation role traditionally performed by banks. They claim that the changing role of credit intermediaries due to securitisation has also modified the effectiveness of the bank lending channel and banks’ ability to grant loans. They use a novel database of securitization activity and a large sample of European banks and find that the use of securitisation shelters banks’ loan supply from the effects of monetary policy. Securitisation activity has also strengthened banks’ capacity to supply new loans. This capacity, however, depends on business cycle conditions and, notably, on banks’ risks positions. The recent credit crisis is instructive in this respect.

Dr. Millind Sathye has measured the efficiency of banks in India, using Data Envelopment Analysis (DEA). He used two models to show how efficiency scores vary with change in inputs and outputs. To measure efficiency two inputs and two outputs variables, namely, interest expenses, non-interest expenses (inputs) and net interest income and non-interest income as outputs had been used. A second DEA analysis was run on DEAP software with deposits and staff numbers as inputs and net loans and non-interest income as outputs.

B.S. Bodia, Richa Verma (2009) studied Earning Quality of Scheduled Commercial Banks in India: Bank – Wise and Sector- Wise Analysis. The EQ is a tool to judge the ability of the banks to earn consistently. It is basically determines the profitability of the banks. In this paper researcher presents the earning quality ratios of the banks as worked out on lines of CAMEL MODEL for the period 1991 – ‘92 to 2005 – ‘06, i.e., 15 years. This reference period is divided into 3 sub – groups: 1992 – ‘95, 1999 – ‘00 and 2001 – ‘06. It is found from the study that Foreign Banks
(FBs) have edge over their domestic counterparts in terms of Operating Profit to Average Working Funds Ratio, Spread to Total Assets Ratio and Non-interest Income to Total Income Ratio.

Public Sector Banks enjoy the same in terms of Net Profits to Average Assets Ratio and Interest Income to Total Income Ratio. On the whole, the banks operating in India have shown appreciable improvement in their fee based income. Except Net Profit to Average Assets Ratio, the banks that ranked on the top on the basis of their earning quality are of the foreign origin only.

**Sangeetha Arora and Shubpreet Kaur (2009)** studied Internal Determinants for Diversification in Banks in India an Empirical Analysis. Banks, the world over, are transcending their normal business operations and diversifying their activities in response to economic and financial sector reforms. The Indian Banking industry too has been steadily shifting away from traditional sources of revenue like loan-making etc, towards non-traditional activities that generate fee income, service charges trading revenue, and other types of non-interest income. In this paper an attempt has been made to empirically analyse the significance of internal determinants for diversification of banks in India across the time period of 2000 to 2007. For the purpose, this paper uses aggregate bank level data from 2000 to 2007 consisting of Foreign Sector Banks, Nationalized Banks, Private Banks and SBI Group. Some of the major internal determinants foreign banks to diversity such as risk, cost of production, regulatory cost and technological change have been analysed. It has been found out that all the four explanatory variables have been very significant for bringing variation in the income structure of the banks. Variations in Foreign Banks are higher followed by National Banks and Private Banks respectively and least is in the case of SBI Group.

**Choudhry Tanveer Shehzad, Jakob de Haan and Bert Scholtens (2010)** studied the impact of bank ownership concentration on impaired loans and capital adequacy. This paper researcher examined the impact of bank ownership concentration on two indicators of bank riskiness, namely banks’ non-performing loans and capital adequacy. Using balance sheet information for around 500 commercial banks from more than 50 countries averaged over 2005-'07, researchers find that concentrated ownership (proxies by different levels of shareholding)
significantly reduces a bank’s non-performing loans ratio, conditional on supervisory control and shareholders protection rights. Furthermore, ownership concentration affects the capital adequacy ratio positively conditional on shareholder protection. At low levels of shareholder protection rights and supervisory control, ownership concentration reduces bank riskiness.

**Ralph De Haas, Daniel Ferreira and Anita Taci (2010)** studied what determines the composition of banks’ loan portfolios? Evidence from transition countries. In this paper explores how bank characteristics and the institutional environment influence the composition of banks’ loan portfolios. Researchers use a new and unique data set based on the EBRD Banking Environment and Performance Survey (BEPS), which was conducted for 220 banks in 20 transition countries. Researchers show that bank ownership, bank size, and legal creditor protection are important determinants of the composition of banks’ loan portfolios. In particular, researchers find that foreign banks plan an active role in mortgage lending. Moreover, banks that perceive pledge and mortgage laws to be of high quality choose to focus more on mortgage lending.

**Vipin Desai (2010)** studied Potential for citizens of Vadodara, Gujarat. In this paper, the author explores the reverse mortgage loan is a home loan product having its deep roots in western countries. As far as India is concerned, the name formally figured in the Budget – 2007 speech, in which the Finance Minister proclaimed the Government’s intention to have this product launched as a social security measure for the senior Indian citizens. The banks and other lending institutions were expected to offer this product. However, the present status of the scheme does not reflect it having reached the expected level. Although some banks have announced the scheme, the volume of sanctions and disbursements is not large enough. The popular discourse suggests that Indian would not accept the said product due to their emotional attachment to the house, and their mindset towards leaving a legacy them for their heirs. Do the banks too, have apprehensions on these lines? Is it due to such apprehensions that much publicity is not given after making formal announcements? This paper maken an attempt to analyse these issues based on the data collected from the senior citizens and ascertain the potentiality of the product by
examining the substance and the scale of the said apprehensions, if any. The study is based on a sample survey of senior citizens in Vadodara, Gujarat.

Alamelu Mangai (2010) undertook a study entitled A Study on Management of Non-Performing Assets of Scheduled Commercial Banks in India. In this study, the researcher undertaken to analyse the performance of scheduled commercial banks under gross advances, net advances, gross non-performing assets, net non-performing assets, incremental gross non-performing assets and net non-performing assets, bank group-wise and sector-wise non-performing assets of scheduled commercial banks. Secondary data form the base for this study. In this study, the researcher has to identify the following conclusion

The performance of SCBs is good in ten parameters viz., Gross and Net Advances, Gross NPA to Gross Advances (Quantum), Net NPA to Net Advances (Quantum), Gross and Net NPA to Total Assets, Sector-wise NPA, Standard Assets, Sub-standard Assets, Doubtful Assets, Loss Assets and provisions for NPA.

The performance of SCBs need improvement in incremental gross and net NPAs and sub-standard assets.

Among the SCBs, each bank group performed well in Gross and Net advances, Gross and Net NPA to total assets, sector-wise NPA and standard assets.

PSBs and OPSBs performed well in six parameters viz., Gross and Net NPA, Gross NPA to Gross Advances, Net NPA to Net Advances, Doubtful Assets, Loss assets and provisions and the ratio of Net NPA to Net Advances. FBs performed well in minimizing loss assets.

To conclude, during the period under study, SCBs performed well in recovery management. Among the bank groups, the performance is appreciable in PSBs and OPSBs and NGPSBs and FBs.

Among the four recovery strategies followed by SCBs during the period under study, recovery through DRTs and under OTS scheme yielded better result. Gradual progress in recovery is ensured by banks through the SARFESI Act also.
Conclusion

In a nutshell, review of literature reveals that the studies made in past, have been highlighting the major gains made by the scheduled commercial banks in the achievement of social objectives in the pre- and post-nationalisation period.

In most of the studies analysis is based on ratio analysis, loan spread regression, loan maturity regression, logit regression, scale efficiency estimates, Data Envelopment Analysis (DEA), Parametric Data Envelopment Analysis (PDEA) and tobit model. In order to evaluate the performance of the scheduled commercial banks in case of advances some indicators are formulated and the results are derived accordingly. In other few studies in order to see the impact of various factors on banking indicators regression analysis is used. In addition to it, some of the researchers have also been using Discriminant Analysis, Principal Component Analysis on Taxonomic Technique to evaluate the advances sanctioned by Scheduled Commercial Banks.

Most of the studies, carried in the past, are just with reference to one or two years, but present study covers a long span of 12 years i.e., from 1997-‘98 to 2008-‘09.

This study is also important because the analysis of the available literature reveals that the scholars have not made any attempt to fully analyse the SCHEDULE – 9 of the Bank’s Balance-sheet. But the present study aims at analysing the SCHEDULE – 9 of the Bank’s Balance-sheet thoroughly and also analysing the performance of public and private sector banks while sanctioning loans and advances, analyzing the Non-performing assets and also analysing Sectoral Deployment of Gross Bank Credit.

Some of the studies made in the past had analysed on any one parameter only i.e., priority sector advances, institutional credit to agriculture, profitability of bank lending to small business, profit and profitability of nationalised banks, adequacy of institutional credit to small scale industries, feasible NPA levels of banks for Capital Account Convertibility, credit-deposit trends in public sector banks, problem of bad
loans and growing level of non-performing assets, characteristics of loans to Japanese borrowers, bank lending policy and credit scoring and value-at-risk etc.

But, the present study is a modest attempt to cover the gap in the exercises carried out in the past. So, the present study will be quite useful to bankers and policy makers in framing policies regarding Advances of a bank.


94. Dr. Milland Sathye, ‘Efficiency of Banks in a developing Economy: The Case of India’, School of Accounting, Banking and Finance, University of Canberra, Bruce Act 2617, pp. 6-8.


100. Dr. R. Alamelu Mangai and N. Suresh (2010): ‘A Study on Management of Non-Performing Assets of Scheduled Commercial Banks in India’, M.Phil., Dissertation, Submitted in Department of Bank Management, Alagappa University, Karaikudi (Tamil Nadu)