2.1 INTRODUCTION

As banking system play a pivotal role in the economic development of a country, it has caught the eye of many researchers, administrators; departments, committees. Before examining the productivity of schedule commercial banks, it is necessary to review the literature on the subject. This chapter presents a brief review of studies done in our country in the area of financial reforms and efficiency measurement in banking sector and job satisfaction among bank employees. Banks efficiency studies over the past decade focus on exploring the general determinants of efficiency and primarily concentrate on developed banking system. Studies are classified and presented on the basis of the time period. The classification of the literature on "Productivity of Indian Commercial Banks and Job Satisfaction of Employees" is given in the following part:-

Review of literature is a systematic survey on the facts and figures of previous researches on a particular topic. It is a collection of major findings of past researches. It is useful to understand what has happened in the topic during the past period. In every research, there are certain preliminary works and the review of literature is one of them.
In RBI (1977)\(^1\) set up a committee the productivity, efficiency and profitability (PEP) to study the efficiency, productivity and profitability of the nationalized banks. This, popularly known as Luther Committee, has studied the performance of the nationalized banks for the period 1969-1975. The study measured operational efficiency using defined efficiency indicators. The committee used four criteria namely productivity, social objective –spatial, social objectives- sectoral and profitability. Under each criterion, it used a set of indicators. The committee expressed the view that books of instruction and service manual being used can be useful in improving the productivity provided these are updated by a cell on, ongoing basis. It favoured adoption of work measurement techniques and work norms as a means of reduction of costs.

Shah (1977)\(^2\) studied on “Bank Personal: Manpower for bank productivity”. He expressed concern about increased expenses and overheads, slow growth in productivity and efficiency, wasteful work practices and doubtful and overdue debts. He favored written job description for improvement of staff productivity. He also emphasized on reduction of costs, creation of a team spirit improvement in the management for improving bank profitability and productivity.

Divatia and Venkatachalam (1978)\(^3\) studied on “Operational efficiency and profitability of public sector bank”. They used factor analysis
to construct a composite index of efficiency and productivity for 15 major Indian public section banks. The indicators choose were divided into (a) operational efficiency in terms of productivity (b) operational efficiency of social objectiveness (c) profitability. The approach was akin to the approach of PEP committee.

Varde and Singh (1979) conducted a research on “Productivity of Commercial Banks”. They study the productivity of commercial banks over 15 years gave consideration to two types of the factors that affect interest rate level i.e. external factors like monetary policy, fiscal policy and interest rate policy etc. and internal factors including operational and managerial efficiency of individual banks.

Birla Institute of Scientific Research (1981) conducted a research on “Bank since Nationalization”. BISR conducted a study to evaluate the performance of the nationalized banks in comparison with that of banks in private sector. The emphasis of the study was on the objectives of nationalization and their achievements, relative performance of private sector banks and the nationalized banks since 1969 and the effect of nationalization on rest of the banking sector. The study reveals that the growth and development in banking after nationalization was not just because of transfer of ownership. It was rather because various incentives and punitive measures were implemented with more vigilance and care after
1969 by the govt. and the Reserve Bank of India to make banks fulfill their social responsibilities. Similarly in some spheres even better results were achieved by non-nationalized banks. The performance of private sector banks in the post-nationalization period was not worthy; especially because of the odds they faced in securing the growth of the business. The achievements of significantly high growth in deposits, advances and branch etc. clearly showed the high quality of entrepreneurship and management of these banks.

*Karkal (1982)*[^6] conducted a research on “*Profits and profitability in Banking*”. He examined the concept of profit and productivity, the factor that determine the volume or magnitude of profit and the technique used in profit planning. He has suggested some measures to improve the profitability in banks through increasing the margin between lending (advances) and borrowing (deposits) rates, improving the profitability of staff and implementation of a uniform maximum service change. The study did not touch up the area of cost of banking services and costing exercises in the banking industry.

*V.V. Angadi and V. Johan Devraj (1983)*[^7] studied on “*Measurement of efficiency in Banking Industry*”. He used data on operating costs and output (measured in terms of total deposits and deposit accounts and total credit and credit accounts) to construct and
determine operational efficiency. The responsiveness of change in operating cost to output was taken as measure of operating efficiency. According to them, the profitability of banks is governed by several factors, some of them endogenous and some of them exogenous to the system and yet structural. As far as profitability was concerned various changes had their impact on banks' earnings, expenses, and overall profitability during the period under review. A thorough analysis of volume and pattern of expenses has been made. The pattern of aggregate earnings and expenses analyzed above has an impact on the levels of profits made during the period. Regarding productivity, the following indicators were used:

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

They concluded that changes in the earnings, expenses, working funds, priority sectors, growth of bank offices, employees, credit deposit ratio, investment deposit ratio, interest rate structure, patterns of deposit
etc during the period under review affected the productivity and profitability of scheduled commercial banks. In their study for the 1970-80 Angadi and Devraj found that foreign banks productivity and profitability was highest followed by State Bank of India and nationalized banks. Attempt was also made to recognize the factors responsible for declining bank profitability and productivity.

Godse (1983)\(^8\) studied on “Looking Afresh at Banking Productivity”. He observed that productivity aspect is only at the conceptualization stage in the banking industry. He suggested improvement in productivity through manpower aspect, system and procedures, costing of operations, capital expenditures/premises etc. He observed that continued thrust on branch expansion in rural and semi urban areas, at unbanked centre and backward districts could result in a change in the concept of profit as corporate objectives and as the indicator of productivity. All branches may not reach at break even and a reduction operational deficit can be measure of productivity

S.K. Varghese (1983)\(^9\) in his study, “Profits and profitability of Indian Commercial Banks in 1970s” has stated that profit and profitability indicators computed from the banks published balance sheets and profit and loss account do not reflect the true financial feature of banks. He has analyzed the profits and profitability of groups of Indian commercial banks 1970-79 by using operating results,
operating margins, growth yield on assets and spread related ratios. According to him, during that period SLR and CRR requirements of Indian and foreign bank groups were the same. The large yield differential between them gives a clue regarding the declining profitability of Indian banks. While discussing the employee's productivity, he has used five proxy indicators, giving a broad measure of the trend of productivity in Indian commercial banks. These criteria's were: (1) Average assets per employee, (2) Salary/Wages per unit of deposits and advances, (3) Share of establishment expensive in the total current operating expenses, (4) Net income per employee. He held monitory policy measures responsible for the increased in profits and profitability of commercial banks in mid-1970s, GUPTA (1983) has empirically established the fact that for purposes of comparison of profitability levels among different firms within a homogenous industry groups, profitability of sales measure is superior to profitability of asset measure.

Sadare (1984) conducted a research on “Some Issue in Measurement of Productivity in Commercial Banks”. He examined the issue in measurement of productivity and state that there is no positive co-relationship between manpower deployment and deposit, credit and business. He suggested that, if P represented that labour productivity, X the total income of a bank in a given period and Y
the manpower expenditure then \( P = \frac{X}{Y} \) and if \( 41 \) \( S \ldots \ldots m \) be the income from \( 1, 2, \ldots \ldots m \) services provided by bank during the given period then \( X = \). The approach was followed by the Bank Administration Institute, USA.

**Durgadas Roy (1986)**\(^{11}\) in his study entitled “Bank Profitability: Social Role Is No Barrier”, studied that the productivity and profitability of scheduled commercial banks in India and revealed that during 1970-80, profitability and productivity ratios of foreign banks were the highest.

**Angadi (1987)**\(^{12}\) conducted a research on “Integrated approach to study Bank's Profitability”. He ranked 28 Indian public sector banks by accounting and economic profits.

**Ojha (1987)**\(^{13}\) conducted a research on “Productivity and Profitability of Public Sector Banks in India: An International Comparison”. In his study he made an international comparison of productivity and profitability of public sector banks of India on the basis of per employee indicators and taking the example of State Bank Group and Punjab National Bank, noted that Indians Banks are the lowest in all accounts. However, such an international comparison will not be fair for no. of reasons. He also made an inter-bank/inter country comparison by relating per capital assets in terms of per capita income of the country concerned. However he was not satisfied with the results. Analyzing the productivity of public sector banks;
he observed that there has been substantial growth in productivity per employee since 1969 calculated at current prices. The analysis indicated unsatisfactory position in the case of Regional Rural Banks and relatively lower productivity in the private sector banks.

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

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

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

1. Per employee indicators (labor productivity),

2. Per branch indicators,

3. Financial ratios measuring productivity.

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

Amandeep (1991) studied on “Profits and Profitability of Indian Nationalized Banks” is of the opinion that the PSBs have become an instrument to meet effectively the needs of the development of the economy to affect the total socio-economic transformation, so the profitability of the bank operations has been affected adversely. According to her, the profitability of a bank is determined and affected mainly by two factors: spread and burden. The other factors determining bank's profitability are credit policy, priority sector lending, massive geographical expansion, increasing establishment expenses, low non-fund income, deposit composition etc. she has chosen 11 factors affecting Bank's profitability to
identify the most significant variable affecting bank profitability. She has used correlations and regression analysis. She concluded that priority sector lending was not a drag on bank's profitability. She recommended the banks to focus attention on the management of spreads, burden, establishment expenses, non-fund income and deposit composition. According to her banks need to adequately charges for various non-fund services (like merchant banking, consultancy, and factoring services) with proper cost benefit analysis, to have maximum profitability.

C.R. Kothari (1991)\textsuperscript{18} in his book entitled, “Social Banking and Productivity” analyzed the productivity, profitability and social objectives in public sector banks and stressed the need for better profitability in banks to ensure the bank's role in the development of an economy.

Paul and Keshri (1994)\textsuperscript{19} studied on “Relative efficiency of Foreign and Domestic Banks”. They applied frontier approach to one year cross sectional data to determine the technical efficiency of foreign and domestic banks. Sum total of advances plus deposits was taken as a measure of output and labor, capital and materials as inputs. Their conclusion was that the efficiency of foreign banks was slightly lower than that of domestic banks.

Imran Saleem (1995)\textsuperscript{20} studied on “Strategic Reforms of Banking Sector”, is of the opinion that Indian financial system is
characterized by predominance of public sector units and high degree of regulations, motivated mainly by socio-economic considerations, as a result of liberalization, the existing institutional arrangement of banking sector has become deficient in various ways the major issues related to international competitiveness consists of financial soundness, operational efficiency, viability, profitability. The Indian banking system mainly influence by two major factors i.e. external and internal. Internal factors including lack of proper supervision, low productivity and performance of employees etc. whereas the external having bearing on the profitability have centred on pre-emption in the form SLR, CRR, and the administered structure of interest rates. The main rationale behind the banking sector reform was to improve the operational and allocation efficiency of the system. According to him, the remedial measures are required to mitigate the indigenous factors, which affect the performance of banking sector adversely. In order to enhance the productivity and profitability in the long run, educational and training programmes for the employees should be introduced. Further, he says that the dense should be given greater autonomy to recover the money they advanced. Last but not the least; the political interference should be reduced to have better productivity and profitability.
Hansda and Venkatachalam (1995) conducted a research on “Performance variability of Public Sector Banks: Need for strategic planning”. They used principal component analysis to construct a composite index of performance of twenty eight public sector banks.

Sanjay Kaushik (1995) in his thesis entitled, “Social Objectives and Profitability of Indian Banks,” has discussed the effect of social objective/obligations on the profits and profitability of the Indian commercial banking industry. He is of the opinion, that the 44 nationalization of the banks had a more dampening effect on profitability. The profitability of nationalized banks is adversely affected by a lot of factors, including social objectives. So, to know there relative significance, he has used a multivariate approach viz., ratio analysis, per annum growth rates, correlation analysis, regression analysis and factor analysis. Banks profitability has been taken as indicated by followed factors i.e.

1. Net Profit as a percentage of working funds.

2. Net Profit as a percentage of total deposits.

3. Net Profit as a percentage of total business.

He used the following measures to analyze the productivity:

1. Deposits per employee.
2. Loans per employee.

3. Total business per employee.

4. Deposits per branch.

5. Loans per branch.

6. Total business per branch.

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

Noulas and Ketkar (1996) conducted a research on “Technical and Scale efficiency in the Indian Banking Sector”. They applied intermediation approach with three inputs and two outputs, they determined the technical and scale efficiency of public sector banks for 1993. They found average technical inefficiency of 3.75 percent, of which two thirds was due to scale inefficiency. Hence they concluded that efficiency of banks in India could increase by increasing the scale.

R.R. Krishna (1996) in his article “Profitability Analysis: An Overviews,” has defined the profitability analysis in detail. According to him, it is a rate expressing profit as a percentage of total aspects or sales or any other variable to represent assets or sales. What should be used in the numerator and the denominator
to compute the profit rate depends upon the objective for which it is being measured.

**Sarker** and **Das (1997)** studied on “Development of composite index of banking efficiency: The Indian Case”. They developed a composite index of bank efficiency using principal component analysis. The study examines the inter-bank difference in the productivity and profitability for 73 major banks (public, private and foreign) for the year 1994-95.

**Bhattacharyya, Lovell** and **Sahay (1997)** studied on “The impact of liberalization on the productive efficiency of Indian commercial Banks”. The authors examined the efficiency of Indian banks using a two step procedure, DEA technique to determine the technical efficiency and then applying stochastic frontier approach to explain variation in calculated efficiency. They applied intermediation approach using two inputs (interest expense and operating expense) and three outputs (deposits, advances and investments) on five-year data of 70 banks, for the period 1986-1991. They constructed one grand frontier on the entire data set for DEA analysis and found that the public sector banks were more efficient than foreign banks, which in turn were marginally more efficient than private sector banks. The average efficiency of the banking sector as a whole was found to be 80.35 percent, ranging from an average of 75.37 percent for private sector banks and 87.40 percent for public sector
banks. They also found that 78 percent of banks operated with decreasing returns to scale while 16 percent showed increasing returns to scale. For the second stage, regression analysis, they used a set of variable to account for time, ownership and regulatory policy. They concluded that public sector bank efficiency declined over time whereas that of foreign sector banks improved over time. The performance of private sector banks remained almost unchanged.

Das (1997) conducted a research on “Technical allocative and scale efficiency of Public Sector Banks in India”. The author has studied technical, allocative and scale efficiency of different public sector banks for the period 1990-96 using non-parametric DEA approach. He used the intermediation approach with two inputs (labor and loan able funds) and one output measures. The efficiencies were calculated for each year for all the banks. The study found decline in overall efficiency over time, decline in technical efficiency with slight improvement in allocative efficiency. Thus, change in inefficiency was due to technical inefficiency rather allocative inefficiency. The State bank was found to be more efficient than other public sector banks.

certain parameters like deposit mobilization, analyses of advances, credit deposit ratios, interest spreads, employee productivity, customer services, profit as a percentage of working funds etc. One major conclusion drawn by him is that the profits of SBH showed an increasing trend, indicating a more than a proportionate increase in spread, then in burden. He has stated that there is a gradual increase in the percentage of profit on the working funds over the study period showing the efforts made by the bank (1980-94). In increasing the profits by recovering the operating costs fully. According to him, there is a decline in operating costs, responsiveness of the SBH during the study period which is a clear symptom of cost effectiveness/productivity which has resulted in a profit though many banks were in red during the year 1992-93 and 1993-94 due to introduction of banking sector reforms.

B.S. Padmanabhan (1998) studied on “Revamping the Banking Sector,” is of the opinion that the need for toning up the banking sector operations began to be felt particularly in the context of liberalization and structural reforms initiated in 1991. The recommendations of Narsimham Committee aimed at improving the productivity, efficiency, profitability half the banking system on the one hand and providing it greater operational flexibility and functional autonomy in the decision-making on the other. Hence the various constraints caused by external factors having a bearing
on the profitability of the banking system, were eased. As a result, the operating profits of 27 PSBs improved from Rs. 3,135 crore in 1992-93 to Rs. 7.569 crore in 1995-96. The chief merit of the reformed process was cautious sequencing of reforms. The second part of Narsimham Committee (submitted on April 23, 1998), set for the second phase of banking sector reforms. The profitability of the banks suffered as a result of huge backlog of NPAs. Other factors affecting the profitability include a large number of unremunerative branches, low productivity, over manning and archaic methods of operations. With increasing competition from Indian and foreign private banks, margins have come under pressure. And productivity and efficiency has come to the fore. According to him, professionalism in the bank management should be encouraged in order to increase the profitability of the banks.

In a technical paper presented by K.R. Ramamurthy (1998) entitle “Profitability and Productivity in Indian Banking”, he states that the banking structure and profitability structure of the banking system across the country have a bearing on the profitability of the banks. When banks are considered as groups in terms of big, medium and small, bigger banks have greater scope for economies of scale. He is of the opinion that one of the main 47 determinants of banks profitability is the network of branches, frequently termed as franchise strength. He concludes that Indian banks have
Higher interest spreads than banks abroad,

Higher operating costs than banks abroad, and

Higher risk provision level.

During 1996-97, there was a turnaround for Indian banks with the 27 PSBs collectively registering a Rs. 3,466.75 crore turnaround by posting an aggregate net profit of Rs. 3,095.40 crore. As far as the impact of liberalization is concerned, the author is of the view that productivity as measured in terms of per employee business for the banking system as a whole went up from Rs. 45.33 crore to Rs. 73.40 crore. During the post reform period of 1992-96, the nationalized banks have the highest productivity in the pre-reform period (1991-92) but the position has been different in 1995-96. The SBI group always lagged behind both in pre-reform and post-reform period in order to measure profitability, various measures like increase in business in relation to increase/decrease in establishment expenses, income, profit per branch, per employee etc. Within the nationalized banks, the profit making banks achieved per employee profits of Rs. 0.30 lakh, higher than that of all scheduled commercial banks. SBI achieved Rs.0.36 lakh or profits per employee, but the 27 PSBs including SBI posted a negative figure i.e. a loss of Rs. 0.04 lakh per employee regarding various issues in productivity and profitability, he comments that narrowing spreads is a cause of concern for banks. The negative ROA of Indian banks as a whole during the post-reform period require a correction. Loss making nationalized banks
should aimed for at least ROA of profit making banks while the profit-making banks should aim at international level of ROA. Banks should not make frequent visits to the market to raise the capital. While the internal generation of capital is linked to profitability, he says that the relationship between the diversification and improvement in the profitability is a pertinent issue which needs to be addressed by the bankers. Another major issue is to reduce the operating cost. To improve their profitability and market share, the banks should have to guard themselves against the phenomenon of adverse selection of borrowers. Banks should evolve strategies for the deterioration of asset quality and recovery of NPAs.

Pardeep Srivastava (1999) conducted a research on “Size, Efficiency and Financial Reform in Indian Banking”. In his study he included all scheduled commercial banks in India 48 (Public and Private) which excluded regional rural banks. The banks size was based upon the total deposit base at the end of fiscal year 1995-96. The major objective of the study was to find answers of the two questions: (1.) Have bigger banks better for cost maximization? (2.) Have financial reforms made Indian banks more efficient? The paper present three different measures of economic scale and scope in banking. The result show that virtually all banks in India are operating below minimum cost scale, including the public sector banks; however gains in cost efficiency are generally feasible only if expansion occurs without further increases in branch networking.
The findings suggest that any effective distancing of the government from the ownership, management and operations of Indians banks would lead to considerable activity in mergers and acquisitions. Therefore there is a need to develop a framework “competition policy” in banking as a part of further financial sector reforms.

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

**Meenakshi Malhotra (1999)** in her study, “Banking Sector Reforms – Experience of PSBs,” has analyzed the performance of PSBs as a result of banking sector reforms her study is divided into two parts. In the first part, a brief review of banking reforms has been made. The major reforms being deregulation of lending/deposit rates deregulation of entry, revamping of branch licensing policy, measures to improve the financial health, measure to improve the
operating efficiency and reserve pre-emption. In the second part, she has discussed the impact of banking sector reforms on PSBs, after dividing the reform period of 1992-98 into two phases. The Phase-(I) pertaining to the period 1992-93 to 1995-96 and Phase-(II) pertaining to thereafter. The profitability of the banks became negative from 0.28 per cent in 1991-92 to -0.99 per cent in 1992-93 and further 1.15 per cent in 1993-95. The situation started improving in 1994-95 but the negative trend continued again in 1995-96 (-0.07%), however, the profitability has improved during 1996-97 and 1997-98. It was concluded by her that the positive effect of reforms had been felt by the banks so far as their profitability performance was concerned. To increase their income, PSBs have moved to

- Diversion from fund-based activities to fee-based activities.
- Increase in service charges on current account, saving account, bills, L/Cs.
- Shifting of functional objectives from social banking to commercial banking.
- Restructuring of branch network.
- Capital restructuring exercises.
- Structural reorganization exercises.
**M.R. Sholvapur (1999)** in his article, “Profitability Analysis of Bank Branches (spread burden approach)” in 1999 observes that profits alone justify the survival and growth of banks. The major activities are carried out at branch level. So it is important that it must be given proper attention. He says that various loss incurring branches must be ex-rayed.

**Rohit Rao (1999)** in his detailed study entitle “Collaring the Crisis”, regarding banks has concluded that public sector banks remained in the comfort of a controlled economy up to liberalization in India. But with the economy opening up, there has been a change in mind set. Now there is a change in paradigm in Indian banking. He is of the opinion that as the economy wilted, the Indian banking industry in 1997-98 managed to emerged pretty much unscathed. The year 1997-98 marked the sixth year of financial sector reforms in which public sector banks continued to clean up their balance sheets as well as strengthen their capital base. It was reflected in reduced NPAs and improved CAR, the operating profits of PSBs increased by 15.5 per cent. He says that after liberalization, banking is no more a cushy job; now PSBs have to evolve clearly define goals and strategy, not only to grow the business but to sustain it. He is of the opinion that various PSBs suffered on account of Asian flu which dragged down the rupee. According to him now only way to increase or even maintain profitability is to increase volumes.
Despite improved profitability (1997-98), the PSBs that are listed are quoting much below their issue price. The level of NPAs of PSBs that dominate the market is unsatisfactory with international standards. Out of 27 PSBs, ten had NPAs in double digits.

*Saha* and *Ravishankar (2000)* studied on “Rating of Indian commercial banks: A DEA Approach”. They have analyzed the productivity of Indian banks using DEA approach. They have analyzed performance of 25 public sector banks over a period 1992-1995. The analysis is done in two stages. In the first stage, efficiency is measured as a ratio of certain output to input. Number of branches, number of employees, establishment expenses and non-establishment expenses were taken as inputs. Deposits, advances, investments, spread, total income, interest income, non-interest income and working funds were taken as non-interest income and working funds were taken as measures of outputs. The ratios were plotted and extreme points were joined to form linear efficiency frontier. In the second stage, DEA was used on the same data to determine the efficiency frontier. They concluded that DEA is useful technique in determining relative efficiency. Their findings indicated that efficiency of public sector banks improved over the time period.

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

Avinanadan Mukherjee, Pritviraj Nath and Manabendra Nath Pal
(2002) studied on “Performance bench marketing and Strategic
homogeneity of Indian Banks”. They explore the linkage between
bench marketing and strategic homogeneity of Indian commercial
banks by using DEA. The data was collected from 68 banks over
the period of 1996 to 1999. The study reveals that the public sector
banks generally outperform the private and foreign banks in rapidly
evolving Liberalisation sector. Their finding are supported by Saha
and Ravishankar (2000) who found that the performance of public
sector banks had improved over the year except a few banks, which
continued to be at lower end during the period of study.
**B. Janki (2002)** studied on “Unleashing Employee Productivity: Need for a paradigm shift”. He analyzed in his article that how technology is effecting employee's productivity. There is no doubt, in India particularly PSBs will need to use technology to improve operating efficiency and customer services. Harnessing employee technology synergy is crucial for unleashing productivity and reaching out to be the huge base of retail customers, who are also, dispersed in rural and semi urban areas. Banks can use technology to address customer needs and improve their interaction with customers keeping in touch through telephone and internet. The focus on technology will increase like never before to add value to customer service, develop new products, strengthen risk management and assets liability management and improve profitability. However technology is only an enabling tool and whether banks actually achieve what they want to achieve will be determined by the drive and motivation of their work force and response of the staff.

**Sathye (2003)** conducted a research on “Efficiency of banks in a developing economy: The Case of India”. He has measured the productive efficiency of 94 banks in India, including public sector and private sector banks and foreign banks, assuming VRS technology, applying DEA. The efficiency is calculated for 1996-97. In one model, he used interest expense and non-interest
expense as inputs and interest income and non-interest income as outputs. A second DEA analysis was also run using deposits and staff members as inputs and loans and non-interest income as outputs. The study found that the average efficiency score of 0.83, and that the public sector banks were on average more efficient than foreign banks, which in turn were more efficient than private banks.

**Ram Mohan** and **Ray (2003)** conducted a research on “Productivity and efficiency at public and private sector banks in India”. They have studied productivity and efficiency of public and private sector banks in India, using non-parametric DEA, for the period 1992-2000. They studied 27 public sector banks, 21 old private sectors banks and 14 foreign banks. They employed three measures: Tornquist total factor productivity growth, Malmquist efficiency index and revenue maximization efficiency. They assumed CRS technology and used intermediation approach with interest cost and operating cost as inputs and loan income, investment income and non-interest income as outputs. They found public sector banks to be more efficient and productive compared to their private sector competitors.

**Kumbhakar** and **Sarkar (2004)** studied on “Deregulation ownership and efficiency change in Indian Banking: An application of stochastic frontier analysis”. They used the parametric method to
evaluate the efficiency of the Indian banking system using panel data for the period 1986-2000. Postulating a cost function and using stochastic cost frontier, they determined the changes in efficiency over time. Using dummy variables, they also found contribution of reforms and role of ownership to the change in efficiency. They found the Indian banking system to be cost inefficient but the tendency for inefficiency to decline over time. They found the private sector banks to be more cost efficient than public sector banks. The deregulation resulted in increase in inefficiency and there was no significant difference in impact of deregulation on private sector banks and public sector banks.

De (2004) conducted a research on “Technical efficiency, ownership and reforms: An econometric study of Indian banking industry”. He used an econometric approach to determine the technical efficiency of the Indian banks, relationship between ownership and efficiency and impact of reforms on efficiency. Panel data for the years 1985 to 1995-96 were used in a stochastic frontier production function. Two alternative measures of output (gross income and total earning assets) and four inputs (sum of deposits and borrowings, fixed capital, number of officers and number of other employees) were used for a Cobb-Douglas technology. The study concluded that the efficiency did not improve after liberalization, and the foreign banks, as a group, had the highest efficiency.
Sathye (2005) studied on “Privatization, performance and efficiency: A study of Indian Banks”. He used financial ratios to study the effect of privatization on the performance and efficiency of banks. Efficiency is defined in terms of net profit per employee and deposit and loans per employee. The study concluded that the financial performance of partially privatized banks were significantly better than that of the fully public sector banks. There was no significant difference in performance of partially privatized banks and fully private banks.

Shabbar Jaffry, Yaseen Ghulam, Sean Pascoe, Joe Cox (2007) studied on “Regulatory changes and productivity of banking sector in the Indian sub-continent”. They examined changes in productivity and technical efficiency levels within banking sector of the Indian sub-continent: specifically India, Pakistan and Bangladesh over the period 1993-2001. A Malmquist productivity index of total factor productivity change was employed, along with a Tobit regression, in order to determine whether these measures of regulatory and financial reform has the desired effect upon the Indian sub-continent in terms of productivity and efficiency levels. The result indicated that India and Bangladesh experienced immediate and sustained growth in 53 technical efficiency. Whereas Pakistan endured a reduction in efficiency during the middle years of the
study, before rebounding to level comparable to the rest of the sub-
continent the latter years of the study.

Omparkash, Yogesh and Aneesh (2008) conducted a research on
“Dynamics of productivity efficiency of Indian Banks”. This study
was based on a sample of 57 banks in India for the time period
1999-2003. They analyzed the performance of Indian banking
sector, measured and compared in two stages: Through the
construct of productivity efficiency using non-parametric frontier
methodology, DEA and finding the determinant of productive
efficiency through TOBIT modal. They assumed CRS technology
and used intermediation approach with two inputs (interest
expenses and operating income) and three outputs (interest income,
fee based income and investment income). The result revealed that
SBI and its group have the highest efficiency, followed by private
banks and the other nationalized banks. The results were consistent
over the period but efficiency differences diminish over period of
time.

Parvinder and Ashwani (2010) conducted a research on “Efficiency of
Public Sector Banks in India: A Non-Stochastic Frontier DEA
Window Analysis Approach”. The study is aimed at measuring and
comparing the financial performance of banks in India. The inputs
used for the study are interest expenses and non-interest expenses
and output are interest income and non-interest income. The period
for the study is 3 years starting from 2004 to 2006. The data has been segregated into public and private sector as it is believed that public sector banks operate in different set of conditions and have different objectives. The result show that Banks in India both public and private sector in India has shown deterioration in the efficiency as compare to their peer group and there is a tendency of growing concentration of business in hands of few larger banks which are outperforming and giving tough competition to smaller banks.

Paroma Sanyal and Rashmi Shankar (2011)\textsuperscript{48} conducted a research on “Ownership, competition and bank productivity: An analysis of India banking in the Post-reforms period”. They examined the effect of ownership and competition on Indian banking since the 1991 reforms. The study based on dataset of 107 banks over the decade immediately following the reforms. A Malmquist index of total factor productivity change over the period was employed with loans plus deposits as outputs and labor and capital as input. They find that Indian private bank dominate public and foreign both in terms of productivity levels and productivity growth, with the new Indian private banks leading the charge.

Kumar and Charles (2012)\textsuperscript{49} studied on “Evaluating the performance of Indian Banking sector using DATA Envelopment Analysis during post –Reform and Global Financial Crisis”. The study analyzes
the performance of Indian banks in terms of technical efficiency, returns-to-scale, and Malmquist productivity index for a sample of 33 banks, consisting of 19 public sector and 14 private sector banks during the period spanning 1995-96 to 2009-10 using data envelopment analysis. Findings reveal that the public sector bank is faintly doing better than the private sector banks in terms of (i) technical efficiency since 2003-04 and (ii) scale efficiency from 2000-01 onwards. There is growing tendency of public banks operating under increasing returns to scale, implying that substantial gains could be obtained from altering scale via either internal growth or consolidation in the sector. The technological change has been the dominating source of productivity growth, whereas, the contribution of pure efficiency change and scale change are found to be negligible in Indian banking sector during the period of study. The reform in Indian banking sector resulting in a positive change in TFP through technological change and new business practices in post reform period. However, there is evidence of shrink in the market resulting in movement of the banks towards increasing returns-to-scale as well as negative growth in TFP in both the sectors during the period of global financial crisis.

Sailesh Sindhu (2012)\textsuperscript{50} felt that, employee welfare measures increase the productivity of organization and promote healthy industrial
relations thereby maintaining industrial peace. Organizations provide welfare facilities to their employees to keep their motivation levels high. Business houses provide many such statutory and non-statutory things and policies to maintain satisfactory level of their employee.

2.2 LITERATURE REVIEWS ON JOB SATISFACTION OF BANK EMPLOYEES

The reviews of different studies related to job satisfaction of banks employees are as follow:

**Omer Bin Sayeed and Rayaram Vishwanathan (1983)** conducted a research on “Job Characteristics in Relation to Organizational Effectiveness in Two Organization”. This paper aims at examining the relationship between job-characteristics and organizational effectiveness as perceived by the respondents working in two different organizations. For this purpose, a sample of 188 employees from two organizations of differing technologies was drawn. The result pointed out that the manufacturing organization gives high important to job extrinsic factors where non-manufacturing organization shows grater inclination for job extrinsic factors.

**Pritipaul Kaur (1984)** conducted a research on “Job Satisfaction among University Employees”. The study aims at enquiring into job
satisfaction among employees of a comparatively young North Indian University, with a view to bringing to the surface some of the conditions which ensure job-satisfaction, and placing these conditions in content or context of the job categorically. The data were collected personally through interviews, one-tenth of the employees (106) from different teaching and administrative department were selected for the purpose of the present study. The Chi-square test of independence was applied to see which of the conditions are associated with job satisfaction. The result revealed that there is no relation between job-satisfaction and age, job experience, sex, job security, job assignment occupational category etc.

S.K. Bhatia (1985)\textsuperscript{53} conducted a research on “Job Motivation of Executives: An Empirical Study”. The focus of this study was on assessment of motivating factors which have been identified by Herzberg in his famous two-factor theory and which are responsible for job-satisfaction. The methodology adopted in the study was administration of questionnaire to all the executives for eliciting their responses. The result revealed that to improve performance and productivity, it is essential to lay emphasis on intrinsic motivating factor. The majority of the executives are satisfied with the job context factors.
Joshi (1999) conducted a research on "The Inter-Relationship between Job-Satisfaction, Job Involvement and Work Involvement and Their Relationship with Age, Job Experience, Monthly Income and Educational Level". He investigated the interrelationship between job-satisfaction, job involvement, and work involvement, and their relationship with age, job experience, monthly income, and educational level. The result revealed a significant positive association between job-satisfaction and job involvement. Employee's age, job experience, and monthly income were significantly correlated with job involvement. Job satisfaction was significantly correlated only with monthly income.

M. Ekramul and Alinoor Rahman (1999) conducted a research on "Quality of Working Life and Job Behavior of Workers in Bangladesh: A Comparative Study of Private and Public Sector". They studied and compare the quality of working life (QWL) of industrial workers. According to the nature of the organization (Public and Private), they measure whether there is any significant relationship among QWL, job behavior, and demographic variables of the workers. The sample of the study consisted of 100 workers of whom 56 were taken from private sector textile mill and the rest from a public sector tentative. The results revealed that (a) workers of private sector textile mills perceived significantly higher QWL.
than their counterparts in the public sector; (b) QWL has significant positive correlation with performance.

**MD. Mosharraf Hossain (2000)** conducted a research on “Job Satisfaction of Commercial Bank Employees in Bangladesh: A Comparative Study of Private and Public Sector Banks”. Banking sector plays a pivotal role in the economic development of a country. Thus the present study was designed with a view to investigating the satisfaction of commercial Bank employees and its consequences on related issues. A total number of 440 commercial bank employees from both the private and public sector were randomly selected as sample for the present study. The result revealed that the public sector banks employees were in a better position in terms of their job satisfaction than the private sector bank employees and the executives were more satisfied than the non-executions. The job satisfaction had significant positive correlation with performance but significant negative correlation with job stress and propensity to quit the Job.

**Pattanayak (2000)** studied on "The Effects of Shift Work and Hierarchical Positions in Organization on Job-Satisfaction and Perceived Organizational Commitment”. He studied the effects of shift work and hierarchical positions in the organization on job-satisfaction and perceived organizational commitment of 360 employees of the Rourkela Steel Plant.
Beegam and Dharmangadan (2000)\textsuperscript{58} studied on "Gender Differences in Job Satisfaction". They examined gender difference in job satisfaction in a sample of 415 college teachers (age 23-55 years) with an equal number of males and females. The study reveals that female teachers were more satisfied with their jobs than male teachers.

Panda (2001)\textsuperscript{59} studied on “Job Satisfaction of Dotcom Executives at Various Levels from Content Managers to Vice-Presidents”. He studied job-satisfaction of dot-com executives of various levels from content managers to vice presidents. The nature of the job with scope for creative executive was ranked higher for providing satisfaction as compared to job security. Extended working hours and fear of loss of job led to maximum dissatisfaction. Also, job satisfaction had a negative correlation with job status.

Yousef (2002)\textsuperscript{60} conducted a research on "Job-Satisfaction as a Mediator of the Relationship between Role Stressors and Organizational Commitment: A Study from an Arabic Cultural Perspective". He studied job satisfaction as a mediator of the relationship between role stressors and organizational commitment. The results reveal that job satisfaction directly and positively related to continuance commitment - low perceived alternative. Both role conflict and role ambiguity directly and indirectly influenced job-satisfaction. It was found that job-satisfaction mediated the influences of role-conflict.
and role ambiguity on various facets of organizational commitment, except continuance commitment high personal sacrifice.

K Chidambaram and A Rama (2006) conducted a research on “Determinants of Job Satisfaction of Bank Employees”. The study examines how an employer can influence the job satisfaction of an employee at the workplace so that his job performance can be enhanced. In the study, a random sampling technique has been adopted for selecting a sample of 200 bank employees in Kamarajar district. In order to identify the variables which determine job satisfaction, factor analysis was employed. The multiple linear regression analysis was carried out to find out the significant job variables which have influence on job satisfaction. It was found that the efficiency and performance of an employee are often hampered by his social economic conditions. As these are out of the periphery of formal organizational jurisdiction and could hardly be changed, it is always better for management to concentrate on the job variables which determines job satisfaction and are considered deficiency areas. These might include environmental factor related to the job, such as pay and benefits satisfaction, promotional opportunities, equipment and resources, workload and supervisory relationship.
S.B. Katuwal and Gurpreet Randhawa (2007) conducted a research on “A Study of Job Satisfaction of Public and Private Sector Nepalese Textile Workers”. The present study attempts to measure and compare the job-satisfaction of workers in the public and private sectors textile factories in Nepal. Also, it attempts to measure the overall Job-satisfaction of the textile workers in Nepal. Data were collected from a sample of 372 workers. The result reveals that the textile workers in Nepal have a high dissatisfaction with the facets of the job that involve the monetary expenditure of the organization the behavioral aspects of management and the employment policy of the organization.

Ahmed Imran and, Sher Aslam (2010) studied on “Factor Effecting Job Satisfaction of Employees in Pakistani Banking Sector”. They made a study to determine the impact of various human resource management practices like job autonomy, team work environment and leadership behavior on Job satisfaction. It also investigates the major determinants of job satisfaction in Pakistani banking sector and evaluates the level of difference in job satisfaction among male and female employees. The study of 450 employees working in different banks of Rawalpindi, Islamabad and Lahore was made through the questionnaire. The study found that male and female workers have significantly different level of job satisfaction.
Babita Agarwal and Manohar Kapse (2010) conducted a research on “Influence of Job-satisfaction on Organization Commitment: A Study on Bank Employees in Indore City”. The job-satisfaction, which has been recognized as a component of organizational commitment, it the state of pleasure gained from applying one's values to a job. The present study seeks to gain a better understanding of the relationship between job-satisfaction and organizational commitment of employees in a private bank in Indore city. The study focuses on revealing homogeneous demographic characteristics that affect their satisfaction level. The sample size of 50 well designed questionnaires was distributed to the bank employees. The level of reeducation, position, and tenure affect employee satisfaction with recognition. Furthermore satisfaction with policies, compensation, work condition and advancement has a significant relationship organizational commitment.

Nihat Kaya, Erdogan Koc, Demet Topcu (2010) studied on "An Exploratory Analysis of The Influence of Human Resource Management Activities and Organizational Climate on Job-Satisfaction in Turkish Banks”. This study aims to explore the influence of human resource management activities and organizational climate on job satisfaction in Turkish banks. The study first examines the relative influence of eight HRM activities
of behavior and attitudes, teamwork training, incentives, performance feedback on job satisfaction. The data collected through interviews from 346 employees from 19 banks show that in addition to the positive impact of HRM activities, organizational climate in particular makes significant contribution to job satisfaction. The paper presents the influence of the two groups of factors on job satisfaction and the mechanisms through which these factors foster job satisfaction and their implication for practitioners.

CONCLUSION

The review of literature carried out in this chapter throw light on productivity of Indian scheduled commercial banks and job satisfaction of employees. Majority of the studies examine the productivity of public and private banks. A few research works have found which compare the all 3 sectors (public, private and foreign banks). Therefore the present study will humbly examine the productivity of all public, private and foreign (87 banks) banks. Further, the study will try to explore the factors contributing to productivity of Indian scheduled commercial banks.

It can be said that on the basis of review relating to job satisfaction that to improve performance and productivity, it is essential to lay emphasis on job satisfaction of employees. So it is important to study job satisfaction with productivity. Further, the study will try to explore the factors contributing to productivity and job satisfaction of employees.
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