CHAPTER III

REVIEW OF LITERATURE

In this chapter, previous studies conducted are presented in the following page:

A brief review of literature would help the researcher, reader and other research scholars in gaining an insight into the studies, which were made in areas related to the subject of this study. The findings of some of the studies are briefly summarized as follows;

Rammohan Rao and Misrat¹ (1975) studied how far the capital markets in India were competitive. Their study examined the decisions about internal and external finance as inter-related and consequent upon a choice of the structure of current and fixed assets. Secondly they analyzed the earning pattern of different types of funds to see if the competitiveness hypothesis can be substantiated.

They concluded that a firm’s ability to borrow was constrained by the risk associated with the proportion of debt in the capital structure. If the ratio was high, then internal funds improved the firms ability to borrow. Similarly, if the financial leverage (debt to equity) ratio was lower than the institutionally determined leverage, then borrowing was facilitated. But if the leverage was the institutionally determined maximum then borrowing was inhibited.

Kiran Barman² (1977) in his study “Measuring the burden of internal public debt” has summed up that the effect of the rapid rise of the internal public debt was not so burdensome as to require the imposition of statutory limit on borrowing by the Government. She has also pointed out that any limit fixed on the loans would be unrealistic and would lead to

difficulty in the end. In a particular year it might be more expedient to borrow from the market and exceed the limit stressed by her in the context of planning was not the size of public debt that mattered as such but how the public debt was managed. Provided in the budget than to resort to deficit financing because market conditions might be favorable at that time.

A study on “The problem of external debt servicing”, by Salahuddin. A. Siddiqui3 (1977) has pointed out that the growing external public debt has created the external debt-servicing problem of a severe nature. The main cause like the terms of loans such as rates of interest, repayment period and mode of repayment have been shown by using the indicators such as debt servicing burden. Viz., the ratio of debt services to tax revenues, the ratio of debt services to export earning and the ratio of debt-services to national income. He concluded in his study that the government of India should try to secure loans on more liberal terms and should acquire the necessary debt-servicing capacity by promoting exports, linking of debt services to exports, import-substitution and more than all by enlarging the absorptive capacity of the Indian economy.

Satyanarayana Rao4 (1978) in his article expressed some view on the corporate tax effects on capital structure. The data for this study were taken from the R131 bulletins. The study covered a period of 19 years from the financial year 1956-57 to 1974-75. This provided a framework for testing the hypothesis. “Higher the corporate income tax rates greater will be the preference share capital”.


The simple correlation analysis was used to find out the nature of relationship and the movement between debt capital on the one hand and corporate tax rate, equity dividend rate, cost of debt and demand for capital as obtained from the growth in fixed assets on the other. He concluded that from the above analysis of debt capital for a period of 19 years, it was concluded that the capital structure of any corporation would never consist of 100 percent debt capital, that the debt-equity ratio was widely differed from the idea ratio. The debt-equity ratio was especially important because companies preferred to borrow rather than obtain finance by issuing more stocks (share). Borrowing money not only another conclusion was that tax was not alone a major factor influencing the level of debt capital. Though there was a positive influence of tax increased of tax interest rates on loans; equity dividend rates and the demand for capital were also responsible for the increased preference for debt capital. Thus the hypothesis was proved otherwise.

Jain\(^5\) (1978) in his study analyzed the balance sheet of eight industries in the country and revealed provided funds at a cheaper rate but also reduced for tax purposes. Borrowing funds also ensured earning more for the shareholders, though sometimes at the cost of creditors. It was observed that in case of Indian industry the standard norm of 1:1 or 100 percent of debt equity ratios did not apply in the industries. The difference in the ratio in the same industry from time to time was not significant.

Bhawati\(^6\) (1979) examined the textile machinery industry in retrospect and its future plan in India. He had given evidence that the production of textile machines has jumped to Rs.150 crores in 1979 from as low Rs.8 crores in 1958 with an outstanding growth rate of 85 percent per al-mum.


Export of complete machinery component and spare part from India to other countries had also risen from about Rs.26 lakhs in 1966 to a peak of Rs.2,300 lakhs in 1975-76 thus presenting an encouraging past records and the author hoped that similar trend will continue in the future too.

Braj Kishore\(^7\) (1980) has analyzed the corporate private sector financing and capital structure in India over a 23 years period starting with 1951-52. He has examined the trends in capital structure based on the data pertaining to the large and medium sized public limited companies as a whole.

Ms. Bharathi Batra\(^8\) (1981) Made an attempt to study the trends in debt-equity ratio in various industries e.g.; Aluminium, Cement, Chemical etc., A comparison was also made between the observed ratio of industries with the norms set by the controller of capital issues in this iegard and identified the factors responsible for the difference. The data has been taken from 1970-71 to 1977-78. The conclusion derives is that the overall debt-equity ratio for all 11 industries taken together is well below 1:1.

Rangarajan\(^9\) (1982) studied industrial growth after 1950-51 and analyzed the causes for disturbing features in the industrial growth after 1965 and estimated trends in the rate of growth of industrial production. He suggested that key for future industrial growth is more extraction of capital that we have so far invested and this would enable to achieve 8 into 10 percent growth rate in industrial production and overall growth rate of 5 percent.


Mukerjee\textsuperscript{10} (1983) studied the rationale of debt in corporate capital structure. Loan was cheaper to rise as well as economical in servicing. Loan financing ensured considerable degree of maneuverability as well as interest on loan was considered as cost for taxation and hence leverage increased total value of the firm. The corresponding entry of debt in the mix of corporate finance could be ably exemplified from the changing behaviour of debt-equity ratio of current years. The upward change was more pronounced in the case of new units. A study of the units’ setup during 1958-1973 showed that the debt components varied from 45 percent to 50 percent. Compared to this, a current study of 42 new units’ setup during the first six months of the financial year 1981-82 revealed a steep rise in the proportion of debt in relation to equity, the average ratio being placed at 2:1. He concluded that a high debt-equity ratio might not be unsafe provided the firm was capable of bearing the burden of interest and other matured debts. Contra- distinctly, if in a firm this ability was poor, a very low debt-equity ratio was likely to act seriously upon its viability.

Reddy\textsuperscript{11} (1983) analyzed the profitability of Indian paper Industry with reference to the financial statistics of joint stock companies in India published by RET. The study was to examine the relationship between growth and profit. The research concluded that the paper industry exhibited to strong positive correlation between growth and profitability.

Desai\textsuperscript{12} (1984) made a study on the financial structure and solvency of six textile mills. The objective of the study was to raise the overall efficiency of


the industry on a uniform basis. Ratio analysis has been used as the tool for analysis. According to him the smallest size group selected had the total liabilities too large for their Net worth. It was not a wise policy to depend too much on short-term funds, particularly when investment in fixed asset was considered.

The middle size groups employed the Net worth wisely. The bigger group employed larger debt in their capital structures than the firms belonging to the smallest and the middle size groups. The absence of good profitability position and the slow rate of expansion and replacement of fixed assets seemed to be the result of the dependence of all the firms on their short-term funds.

**Mohan Rao Peddina**\(^{13}\) (1984) tried to explore how far the profitability was associated with the reliable proportions of debt and equity modes of financing capital employed and net sales. In chemical companies profits were not affected if there was no interest commitment.

In order to observe the association between profitability and debt-equity ratio he compared correlation between them, taking twenty observations of the sample correlation between profitability and debt-equity ratio. He showed a negative result for the entire sample of chemical companies. In this context he took profitability and debt-equity ratio had shown a negative association that the impact of profitability and debt-equity ratios meant low profitability and vice versa. In case of high debt-equity ratio, profitability increased due to large interest payments where as low debt-equity ratio caused high profitability because of low interest payments.

Bhahatosh Banergee\textsuperscript{14} (1984) analyzed trends in capital structure in select 18 medium and large public limited corporate industries in India, covering a period from 1974-75 to 1980-81 and central Government companies in India covering a period from 1960-61 to 1977-78. His analysis was mainly based on debt-equity ratio. His major conclusion was that public Sector enterprises differ from private sector enterprises with regard to their respective initial position as well as future growth of capital structure in India.

Chamoli\textsuperscript{15} (1985) reviewed the pattern of capital structure in the Indian cement industry both private and public and has identified the factors influencing the ratios of debt and equity during the year 1972-1973 to 1980-1981. He concluded that an ideal financing mix of debt and equity would be 2:1. This has been fixed under the capital issue (control) Act 1949 to regulate capital structure of companies to make maximum use of favorable leverage ensuring flexibility, solvency and national growth of corporate sector in India.

A study made by Prof. L.M. Pandey\textsuperscript{16} (1985) examined the industrial pattern trend and variability of leverage and the impact of size, profitability and growth on leverage. Attempt was also made to find out answer to questions like:

- What are the trends in the industrial pattern of leverage?
- Does the pattern of short-term sources of debt show more variability than that of the long-term sources?

\textsuperscript{14}. Bhahatosh Banergee, Capital structure trends in the Corporate sector in India, LokU.yg, Vol. XVIII, No.6, Sep 1984.

\textsuperscript{15}. Chamoli, “a pmorama of capital structure planning of Indian cement Industry”, Lok Udyog, Vol. XIX, No. 9, December 1985, P.23.

The author selected 743 companies in 18 industrial groups and the period covered was 1973-74 to 1980-81. The conclusion derived is that the level of leverage for all industries has increased in the recent years as compared to 1973-74.

The study also indicates that clarifying leverage percentage by the type of industry does not produce any pattern, which may be regarded systemic and significant. There is also some evidence of the tendency of large size companies to concentrate in the high levels of leverage.

**Paul George** 17 (1985) compared the financial structure of 32 relatively matched pair of diversifying and non-diversifying companies in the Indian industry. The sample companies in the study basically belonged to cotton, synthetic, woolen textiles, cement industries and paper. Of these five industrial groups, the diversified companies experienced a higher growth rate of market value of shares and a higher earning ratio inspite of mixed results in the other measures of performance.

**Pradinna Mohan Rao** 18 (1985) examined the impact of debt-equity ratio on profitability. The findings reveal that high debt-equity ratio means low profitability and vice-versa. The study results show that the engineering companies in India are depending on external finance or debt to finance their fixed assets for business operation.


Prabhat Patnaik\(^{19}\) (1986) in his study “Public debt as a mode of financing public expenditure” has contested the view that selling of Government securities to buyers other than the Reserve Bank of India (RBI) as a means of financing public expenditure is less inflationary. He has concluded that:

1) The Government has little control over how the holding of its debt is distributed between the Reserve Bank on India and others;

2) The distribution is of little consequences as far as the potential for inflation via liquidity creation is concerned;

3) If interest rates are altered to make the holding of Government debt more attractive to buyers outside of RBI, then it would be achieved in a manner which would defect the very objective of inflation control by bringing about distribution changes.

B.R. Choyal\(^{20}\) (1986) in his study “Financial structure of state enterprises” has made to assess, evaluate and analyze the financial performance of selected five state warehousing corporations in the states of Haryana, Rajasthan, Andhra Pradesh, Orissa and Madhya Pradesh. The data for the study has been obtained from the annual reports of the selected warehousing corporations for the years 1974-82. Statistical techniques like percentages, averages, index numbers, coefficient of correlation, etc, has been used for the financial appraisal of the selected corporations.


Mrs. Hemalatha Rao\textsuperscript{21} (1987) examined the financial working of State Electricity Board in Karnataka covering the period from 1970-71 to 1981-82 using exponential growth rates it was analyzed that to a large extent the factors like technical, political and social factors were responsible for the growing financial burden of KEB. It was concluded that KEB relied more on external finances and the sources of internal finances relied upon doesn’t show any concern they are highly tolerant and indulgent in the face of continuous default in payment of interest on their loans.

S. Venkatesan\textsuperscript{22} (1988) explored the relationship of certain defined exogenous variables empirically to financial leverage. In his study the data gathered had covered a time span of four years, from 1977 to 1980. The analysis attempted to share the relationship of seven different variables to the financial structure of firms. They were industry categorization, size, operating leverage, debt coverage, cash flow coverage, business risk and a growth ratio measured based on the growth in total assets in proportion to the growth in funds from operation. He hypothesized that the industrial categorization and financial structures should reveal a slight statistical relationship but not any isomorphic relationship. The size could account in a minor way for differences in financial structure but the relationship was not straightforward. The operating could therefore be expected to have negative relationship. Debt coverage subjected itself to negative relationship with financial leverage. The business risk also negatively correlated to debt ratio and there was a positive correlation between the growth ratio and financial leverage.


R.P. Sharma\textsuperscript{23} (1988) studies the general capital structure and with the help of ratios and other statistical tools analyzes the financial structure of the automobile industry. Inter-firm and inter-industry comparisons have also been made. The author concludes that the automobile industry and its companies adopted of complex pattern of capitalization and with high capital gearing ratio. There exists a satisfactory position of debt-equity. Again the Proprietary ratio of the automobile industry was only higher than that of the sugar cotton textile and shipping industry. It shows that the industry and its companies under study were highly depended in borrowed funds.

R.K. Gupta\textsuperscript{24} (1990) in his study “profitability and financial structure” was made to evaluate the financial performance of the selected six public sector enterprises in India. The data for the study has been obtained from the annual reports of the selected understandings for the years from 1979-80 to 1983-84.

Mohd. Akbar All Khan\textsuperscript{25} (1990) in his study on “Financial Structure of SRTCs in India”, covers all aspects affecting the financial performance such as long term and short sources of finance, capital structure, material efficiency, liquidity, profitability and social obligations. Five SRTCs were selected for the study covering the period of fifteen years from 1970-71 to 1984-85. The generally known statistical measures like averages, percentages, standard deviation and correlation co-efficient were used to portray the clear picture of finances and financial performances of the selected undertakings. During the period under study, the equity fund increased only by six times and the long-term external loans by twenty two times resulting thereby an increased cost of capital.


A study on “Capital Structure and its effect on profitability”, by Dr. K.C. Paul and RN. Ghosh\textsuperscript{26} (1996) has pointed out that the increasing debt-equity ratio contributes to the increasing profitability. They made clear that there doesn’t exist any direct and positive relationship between debt-equity ratio and profitability. Other factors like age of the company, past track records, growth rate, risk perception, availability of debt, and etc., have greater impact on profitability.

Suresh Babu and P.K. Jam\textsuperscript{27} (1998) in their analyzed the 91 non-government, public limited companies listed on the Bombay Stock Exchange (BSE). The firms in India are now showing almost equal preference for debt and equity in designing their capital structure. Freedom in paying dividend and easy to raise are the reasons cited for equity preference, while, the major attributing factors for debt are the cheapest source of finance and the flexibility in debt instruments. Thus the study revealed that the preference for equity has a marginal edge over debt, compared to earlier studies where it was vice-versa. For purpose of financial analysis, the profit and loss account and the balance sheet of the enterprises has been recast and presented in a condensed form. Ratio analysis and trend analyses were used to compare the financial structure of selected unit.

The long-term financial strength has been analyzed with the help of debt-equity ratio, financial leverage, capital gearing ratio, Fixed assets to debt ratio and Fixed asset to net worth ratio. It was found that the cash position in the enterprises was very poor and so it should be improved by reducing the investments in the form of inventories and the purchase of fixed assets.

\textsuperscript{26} Dr. K.C. Paul and RN. Ghosh, “Capital structure and its effects on profitability: A case study of large private sector companies in selected Industries”, Chartered Secretary, Oct 1996, PP. 1041-1044.

\textsuperscript{27} Suresh Babu and P.K. Jam, “Capital structure-The debt or equity Route?”, The Chartered Accountant Sep 1998.
Manoj Anand\(^{28}\) (2002) in his study surveyed 81 Chief Financial Officers (CFOs) of India to find about their corporate finance practices (capital structure, cost of capital, divided policy decisions and capital budgeting decisions) and analyzed the responses by the firm characteristics like firm size, profitability, leverage, PIE ratio and the sector.

The study revealed that the firms with low long-term debt ratio are more likely to use internally generated funds than the firms with high long-term debt proportion in their capital structure. Most of the CFO respondents not preferring the equity capital between the firms classified on the basis of size, profitability, risk, growth, and sector.

Barges\(^{29}\) studied the effect of leverage (use of fixed income sources of funds like and preference capital) on total market value. His result seems to support the traditional; ‘U’ shaped business risk function.

Antony K.A\(^{30}\) estimated the total assets of the manufacturing sector as a whole at constant prices for the period 1958-59. He found that the 1001 public limited companies discarded assets worth of Rs. 12 crores (gross) per annum.


Vasanthaamani\textsuperscript{31} studied the financial performance of Lakshmi Machine Works Limited. The objective of the study was to evaluate the financial performance of LMW with a view to analyze the future performance potential. The study covered the period from 1969 to 1980. The Researcher found that the gross profit and the net profit ratio were increasing considerably. The Liquidity position of the company showed that the company was able to meet the creditors out of its current assets. The quick ratio also revealed, that the quick liabilities were met out of quick assets without any difficulty. The leverage of the company revealed that its own capital was more than its borrowed capital.

Chandravadani\textsuperscript{32} in her study on the Dept-Equity ratio of Textile and Engineering Industries selected a sample of 10 companies consisting of 5 Textile mills and 5 Engineering industries in and around Coimbatore. According to the Researcher the Dept-Equity Ratio of Textile Industry increased from 0.49: 1 to 0.82: 1 during the period of 1977-78 to 1981-82. The Engineering industries showed a consistent increase in the average debt-equity ratio during 1977-78 to 1981-82 from 0.54 to 0.94. The study identified eight factors such as technology, capital, and size of assets, profitability, and retained earnings, fixed assets, working capital and labor cost. A detailed analysis was made for each influencing factor.


Jain conducted a study The Financial Management of the Unit Trust of India analyzed the profitability of the Trust. The objectives of the study was to examine the profitability of UTI with special reference to (i) Rate of Return (ii). Capital Appreciation (iii). Rate of Dividend, and (iv). Expenses. In his analysis the profitability aspect of the financial management of the UTI suggested that its record of performance leaves much to be desired. Its real rates ratio of Textile industry increased from 0.49: 1 to 0.82: 1 during the period of 1977-78 to 1981-82. The Engineering Industries showed a consistent growth in the average debt- equity in terms of over reliance on severe securities having a fixed rate of return, seemed to be the possible explanation for the low return of profitability. However, the ratio of dividend paid to the unit holders was unreasonable. As regards capital appreciation UTI’s performance had been equally unsatisfactory as revealed by the fact that the increase in the Net Assets per unit had been only nominal.

Gupta in his study of performance of Public Sector Engineering undertakings said that one of the objectives of setting up public undertakings was to provide commercial surplus to finance economic development. The object of his study was to analyze the financial performance of the public sector undertakings from 1966-67 to 1970-71, in engineering as a whole. The percentage of working capital to capital employed ranged between 34 to 48 through the period. The overall performance of these undertakings improved throughout the period. The percentage of gross profit to capital employed increased from 2 in 1968-69 to 2.9 1970-71. The percentage of Net profit to equity of these undertakings had shown deteriorating trend from 1966-67 to 1967-70 as it decreased from 14.6 to 6.9 in 1967-70 but it increased to 9.3 in the year 1970-71.


Gangadhar\textsuperscript{35} analyzed the profitability of Cement industry. The purpose of the study was to analyze the profitability of large public limited cement companies in India in order to examine the fluctuations to study the profitability of cement industry vis-à-vis the profitability of chemical and engineering industry with a view to point out lower/higher rate of profitability in the former and to discuss the cost structure of cement industry aiming to notice a minor/major expenditure component as well as the impact of cost on profitability. The study revealed the following.

1. The profit margin in the cement industry had shown a declining trend whereas the assets turnover showed an increasing trend.

2. The profit margin accounted to a great extent for lower rate of ROI in the industry as prepared to assets turnover.

3. The study of the cost structure highlighted that the manufacturing expenses were the highest. Production of sales (63% to 66%) followed by remuneration to employees (13% to 15%) whereas the interest charges accounted for lowest proportion of sales (2% to 4%) followed by the depreciation provision (4% to 5%).

Karthikeyan\textsuperscript{36} tried to identify the relationship between the financial performance variables and to develop simple financial forecasting models. 300 companies were selected and the data relating to the financial performance variables were analyzed. To forecast the financial performance a simple crosssection regression analysis was made.


The nine financial variables identified were net sales, total assets, and gross profit before taxes, dividends, retained earnings, cash flow and net worth. He concluded that the sales had been consistent in all the four years of the study. Total assets had also been analyzed in all the four years of study. For this analysis, sales, assets and net worth were taken as independent variables and PBT and dividends were taken as dependent variables. The analysis revealed that only sales and assets had significant influence over the dividend.

Bagchi\textsuperscript{37} stated the most significant stability measure of the ratios overtime was found to be the standard deviation of the ratios. The objective of this study was to find a suitable measure of ratio stability. Firstly, he collected data on 12 firms equally divided into sick and healthy categories comprising 6 firms from Jute industry, 4 firms from chemical process industry and 2 firms belonging to the Engineering sector. He selected 11 ratios connected to various parameters of a firm. These are profitability parameter activity parameter, indebtedness parameter and liquidity parameter. On analysis, it was observed that absolute values of the majority values of ratios are indicators of corporate health especially 4 to 5 years prior to sickness. He further observed that out of the four economic parameters ratios, only the profitability and activity parameters are significant in showing fixed and healthy firms. In the area of profitability measure net profit to sales. The two ratios namely sales to inventory and sales to net working capital belonging to activity parameter gave excellent stable values during the period of 5 years before Sickness.

G. Ravindran\(^{38}\) has studied the financial performance of L.G.B Limited. His objective was to study the financial position of the company for a period of 5 years from 1986-90. He concluded that the financial position of the company was not continuously steady. The rate of return had a declining trend till 1988-89. He found that the company in spite of earning huge gross profits, the net profits were comparatively very low, because of high operating costs. He also stressed the need for maintaining a desirable collection and payment period.

Nageswar Rao\(^{39}\), the overall performance of an enterprise may be indicated by a single or multiple measures. The criterion of profitability, however, has got a significant place in the efficiency evaluation of an enterprise. All efforts are, therefore, made by the management of the enterprise to earn as high profits as possible, consistent with larger socio-economic consideration. The ratio analysis is the one of the most powerful tools of financial analysis. Business ratios are the guiding stars for the management of enterprise; they provide the targets and standards. They are helpful to managers in directing them towards effective short-term decision-making. Conditions in any business operation change day by day and, in this dynamic situation the ratios inform the management about the most important issues requiring their immediate attention.

Chakraborty and Malla Reddy\(^{40}\) made inter firm comparison of six leading Cement industries in India. The objective was to find out the efficiency and inefficiency of the firms with the help of ratio analysis. They employed five


groups of ratios for analysis. They concluded that the reason for efficiency was the conservative outlook in financing by more long-term debt in order to have its stockholders, without impairing the solvency of the company and the payment of dividends from the reserves were the reason for the inefficiency of the firms.

Gangadhar\(^4^1\) analyzed the Profitability of the Cement Industry and his study revealed the following, the profit margin in the cement industry had shown a declining trend whereas the asset turnover showed an increasing trend. The study of cost structure highlighted that manufacturing expenses accounted for the highest amount of sales (63% to 66%), followed by remuneration to employees (13% to 15%) whereas interest charges accounted for the lowest of the sales (2% to 4%).

Talba and Siddique\(^4^2\) pointed out that the Cement Industry today was facing peculiar problems. Even though the situation was encouraging in terms of production, the recent decontrol of prices and distribution created many problems for the industry. The target of production surpassed the target in 1987-88 was lowered from 44 million tones to 42.5 million tones against which a production order of 39.5 million tones had been achieved. In 1986-87 the Cement Production was about 36.59 million tones against the target of 36.5 million tones.


Khandekar\textsuperscript{43} has made an attempt to analyze the challenging task of the cement industry. He found that the production targets has been set in such a way that the cement industry will have to grow one and half times within a span of five years which is a challenging risk. Further he pointed out that mini cement plants could play only a supplementary role. So he suggested high capacity cement plants with new technologies and transport facilities.

Lalwani\textsuperscript{44} explained that the valuation in productivity in Cement Industry were mainly due to fluctuating performance of the power station, Coal and Railway sectors. Labor unrest had an insignificant impact on production but power. Coal and Mechanical troubles affected by a number of factors. Many of them were beyond the control of management of a Unit.

Even though many studies have been undertaken as discussed above, no study has been undertaken so far regarding the solvency position, profitability and management efficiency of the cement industry. Hence, the present study has been undertaken by the researcher.
