CHAPTER IV
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FINANCIAL RATIO ANALYSIS.

4.1. INTRODUCTION:- The most important function of financial statement is enabling the people to understand how efficiently the capital of the business is utilised, how well the credit standards are observed and how financial condition is improved. The analysis of the statement will help one to judge the overall financial position of a company in general and earning performance, growth potentiality, credit worthiness and the solvency of the company in particular.

"There is a growing body of evidence which shows that, ratios have been used as a measure of prediction of events and also as a warning system to indicate the failure of the companies. Ratio analysis facilitates the comprehension of financial statement, evaluation of several aspects as such financial health, profitability and operational efficiency of the company. It provides inter-firm comparison to measure efficiency which is helpful in fore warning sickness that enables the management in planning, forecasting and investment decisions."\(^9\)

The goal of this ratio analysis is to achieve the short run and the long run objectives of the company. Profit maximisation is short run and wealth maximisation is long run. These ratios add inputs to the management accounting and financial management. It is to be noted that "Management accounting is accounting geared to the managerial needs. Financial management and

management of finances are two different. Financial management in general or the managerial process. (Planning, organising, decision making) whereas the management of finance is part of that."

The analysis of four basic statements such as Balance sheet, Income and Expenditure statement, Statement of retained earnings and the statement of changes in financial position, followed by the calculation of ratios help to evaluate past, present and future performance of the company which is a part of financial management.

4.2. CONSTRUCTION INDUSTRY DURING MID 80’s

RBI, in its bulletin March, 1990, published the performance of 1096 selected private limited companies including 17 construction companies from 1984-85 to 1986-87, and 621 selected large public limited companies including 7 construction companies from 1985-86 to 1987-88. The performances of these selected construction companies are given in Table 4.1. These performances data have been taken for comparing the performances of our representative company for arriving at a critical analysis and strategy formulation. The details are summarised in Table 4.1.

4.3. FUNDAMENTAL CLASSIFICATION OF RATIOS:

Ratios under this classification are grouped according to basic functions relevant to financial analysis. Four such functional groups are as under.

(i) Company's ability to meet its maturing short term obligation is diagnosed through Liquidity Ratios.

(ii) The extent to which a company has been financed by debt is measured by Leverage Ratios.

(iii) The effectiveness with which the company is using its resource is identified through Activity Ratios.

(iv) The measure of managements overall effectiveness as shown by the returns generated on sales and investment is done through Profitability Ratios.

One more class of ratios is sometimes added to the above four groups is "Market Value" group ratios which relate investors' expectations about the company's future to its present performance and financial condition, such as Price Earning (P/E), Earning Per Share (EPS), market price and book value. Table 3.2. at the end depicts the position of the company.

4.4. FORMULAE FOR FINANCIAL RATIOS:

For measuring liquidity ratios, the following formulae for different ratios are adopted

(i) Current Ratio = \[ \frac{\text{Current asset}}{\text{Current liabilities}} \]

(ii) Acid test Ratio or Quick ratio = \[ \frac{\text{Current asset-inventories}}{\text{Current liabilities}} \]

(iii) Cash Ratio or absolute liquidity = \[ \frac{\text{Cash & Marketable securities}}{\text{Current liabilities}} \]
Activity Ratios are computed as under:

(i) Inventory turn over = \[
\frac{\text{Cost of stores consumed on work}}{\text{Inventory}}\]

(ii) Average collection period = \[
\frac{\text{Accounts receivable (Sundry Dr)}}{\text{cost of stores + gross profit}} \times 365
\]

(iii) Average payment period = \[
\frac{\text{Accounts payable}}{\text{Average payment for purchase of stores}} \times 365
\]

(iv) Fixed asset turn over = \[
\frac{\text{Gross billing for works done}}{\text{Net fixed asset}}
\]

(v) Total asset turnover = \[
\frac{\text{Gross billing for works done}}{\text{Total asset}}
\]

Profitability ratios are computed using the following formulae:

(i) Gross margin ratio = \[
\frac{\text{Gross profit}}{\text{Gross billing works done}} \times 100
\]

(ii) Operating margin ratio = \[
\frac{\text{Profit before taxes}}{\text{Gross billing works done}} \times 100
\]

(iii) Net profit/margin ratio = \[
\frac{\text{Net profit after taxes}}{\text{Gross billing works done}} \times 100
\]

(iv) Return on Investment (ROI) = \[
\frac{\text{Net profit after taxes}}{\text{Total net assets}} \times 100
\]

(v) Return on equity = \[
\frac{\text{Net profit after taxes}}{\text{Stockholders' equity}} \times 100
\]

(vi) Equity multiplier = \[
\frac{\text{ROE}}{\text{ROI}}
\]
Debt ratios have got two categories, one is the ratio depicting the degree of indebtedness and the other the ability to service the debts. They are calculated as under.

(i) Debt ratio = \frac{Total Debt}{Total assets}

(ii) Debt Equity ratio = \frac{Long term Debt}{Stock holders equity}

(iii) Times interest earned ratio = \frac{Earnings before interest and taxes}{Interest}

4.5. LIQUIDITY RATIOS:

In computing these ratios of the company under study, the following principles have been followed:

(i) Gross profit is profit before tax and after interest, Depreciation, Bad debts/Advances written off and other administrative expenses are deducted.

(ii) Net asset means net fixed asset investments, net current asset and capital works in progress including miscellaneous expenditure not written off.

4.6. COMPUTATION OF LIQUIDITY RATIOS AND COMPOUND GROWTH OF KEY PERFORMANCE INDICATORS

The four liquidity ratios of the company are computed and placed in Table 4.2, Table 4.3, and Exhibit 4.1, and growth rates of key performance indicators, sales, productions, net value added etc. in Table 4.4, at the end.

4.7. COMPUTATION OF ACTIVITY RATIOS:

The activity ratios are computed and tabulated in Table 4.5 and Exhibit 4.2.
4.8. COMPUTATION OF PROFITABILITY RATIOS:–

The profitability ratios are computed and tabulated in Table 4.6. and Exhibit 4.3.

4.9 COMPUTATION OF DEBT RATIOS:–

The Debt ratios are computed and tabulated in Table 4.7. and Exhibit 4.4. All the above tables and exhibits are displayed at the end.

4.10. DEDUCTIONS:–

(i) OVERALL PERFORMANCE:–

The key performances indicators such as net sales (Net works output after contract expense and repairs and renewals), Gross billing (value of production), total income (Gross Profit) and net value added of the company have shown compound growth of 19.06%, 20.05%, 21.03% and 22.42% respectively against construction industry average during mid 80's of 3.08%, 7.03%, (-) 185.03% and (-) 2.26% respectively. The operating profit pre tax, post tax profits and profits retained by the company have also shown 20.86%, 21.98% and 30.54% and the growth rate of gross fixed asset and net fixed asset stood at 22.73% and 25.53%. Though there was sluggishness in business activity of construction industry during mid 80's, the company’s growth in the above performance indicators are impressive.

(ii) LIQUIDITY RATIOS:–

The current ratio of the company registered more than 1.4 for 5 years 3 months and less than 1.00 for 6 years against industry average of 1.03. The trend has been fluctuating. High ratio indicates the slackness of management practices and low
ratio reflects the inadequacy in margin of safety between current resources and short term obligations.

Acid test ratio of the company registered more than 1 showing satisfactory except during the year ending Dec. '82 and Dec. '84. The trend is fluctuating which supplements to the current ratio trend.

The lower cash ratio indicates that there has been no intensive utilisation of cash by the company. The trend is more or less stable.

The utilisation of net working capital or say part of the working capital which is financed through permanent sources is on the increase. The current asset to net asset ratios, though fluctuating, show that utilisation of current asset in the asset portfolio is high (ie) more amount is invested in current asset than desirable.

(iii) ACTIVITY RATIOS :-

Inventory turn over is fluctuating (ie) increasing from Dec. '80 to Dec. '87 and then declining from January '88 to March '91. In fact, the decline commenced from Dec. '86. The latest trend during the period under study does not portend efficiency.

Average collection period is ascending from Dec. '83 to March '91. This means the trend of the number of days receivables remain uncollected has been increasing over the period. This calls for review of credit policy (ie) credit period offered by the company's management to the clients whether there is slackness in the credit period worked out or offered. This may call for toning up of its systems and procedures of collection.
Average payment period: There is increasing trend since Dec. 1986. This means the management could not increase the trend in purchase of more stores/materials due to increase in payment period during the period under study. Hence there may be slackness in efficiency on the part of management in maintaining the standing of the company in credit clearance.

Fixed asset turnover shows declining trend. This shows that the fixed asset creation has increased during the period under study, (ie) more amount is invested on Fixed asset.

Total asset turnover also shows declining trend. This also requires the management to ponder and compare the desirability of increase in asset portfolio in comparison with other similar firms.

The overall picture of activity ratios which are efficiency ratios, of the company portray decline in inventory turnover, slackness in collection of receivables and delay in payment to the creditors. These areas necessitate a review as it is a decline in management efficiency.

(iv) Profitability Ratios:

The trend of gross margin in quantum terms since Dec. ’80 to March ’91 is ascending. But the ratio of the gross margin to the gross billing of works done is fluctuating over the period under study, from 6.94% to 11.14%. The plus point is that this firm is continuously earning profit for the 11 years under study. The fluctuation above is due to nature of works undertaken and competition in the tender in obtaining the works from the clients at lower margin in their bid. More than 11% of gross
billing of work done towards gross profit is good, as the government schedule of rate provides 10% of the cost of work as margin.

Similarly operating margin ratio, net margin ratio after tax and interest and net margin ratio before tax are fluctuating from 6.21 to 10.05, 0.67 to 2.23 and 1.80 to 5.10 respectively. Attention of the management on the following for further diagnosis is required.

(a) Comparing the margin in their bids with the Gross margin whether both are matching or not. If this does not match, the operational efficiency is to be increased.

(b) Erosion on the bid margin is to be kept in check.

(c) Exploring possibility in tax relief and lowering the interest burden may be initiated.

ROI is hovering in the range of 24.27% to 5.49% during the period under study. There has been declining trend since January '85 which requires the attention of the management for remedial measures appropriately.

ROE is fluctuating from 10.85% to 36.36%. Performance in this front is very good as the % is more than 12% in all the years under study. This is corroborated with the strength of equity multiplier which is more than 1.29 in all the years under study.

The return on capital employed (ROCE) has registered more than 20% for all the years under study which is satisfactory.

(v) **DEBT RATIOS**

Debt has been taken as the total of secured loans, unsecured loans, deferred payment liability for plant and machinery,
computer and motor vehicles etc. as shown under "Loan funds" in the annual reports of the company.

"The minimum period of five years for treating the borrowing as "debt" as per the earlier definition given by the Controller of Capital Issues has been reduced to one year. All borrowings of more than 12 months maturity (other than borrowings through banks or short term deposits for meeting the working capital requirements) are treated as debt" 61

The overall objective in determining the debt equity ratio is to ensure that there is a proper balance between the owned funds and borrowed funds and that there is no eroding impact on its profitability by disproportionate burden of long-term debt. "While deciding about the appropriate level of debt equity ratio, the main guiding factor must be the ability of the company to generate surplus so that it is able to service both the share capital and loans" 62

"The ratio is decided in every project in a case-to-case basis. The general norm is that it should not exceed 2:1 in medium and large scale companies. However it is taken more as a broad guide line and a general indicator. In the case of thrust industries and highly capital intensive projects a debt equity ratio of 3.5:1 to 4:1 is not uncommon". 63

The debt equity ratio of the company having a turn over of above 80.00 crores in a year with Rs. 20.00 crores of net asset

62. Ibid
63. Ibid
base can be treated as below medium scale company. Hence the maximum debt-equity ratio can be allotted to 1.5:1. The company's debt equity ratio is below 1.50 throughout the period under study in spite of the adverse impact on the construction industry due to loss of overseas contracts during the period of gulf war in 1990. Though there was rise in debt-equity ratio since Jan '86, it was well within the norms.

Debt-Net asset ratio was well below 0.51 and Debt Total asset ratio was below 0.27 throughout the period under study. Hence the Debt position of the company is comfortable.

The situation of interest payable (viz) the ratio of times interest earned ratio has been fluctuating from 2.55 to 18.33. This ratio is on the decline from 6.16 to 2.87 since Jan. '82 which needs attention of the management.

Interest as % of operating profit also fluctuates from 4.47% to 23.12% and the decline trend from 23.12% from Jan. '86 to 18.20% in March '91, which is less than 25% norm for companies having a range of above 50 years of existence. This company came under Indian management in 1947 completing 46 years of existence. The declining trend in times interest earned ratio needs arresting.

The extent of borrowed funds and the aggregate capital employed and compound growth are in Table 4.8 for the period from 1 Jan. '81 to 31st March '91 (10 years 3 months = 10.25 years).
TABLE 4.8
GROWTH RATE OF Borrowed FUNDS AND CAPITAL EMPLOYED

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Particulars</th>
<th>1 April '90 to 31 March '91</th>
<th>1 Jan. '81 to 31 Dec. '81</th>
<th>Compound growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Aggregate capital employed</td>
<td>10.11 Crore</td>
<td>1.21 Crore</td>
<td>23.01%</td>
</tr>
<tr>
<td></td>
<td>(share capital + Reserves and surplus)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Borrowed fund</td>
<td>10.21 Crore</td>
<td>0.76 Crore</td>
<td>28.85%</td>
</tr>
<tr>
<td></td>
<td>(secured loans, unsecured loans &amp; deferred payment liability)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SOURCE:— Annual Reports of Simplex Concrete Piles India Ltd, for the year 1 April, '90 to 31st March, '91 and 1st January, '81 to 31st Dec. '81.

The compound growth rate of aggregate capital employed is lesser by 5.84% than the growth rate of borrowed funds. This means when aggregate capital employed by this company grew by 23.01%, the borrowed funds increased by about 28.85%. "The mobilisation of fund norm envisaged in the Eighth plan is that the growth rate of aggregate capital employed should be closer to that of total borrowed funds." ** The position is satisfactory.

4.11. IMPLICATIONS FOR MANAGEMENT:—

The grey areas of the company's performances during the period under study have been high utilisation of current asset in asset profflio, declining trend in inventory turn over, fixed asset turn over and total asset turn over, slackness in collection of receivables, ascending trend in average payment

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64. Mahanti Tushar.K. "Well in line with the norms", The economic Times 1992, April, 4, Page-16.
period to the creditors and gross margin to gross billing of works ratio registering less than 10% for 7 out of 11 years 3 months under study, and declining times interest on earnings from January, '82. Though this company fared well compared to the construction industry level averages, the strategies for arresting the declining trends of key factors in the company have to be formulated. At industry level, the strategies are required to be formulated with action plan as the industrial recession prior to 1992-93 is tending to recede on account of ongoing reforms undertaken by Govt. of India.

(i) Compound growth of gross billing works of the company has been 20.05% against industry's mid 80's average growth rate of 3.08%. "Centre for Monitoring Indian Economy (CMIE) in its study on "Company Finance Industry Aggregates" based on the audited annual accounts of 945 companies from various industries recorded sales growth of 13.70% during 92-93, well below 20% jump witnessed during '91-92,"--

Though the growth rate in bagging new works of the company under study has been good, the construction industry in general has not fared well. Hence the strategy for the ailing companies of the industry, especially when the construction markets are going to be entered by multinationals has to be through the route of well planned schemes of acquisitions and merger according to the strength and weakness of the companies which will enable to strengthen the construction capability base in a highly

competitive market of construction industry. This will facilitate to increase the market share of the construction works. The alternate strategy can be of becoming minor player in the business where the company had earlier been dominant or seek out new fields in the construction business.

(ii) Getting rid of commercially non viable and financially lacklustre construction divisions of the company, when the company has no wherewithal to make adequate investments, will help the ailing company to shed its non performing assets and operating expenses.

(iii) Where the company's strength is identified in a particular construction field, and investments are required, the company should opt for raising significant quantum of equity, since the financial markets are booming at present.

(iv) The future calculations of the constituents of the construction industry would need to address the problem of generating adequate return on the existing as well as new equity. The need of the company to remain with a very large turn over is not so important in the present, changed scenario.

(v) Knack of keeping capital cost low on construction projects and turning it into competitive edge has been repeatedly proved. Implementation of this strategy through the routes of tie up with a leading global company for technical knowhow, recruiting the best professional in the industry, nibbling into market by securing small work orders at home, keeping overheads low and concentrating on long term gains in the construction market, will improve the financial health and managerial
efficiency to ward off the negative trends and tide over the factors of uncertainty and risk to a greater extent.

(vi) Construction industry constituents should adopt a debt strategy with an objective of achieving sustainable growth, payments viability, normal relations with creditors including access to financial markets. The success of this strategy has to be aimed through the route of growth oriented adjustments in the type of construction works, creating favourable environment to secure cost-effective debt and debt service reduction through efficient use of scarce resources, equity trading and raising other income sources.