CHAPTER VII

SUMMARY OF FINDINGS, CONCLUDING OBSERVATIONS, POLICY INPUTS AND SCOPE FOR FURTHER RESEARCH

Cement Industry in Tamil Nadu - An Analysis of Financial Statements of Selected Companies
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The objectives of the present study were accomplished in three stages. First of all, the financial profile of the selected cement companies is revealed. It was followed by the financial performance of the cement companies through the financial ratios. In the third stage, the utilization of assets, financial strength and financial health of the selected companies are analysed. Results of the analysis were presented in this chapter to draw specific inferences and their policy implications.

Specific objectives of this study were

i. To present the financial profile and analyse short term and long term financial solvency, profitability and growth performance.

ii. To measure the impact of financial profile on profitability and the efficiency in utilisation of assets.

iii. To examine the short term and long term financial strengths and the overall financial health.

The concepts and methodology were formulated according to the objectives of the study with the help of comprehensive review of previous studies. The secondary data about the financial facts of the selected cement companies were collected through the annual reports of the companies. The study of the analysis of financial performance was confined to the years 1988-89 to
1999-2000. Collected data were analysed with the help of appropriate tools to evaluate the various aspects of the financial performance.

Findings

1. The total capital employed in all the selected five cement companies, increased by 7.17 times from 1988-89 to 1999-2000 whereas in the case of total assets, it is only 7.72 times. The total net loss was identified in 1988-89 and it was converted into Net profit of Rs.669.33 lakhs in 1989-90. The rate of increase in Net profit from 1989-90 to 1999-2000 is by 18.25 times whereas in the case of sales and production, these rates are 3.32 and 5.88 times respectively.

2. Regarding the assets composition in the cement industry, the total assets of the five cement companies together increases from 60242.57 lakhs in 1988-89 to 465076.42 lakhs in 1999-2000. The percentage of current assets to total assets in the industry during 1988-89 is 36.34 per cent whereas in 1999-2000, it constitutes 38.30 per cent only. The quick assets in the industry increases 5.30 times during the period of the study whereas the rate of increase in fixed assets during the same period is 7.48 times. It reveals that the increase in fixed assets is greater than the increase in quick assets in industry since it is highly capital-intensive.

3. In total all the five companies together incurred a net loss of Rs.912.32 lakhs in 1988-89. From 1989-90 onwards, the companies together have been making profits. The net profit of the companies increases from Rs.669.33 lakhs in 1989-90 to Rs.12215.23 lakhs in 1999-2000. The rate of increase in profit during the period except 1988-89 is 18.25 times, whereas the rate of increase in
production and sales during the abovesaid period are 6.39 and 3.69 times respectively. It reveals that the increase in sales is lesser than increase in production. It leads to accumulation of stock.

4. The annual growth rates in net working capital, fixed assets and total capital employed are 9438.61, 2078.2 and 32308.4 respectively whereas in the case of production, sales and net profit, these are 203.06, 194.19 and 202.59 respectively. The compound growth rate in the company reveals that the rate in net working capital, fixed assets and total capital employed are 28.43, 23.54 and 24.21 per cent respectively whereas in the case of sales and production, the compound growth rates are 20.17 and 19.19 per cent respectively. In general, the compound growth rate in all aspects is seen to be higher in MCL and ICL.

5. Analysis of current ratio reveals that the DCL have better current ratio than the other companies, followed by CCCL. The rate of increase in Current ratio is noticed as high as 5.081 times in CCCL, followed by the ICL which has a rate of increase in the current ratio by 1.83 times. In total, the current ratio of the five companies increases from 1.88 in 1989-90 to 3.53 in 1999-00. It indicates that the liquidity position in the cement companies is constantly improving during the period of the study.

6. The acid test ratio in 1999-2000 reveals that the DCL have more ratio of 3.45, followed by the MCL and CCCL at 2.39 and 2.26 respectively. The rate of increase in the acid test ratio during the period of the study is seen as high as 6.11 times in CCCL, followed by DCL at 3.31 times during that period. The acid test ratio in ICL is comparatively less than any of the five companies since it varies.
from 0.71 in 1998-1999 to 1.30 in 1993-94. In total, the acid test ratio increases from 0.72 in 1988-89 to 2.09 in 1999-2000.

7. The current assets to total assets ratio in TANCEM is higher as 0.74 in 1999-2000 followed by the DCL as 0.55 during the same period. In total, the current assets to total assets increase from 0.36 in 1988-89 to 0.42 in 1999-2000. The rate of increase in the ratio is seen as marginal in all cement companies during the period of the study except in ICL where, it declines from 0.40 in 1988-89 to 0.37 in 1999-2000.

8. The average inventory turnover ratio in MCL is higher as 7.4 whereas lower in DCL as 3.91. The increase in inventory turnover ratio during the period of the study is identified in CCCL, ICL and TANCEM. In DCL and MCL, this ratio declines. The inventory turnover ratio for the pooled data shows an increase in the ratio from 4.07 in 1988-89 to 6.19 in 1999-2000. In total, the average inventory turnover ratio is 5.02 during the study period.

9. The average age of the inventory is identified as low as 50 days in MCL whereas it is higher by 98 days in DCL. The average age of inventory in ICL declines from 102 days in 1988-89 to 69 days in 1999-2000 whereas in DCL, it increases from 102 days to 140 days during the period of the study. The age of inventory for pooled data declines from 102 days in 1988-89 to 69 days in 1999-2000. In total, the mean of age of inventory in the cement companies during the period of the study is 80 days.

10. The Debtors turnover ratio increases from 2.82 in 1988-89 to 4.57 in 1999-2000 in CCCL. In the remaining four cement companies, this ratio declines. The rate of declining is noticed as high as 41.3 per cent in TANCEM followed by
the DCL at 3.15 times. It indicates that the debt management has generally become poor among the cement companies during the period of the study.

11. The average collection period for the pooled data of the five companies together indicates an increase from 77 days in 1988-89 to 80 days in 1999-2000. The average collection period during the period of the study is identified as less as 49 and 56 days in MCL and TANCEM respectively whereas it is higher at 125 and 98 days in DCL and ICL respectively. It indicates that the MCL has been highly efficient in debt collection during the period of the study.

12. Regarding the utilisation of working capital, TANCEM is better than other companies. During the period of study, the working capital turnover of the company is greater than the industrial average. In total, the working capital turnover ratio declines from 5.75 in 1988-89 to 4.28 in 1999-2000. The average working capital turnover during the period of the study is higher at 7.2 and 5.73 in TANCEM and MCL respectively.

13. The Mottall's comprehensive test shows that DCL is efficient in the liquidity management which is related to only current and liquidity ratio followed by CCCL, MCL, ICL and TANCEM since its weighted score of the ranks are 1.29, 2.55, 3.17, 3.29, and 4.75 respectively.

14. The efficiency in activity management of the five different cement companies is measured with the help of Mottall’s comprehensive test. The test includes the inventory, debtors, working capital, total assets and fixed assets...
The test reveals that the TANCEM is very efficient in activity management followed by MCL, CCCL, ICL and DCL since the average ranking scores are 1.95, 2.38, 3.08, 3.58 and 4.00 respectively.

The analysis of operational performance of the cement companies during the twelve years of the study resulted in the operational performance being the best in the year 1997-98 followed by the years 1998-99 and 1996-97. Regarding the activity management, significant difference among the five companies is identified since the H-values of the inventory turnover ratio, debtors turnover ratio, working capital turnover ratio, Total assets turnover ratio and fixed assets turnover ratio among the five cement companies are significant at 5 per cent level.

The nature of capital structure management is measured by assets to equity ratio, return on equity ratio and total debt to total assets ratio. Regarding the assets to equity ratio, the contribution made by the owners of the companies to the company’s assets gradually declines. The ratio declines at a faster rate in MCL followed by CCCL. The return on equity is better in TANCEM during the period of the study compared to other companies. It increases from 3.00 per cent in 1988-89 to 26.33 per cent in 1999-2000.

The total debt to total assets indicates the relative contributions of creditors to the capital of the firm. The creditor’s contribution to the total assets of the company is relatively lower in DCL whereas it decreases from 85 per cent in 1988-89 to 80 per cent in 1999-2000. In TANCEM, it was less upto 1995-96 and after that it increased from 60 per cent to 140 per cent in 1998-99. The
analysis on this ratio reveals that the creditors contribution to the total assets of the companies has been increasing in the recent past.

18. The net profit margin in TANCEM increases from 0.79 in 1988-89 to 5.21 in 1999-2000. The average net profit margin and return on capital employed of TANCEM during the period of the study are 2.64 and 6.9 respectively whereas the average return on assets is 6.94. Only in 1994-95, the company suffered a loss.

19. In ICL, the net profit margin in 1988-89 was -0.86 due to the net loss in 1988-89. The net profit margin increases from 2.15 in 1989-90 to 11.58 in 1996-97 and then declines to 3.12 in 1999-2000. The average net profit margin, return on capital employed and return on assets of the company are 6.08, 4.88 and 4.21 respectively.

20. The average net profit margin and return on capital employed in CCCL are 2.71 and 6.44 respectively whereas the average return on total assets is 4.87. The company suffered loss in the year 1988-89 and 1989-90. In MCL, there was a loss in 1988-89. From 1989-90 onwards, the company has made profit. The rate of increase in Net profit ratio, return on capital employed and return on assets from 1989-90 to 1999-2000 are 6.39, 5.25 and 4.23 times respectively.

21. The rate of increase in Net profit margin, Return on capital employed, and Return on total assets during the period of the study in DCL are 1.87, 2.09 and 1.96 times respectively. The average of the abovesaid variables during the period of the study are 8.75, 7.74 and 6.29 respectively.

22. The Hartley's F-max test, for homogeneity of variance in profit performance of the five cement companies concluded that there is evidence of
differences in the variances of profit performance ratios in TANCEM, ICL, CCCL and MCL since the F max values are significant at 5 per cent level. Only in DCL, there is no such evidence of difference in the variances of the profitability ratios. It indicates that the profit performance in all cement companies increases except in DCL during the study period.

23. The inter correlation between important financial ratios shows that the significant relationship exists between current, quick and working capital turnover ratio. The current assets to total assets ratio is significantly related to debtors turnover ratio, total assets turnover ratio and fixed assets turnover ratio in MCL. In MCL, the significantly influencing financial ratios on return on sales and return on equity are nil. Even though, the regression coefficients of total assets turnover ratio, current assets to total assets ratio, fixed assets turnover ratio are high, these have no significant influence on the profitability of the MCL.

24. In CCCL, the significant correlation exists between current and quick ratio, debtors turnover ratio and working capital turnover ratio. The quick ratio is significantly and positively correlated with inventory turnover ratio, debtors turnover ratio and working capital turnover ratio. The only significant financial ratio influences on the return on sales and return on equity is working capital turnover ratio but it makes a negative influence on that. The coefficient of determination conveys that the included financial ratios explains the change in Return on sales and Return on equity to the extent of 95.5 and 94.3 per cent respectively.

25. In ICL, the significant correlation is identified in working capital turnover ratio with current ratio, current assets to total assets ratio and debtors turnover
ratio. The fixed assets turnover ratio is significantly correlated with debtors turnover ratio and total assets turnover ratio. The impact analysis reveals that the included financial ratios do not make any significant influence on return on sales and return on equity.

26. The significant relationship between the financial ratios in DCL is identified in current ratio with quick ratio, inventory turnover ratio, working capital turnover ratio, total assets turnover ratio and fixed assets turnover ratio. The fixed assets turnover ratio is significantly correlated with all included financial ratios except quick ratio and total assets turnover ratio. The significantly influencing financial ratios on return on sales are current ratio, current assets to total assets ratio, debtors turnover ratio and fixed assets turnover ratio while no financial ratios make a significant influence on the return on equity.

27. In TANCEM, the fixed assets turnover ratio is significantly correlated with quick ratio, current assets to total assets ratio, inventory turnover ratio, debtors turnover ratio and total assets turnover ratio whereas the working capital turnover ratio has a significant and negative correlation with the current ratio. The impact analysis shows that the included financial ratio does not make any significant influence on return on sales and return on equity of the company.

28. The utilisation index of current assets reveals that the average efficiency in utilisation of current assets is higher in ICL, CCCL and DCL since its average utilisation indexes are 1.10, 1.05 and 1.03 respectively. The utilisation of fixed assets by the companies is noticed to be high in the case of TANCEM, CCCL and DCL since the average utilisation index of fixed assets are higher than 1 in the above-said companies. Regarding the utilisation of current and fixed assets, the
five cement companies are efficient because the average utilisation indices are greater than 1.

29. Judging by the operating profit index, the DCL is highly efficient since its average operating profit index is higher than the index of any other cement company, followed by ICL in which the operating profit index is 1.00 which is lesser than the index of 1.18 in DCL. It is very weak in TANCEM in which the average operating profit index is only 0.22.

30. The average return on capital employed index indicates that the MCL, DCL and TANCEM are efficient since their indices are greater than 1 as 2.04, 1.20 and 1.78 respectively. In CCCL and ICL, the average return on capital employed indices are less than 1 as 0.46 and 0.70 respectively. By the return on assets, the MCL is highly efficient since its average return on assets index is as high as 2.00 followed by the DCL since its average return on assets index is 1.24. In ICL, the average index is 0.95 only.

31. The utilisation of current assets index makes a positive impact on the operating profitability index in all cement companies except in ICL. The utilisation indices of fixed assets make a negative impact on operating profitability index in DCL and TANCEM whereas in the remaining three companies, it makes a positive impact. But, the impact of utilisation of current and fixed assets on operating profitability index is not statistically significant. It reveals that the utilisation current and fixed assets do not make any significant impact on operating profitability index.

32. Judging by the short-term financial strength of the companies, the DCL and CCCL are in a better position since their average current ratios are 3.72
and 3.34 respectively whereas the average quick ratios are 2.65 and 1.49 respectively. Regarding the short-term financial strength, the TANCEM is weak since its mean current ratio and quick ratio are less than their respective standard ratios. Among the DCL and CCCL, the DCL is in a better position regarding the short-term financial strength because of its higher average in current and quick ratio and also lesser coefficient of variation compared to CCCL.

33. The long-term financial strength is measured by three important ratios namely debt-equity, fixed assets to net worth and fixed assets to total debt. By the debt-equity ratio, the DCL is in a better position since its average debt-equity ratio is only 0.84, followed by TANCEM and ICL since their average ratios are 1.37 and 1.80 respectively. The DCL shows the dominance of equity capital in its capital structure which indicates the long term financial strength of the company. The long-term financial strength is very weak in CCCL since its mean debt-equity ratio is 2.59 and is also subjected to the coefficient of variation of 46.08.

34. Regarding the relation between fixed assets and networth, the DCL is better since its mean of the above ratio is 0.91 which indicates greater margin of safety for long-term creditors. It is followed by TANCEM since its ratio is 1.48. A maximum of 3.92 is noticed in CCCL whereas the coefficient of variation is also maximum at 78.5. It shows that DCL is better in long-term financial strength based on the fixed assets to net worth ratio.

35. The cover of the outsiders claim by the fixed assets of the cement companies is better in MCL since its ratio is 1.45, followed by ICL which has the ratio of 1.27. In DCL, this ratio is only 1.11 which is lesser compared to those of
the other four cement companies. But the coefficient of variation in the ratio is noticed as less as 19.8 in the company. It indicates that even though DCL is poor in the cover of the outsiders claim by fixed assets, it maintains the ratio with lesser fluctuation. In total, the DCL is better in long-term financial strength than the other three companies.

36. The financial health of the cement companies is analysed with Altman’s Z score analysis. The financial health of TANCEM varies from ‘considered to be healthy’ to ‘too healthy’ since the Z scores vary from 1.86 in 1988-89 to 6.17 in 1997-98. The financial health of the TANCEM declined from 1998-99 onwards but it is considered to be healthy since Z scores in 1998-99 and 1999-00 are 2.48 and 2.88. The average Z score of the TANCEM during the period of study indicates that the company is too healthy in its financial aspects since the mean of Z score is 3.39.

37. The financial health of ICL is always in a safer position. The Z score indicates that the financial health of the unit varied from 1.90 in 1989-90 to 4.17 in 1994-95. The financial health of the companies during the period of study is considered either to be healthy or too healthy. The average Z score of the company during the period of the study is 2.72.

38. The Z score in CCCL is less than 1.86 as 0.52, 0.19, 1.60, 1.68, 1.38, 1.38 and 1.41 in 1988-89, 1989-90, 1990-91, 1996-97, 1997-98, 1998-99, and 1999-2000 respectively. In the above-said years, the financial health of the CCCL was in bankruptcy position whereas in 1993-94 and 1994-95, the financial health was too good since the Z scores are greater than 2.66. The average Z score in CCCL is 1.78 which indicates the weaker health of the unit.
39. In MCL, the Z score increases from 1.03 in 1988-89 to 2.66 in 1991-92 and then declines to 1.38 in 1999-2000. Only in 1991-92, the financial health of the company was too healthy whereas in the remaining years of the study period, the financial health might considered to be good or in bankruptcy situation. From 1995-96 onwards, the financial health of the MCL was declined since it’s Z score is declined from 2.40 in 1995-96 to 1.38 in 1999-2000.

40. In DCL, the Z score increased from 1.90 in 1988-89 to 2.74 in 1992-93 and then declined to 2.03 in 1999-2000. The sound financial health of the company is identified only in 1992-93 since its Z score is greater than 2.66. During the study period, except in 1992-93, the financial health of the company is considered to be healthy because the Z score varies from 1.90 to 2.60. The average Z score of the company during the study period is 2.30 which indicates that the unit is considered to be healthy.

41. By comparing the financial health of all the five cement companies, the TANCEM is better in its financial health followed by ICL since the mean of Z score of the above said companies are 3.39 and 2.72 respectively. The CCCL is suffering in its financial health since the mean of Z score is 1.77 which is less than 1.86. The DCL is considered to be healthy since its mean of Z score is 2.30. Even though the mean of Z score in MCL is greater than 1.86, from 1997-98, the company has been suffering from financial sickness.

Policy Inputs and Suggestion

The cement industry should increase its production so as to get economies of large scale production. It will assist in raising the rate of return on capital
employed. It is suggested that the cost of goods sold and operating expenses are controlled in order to increase the profitability of cement industry. The management of cement industries should try to adopt cost reduction techniques in their organisations to get over this critical position. Inventories of cement industry should be reduced to a minimum. Norms of inventory control both for consumption and stock should be laid down on a scientific basis and in no case should they be violated in practice. To reduce the overstock of finished goods efforts should be made to make their sales department more active, improve their demand estimation and carefully decide upon the range of manufacture.

The increase in contribution of debt capital on the assets of the company indicates more addition of debt capital to purchase more assets. The cement industry has to find out the ways and means to avoid the accumulation of debt capital which consumes most of cost of capital through interest and also restricts the increase in idle assets. With these restrictions, the industry can utilize its capital at the fullest level and be able to pay more dividends to their share holders. This will also increase the networth of the companies.

Since the cement industry is highly capital-intensive, the policy of purchase and utilisation of fixed assets should be carefully planned and reviewed so that the funds of cement industries may be properly used.

The cement companies under the study should try to watch the money invested in working capital with their sales trends of the organization. When there is a deficit of working capital, they should try to build an adequate amount of working capital at least cost. On the other hand if there is excessive working
capital, it should be used for repayment of loans and investment in short-term securities.

The declining debtors turnover ratio in cement companies indicates the increase in debt collection period. If this ratio is not properly managed, it will create the working capital crisis. The companies should properly implement the debt management practices in their companies in order to establish an effective working capital management.

The Cement Companies Mill Owners Association of India should co-ordinate and co-operate with existing machine manufacturers to develop special-purpose machines at a comparatively cheaper price with at least equivalent reliability of imported machines, if not higher.

In addition, the pricing and distribution policies prescribed by the Government should allow sufficient net operating profits and retained earnings, and adequate return on investment and equity.
Concluding Observations

The financial performance of the selected cement companies is identified as better with the Altman’s ‘Z’ score analysis. Out of the five cement companies, the TANCEM, ICL and MCL performed better by the ‘Z’ scores. The operational performance of the cement companies is identified as the best in 1997-98 out of the twelve years in the study. The profit performance in all cement companies is significantly changing during the period of the study. The DCL is better in liquidity management while the TANCEM is better in activity management. The better utilization of both current and fixed assets is noticed in all five cement companies. Regarding the short-term and long-term financial strengths the DCL is seen as better. The financial ratios do not significantly influence either the return on sales or the return on equity. Similarly the utilization index of current and fixed assets has no significant impact on the operating profit index. The identified weakness in the selected cement companies is the decrease in contribution of owners on company assets which is indicated by the higher increase in total liability than the increase in total assets. Thus the entire exercise raises certain basic issues, which in a way, reflect the present ill of the industry, namely increase in debt capital, efficiency in investment, ploughing back of profits and production. It urges the need for modernization to maximize the output. By that the sales can be achieved at maximum with minimum cost.

If the cement companies increase their equity base, production and sales, these can achieve a better financial performance than ever before.