

Financial Performance of Select Cement Industrial Units in Tamil Nadu

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Abstract

In this paper examine Financial Performance of Select Cement Industrial Units in Tamilnadu between 2000-01 and 2009-10. The five cement companies, four private owned and one Government owned are considered for the study. An attempt was also made to identify the factors influencing the long-term solvency and short-term solvency of the cement companies under study. It is found that the cement companies, which are highly efficient in turning accounts receivable and inventory into sales, are less likely to function with shareholder's fund but tend to possess high interest bearing debt in total investments. Further, the cement companies with high net working capital turnover are somewhat able to increase their reserve fund in capital and those with low accounts receivable turnover are less likely to add more reserve fund in capital.

Key Words: Long-term solvency, Short-term solvency, Gearing, Coefficient of Variation (CV), Compound Growth Rate (CAGR) and Linear Growth Rate (LGR).

Introduction

Analysis and interpretation of financial ratios pertaining to solvency, activity/efficiency and profitability is a fundamental concept in assessing a company's financial performance. Analysing and interpreting various financial ratios reveal the strength and weakness of the company. It helps the clients to decide in which company the risk is less or in which one they should invest so that maximum benefit can be earned. It is known that investing in any company involves a lot of risk. So before putting up money in any company one must have thorough knowledge about its past records and performances. The financial performance of the select cement industrial units in Tamil Nadu by means of long-term solvency, short-term solvency, assets utilization, activity/efficiency, profitability and financial healthiness is analyzed and the results of analysis are discussed in details. Many findings are emerged out from the inferences of the results which are summarized in this article. Further, conclusions and suggestions based on the findings are also provided here.

Objectives of the Study

This study is undertaken with the following objectives:

1. To study the origin and growth of Cement Industrial Units in India in general and Tamil Nadu in particular.
2. To analyze the Long-term and Short-term solvency status of select Cement Industrial Units.
3. To analyze the assets utilization and Activity/efficiency of select cement industrial units.
4. To evaluate the Financial performance (profitability and its determinants) and Financial healthiness (Altman Z Score model)
5. To find out the factors influenced short-term and long-term solvency status of select cement industrial units.
6. To summarize the findings, provide necessary suggestions and give conclusion.

Methodology

Sample

As on 31st March 2010, there are 14 cement industrial units and 4 grinding units registered in Tamilnadu of which one company belongs to the Public Sector(2 Industrial Units) and 16 are Private Sector Cement Industrial Units. The present study is restricted to 14 cement industrial units which constitute 5 leading cement companies in Tamilnadu Viz., Chettinad Cement Corporation Limited, Dalmia Cement (Bharat) Limited, India Cements Limited, Madras Cements Limited, and Tamilnadu Cements Corporation Limited. The sample of companies has been selected based on a convenient basis.

Period of the Study

The period of the study is 10 years from 2000-01 to 2009-10.

Data

The data for present study is Balance sheet and Profit & Loss accounts of the sample companies for the periods under study. The required data were gathered from various annual reports of the companies.

Statistical Tool

To analyse the collected data, various statistical techniques like descriptive, time series analysis and canonical correlation analysis are used. That is, as the data are of time series in nature, trend and growth both in compounded terms and linear terms are calculated in addition to general descriptive statistics like mean, standard deviation and coefficient of variation. The statistical significance of compound growth and linear trend is ascertained using student t-test. The statistical significance of the differences in solvency ratios, activity/efficiency ratios and profitability ratios between any two cement industrial units is tested with independent sample t-test. The factors determining the long-term solvency and short-term solvency are identified by canonical correlation analysis.

Findings

The findings of the study are given under seven heads, namely Long-term solvency Ratios, Short-term solvency Ratios , Assets Utilization Ratios, Activity/Efficiency Ratios, Profitability Ratios, Overall financial Healthiness and Factors influencing long-term and short-term solvency status.

Long-Term Solvency Ratios

1. It is found that the risk of long-term solvency in Chettinad Cement has been at tolerable level and the company has efficiently managed its interest bearing debt during the period under study thus safeguarding its long-term solvency status.
2. There was no long-term solvency risk in Dalmia cement though there was a substantial increase in long-term fund during the period.
3. There has been a substantial decline in using the debt fund in the business and long-term solvency was very high for India cements during the period under study.
4. From all three solvency ratios (LTDEQ, TDEQ and Gearing Ratio), which are not either low or high, it is understood that the long-term solvency position of Madras cements neither bad nor good during the period under study.
5. Because of negative equity capital, the ratio of long-term debt and total debt relative to equity was also negative in all the years except 2009-10. Though the

time trend in both LTDEQ and TDEQ was highly inconsistent, rate of change in both ratios was not at notable level during the period. The negative figures further showed that almost all portion of capital of TANCEM was financed via debt fund. Overall, it is found that TANCEM was in high risk of long-term solvency during the period under study.

6. The selected cement companies, on the whole, had reduced financing of their capital via debt fund by increasing the funds from their own sources. That is, the cement companies on the whole were under low risk of long-term solvency during the period under study.

Short-Term Solvency Ratios

7. The liquidity position of Chettinad cement in terms of current assets, quick assets and cash ratio had all experienced with a significant growth and trend during the period.

8. The short-term solvency position was at satisfactory level but not at excellent condition in the case of Chettinad, Dalmia and India cements. The availability of current assets and quick assets to fulfill the short-term obligations was satisfactory whereas the availability of absolute cash and cash equivalents like short-term marketable securities relative to current obligations was scarce in Madras cements, in turn revealing that short-term solvency position was not at satisfactory level.

9. There was a decline in current ratio and quick ratio along with unsatisfactory level of cash ratio in TANCEM. This indicated an unhealthiness of the company during the study period. In sum, it is found that liquidity status of TANCEM was poor and short-term solvency of the company was below the satisfactory level during the period under study.

10. Available resources to pay off the debt due in next 12 months was significantly higher in India cements followed by Dalmia cement compared to that of Madras cements and TANCEM and almost similar to that of Chettinad cement.

11. It is found the cash and cash equivalents available to satisfy the short-term liabilities was much less than the required level for the select cement companies, and in India cements it was notably less than that of its peers.

Assets Utilization Ratios

12. It is found that the Chettinad cement company used its assets efficiently in generating sales and there was a significant growth in such efficiency (CAGR = 9.92, $p < 0.01$ for total assets turnover ratio) during the period under study.

13. Dalmia cement was inefficient in utilization of assets in generating sales (CAGR = -3.98, $p < 0.01$ for TATO) during the period under study.

14. The utilization of assets in generating sales was efficient in India Cements (CAGR = 12.68, $p < 0.01$ for TATO) during the period under study.

15. It is found that utilization of assets by Madras Cement company for generating sales was not efficient (CAGR = 3.14, $p < 0.10$ – marginally significant and LGR is insignificant for TATO) during the period.

16. It is identified that the TANCEM managed well its assets though it was less efficient in managing its liquid assets in generating sales during the period under study.

Activity/ Efficiency Ratios

17. During the period of study, the growth and trend in NWC turnover ratio of Chettinad cement was negative but not at mentionable level. It is found that Chettinad cement converted its available short-term resources into sales and back to cash after investing in inventories 4.16 times in a year on the average.

18. On the average the time duration between pumping the short-term resources into inventory, inventory into sales and sales into cash was 2.46 for DALMIA cement during the period.

19. The NWC ratio of 2 times and above in the last three years along with significant growth and trend revealed that India cements, though could use its short term resources only once in a year for generating sales and convert the sales into cash initially, finally succeeded in improving its efficiency of managing the net current assets.

20. Madras cements was very quick in converting its sales into cash using its net current assets 5.05 times in a year on the average, in turn revealing that Madras cements was very efficient in using its net working capital for generating sales.

21. On the average, NWC turnover ratio was 3.07 times and exhibited a positive growth at compound rate of 11.36 per annum. Also a significant and positive trend at slope coefficient of (linear rate) 0.39 times on an average every year for TANCEM was found. This indicated that TANCEM somewhat efficient in using its net working capital fund for generating sales during the period under study.

22. The number of days and the invested cash tied up in the business was significantly less for Madras cements (Mean CCC = 95 days) followed by India cements (Mean CCC = 99 days) and Chettinad cement (Mean CCC = 108 days) whereas it was significantly higher for Dalmia cement (Mean CCC = 154 days) and TANCEM (Mean CCC = 169 days). The shorter CCC might also be attributed to the fact that the companies were likely to have delayed the payment to the creditors at the same time shortening the times taken for converting the credit sales into cash.

Profitability Ratios

23. The net profitability of Chettinad cement was at 5.42 per cent on the average and not impressive because there was no notable improvement in the net profitability during the period under study.

24. There was a fluctuating trend in OPM, OPM and NPM of Dalmia cement and did not exhibit remarkable growth (CAGR and LGR were insignificant) during the period under study.

25. The OPM of India cements, 22.90 per cent on the average, had neither decayed nor grown significantly (CAGR and LGR values were insignificant). The GPM and NPM, 10.88 per cent and 3.87 per cent on the average, exhibited a significant increase at 0.04 times and 0.028 times on an average every year when measured linearly. This had led to the conclusion that India cements, though was struggling initially to make profit, recovered soon from such disastrous condition and positioned itself in highly profitable status finally.

26. The NPM for Madras cements was highly inconsistent than GPM and OPM as CV of 64.46 for NPM was much higher than that of GPM and OPM. However, it is found that the profitability of Madras cements was better as there was a significant growth in OPM (LGR = 0.01, $p < 0.10$), GPM (CAGR = 9.49, $p < 0.01$) and NPM (CAGR = 20.37, $p < 0.01$) during the period of study.

27. Though there was a significant increase in OPM, GPM and NPM on an average of one per cent, 2.1 per cent and 2.2 per cent every year in absolute term, all these profitable margins were not impressive over the time in the case of TANCEM. From the above, it is found that TANCEM tried to improve its efficiency for increasing their profitability but not to the extent of its peers.

28. It is found that there were no remarkable difference in operating profit margins of Chettinad, Dalmia, India and Madras cements, but operating profit margins of these companies was significantly higher than that of TANCEM.

Overall Financial Healthiness

29. The Madras cements was found to be financially healthy (Mean Z-score = 3.95) whereas Chettinad (Mean Z score = 1.50) and Dalmia (Mean Z score = 1.76) cements neither in distress nor healthy while India cements (Mean Z score = 0.76) was financially in distress during the overall period. Due to the presence of TANCEM, the financial healthiness of pooled companies was found to be financially in distress in most of the years but was unpredictable during the overall period. In sum, it is found that financial healthiness of Madras cements was better whereas that of India cements was in distress while it was unpredictable (neither distress nor healthy) for Chettinad and Dalmia cements. The TANCEM was financially in miserable situation throughout the period under study.

Factors Influencing Long-Term and Short-Term Solvency Status

30. It is found that the select cement industrial units with low fixed asset turnover and low current asset turnover are likely to be positioned itself in high risk of long-term solvency but highly relied on fund with low interest bearing debt and shareholders' fund. It is further found that the cement companies with low asset turnover are likely to be burdened with debt expense leading to possibility of solvency risk to moderate extent.

31. The cement companies, which were highly efficient in turning accounts receivable and inventory into sales, were less likely to function with shareholder's fund but tend to possess high interest bearing debt in total investments.

32. The cement companies with high net working capital turnover were somewhat able to increase their reserve fund in capital. Further, the cement companies with low accounts receivable turnover were less likely to add more reserve fund in capital. Besides, the cement companies with low net working capital turnover, inventory turnover and accounts receivable turnover were unable to generate sufficient revenues to satisfy interest expenses and it was likely to become insolvent in the near future.

33. It is found that the cement companies with low operating profit margin in turn with low gross profit and net profit margin tend to use more debt fund and less owners' fund in the investments but proportion of debt fund relative to shareholders' equity is less

34. The cement companies with more return on assets are very much capable of covering the interest on borrowings. Further, the cement companies with substantial increase in net profit margin tend to increase reserves funds in capital and those with high total asset turnover were less likely to possess liquid assets

35. The cement companies with less current asset turnover tend to have less cash and vice versa. Also, the cement companies with low net working capital turnover as well as with low inventory turnover tend to be with good short-term solvency position. Further the cement companies with high accounts payable turnover tend

to have more cash and they have not relied heavily on external financing for operating their business.

Suggestions

1. The cement companies have to reduce their short-term debt by improving the cash flows. This is because a firm with high reliance on short-term debt suffer a decline in net worth because their present values of their debt liabilities unchanged while the present value of growth opportunities has declined. Moreover, any firm with long-term debt continues to pay the interest at the old rate, but the same is not true in the case of short-term debt.
2. The cement companies were found to be keen in collecting the cash from their debtors but did not pay their creditors in time. This would lead to loss of faith among the suppliers. So, the select cement companies, on the whole, have to take necessary steps to improve their efficiency in managing the working capital by maintaining a balance between accounts payable and accounts receivable.
3. Most of the cement companies were found to have reduced their cash conversion cycle. This is not quite good because reduction in cash conversion cycle might be due to delay in making payment to the creditors at the same time shortening the time taken for collecting the cash from debtors. So, reduction in cash conversion cycle should be more reasonable.
4. The cement companies should increase their cash in hand, cash at bank and marketable securities by curtailing their cash expenditure in order to meet their short-term obligations in time.
5. There was no significant improvement in the overall inventory management of cement companies under study. Therefore overall inventory management is required to be progressed by way of proper application of inventory control system in the case of all select cement companies.
6. The cement companies should regularly make use of ratio analysis and every cement companies should make regular comparison of various ratios with industry average in order to avoid undesirable financial performance.
7. The cement companies should implement reasonable credit policy to avoid spending major portion of their profit in payment of fixed charges. Further they should curtail their overheads to increase net profitability because there was a vast difference between operating profit margin and net profit margin at present.
8. Though the cement companies are profit seeking one as the cement industry that is demand oriented industry, most of them are financially unhealthy. So, periodical review of profitability, liquidity and solvency position are crucial elements to be monitored carefully to improve overall performance. Further, these companies need to improve their overall efficiency in utilizing fixed assets at optimum level to generate sales

Conclusion

Based on the data available, the trend of the company can be predicted in near future. In this direction, the present research work mainly focussed on financial performance of cement companies in Tamil Nadu. A special focus is given on long-term solvency and short-term solvency condition of these companies. From the inferences of the results, it is identified that all private cement companies (the companies other than TANCEM) are with low risk of long-term solvency. But the same is not true in respect of short-term solvency of the cement companies. This is

because; availability of absolute cash and cash equivalents relative to current obligation was scarce.

As far as the utilization of assets in generation of sales is concerned, Chettinad cement, India cements and TANCEM were efficient. The efficient utilization of assets was also found when all cement companies were pooled together. Regarding efficient management of working capital in the business, the Madras cements, Chettinad cement and TANCEM were found to have efficiently managed working capital during the period. But when all companies were pooled together, working management efficiency was found to be at moderate level. Most of the private cement companies under study were found to be efficient in inventory turnover and managing the accounts receivable but they were less efficient in making payment to the creditor in time. Overall, the select cement industrial units together were found to have kept their inventory management and accounts payable management at constant level but exhibited a significant improvement in managing their debtors. There was a significant reduction in cash conversion cycle for majority of the cement companies under study. This might be attributed to the fact that the companies were likely to have delayed the payment to the creditors at the same time shortening the times taken for converting the credit sales into cash.

With regard to profitability, all select cement companies except TANCEM managed to experience profit in their business but they failed to significantly improve their profitability over time. From the analysis of overall financial healthiness of the select cement companies using Altman Z-Score model for unlisted firms, it was found that only Madras cement was financially healthy while India cements and TANCEM were financially in distress. The other two cement companies, viz., Chettinad cement and Dalmia cement were found to be in grey zone (neither distress nor healthy).

An attempt was also made to identify the factors influencing the long-term solvency and short-term solvency of the cement companies under study. It is found that the cement companies, which are highly efficient in turning accounts receivable and inventory into sales, are less likely to function with shareholder's fund but tend to possess high interest bearing debt in total investments. Further, the cement companies with high net working capital turnover are somewhat able to increase their reserve fund in capital and those with low accounts receivable turnover are less likely to add more reserve fund in capital.

Moreover, the cement companies with low net working capital turnover, inventory turnover and accounts receivable turnover are unable to generate sufficient revenues to satisfy interest expenses and it is likely to become insolvent in the near future. It is also emanated from the inferences that the cement companies with low operating profit margin in turn with low gross profit and net profit margin tend to use more debt fund and less owners' fund in the investments but proportion of debt fund relative to shareholders' equity is less. It was also understood that the cement companies with more return on assets are very much capable of covering the interest on borrowings. As far as the factors associated with short-term solvency was concerned, it is concluded that the cement companies with low net working capital turnover as well as with low inventory turnover tend to be with good short-term solvency position.

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