A STUDY ON FINANCIAL PERFORMANCE OF CEMENT INDUSTRIES IN TAMILNADU WITH REFERENCE TO SELECT CEMENT COMPANIES

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Abstract—In India, the cement industry is the second most consumed material on the planet. The cement companies have seen a net profit growth rate of 85 per cent. With this huge success, the cement industry in India has contributed almost 8 per cent to India’s economic development. Nowadays, the cement industry is growing fast and to know, how the financial performance of the cement industries playing a vital role in India. For this, to analyse the production and sales, to measure the short term and the long term financial feasibility, to identify the factors that influences the profitability status of the selected cement companies in Tamil Nadu. (Abstract).

I. INTRODUCTION

The Indian cement industry has evolved significantly in the last two decades, going through all the phases of typical cyclical growth process. With sound economic growth and infrastructure development, the demand for cement is on an upward trend, further addition to capacity is coming up to cater to the increasing demand for cements. India, being the second largest cement producer in the world after China with a total capacity of 151.2 Million Tonnes (MT), has got huge Cement Company. With the government of India giving boost to various infrastructure projects, housing facilities and road networks, the cement industry in India is currently growing at an enviable pace.

Cement is a global commodity, manufactured at thousands of local plants. The cement industry in India is dominated by around 20 companies, which account for almost 70 per cent of the total cement production in India. Because of its weight, cement supply via land transportation is expensive, and generally limited to an area within 300 km of any one plant site. The industry is consolidating globally, but large, international firms account for only 30 per cent of the worldwide market. China is the fastest growing market today. Because it is both global and local, the cement industry faces a unique set of issues, which attract attention from communities near the plant, at a national and an international level.

Objectives

- To analyse the production and sales trend of select cement companies in Tamil Nadu.
- To measure, the short term financial feasibility of the sample companies.
- To evaluate, the long term financial feasibility of the sample companies.
- To identify the factors that influences the profitability status of the selected cement companies.

The term ‘financial performance analysis also known as analysis and interpretation of financial statements’, refers to the process of determining financial strength and weaknesses of the firm by establishing strategic relationship between the items of the balance sheet, profit and loss account and other operative data. “Financial performance analysis is a process of evaluating the relationship between component parts of a financial statement to obtain a better understanding of a firm’s position and performance. The purpose of financial analysis is to diagnose the information contained in financial statements so as to judge the profitability and financial soundness of the firm. Just like a doctor examines his patient by recording his body temperature, blood pressure etc. Before making this conclusion, regarding the illness and before giving his treatment.

A financial analyst analyses the financial statements with various tools of analysis before commenting upon the financial health or weaknesses of an enterprise. The analysis and interpretation of financial statements is essential to bring out the mystery behind the figures in financial statements. Financial statements analysis is an attempt to determine the significance and meaning of the financial statement data so that forecast may be made of the future earnings, ability to pay interest and debt maturities (both current and long term) and profitability of a sound divided policy.

Financial performance refers to the act of performing financial activity. In broader sense, financial performance refers to the degree to which financial objectives being or has been accomplished. It is the process of measuring the results of a firm's policies and operations in monetary terms. It is used
to measure firm's overall financial health over a given period of time and can also be used to compare similar firms across the same industry or to compare industries or sectors in aggregation. In short, the firm itself as well as various interested groups such as managers, shareholders, creditors, tax authorities, and others.

Ratio analysis is a technique of analysis and interpretation of financial statement. It is the process of establishing and interpreting various ratios for helping in making certain decisions. It is the only means of better understanding of financial strengths and weakness of a firm. There are various ratios which can be calculated from the information given in the financial statements, but in the study we select the appropriate data and calculate only a few appropriate ratios. The important ratios taken are liquidity ratio, long term solvency activity and profitability ratios.

Operational Definitions
The most cost commonly ratios used in the financial field include:

- **Current Ratio**: The current ratio is a liquidity ratio which estimates the ability of a company to pay back short-term obligations. This ratio is also known as cash asset ratio, cash ratio, and liquidity ratio. A higher current ratio indicates the higher capability of a company to pay back its debts. The formula used for computing current ratio is: current Assets / current liabilities.

- **Quick Ratio**: The quick ratio, also referred as the “acid test ratio” or the “quick assets ratio”, this ratio is a gauge of the short term liquidity of a firm. The quick ratio is helpful in measuring a company’s short term debts with its most liquid assets.

- **Inventory Turnover Ratio**: The number of times you turn inventory over into sales during the year or how many days it takes to sell inventory. This is a good indication of production and purchasing efficiency. A high ratio indicates inventory is selling quickly and that little unused inventory is being stored (or could also mean inventory shortage). If the ratio is low, it suggests overstocking, obsolete inventory or selling issues.

- **Debtor ratio**: The debtors days ratio measures how quickly cash is being collected from debtors. The longer it takes for a company to collect, the greater the number of days debtors. Debtor days can also be referred to as debtors’ collection period.

- **Debt-to-equity ratio**: The debt-to-equity ratio, is a quantification of a firm’s financial leverage estimated by dividing the total liabilities by stockholders’ equity. This ratio indicates the proportion of equity and debt used by the company to finance its assets.

- **Interest Coverage ratio**: Measures your ability to meet interest payment obligations with business income. Ratios close to 1 indicates company having difficulty generating enough cash flow to pay interest on its debt. Ideally, a ratio should be over 1.5.

- **Return on Assets ratio**: Measures your ability to turn assets into profit. This is a very useful measure of comparison within an industry. A low ratio compared to industry may mean that your competitors have found a way to operate more efficiently. After tax interest expense can be added back to numerator since ROA measures profitability on all assets whether or not they are financed by equity or debt.

II. REVIEW OF LITERATURE

A review of past studies and theory relating to the problem of research helps not only definition of concepts, problem focus, objectives and hypotheses, but also the choice of tools of analysis with attention to their assumption and limitation. The several past studies related to cement industry and methods of evaluating its performance and some of the reviews are…

Jayant Sathaye (2005)\(^1\) the study revealed that, the Indian cement industry has grown rapidly over the past few decades and there have been significant investments in new cement kilns and associated production equipment. This has led to a situation where India’s cement industry in made up of both some of the world’s most energy-inefficient plants as well as some of the world’s best practice facilities. The challenge for the Indian cement industry is to modernize or phase out the older, inefficient plants while acquiring the best possible cement production technology as production inevitably expands in the coming decades.

Alovsat Muslumov (2005)\(^2\) concluded that the privatization was associated with a declining value added and shareholders’ profitability in Turkish cement industry. A decline in the value added and shareholders’ profitability were mainly caused by the decrease in return on assets. The decline in the return on asset was traced to declining asset productivity. These results are not consistent with previous cross-sectional privatization studies and a number of country studies.

References
2. Alovsat Muslumov (2005), The financial and operating performance of privatized companies in the Turkish cement industry, METU Studies in Development, 32 (June), 2005, 59-1012.
Limitations

- This study is based on the secondary data from published reports and in journals articles for the cement industry during 2004-05 to 2013-14.

- The secondary data such as problems of aggregation, missing data and differences in the same data collected from different sources are met with. Care was taken to minimize the errors arising from those problems.

- The period of study marks a period of adjustments by the industry to the new business environment. How far the industry has succeed in achieving growth and sustaining it, is studied with the secondary data it has to be recognized in generalizing the findings.

- There are also limitations of the tools of analysis used the choice of trend equations and methods of estimation and figures stated.

- These limitations are minimized and explicitly stated wherever need attention.

III. PROFILE OF THE SELECT COMPANIES

Cement is an essential component of infrastructure development and most important input of construction industry, particularly in the government’s infrastructure and housing programs, which are necessary for the country’s socio-economic growth and development.

- ACC Limited

ACC (ACC Limited) is India's foremost manufacturer of cement and concrete. ACC's operations are spread throughout the country with 17 modern cement factories, more than 40 Ready mix concrete plants, 21 sales offices, and several zonal offices. ACC has a unique track record of innovative research, product development and specialized consultancy services.

- Ultratech Cement Limited

UltraTech Cement was established in 1987 and emerges as a prominent player of cement industry. Over the years company has achieve incredible success and today it is counted among the top 10 cement manufacturing companies of India. UltraTech Cement was incorporated in 2000 as Larsen & Toubro. Later it was demerged and acquired by Grasim and was renamed as Ultra Tech Cement in 2004. Today Ultratech cement a part of Aditya Birla Group, is the country’s largest exporter of cement clinker. UltraTech Cement Limited has an annual capacity of 52 million tonnes.

- The India Cements Limited

The India Cements Limited began its humble moorings in the form of a cement factory at Talaiyuthu, an almost unmapped tiny hamlet in Tirunelveli district, Tamil Nadu. As one of the oldest Indian corporate, established in 1946, the company set up its first plant in 1949 at Sankarnagar (Talaiyuthu). Indian Cement is a leading cement manufacturing company of India and capture huge market share of cement industry. Over the years India Cements has become the largest cement manufacture of South India and almost acquire 30% of cement market.

- The Ramco Cements Limited

The Ramco Cements Limited is one of the best performing, highly efficient producers of Fibre Cement Sheets in India and is the Market leader. Ramco's first asbestos cement sheet plant was set up at Arakkonam (Tamil Nadu) in 1967 and since then the production technology has been updated continuously. The second sheet plant was commissioned at Karur (Tamil Nadu) in 1974 followed by one more sheet plant at Maksi (Madiya Pradesh) in 1987. This was the first plant in India to introduce pipes of 5 M length and diameters of above 600 mm.

- Chettinad Cement Corporation Limited

Chettinad Cement established in 1962 with a wet process cement plant at Puliyur near Karur, Chettinad cement has been expanding and making itself versatile in the field of cement products. Chettinad Cement has established its position in the southern market by innovatively aligning its products and services to the needs of cement users. For over four decades, the Chettinad cement companies have built a reputation for serving the construction industry with high-performance products that encourage creativity and ensure longevity.

Results and Discussions

India has huge potential in infrastructure and construction and the cement sector in India is set to receive a major boost. The overall study also provides the regional analysis of cement consumption, production, capacity utilization, and installed capacity in the country. On analyzing the regional trend of cement consumption, we observed that the southern region is creating maximum demand, which is expected to increase more in future. India's cement production has increased at a Compound Annual Growth Rate (CAGR) of 9.7 per cent to reach 272 Million Tonnes (MT) during 2006-13. Presently, India is the second largest producer of cement in the world with a current capacity of around 370 MT which is expected to grow to 550 MT by 2020.
IV. ANALYSIS AND INTERPRETATION

The cement industry in India is globally competitive as the industry continues to witness positive trends such as cost control, continuous technology upgradation and increased construction activities. The results and discussions of this objective is present with the support of multiple regression test.

Production Trend

The cement production has remained subdued during financial year 2014 growing by a modest 3.70 per cent during April-December 2013 primarily due to weak demand from end-user industries. The cement production of selected cement companies functioning in Tamil Nadu for a period of 10 years from 2004-05 to 2013-14 is depicted in figure 1.

ANNUAL PRODUCTION OF CEMENT

**Fig.1.**

![Annual Production of Cement Chart](chart1)

This chart indicates the annual cement production of select cement companies during the study period from 2004-05 to 2013-14.

ACC Cement

From the above data analysis it has been observed that, at the beginning of the financial year 2004-05 the total cement production of ACC limited registered at Rs.2430 crores and its cement production had massively increased to Rs.6456 crores by the end of the financial year 2013-14. The total cement production of ACC limited had the growth rate of 11.46 per cent during the study period from 2004-05 to 2013-14.

Ultra Tech Cement

The above table infers that, the total cement production of Ultra Tech cements was Rs.2956 crores at the beginning of the financial year 2004-05 and it had gradually increased to Rs.19765 crores by the end of the financial year 2013-14. The total cement production of Ultra Tech limited had registered growth rate of 66.19 percent between the study period from 2004-05 to 2013-14.

India Cement

From the above data analysis it has been found that, at the beginning of the financial year 2004-05 the total cement production of India limited was Rs.688 crores and its had increased to Rs.2579 crores at the end of the financial year 2013-14. The total cement production of India limited had registered growth rate of 15.81 per cent during the study period from 2004-05 to 2013-14.

Ramco Cement

It has been clearly observed that, the total cement production of Ramco cements was Rs.463 crores at the beginning of the financial year 2004-05 and it had gradually increased to Rs.2368 crores by the end of the financial year 2013-14. The total cement production of Ramco limited had the growth rate of 19.88 per cent during the study period from 2004-05 to 2013-14.

Chettinad Cement

From the empirical data analysis it has been identified that the total cement production of Chettinad cements was Rs.230 crores at the beginning of the financial year 2004-05 and it inclined to Rs.1787 crores at the end of the financial year 2013-14. The total cement production of Chettinad limited had the growth rate of 25.58 per cent during the study period from 2004-05 to 2013-14.

Sales Trend

The cement sales in India have been expanding on the back of increasing infrastructure activities and demand from the housing sector. The housing segment accounts for a major portion of the total domestic demand for cement in India. In the 12th Five Year Plan government of India, there is a strong focus on infrastructure development and it plans to increase investment in infrastructure. The cement sales of selected cement companies functioning in Tamil Nadu for a period of 10 years during study period is shown in figure 2.

ANNUAL SALES OF CEMENT

**Fig.2.**

![Annual Sales of Cement Chart](chart2)

This chart indicates the annual cement sales of select cement companies during the study period from 2004-05 to 2013-14.
ACC Cement
From the above data analysis it has been observed that, at the beginning of the financial year 2004-05 the total cement sales of ACC limited was Rs.3887 crores and its cement sales had massively increased to Rs.11169 crores by the end of the financial year 2013-14. The total cement production of ACC limited had the growth rate of 13.92 per cent during the study period from 2004-05 to 2013-14.

Ultra Tech Cement
The above table infers that, the total cement sales of Ultra Tech cements was Rs.2607 crores at the beginning of the financial year 2004-05 and it had tremendously increased to Rs.20078 crores at the end of the financial year 2013-14. The total cement sales of Ultra Tech limited was growth rate of 27.63 per cent during the study period from 2004-05 to 2013-14.

India Cement
From the above data analysis it has been found that, at the beginning of the financial year 2004-05 the total cement sales of India limited was Rs.1017 crores and it had increased to Rs.4597 crores at the end of the financial year 2013-14. The total cement sales of India limited had the growth rate of 18.67 per cent during the study period from 2004-05 to 2013-14.

Ramco Cement
It has been clearly observed that, the total cement sales of Ramco cements was Rs.739 crores at the beginning of the financial year 2004-05 and it had gradually increased to Rs.3684 crores at the end of the financial year 2013-14. The total cement sales of Ramco limited was the growth rate of 18.74 per cent during the study period from 2004-05 to 2013-14.

Chettinad Cement
From the empirical data analysis it has been identified that the total cement sales of Chettinad cements was Rs.325 crores at the financial year 2004-05 and it had increased to Rs.2451 crores by the end of the financial year 2013-14. The total cement sales of Chettinad limited had the growth rate of 25.18 per cent during the study period of 2004-05 to 2013-14.

Short-Term Financial Feasibility of the Select Cement Companies
Liquidity management is a concept that is gaining serious attention all over the world because of the current financial turmoil and the state of the world economy. It is the ability of a company to meet the short term obligations, to measure the ratios like current ratio, liquidity ratio, etc., of the select cement companies. Hence, it is of utmost important to keep a constant eye on liquidity position of the company as without it the company cannot survive.

Long-Term Financial Feasibility of the Select Cement Companies
Long term Solvency means the ability of the enterprise to meet its long term obligation, to evaluate the ratios like inventory ratio, debtors ratio, long term debt-equity ratio, fixed asset ratio, etc., of the select cement companies. Long term lenders are basically interested in two things: payment of interest periodically and repayment of principal amount at the end of the loan period. Financial solvency ratios are used to judge the long term financial soundness of any business.

Profitability position of the Select Cement Companies
The most important financial objective of any business is to earn profit. So, the managers lay more emphasis towards profit. The higher the profit, the more efficient is the business considered. The profitability ratios are calculated to measure the overall efficiency of the business. The net profit of select cement companies in Tamil Nadu for a period of 10 years during study period is shown in figure.3.

NET PROFIT RATIO OF THE SELECT CEMENT COMPANIES

![Fig.3. Net Profit Ratio of Select Cement Companies](chart.jpg)

This chart indicates the Net Profit Ratio of select cement companies during the study period from 2004-05 to 2013-14.

ACC Cement
From the above data analysis it has been observed that, at the beginning of the financial year 2004-05 the net profit ratio of ACC limited was 0.09 and 0.09 by the end of the financial year 2013-14. The net profit ratio of ACC limited had the compound value of 56 per cent during the study period from 2004-05 to 2013-14.

Ultra Tech Cement
The above table infers that, the net profit ratio of Ultra Tech cements was 0.01 at the financial year 2004-05 and it had 0.11 by the end of the financial year 2013-14. The net profit ratio of Ultra Tech limited had the compound value of 41.67 per cent during the study period from 2004-05 to 2013-14.
India Cement

From the above data analysis it has been found that, at the beginning of the financial year 2004-05 the net profit ratio of India limited was -.01 and 0.04 by the end of the financial year 2013-14. The net profit ratio of India limited had the compound value of 183.33 per cent during the study period from 2004-05 to 2013-14.

Ramco Cement

It has been clearly observed that, the net profit ratio of Ramco cements was 0.08 at the financial year 2004-05 and it had gradually increased to 0.03 by the end of the financial year 2013-14. The net profit ratio of Ramco limited was 41.67 per cent during the study period from 2004-05 to 2013-14.

Chettinad Cement

From the empirical data analysis it has been identified that the net profit ratio of Chettinad cements was 0.04 at the financial year 2004-05 and it had 0.06 by the end of the financial year 2013-14. The net profit ratio of Chettinad limited was 55.56 per cent during the study period from 2004-05 to 2013-14.

FINDINGS

- The highest total cement production of Ultra Tech cements was Rs.2956 crores in the year 2004-05 and it had tremendous increased to Rs.19765 crores by the end of the financial year 2013-14 and the lowest cement production of Chettinad cements was Rs.230 crores at the financial year 2004-05 and it had inclined to Rs.1787 crores by the end of the financial year 2013-14.
- The highest total cement sales of Ultra Tech cements was 2607 crores at the financial year 2004-05 and tremendously increased to 20078 crores by the end of the financial year 2013-14 whereas the least total cement sales of Chettinad cements was 325 crores at the financial year 2004-05 and gradually increased to 2451 crores by the end of the financial year 2013-14.
- The net profit percentage of compound value of Ultra Tech and Ramco limited was least as compared to ACC Limited and Chettinad limited whereas India limited was highest of select cement companies.
- Multiple Regression Analysis indicated out of nine variables tested only one variable (Fixed assets ratio) was found to be statistically significant. Hence it has been concluded that there exists no association between return of total assets and the financial ratios of select cement companies.
- Multiple Regression Analysis indicated out of nine variables tested only one variable (Interest Coverage ratio) was found to be statistically significant. Hence it has been concluded that there exists no association between return of total assets and the financial ratios of select cement companies.

SUGGESTIONS

- The profitability can be increased by controlling cost or increasing sales.
- The management is able to pinpoint weak spots and take corrective measures to improve more.

CONCLUSIONS

The efficiency of a firm depends upon the working operations of the concern. Profit earning is considered essential for survival of the business. Both long term and short term solvency ratios prove the solvency position and efficiency of the select companies. The financial positions of the selected cement companies are satisfactory.

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