CHAPTER I

INTRODUCTION AND DESIGN OF THE STUDY
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INTRODUCTION

The prosperity of a country, the Gross Domestic Product (GDP), the standard of living and the per capita income of the people depend on the performance of economy to a larger extent. The major portion of any country’s Gross Domestic Product is contributed by its corporate sector. India is a country of above 1000 million people with 3.28 square million kilometers of land which is endowed with enormous amount of natural resources. The success of India depends on the exploitation of all these resources for its development. Corporate sectors provide the medium through which these resources could be very effectively exploited. The success of the country and its economy to a larger extent depend on the performance of its corporation. Endowing the resources to the able performers, India could prosper well. So it is imperative the performance of the corporate sector, and to help them to find out the right areas to invest.

The Indian cement industry plays a key role in the national economy generating substantial revenue for the state and the central government through excise and sales taxes. Cement is an article of basic importance in all developmental activities. As one of the major industries, cement industry contributes substantially to India’s industrial and economic development ingredient. It is therefore ranked rightly as a basic industry.

The Indian cement industry accounts for approximately 1.3 percent of GDP and employs over 0.15 million people. India is the second largest cement producer in the world after China with a total capacity of 151.2 million tonnes. The cement industry in India is currently growing at an enviable pace. More growth in the Indian cement industry is expected in the coming years. It is also predicted that the cement production in India would rise to 236.16 million tonnes in the financial year 2011. It is also expected to rise to 262.61 million tonnes in the financial year 2012.

The performance of a company can be analyzed in many ways. It can be judged in respect to market place, technology adoption, competitiveness, environmental protection and strategic positioning. The performances of a company in the above areas would be naturally reflected in the financial statement of the respective company. Financial
statements are the summary of various financial activities which provide information in a convenient form. By analyzing these financial statements and evaluating the relationship between the various components, a firm’s financial position and performance could be easily interpreted. Financial performance is the operating efficiency of a company in terms of the financial parameter. The financial efficiency of a corporation, turnover ability, coverage ability, profitability, leverages, cost of capital and operating cycle.

STATEMENT OF THE PROBLEM

India’s manufacturing sector accounted for only about 10 percent of its GDP in the early 1950’s, but currently it accounts for about 19 percent. This sector had been highly protected from both internal and external competitions over a long period of time and the same continued until 1990 in which the country was embarrassed by the new economic policy. And, from 1991 the manufacturing sector in the country has been undergoing a wave of liberalization. The main objective of the liberalization is to reduce the external and internal barriers to entry. Such a reduction, it was argued would enhance the competitiveness of the sector and thereby makes it more efficient. Since 1992-93, the manufacturing sector has grown at the rate of 5 to 6.9 percent per annum. Against this background, it is very important to analyses the performance of manufacturing sector.

In terms of distribution of industries in manufacturing sector, the cement industry is one of the most significant industries. It is the third highest contributor in terms of excise duty over Rs. 4000 crores in a year. Sales taxes yield around Rs. 3500 crores to state governments. Royalties, Octroi and other Cesses add another Rs.1800 crores. The industry employs a work force of over 2 lakhs persons and supports a turnover compliment of 12 lakhs people engaged indirectly. The cement industry has been selected for the research due to several important reasons. Cement is a basic core product, essential for building our nation and its growth is intrinsically linked with the overall growth of the infrastructure sector. The lack of adequate roads, port, power, and other infrastructure could prove to be a big hindrance to the rapid growth of the country.

The profitability of the business depends on the cost incurred for the production of goods. If the cost increases, the profit of the business is reduced and ultimately the business may go to the liquidation stage. Moreover, the future development programme of the company
can be designed according to the expenses and investment level. Future budget planning is based on the cost aspect of the companies. Therefore, the analysis of the cost structure of the selected cement companies in India gets importance in the present day context.

The efficiency of the business is measured by the amount of profit generated during the particular financial year. The profit of a business may be measured by studying the profitability of investment in it. Hence, an attempt has been made to study the profitability of selected cement companies in India. Corporate liability is a vital factor in business. If sufficient liability is not maintained, the enterprise is technically involved and at least faces the financial embarrassment of renegotiating its obligations to creditors. The present study also aims to analyze the liquidity position of the selected cement companies.

In the company form of organization the real owners are the equity shareholders. They invest their money in equity shares of a company with the primary motive of achieving good capital appreciation for regular and stable return (i.e., dividend). The investor’s objectives are purely based on the profitability and financial performance of the company. So, investors, before taking their investment decisions, consider several factors which influence the corporate performance. For measuring the corporate financial performance, accounting profitability measures and shareholders’ value-based measures are to be considered. Accounting profitability measures include Return on Investment (ROI), Return on Equity (ROE), Earning Per Share (EPS), Return on Capital Employed (ROCE) and Dividend Per Share (DPS) and Shareholders value-based measures include Economic Value Added (EVA) and Market Value Added (MVA). Hence an attempt has been made to study the value creation of selected cement companies in India to its shareholders.

Taking this as the focal point the present research has been undertaken and entitled as “An Evaluation of Financial Performance of Select Large-Scale Cement Companies in India”.

The following questions are raised for the analysis.

1. Whether the sample companies have enough liquidity and solvency?
2. Whether the sample companies are profitable?
3. Whether the sample companies maximize their shareholders value?

OBJECTIVES OF THE STUDY
The following are the main objectives of the study:

1. To analyze the cost structure of the select cement companies in India.
2. To study the profitability position and determinants of the profitability of the select cement companies in India.
3. To measure the liquidity position of the select cement companies in India.
4. To evaluate the financial health and financial performance of the select cement companies in India.

SIGNIFICANCE OF THE STUDY

Even though many studies in this direction have been conducted, the present one would be of greater significance to many. It would help to understand the pattern and structure of the financial variables of the select companies. It would also enable the shareholders, investors and investment analysts to identify the determinants of the financial performance. Further, it would provide insight to banks, financial institutions and long-term lenders to understand the financial capability and effectiveness of the companies. Moreover, it would open up new vistas to the industry associations and the government in understanding the characteristics of the companies for inter and intra firm comparisons. It might also help the academic researcher, researcher in securities, industry and company watchers by providing different perspectives of analysis. The result of the study will benefit the policy makers while framing new initiatives. This study will help industry associations which can initiate some collective steps to strengthen the industry. The management of companies will also be benefited as they can understand the implications of macro economic policies on the functioning of individual company and devise their strategies.

SOURCES OF DATA

The data used for the present study are secondary data. The required data for the sample companies were collected from the compilation made by the Centre for Monitoring Indian Economy (CMIE) for the period 2000-01 to 2009-10. The Reserve Bank of India Bulletin, CMIE monthly and yearly reports on Corporate Sector, Industries Sector and Economic Intelligence Services have also been used. The fortnightly issues of
“Cement News Digit” and quarterly journal published by the Cement Manufactures Association (CMA) have also been used as a data source.

**SAMPLING DESIGN**

The sample companies have been selected on the basis of size of the company. Those companies which have invested more than Rs.1000 crores in total assets during the study period have been selected for the present study. In India, only 8 cement companies have invested more than Rs.1000 crores in total assets. Out of which 6 companies have been selected and the remaining were omitted due to the non-availability of the required data relating to the entire phase of the study period. The study was purely based on the survey method.

The following are the six cement companies which have been selected for the present study based on its value of investment in Total Assets.

<table>
<thead>
<tr>
<th>S.No</th>
<th>Name of the Company</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Associate Cement Company Ltd (ACC)</td>
</tr>
<tr>
<td>2</td>
<td>India Cement Ltd (ICL)</td>
</tr>
<tr>
<td>3</td>
<td>Shree Cement Ltd (SCL)</td>
</tr>
<tr>
<td>4</td>
<td>Madras Cement Ltd (MCL)</td>
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<tr>
<td>5</td>
<td>JK Lakshmi Cement Ltd (JKL)</td>
</tr>
<tr>
<td>6</td>
<td>Birla Cement Ltd (BCL)</td>
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**PERIOD OF THE STUDY**

The present study covers a period of 10 years starting from 2000-01 to 2009-10 in order to evaluate the financial performance of the select cement companies in India.

**SCOPE OF THE STUDY**

The study aims to make an analysis of financial performance of large-scale cement companies in India. Hence, the present study pertains to Indian large-scale cement companies. The financial facts of the select companies are evaluated in terms of
profitability, liquidity, financial health and value creation to its shareholders. The scope of the financial performance is very wide and the study is based on accounting information.

**HYPOTHESES OF THE STUDY**

The selection of the topic is made with a view to evaluate the financial performance of the select cement companies in India during the study period from 2000-01 to 2009-10. Against this backdrop, the following hypotheses are formulated to test their validity in the context of the select cement companies in India.

1. Cost Structure of the sample companies is uniform.
2. Trends in ratio of sample companies are on an improvement path.
3. There is no significant difference between actual Economic Value Added (EVA) and trend value of Economic Value Added (EVA).
4. There is no significant difference between actual Market Value Added (MVA) and trend value of Market Value Added (MVA).

**FRAMEWORK OF ANALYSIS**

To analyze the financial performance of the select cement companies in India, the following tools and models have been applied.

**I. Statistical Tools**

1. Arithmetic Mean
2. Standard Deviation (SD)
3. Co-efficient of variation (CV)
4. Correlation
5. Regression Analysis
   (a) Linear Regression Analysis
   (b) Multiple Regression
6. Trend Analysis
II. Ratio Analysis

Ratio analysis is a powerful tool of financial analysis. A ratio is defined as “the indicated quotient of two mathematical expressions” as “the relationship between two or more variables”. Ratios help to summarize large quantities of financial data and to make quantitative judgement about the firm’s financial performance. Several ratios calculated from the accounting data, can be grouped in to various classes according to financial activity and equally useful for assessing the long term viability of the firm. Another dimension of ratio analysis is that it throws light on the degree of efficiency in the management and utilization of its assets. Ratio analysis is regarded as one of the best tools of analysis and comparing the time series accounting data of different firms. Various ratios are computed in order to analyze the profitability, liquidity, short term and long term financial strength and its various components have been explained at the relevant places in different chapters. However, in this study the use of ratios has not been made in the course of analysis directly. To make the analysis and interpretations more precise and accurate the values of $\bar{X}$, CV, have been computed from the ratios.

III. Model Used

To analyze the financial performance of the selected cement companies the following models have been used.

a) Economic Value Added (EVA)

EVA is the difference between the firms Net Operating Profit after Tax (NOPAT) and the shareholders expectation, which is the capital charge for both debt and equity, i.e., overall cost of capital. It is calculated as follows:

\[
EVA = \text{Net Operating Profit after Tax (NOPAT)} - \text{Capital Charges}
\]

Capital Charges = Weighted Average Cost of Capital x Capital Employed

Weighted Average Cost of Capital = Weighted Cost of Equity ($K_e$) + Weighted Cost of Debt ($K_d$)
Market Value Added (MVA)

The Market Value Added is the excess of market value over the investor’s capital. It is calculated as follows:

\[ MVA = Economic\ Market\ Value\ Added - Economic\ Book\ Value\ Added \]

Annual average market value of equity share has been calculated by taking the monthly closing prices of share.

Economic Book Value Added = (Face Value of Equity + Long-Term Loans + Reserves and Surplus)

b) Altman’s Multiple Discriminate Analysis Model (Z Score Analysis)

Altman’s Multiple Discriminate Analysis Model has been attempted to identify the cause of deteriorating performance of the firms.

The formula used to evaluate the ‘Z’ score analysis as established by Altman is

\[ Z = 1.2X_1 + 1.4X_2 + 3.3X_3 + 0.6X_4 + 1.0X_5 \]

Where,

- \( Z \) = Discriminate Score
- \( X_1 \) = Working Capital (WC) / Total Assets (TA)
- \( X_2 \) = Retained Earnings (RE) / Total Assets (TA)
- \( X_3 \) = Earnings Before Interest and Taxes (EBIT) / Total Assets (TA)
- \( X_4 \) = Market Value of Equity (EQ) / Book Value of Total Liabilities
- \( X_5 \) = Sales / Total Assets

LIMITATIONS OF THE STUDY

The study is subject to the following limitations.

- The study is restricted to the period of 10 years from 2000-01 to 2009-10.
- The present study is largely based on ratio analysis which has its own limitations.
There are different methods to measure the financial performance of an industry. In this connection the views of experts differ from one another.

This study has focused only on large-scale cement companies in India. So, it implies that the conclusion drawn from the present study could not be generalized to small and medium-size cement companies in India.

CHAPTER SCHEME

The study has been organized into seven chapters:

- The first chapter consists of Introduction, Statement of the problem, Objectives, Hypothesis, Research design and Methodology, Limitations of the study and Chapter scheme.

- The second chapter reviews a brief literature available in the area of the study

- The third chapter traces the overview of cement industry and profile of select cement companies in India.

- The fourth chapter deals with the analysis of cost structure of the select cement companies in India.

- The fifth chapter deals with the analysis of profitability and liquidity of select cement companies in India.

- The sixth chapter deals with financial health and performance analysis of select cement companies in India.

- The seventh chapter consolidates the summary of the findings of the study and conclusion. The chapter also gives suggestions for improving the performance of select cement companies in India.