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2.1 INTRODUCTION:

The title of the problem of the subject of the study is “A COMPARATIVE STUDY OF THE FINANCIAL STATEMENT OF THE SELECTED CEMENT COMPANY”

The cement industry plays a vital role in the growth and development of a country as it provides required infrastructure for economic development of the country. In our country, a large population lives in village. Roads, buildings and other infrastructure provide means for the enlistment of the economic level of a vast rural population. Unfortunately, the past setup of leading cement unit was unable to meet the rising demand of cement in comparison with their counterparts in the other countries. Therefore, it is assumed that in the factors which are obstruction the profitability, liquidity and activities position of cement units could manage properly then units would come out with a better working result.

This study based on the secondary data derived from annual published reports of selected cement companies or computer data. Various researchers have been conducted under accountancy, commerce, management, economics etc. faculty of Saurashtra University. However, no research has been conducted. “A COMPARATIVE STUDY OF THE FINANCIAL STATEMENT OF THE SELECTED CEMENT COMPANY” Thus this study would be an original contribution to the problem of the study in unique every respect.

2.2 PROBLEM OF IDENTIFICATION:

Cement is the one the most important industries in Indian economy. It has played a vital role in the development of country. First cement factory was established in 1904 at Porbandar. (The birth place of Mahatma Gandhi, in Gujarat) However during the last four decades the industry has achieved substantial progress. India is the fourth largest country in the world at present. Financial soundness of business enterprise largely depending upon the profitability can be achieved after control over the cost of production like cost of raw material consumed, excise duty, power and fuel cost, inters Burdon, administrative expense, selling and distribution expense etc. That have been increased heavily on the other hand selling price of the cement is decreased in this circumstance to keep the progress of business enterprise. It is very essential for
management. In present environment to achieve the profit trends to introduce various cost control techniques over expenditure and maximum output.

Another problem of industry is shortage of electricity supply and heavy electric charges. It is also making effect on cost of production and financial position. The objectives of final analyst are as (1) external and (2) internal. An external analyst has to depend upon the published information of financial statement, which are not on lightening themselves, While internal analyst know every things regarding, the information provide in financial statements.

Study of financial analysis is always made objectively. Generally, external analysts use information as per their requirement. Financier would like to know profitability. Management would be interested in the operational efficiency and profitability. Position of the management profitability, liquidity and activity also balance in the portfolio. But if the management likes profitability, liquidity and activity is less and the liquidity is like the profitability is less. The various stock holders of business enterprises like management, investors, bankers, financial institutions, creditors, employees, government, economist, prospective investor etc, look at sound financial position of the business enterprises.

2.3 SURVEY OF THE LITERATURE:

There is a sizable literature on cement industry in conforming to its long history and economic importance. A good deal of analytical literature exists at board levels like problems associated with productivity, size and technology, capacity, utilizing, financial performance, manpower and plant location. Relevant existing studies and literature have been briefly discussed below…

(1) The most important pioneering books were written by PODDAR in 1962 and 1966 respectively, in which an attempt has been made to enumerate all the historical facts regarding various aspects of the industry. Some institutions like C.M.A. association of trade and industry, tariff commission, commerce research bureau, economic times, national productivity council etc. have made attempts to study the general problems in historical perspectives.

(2) INDIAN ASSOCIATION OF TRADE AND INDUSTRY published a book analyzing the financial trend and productivity in the private sector of the industry.
between 1937 and 1964, in 1964. This study was based on the annual reports of 5 companies which accounts for 90% of the total production. The consolidated balance sheet and profit & loss accounts of these companies were taken for financial analysis as the base. This study compared various factors of productivity, profitability and activity with those of other important cement producing countries like U.S.A, U.K, Japan and Belgium.

(3) V.K. GOEL AND N.K. NAIR have studied on productivity trends of the industry for the period from 1954 to 1976 this study includes various aspects like origin and growth of the industry, extent of under utilization of capacity and its causes, efficiency of major inputs like labors, capital, and raw materials. It also considers financial performance, pricing and future directions in which the industry may grow.

(4) CHAKRAVARTY AND REDDY had written an article on the financial performance of the industry for period from 1967 to 1971 by making comparison in 1973. They used ratio analysis as major tool for financial performance and had studied 22 ratio of profitability, proprietary, liquidity and turnover groups.

(5) DR. D.K. GHOSH studied the financial position of 18 private sector companies. Heaving paid up. Capital of Rs.50 lacks or more. This study relates to the period from 1971-72 to 1975-76. His study is confined to the analysis of the balance sheet, assets and liabilities and condenses common size income and expenditure statements etc.

(6) KAURA AND SUBRAMANIAM published an article on the financial performance of 10 units relating to the period from 1972 to 1979 which mainly observed liquidity, profitability, financial structure and overall performance. For this study they used conventional ratio analysis and merit rating approach. They found that the financial strength of the units have declined over the year.

(7) RAO AND CHANDAR Have made attempt to assess the financial efficiency of cement companies for the period from 1970-71 to 1977-78 which covers 70% entire industry. They found out that the profitability of selected companies had decreased continuously from 1970-71 to1974-75 owing to causes such as inflationary pressure in the country, continuous fall in capacity utilization due to drastic power cuts and shortage of coal, oil and wagon. The profitability increased in 1975-76 because of appreciable increase in the sales.
(8) **DR. KUMAR BARDAS** published a comprehensive book in 1987, touching on the various aspects of the cement industry like factor productivity, location, degree of competition, capacity utilization, size efficiency, financial performance, distributions pattern and governmental policies with respect to distribution. The study pertains to the period from 1970 to 1980. The study revealed that all profitability ratios decreased gradually and become negative for 1973-74 and 1974-75. However, it improved gradually thereafter.

(9) **NOC RESEARCH DIVISION** (April June 1991) published an article “productivity quarterly magazine” in which an attempt was made to analyze the productivity and performance ratio of the industry with a view to identifying the measure problem areas and the prospects of solving them. The studied cover 26 companies, comprising of large size plants, medium size plants and mini plants. On profitability front, of the 26 companies examined, at least 11 have shown losses.

(10) **DR. D.K. MITTAL** published a book in 1994 touching on the various aspects of the cement industry like growth of the industry, regional up gradation and modernization, energy efficiency, price and technological controls and financial performance. The study covers more than 45 cement companies the pertain to the period from 1984-85 to 1991-92. On the profit performance front, the study revealed that the industry’s profit had fallen despite sales growth though at a slower pace.

(11) **RAMA SHAKAR SINGH** published a book in 1992. This edited book covers various issues pattern, development, regional imbalance, sickness, environmental impact, policy and regulation, and case study article of “cement industry”. This article covers topic, development of the industry before independence, state wise distribution of production, pattern of consumption, pricing of cement, distribution, government participation in production, India’s role in global cement export’s policy matter.

(12) **DR. S.J.PARMAR** published a book in 2001. The book is a systematic study of the modern financial measurement techniques useful for management in planning and controlling corporate activities. With increasing participation by the general public and financial institution as present corporate bodies have to be on their guard and manage their efficient financial efficiency in the aria of globalization. This book cover topic of concept and measurement of profitability, cost and sales trend, profit margin,
assets turnover, analysis of return on investment common size of value added statements.

(13) **DR.B.L. MAHESHWARI** published a book in 2001. “Marketing strategies in cement industries in India” like factor cement industry in India and world, marketing and organization and brand, price, distribution and transportation, promotion. The study pertains to the period to over all cement industry marketing aria up 2001.

(14) **DR. SANJAY J. BHAYANI** has done his Ph.D. thesis on “analysis of financial statement of cement industry in India.” In this study profile of the cement industry in India, conceptual framework of financial statements, analysis of activity, profitability, working capital, financial structure and summary, finding and suggestion.

(15) **BUTALAL C. AJMERA** has done his dissertation “Interpretation and analysis of financial statement of two selected units of Birla group”, in the year 2001 by using conceptual framework of financial statement, research plan, profile of the cement industry. Birla group of companies a bird’s eye view, liquidity position, financial structure and suggestion, the period of 1994-95 to 1998-99. The study reveals the course of profitability.

(16) **THE DEPARTMENT OF PRIVATIZATION PRICES EVIDANCE FROM TURKEY:**
This paper analysis the determinants of privatization prices in a multi industry study using a sample of 68 recently privatized firms from turkey. Result show that revenue and market characteristics are significant determinants of privatization while current cost and profit indicators are not. It is argued that potential buyers regarding these state firms as inefficient, therefore do not take in to consideration their current cost and profits in determining their value. When the dependent variables is altered is by divining the firms privatization price by the firms sales (revenues), it is found that sales adjusted privatization prices are responsive to firm’s profit margins. However, this result does not hold when the sample is restricted to a single industry. Profit margins along with other profitability and firm efficiency measures are no longer significant determinants of sales adjusted privatization price in the cement industry analysis. Unexploited productions opportunities measured by capacity utilization ratios, and complete private ownership resume a more important role.
(17) CEMENT MANUFACTURE AND THE ENVIRONMENT, PART – II: ENVIRONMENT CHALLENGES AND OPPORTUNITIES:

Construction materials account for a significant proportion of no fuel materials flow throughout the industrialized world. Hydraulic (mainly Portland) cement, the binding agent in concrete and most mortars, is an important construction material. Portland cement is made primarily from finely ground clinker, a manufactured intermediate product that is composed predominantly of hydraulically active calcium silicate minerals formed through high temperature burning of limestone and other materials in a kiln. This process typically requires approximately 3 to 6 million Btu (3.2 to 6.3 GJ) of energy and 1.7 tons of raw materials (mainly limestone) per tons (t) of clinker produced and is accompanied by significant emissions of, in particular, carbon dioxide (CO₂), but also nitrogen oxide, sulfur oxide and particulates. The overall level of CO₂ output, about 1 ton clinker, is almost equally contributed by the calcinations of limestone and the combination of fuels and makes the cement industry one of the top two manufacturing industry one of this greenhouse gas. The enormous demand for cement and the large energy and raw material requirement of its manufacture allow the cement industry to consume a wide variety of waste raw materials and fuels and provide the industry with significant opportunities to symbiotically utilize large quantities of by-products of other industries. This article, the second in two parts sires, summarizes some of the environmental challenges and opportunities facing the cement manufacturing industry. In the companion article, the chemistry, technology, raw materials, and energy requirements of cement manufacture were summarized. Because of the size and scope of the U.S cement industry, the article relies primarily on data and practices from the United States.

(18) THE USE OF BY-PRODUCTS FROM METALLURGICAL AND MINERAL INDUSTRIES AS FILLER IN CEMENT BASED MATERIALS PB:

Institute of wastes management business services Ltd.

AB: This investigation has been made in order to make it possible to increase the use of by-products in cement base materials. Use of by-products requires a screening procedure that will reliably determine their impact on concrete. A test procedure was developed. The most important properties were considered to be strength development, shrinkage, expansion and workability. The method used was calorimetric, flow table test, F-shape measurements of compressive and flexural
strength and shrinkage expansion measurements. Scanning electron microscopy was used to verify some results. Twelve by-products were collected from Swedish metallurgical and mineral industries and classified according to the test procedure. The investigation showed that the test procedure clearly screened out the materials that can be used in the production of concrete from the unsuitable once.

KW: Concrete; by-products; filter; cement properties; heat of hydration; compressive strength; workability; expansion; shrinkage;

(19) EMISSION TRENDS IN THE CEMENT INDUSTRY: AN INTERNATIONAL COMPARISON:
We present an in-depth decomposition analysis using physical indicator of trend in carbon dioxide (CO2) emission in the cement industry in Brazil, China, South Korea and the Unaided states. Physical indicators allow a detailed analysis of intra sectoral trends, in contrast to the often used monetary indicators. We assess the contribution of different factors affecting CO2 emission in the cement industry, including change in product mix and efficiency of power generation, changes in fuel mix and changes in energy efficiency. The decomposition shows that in all examined countries, increased production was main contributors to the increased in total CO2 emissions. Energy efficiency improvement is the most important factor that led to the reduction of emission intensities for all countries except Korea. For Korea, structural change in the product mix is the most important factor contributing to the emission intensity reduction.

(20) STRUCTRAL ANALYSIS OF GEOTHERMAL WELL CEMENT:
Current design procedures are deficient when it comes to the cement/sealant used in geothermal well cementing jobs. The structural performance of the cement is based on the requirement that the cement must have a certain compressive strength. By calculating the response of the cement due to pressure/temperature (P/T) loads, the relevant stress fields are found to be sensitive to a variety of parameters in such a way that they cannot be enveloped solely by the compressive strength of the material. A similar concern also exists in the oil and gas industry. These papers present a variety of modeling approaches that can be used to perform the necessary structural analysis from which the stress field in the design of the cement be based on the results from such structural analysis rather than on the basis on the limited requirement for
compressive strength. The paper also present parametric variations of the radial and tangential stresses in the cement that were obtained through coupled analysis of casing cement formation models. It is shown that the state of stress in the cement is very sensitive to (a) far-field stress and (b) the relative stiffness between the cement and the formation.

(21) FORGING BUYER- SELLER RELATIONSHIP FOR TOTAL QUALITY MANAGEMENT IN INTERNATIONAL BUSINESS: THE CASE OF EUROPION CEMENT INDUSTRY:
Most authors agree that commitment is an important building block in long term business relationship. This study attempts to investigate how commitment develops in long term business to business relationship in the context of an international quality network. To accomplish this objective, the relationship marketing perspective and the network perspective are integrated in to a conceptual framework, describing how network constructs influence the long term relationship indirectly through commitment. This framework was tested empirically in the context of the European cement industry with regards to a total quality management network. Our results indicate that, in particular, affective commitment and calculative commitment have a significant positive effect on the party’s willingness to invest in the relationship. The attendances of commitment, and especially actor bonds, have an indirect influence on the willingness to invest in the relationship.

(22) HIGH-PERFORMANCE CEMENTATIONS GROUTS FOR STRUCTURAL REPAIR:
Laboratory investigation was undertaken to develop high performance cement-based grouts for infiltrating fiber reinforced cementation composite that makes them ideally suited for structural repair and seismic retrofit. The theological and mechanical properties of the proposed grouts are interesting since, from a practical point of view, they exhibit no bleeding or segregation and reach high compressive strength and flow ability. This study recommends the use of natural pazzolona in combination with silica fume in the production of high – performance cement- based grouts for providing technical and economical advantages in specific local used in concrete industry.
(23) **AUDITING OF THE MAINTENANCE SYSTEM OF FUHAIS PLANT/JORDAN CEMENT FACTORIES CO:**

In the cement industry maintenance cost consumes approximately 20-25 percent of the total production cost, which comes in the second rank after the energy cost. Therefore, cement plants in Jordan, taken as a case study that represents developing countries, are facing big challenges in reducing both energy and maintenance costs. In order to improve the maintenance system in the Fusains plant, auditing of the existing maintenance system had been conducted, since this step is essential in improving any maintenance system. A quantitative (statistical) method was used in order to determine the weakness points in the existing maintenance system. Where based upon this auditing, several actions and strategies were put in a medium range plan to resolve the problems and improve the system.

KW: Cement industry; Maintenance; Audit; Productivity; Jordan
IS: 1355-2511

2.4 **THE RESEARCH METHODOLOGY:**

(I) **THE PROBLEM:**

The title of the study “A **COMPARATIVE STUDY OF THE FINANCIAL STATEMENT OF THE SELECTED CEMENT COMPANY**”

(II) **OBJECTIVE OF THE STUDY:**

(1) To analysis of the profitability.
(2) To examine the liquidity position and analysis of liquidity.
(3) To analysis profitability and liquidity.
(4) To make suggestion of profitability and liquidity for financial soundness.

(III) **HYPOTHESIS:**

For the present study the researcher has formulated hypothesis Null Hypothesis and Alternative Hypothesis were tested with the help of statistical tools. The statements of hypothesis were as under;
NULL HYPOTHESIS (H0):

1. There is no any significance difference between in Gross Profit Ratios the selected cement industries.
2. There is no any significance difference between in Net Profit Ratios the selected cement industries.
3. There is no any significance difference between in Operating Profit Ratios the selected cement industries.
4. There is no any significance difference between in Expenses Ratios the selected cement industries.
5. There is no any significance difference between in Return on Share holder’s Fund Ratios the selected cement industries.
6. There is no any significance difference between in Rate of Dividend (or return) Ratios the selected cement industries.
7. There is no any significance difference between in Rate of Return on Total Assets Ratios the selected cement industries.
8. There is no any significance difference between in Rate of Return on Capital Employed (ROCE) Ratios the selected cement industries.
9. There is no any significance difference between in Earnings per Share (E.P.S) Ratios the selected cement industries.
10. There is no any significance difference between in Interest Coverage Ratios the selected cement industries.
11. There is no any significance difference between in Current Ratios the selected cement industries.
12. There is no any significance difference between in Quick Ratios the selected cement industries.
13. There is no any significance difference between in Liquid Ratios the selected cement industries.
14. There is no any significance difference between in Debtor’s Turnover Ratios the selected cement industries.
15. There is no any significance difference between in Inventory and Stock Turnover Ratios the selected cement industries.
16. There is no any significance difference between in Fixed Assets Turnover or Velocity the selected cement industries.
(17) There is no any significance difference between in Total Assets Turnover or Velocity the selected cement industries.

➢ ALTERNATIVE HYPOTHESIS (H1):

(1) There will be significance difference between Gross Profit Ratio of the selected Cement industries.
(2) There will be significance difference between Net Profit Ratio of the selected Cement industries.
(3) There will be significance difference between Operating Profit Ratio of the selected Cement industries.
(4) There will be significance difference between Expenses Ratio of the selected Cement industries.
(5) There will be significance difference between Return on Share holder’s Funds Ratio of the selected Cement industries.
(6) There will be significance difference between Rate of Dividend (or return) on Equity Share Capital Ratio of the selected Cement industries.
(7) There will be significance difference between Rate of Return on Total assets Ratio of the selected Cement industries.
(8) There will be significance difference between Rate of Return on Capital Employed (ROCE) Ratio of the selected Cement industries.
(9) There will be significance difference between Earnings per Share (E.P.S) Ratio of the selected Cement industries.
(10) There will be significance difference between Interest Coverage Ratio of the selected Cement industries.
(11) There will be significance difference between Current Ratio of the selected Cement industries.
(12) There will be significance difference between Quick Ratio of the selected Cement industries.
(13) There will be significance difference between Liquid Ratio of the selected Cement industries.
(14) There will be significance difference between Debtor’s Turnover Ratio of the selected Cement industries.
(15) There will be significance difference between Inventory and Stock Turnover Ratio of the selected Cement industries.
(16) There will be significance difference between Fixed Assets Turnover or Velocity of the selected Cement industries.

(17) There will be significance difference between Total Assets Turnover or Velocity of the selected Cement industries.

(IV) DATA COLLECTION:
The main source of data used for the study was secondary, drawn from the annual profit & loss account and balance sheet figures as found in annual reports of the selected units. The other data source is prowess database and capital line software from CMIE, Mumbai. And opinions expressed in commercial journals, magazine, newspapers, accounting literature various journals of cement via, cement industry annuals review, world cement, cement abstracts etc. have been also used in this study.

(V) PERIOD OF THE STUDY:
The profitability and liquidity study is made for a period of last 5 years data from 2007-08 to 2011-12.

(VI) UNIVERSE OF THE STUDY:
The universe of the study consists of all the limited companies working in India and listed in stock exchange of India.

(VII) SAMPLING DESIGN:
There are 125 such companies which are working in India data available of 79 companies. Researcher has selected 5 companies as the sample for this study. The sample has been selected considering following factors.

- Data for the entire period of the study from 2007-08 to 2011-12.
- For the purpose of analyses all the selected companies have been good performance in the international markets.
- Allocation of the country in region has been made according to CMA criteria.
- Companies have been already listed in stock market.
- Selected all the cement companies have been good performance in Indian market.
- Selected all the cement companies selling are more than CMA criteria.
- A vision of each selected cement companies investment in India is leading.
> Is selected as the Indian economy in the development of cement companies is important contributions.
> Employment and contribute to the perception of the selected cement companies is very important.
> Development of backward areas of the country in the company's contribution is important.
> Education and awareness of the environment in order to select the most important function of companies is situated in the cement.

The above reason is selected here, for research cement companies chosen for the detailed study…

(VII) NAMES OF THE COMPANIES WERE UNDER STUDY:

1. Ambuja cement (Gujarat)
2. Sanghi cement (Gujarat)
3. Digvijay cement (Gujarat)
4. Ultratech cement (Gujarat)
5. Binani cement

(IX) TOOLS AND TECHNIQUES FOR ANALYSIS OF FINANCIAL STATEMENTS:

1. Ratio analysis
2. Common size statements
3. Trend analysis
4. Comparative statement analysis
5. ANOVA Test
6. Diagrammatic and graphic analysis

(2.5) LIMITATIONS OF THE STUDY:

1. This study based on secondary data taken from published annual reports and accounts of selected companies as such its finding depends entirely on such data.
2. There are different methods to measure the profitability and liquidity of an industry in this connection views experts differ from one another.
(2.6) **CHAPTER PLAN:**

**CHAPTER-1**

**PROFILE OF THE CEMENT INDUSTRY IN INDIA:**
This chapter deals with the history and development of cement industry of India – Definition of cement - Cement process - Types of cement - Grad of cement – Profile of the cement industry in world – Profile of the cement industry in India – Cement production in India – Government policy – Total factor productivity – Total productivity – Future development of the cement sector – On going changes in cement industry – Features of the schemes.

**CHAPTER – 2:**

**RESEARCH METHODOLOGY:**

**CHAPTER – 3**

**ANALYSIS OF PROFITABILITY:**
This chapter deals with analysis of profitability of selected cement industries. It has done with the help of different analytical tools such as ratio analysis – Gross profit ratio - Net profit ratio – Operating Ratio – Expenses Ratio – Return on Shareholders’ funds – Rate of Dividend (or return) on Equity Share Capital – Rate of Return on Total Assets – Earning per Share (E P S) – Return on Equity Shareholders funds and Return on Capital employed.

**CHAPTER – 4**

**ANALYSIS OF LIQUIDITY:**
This chapter deals with analysis of liquidity of selected cement companies. It deals with the concept of liquidity and liquidity ratio of cement industry of India. It has done with the help of different analytical tools such as ration analysis – Current Ratio – Quick Ratio – Liquid Ratio- Debtor’s Turnover Ratio- Inventory and Stock Turnover Ratio- Fixed Assets Turnover or Velocity- Total Assets Turnover or Velocity.
CHAPTER – 5

PROFITABILITY VIS-À-VIS LIQUIDITY:
This chapter deals with analysis of profitability vis-à-vis liquidity of selected cement companies. It has done with the help of different tools such as ratio analysis.

CHAPTER – 6

SUMMARY, FINDINGS AND SUGGESTIONS:
This chapter gives its emerging conclusion based on the analysis carried out the variation if any from the literature. It also gives concrete suggestions for enhancing profitability and liquidity for financial soundness, for cost control and liquidity position.
REFERENCES:

5. Investment week, August 9, 1993.