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## **AN ANALYTICAL STUDY OF LIQUIDITY AND PROFITABILITY ANALYSIS OF SELECTED CEMENT COMPANIES IN INDIA**

**Sorathiya Jaydeep Govindhai**

(M.COM. M.Phil)

Department of Commerce, Saurashtra University, Rajkot



## Abstract: -

Cement industry play important role in Indian economy. They give a infrastructure facility like construct a building, dams, mall, houses etc. Indian cement industry is the second largest industry after chine. The primary objective of this study is to analyze the liquidity and profitability position of selected cement industry in India, this study deals with data analysis and interpretation of different liquidity and profitability ratio include current ratio, quick ratio, operating margin and net profit margin. T-test used to testing the hypothesis. Convenience sampling method is used to select the sample. This study is pure based on secondary data that was obtained from annual reports and financial statement of selected cement industry. This study is made for a five-year period from 2016-17 to 2020-21. Analyzed and interpretation of the data, all the null hypothesis is accepted. We can say that there is a no significant difference of selected ratio during the study period.

**Keywords:** - Cement companies, liquidity, and profitability.

## INTRODUCTION:

India's cement industry is most important part of economy. They providing employment almost a million people, indirect or directly. Ever since it was liberaliasation in year 1982. The Indian cement industry has captivate vast investment from Indian and foreign investors, doing it the second largest in the global. The industry is presently in a reversal phase, trying to get global standards in production, energy, efficiency and safety.

Indian has a lot of possible for evolution in the infrastructure and construction section and the cement section is anticipate to largely well-being from it. Some of the current major government's initiatives such as evolution of 100 smart cities are anticipate to supply a major raise to the section.

Anticipating such developments in the country and assist by acceptable government foreign policies, several foreign players such as Lafarge holcim and vicat have invested in the country in the current a notable factor which backing the growth of this section is the ready accessibility of the raw materials for making cement, such as coal and limestone.

## OBJECTIVE OF STUDY:

- To know the conceptual framework of liquidity and profitability.
- To evaluate the performance of cement industry.
- To draw opportunities and threats from the findings. For the selected industry.
- To give some suggestion to cement industry.



## REVIEW OF LITERARURE:

**Jyoti Mahato and Uday Kumar Jagannathun (2015)** “Impact of Working Capital Management on Profitability: Indian telecom sector”. Management of working capital is regarded as one of the most important part of business. The study period of 5 years from 2010-11 to 2014-15 dependent and independent variables are used in this study. The different variables are we like ROA (return on assets) to measure the profitability. The data are analyse eight telecom companies listed in national stock exchange of India. This study is based on secondary data and data are collected from the annual report of telecom companies. The result is finding that correlation analysis shows the ROA has negative relationship between current ratio.

**Bhushan Singh and Mohindra (2016)** “Impact of Capital Structure on Firm’s Profitability: A Study of Selected Listed Cement Companies in India.” The primary objective of this study is to investigate the impact of capital structure on firm’s profitability through selected cement companies in India. This study is pure based on secondary data. The period of study is five years from 2009-10 to 2013-14 and data collected from financial statements. Based on correlation co-efficient analysis researcher is found that there is a negative relationship between debt and profitability meaning that companies with higher proportion of debt tend to have low profitability.

**Mohmad Mushtaq Khan and Syed Khaja Safiuddin (2016)** “Liquidity and Profitability Performance Analysis of select Pharmaceutical Companies.” The basic objective for this study is to compare the liquidity and profitability performance of selected companies. The data used in this study is secondary nature and collected from annual reports of the selected companies. The analysis made on the basis of financial statements of the two pharmaceutical companies of our economy the liquidity ratios are used to analysis of data and finding the results the period of study is five years from 2010-11 to 2013-14. From the above analysis researcher is found that over the course of five financial period of study the mean of current ratio in cipla is higher than the Dr. reddy’s labs. This shows that sufficient current assets to meet short-term operating needs of cipla.

**Yoowanka Lungdoh and K. C. Biswal (2017)** “A Study on the Liquidity Management of Select Cement Companies of Meghalaya.” Effective liquidity management is one of the initial requirements for the survival of an organization. The basic objective of this study is to analyse and compare the liquidity position of the selected sample company of Meghalaya. Total population is 11 cement companies in operation till 2016, out of the five companies has been taken in to this study. The study is based on secondary source of data and collected from annual report of selected cement companies of Meghalaya. The period of study is 10 years



from 2005-06 to 2014-15. Using correlation method analyse inter relationship among liquidity are test.

**S. Hemalatha and A. L. Kamalavalli (2018)** “Profitability Analysis of Cement Companies in India.” This study focus on the analysis of profitability of cement companies in India. The statistical tool and techniques such as mean, standard deviation, co-efficient of variation, correlation and regression analysis were used in this research. 15 cement companies consider as a sample and period of study is 10 years from 2005 to 2015. In this study different ratio are examine i.e., gross profit, operating profit, net profit, return on assets and return on equity. Secondary data are used in this study and collected on the annual reports of the selected samples of cement companies. From above analysis researcher is found that the all companies are performing satisfactorily and they can enhance their profitability position by improving their operational performance.

**K. V. Ramana Reddy (2018)** “A Study on Liquidity and Profitability n Selected Indian Software Companies.” This study is mainly focused on the relationship between liquidity and profitability of selected software companies in India. Top four companies selected as a sample i.e., TCS, Infosys, Wipro, HCL and two medium size firm such as mind tree and InfoTech in terms of sales is also select. The period of study is 10 years from 2007-08 to 2016-17. This study is pure based on the secondary data and data collected from records, books of accounts and annual reports of the sample units through different published reports, websites and journals tools and techniques is also used in this research like ratio analysis, percentages, averages etc. from above analysis researcher is to found that all the sample units are maintaining high liquidity ratio.

**Manjurajan Babu (2019)** “Research on Profitability and Liquidity Position of Banks with References to Pre and Post Merger.” The main aim of this study is to evaluate the profitability and liquidity situation of banks with references to pre and post merger in India. 17 banks, both national and private banks selected as a sample. Financial performance is evaluated using CAMEL model. The period of study is 1998 to 2016. This study is pure based on the secondary data and data collected from the annual reports of the selected banks. From the above evaluation result is found that HDFC bank ltd, federal bank and bank of Baroda were efficient in terms of the financial performance as compare to other banks.

**Devi Naveen Kumar and Ms. Surabhi Lakshmi (2019)** “A Study on Ratio Analysis at Ultratech Cement.” The primary objective of this study is to measure the performance of a company using turnover ratios. This study is based on the secondary data. The period of study is five years from 2014-2018. Secondary data collected from published sources, such as annual reports, income and internal records,



magazines and company's official website well as official website of the sample. The period of study is five years from 2014-15 to 2018-19. From above analysis researcher is found that company's profitability ratio is satisfied.

## RESEARCH METHODOLOGY:-

### (1) STATEMENT OF THE PROBLEM:-

In general cement industry is correlate with contraction building, apartment, necessary, mall, dams, roads etc. so, it is necessary requirement of cement or other material. The liquidity and profitability play important part of the management and it optimum management helpful to achieve huge profitability and productivity after the receiving different review of study related to liquidity and profitability. So, require to study in liquidity and profitability analysis of selected cement industry in India.

The topic for this research has been selected as under:

**“An Analytical Study of Liquidity and Profitability Analysis of Selected Cement Companies in India.”**

### (2) AREA & SCOPE OF THE STUDY:

The scope of this research study is as under:

#### ➤ **Functional scope:-**

Functional scope of the study is to analyse the liquidity and profitability position of cement industry in India.

#### ➤ **Geographical scope:-**

In this study selected two cement companies: Ultra tech cement and shree cement which are providing service in India. So whole India is geographical criteria for this study.

## SOURCES OF DATA:

This study is pure based on the secondary nature and taken from annual published report and websites of selected cement industries like ultra tech cement and shree cement different information related to industries has taken from journals, books, periodicals, official websites and money control.com. option expressed in accounting literature, business standard, annual report and different publication have been used in this study.

## TOOLS AND TECHNIQUES:



For the present ratio analysis and t- test have been used for analyze the data of selected cement industries.

## **HYPOTHESIS OF THE STUDY:**

- H0:** There would be no significant difference in current ratio among the selected cement companies during the study period.

**H1:** There would be significant difference in current ratio among the selected cement companies during the study period.
- H0:** There would be no significant difference in quick ratio among the selected cement companies during the study period.

**H1:** There would be significant difference in quick ratio among the selected cement companies during the study period.
- H0:** There would be no significant difference in operating margin among the selected cement companies during the study period.

**H1:** There would be significant difference in operating margin among the selected cement companies during the study period.
- H0:** There would be no significant difference in net profit margin among the selected cement companies during the study period.

**H1:** There would be significant difference in net profit margin among the selected cement companies during the study period.

## **SAMPLE DESIGN:**

From the all population researcher has used convenience sampling technique of non probability sampling technique. Researcher has selected 2 cement companies based on market capitalization as a sample of the present study.

**1. Ultra tech Cement**

**2. Shree Cements**

## **PERIOD OF THE STUDY:**

The study covers a period of five years from the year 2016-17 to 2020-21.

## **LIMITATION OF THE STUDY:**

- The study is limited to 2 units of cement companies in India.



- This study is mainly based on a secondary data from the published reports of the companies. The findings and reliability are contingent upon the publish data of cement companies.
- The present study is pure based on ratio analysis which has its own limitation applicable here also.
- This study covers only two cement companies.

## DATA ANALYSIS: -

**Table 1: Ratio of Ultra tech Cements**

Particulars	2017	2018	2019	2020	2021
Current Ratio	1.60	1.00	0.83	0.90	1.17
Quick Ratio	1.31	0.71	0.57	0.65	0.97
Operating Margin	17.78	15.77	12.88	17.16	21.46
Net Profit Margin	10.69	7.18	5.76	13.79	12.20

(Source: Annual report of Ultra tech Cement)

**Table 2: Ratio of Shree Cements**

Particulars	2017	2018	2019	2020	2021
Current Ratio	1.65	1.92	2.22	2.32	2.21
Quick Ratio	0.99	1.39	1.34	1.81	1.75
Operating Margin	19.31	19.95	12.51	24.15	17.29
Net Profit Margin	15.58	14.07	8.08	16.98	11.99

(Source: Annual report of Shree Cements)

**Table 3: T-test Calculation of Current Ratio**

Particulars	Ultra tech cement	Shree cement
Mean	1.1	2.064
Variance	0.09445	0.07583
Observation	5	5
Pooled Variance	0.08514	
Hypnotized mean difference	0	



Df	8	
t stat	-5.22372	
P(T<=t) one tail	0.000399	
T critical one tail	1.859548	
P(T<=t) two tail	0.000799	
t critical two tail	2.306004	

### Interpretation: -

The calculated value of current ratio is 0.0007 is lower than table value 2.30 Therefore, Null hypothesis is accepted. Hence it is there is no significant difference between current ratio of selected units (Ultra tech cement & Shree cement).

**Table 4: T-test Calculation of Quick Ratio**

Particulars	Ultra tech cement	Shree cement
Mean	0.842	1.456
Variance	0.09092	1.11168
Observation	5	5
Pooled Variance	0.1013	
Hypnotized mean difference	0	
Df	8	
t stat	-3.05024	
P(T<=t) one tail	0.007908	
T critical one tail	1.859548	
P(T<=t) two tail	0.015815	
t critical two tail	2.306004	

### Interpretation: -

The calculated value of quick ratio is 0.015 is lower than table value 2.30 Therefore, Null hypothesis is accepted. Hence it is there is no significant difference between quick ratio of selected units (Ultra tech cement & Shree cement).



**Table 5: T-test Calculation of Operating Margin**

Particulars	Ultra tech cement	Shree cement
Mean	17.01	18.642
Variance	9.7531	17.98112
Observation	5	5
Pooled Variance	13.86711	
Hypnotized mean difference	0	
Df	8	
t stat	-0.69294	
P(T<=t) one tail	0.25398	
T critical one tail	1.859548	
P(T<=t) two tail	0.507959	
t critical two tail	2.306004	

**Interpretation: -**

The calculated value of operating margin is 0.50 is lower than table value 2.30 Therefore, Null hypothesis is accepted. Hence it is there is no significant difference between operating margin of selected units (Ultra tech cement & Shree cement).

**Table 6: T-test Calculation of Net Profit Margin**

Particulars	Ultra tech cement	Shree cement
Mean	9.924	13.34
Variance	11.39533	12.07255
Observation	5	5
Pooled Variance	11.73394	
Hypnotized mean difference	0	
Df	8	
t stat	-1.57676	
P(T<=t) one tail	0.076751	



T critical one tail	1.859548	
P(T<=t) two tail	0.153501	
t critical two tail	2.306004	

## Interpretation:-

The calculated value of net profit margin is 0.15 is lower than table value 2.30 Therefore, Null hypothesis is accepted. Hence it is there is no significant difference between net profit margin of selected units (Ultra tech cement & Shree cement).

## FINDING OF THE STUDY:

**Table: 7 Result of paired T-test**

Particulars	Calculated value	Accept/ Reject
Current Ratio	0.0007	Accept
Quick Ratio	0.0150	Accept
Operating Margin	0.5000	Accept
Net Profit Margin	0.1500	Accept

## CONCLUSION:

In old days, different types of building materials were used for construction of public historical and religious buildings sand, stone and in the special cases marbles were used for this type of work. The house of ordinary citizens was usually made of mud and thin bricks. In some cases, pozzolana and lime were used for getting beautiful finishing for the interior exterior. In short, it can be said that cement as well as steel are essential for that development of construction works in the country.

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