

## **A Comparative Study On Financial Performance Of Select Cement Company In India**

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### **LIQUIDITY ANALYSIS OF CEMENT INDUSTRY IN INDIA INTRODUCTION**

India being the second largest manufacturer and consumer of cement also has the largest potential to develop in the spheres of infrastructure and construction. Cement industry happens to be the fastest growing industry globally and in India. It acts as the backbone for economic and infrastructure development which in turn generates immense employment opportunities, directly and indirectly that is required for the development of under developed countries. Cement is the base material for all types of construction works, starting from smallest building to largest structures like dams and irrigation works. In India, cement industry is the prominent one where huge investments are made by both domestic and foreign investors. Cement industry in India is now heading towards achievement of global standards in production, safety and efficient use of energy. Another important target set for the cement industry in India is the sustainable development. The present study pertains to the analysis of financial performance of select cement manufacturing companies in India with reference to liquidity using various liquidity ratios. The study is restricted to three cement manufacturing companies, selected using certain criteria, for a period of five years ranging between 2018-19 to 2022-23. The study tends to reveal the performance efficiency of the selected companies with respect to its liquidity position.

**Key words:** Financial performance. Trend, correlation, Current Ratio, Liquidity Ratio

### **REVIEW OF LITERATURE**

Mishra.U.C., Sarsaiya.S& Gupta. A.A (2022), studied the negative health effects of cement plant exposure that is well-known in industrial settings, but is less known among the general public who live near the Cement plants. According to the findings of the study, India is the second largest cement producer after China, with an installed capacity of 537 million tonnes and around 7.1 percent of the world's production, up from 337.32 million tonnes in 2019. NO<sub>x</sub>, SO<sub>x</sub>, CO, CO<sub>2</sub>, H<sub>2</sub>S, VOCs, dioxins, furans, and particulate matter are all common air pollutants from cement manufacturing. Other sources of dust particles include quarrying, blasting, drilling, trucking, cement plants, fuel production, packaging, path cleaning, and slabs. Other methods of reduction play an important part in decreasing industrial emissions, resulting in lower carbon and more sustainable products. Furthermore, employing sustainable techniques and technology, switching to alternative fuels will save 12% of total CO<sub>2</sub> emissions by 2050.

Balsara, S., Jain, P.K. & Ramesh, A (2021), in the study on integrated methodology to overcome barriers to climate change mitigation strategies in cement industry in India suggest ways to mitigate pollution from Cement industry. Cement is a basic requirement of today's society and is the only thing that humans consume more volume than water, but cement manufacturing is the most energy- and emission-intensive process. Hence, the cement industry is currently under pressure to reduce greenhouse gases (GHGs) emissions. Climate change mitigation strategies implemented in the industry leads to GHGs reduction, climate risks, pollutants, and another adverse impact on the environment. In order to implement climate change mitigation strategies in the cement industry, a careful analysis of barriers that hinder the emission reduction must be taken. However, most existing research on the barriers to mitigation measures is focused on developed countries. Among the most important emerging economies, India, the second-largest producer and consumer of cement, faces challenges to implement emission reduction measures. To bridge this gap, this paper identifies and evaluates the barriers and solutions to overcome these barriers in the context of India.

Nayaka, Basavanagouda (2021), study the impact of GST on Cement industry in India. Cement industry plays a crucial role in the development of the economy. It contributes significantly to the GDP and generates employment. Growing population, increasing scale of economic activities, and growth in the real estate sector has led to a boom in Indian cement industry. Various infrastructural development initiatives of Central and State Government also stimulated demand for cement. Indian cement industry has enormous growth potential. It is attracting FDI through mergers and acquisitions. The synergic effect has resulted in technological advancements and production efficiency in cement industry. Despite of

having huge growth potential, the growth of cement industry in India is not satisfactory due to various economic and other policy implications. A high rate of GST is one of the most important factors hindering the growth of cement industry.

Andrew, R. M. (2019) Estimating global process emissions from cement production is fraught with problems of data availability, and has always required strong assumptions. Over the last 3 decades, countries around the world have increasingly been producing blended cements with lower clinker ratios and the use of cement production data with constant emission factors has become untenable. The new global cement emissions database presented here increases the reliance on official and reliable data sources, and reduces reliance on assumptions, compared with previous efforts. The database is used in the Global Carbon Budget for the first time in the 2018 edition, and the intention is that it will be updated annually, with both data updates and methodological improvements under the “living data” format. As more countries estimate their emissions and report them to the UNFCCC in detail, more data will replace assumptions in producing this dataset. Work is still required in improving estimates of cement emissions from both China and India in particular, as these are the world's two largest cement producers and official time series estimates are lacking.

### **STATEMENT OF THE PROBLEM**

Management of finance has become an inevitable and vital component of company management. Financial management is the backbone of any successful business. Efficient financial management of a company includes various subcomponents like management of liquidity, profitability, solvency, leverage, and market efficiency. Liquidity analysis means analyzing the capability of a company to handle the short term and immediate liabilities. A company with poor liquidity will face difficulties in settling the short term liability and sometimes may even lead to bankruptcy.

Infrastructure development is an inseparable part of economic development. Infrastructure development is not possible without construction of structures. The construction industry completely depends on cement, as it is the base material for the same. This implies cement is a vital material which pivots the economic development of the economic development of the country. So the financial soundness of the company's manufacturing cement has to be ensured to maintain uninterrupted supply of the base material, cement. Hence analysis of liquidity position of the selected cement manufacturing companies in India is more relevant to ensure the financial soundness of the cement industry which is needed to safeguard the investors wealth and to boost the economic growth of the country.

### **OBJECTIVES OF THE STUDY**

The study is based on the following objectives:

1. To analyze the liquidity position of the selected cement manufacturing companies in India using suitable ratios.
2. To find and establish the relationship between the liquidity trends of the selected Cement manufacturing companies in India during the study period.

### **PERIOD OF THE STUDY**

The present study pertains to a period of Five years ranging from 2018-19 to 2022-23. The Five years data are collected, classified and tabulated to favor the present Liquidity analysis in the study.

### **SAMPLING**

The population of the present study is the Cement manufacturing companies in India. From the vast population chosen for the study, Cement manufacturing companies that are listed with National Stock Exchange is derived from the official website of money control ([www.moneycontrol.com](http://www.moneycontrol.com)). The companies in the list are grouped under three categories namely large cap companies, medium cap companies and small cap companies, based on the size of their market capitalization. Companies with market capitalization of 20,000 crores or more are classified as large cap, those with market capitalization of 5,000 crores or more but less than 20,000 crores are classified as medium cap and those with market capitalization of less than 5,000 crores are classified as small cap companies. The company that ranks first in each category is chosen as sample for the study. The companies thus chosen for the present study are

1. Ultra Tech cement (Large cap)
2. India Cements (Medium cap)
3. Sagar cements (Small cap)

### **SCOPE OF THE STUDY**

The present study covers the analysis of the liquidity status of cement industry in India using a sample of three cement manufacturing companies chosen on the basis of the market capitalization of the companies. The study also analyzes the relationship between the trends of liquidity status of the selected companies.

### DATA COLLECTION

The data used for the present study is mainly based on secondary data that are collected from the published annual reports of the selected cement manufacturing companies in India. Few data are collected from various websites, periodicals like Economic times, financial express and a variety of published Journals.

### TOOLS FOR ANALYSIS

The tools used for the analysis of financial performance are

1. Trend Analysis
2. Ratio Analysis
3. ANOVA Test
4. Hypothesis Testing
5. Mean, Standard Deviation and Coefficient of Variation
6. Multivariate correlation

### HYPOTHESIS

**H0A:** There is no significant difference in current ratio of selected Companies during the study period.

**H0B:** There is no significant difference in liquid ratio of selected Companies during the study period.

### ANALYSIS OF LIQUIDITY RATIOS

Liquidity ratios used for the study are

1. Current Ratio
2. Liquid Ratio

### CURRENT RATIO TREND

The current ratio is calculated by dividing current assets by current liabilities. The standard current ratio is 2:1. To study the trend of current Ratio in selected companies, Ultra Tech Cements, India Cements and Sagar Cements, the data are presented in Table 1. 1.

**Table 1.1** Current Ratio

Year	Ultra Tech Cements	India Cements	Sagar Cements
2018-19	0.87	0.88	0.90
2019-20	1.03	0.77	0.83
2020-21	1.17	0.65	1.01
2021-22	0.99	0.89	0.88
2022-23	0.98	1.15	1.02
Total	5.04	4.34	4.64
Average	1.008	0.868	0.928
Minimum	0.87	0.65	0.83
Maximum	1.17	1.15	1.02
SD	0.097	0.166	0.075
CV	9.62	19.54	8.60

**Source:** Calculated from Annual Reports.

The current ratio of Ultra Tech Cements, India Cements and Sagar Cements touched the maximum level of 1.17, 1.15 and 1.02 respectively and a minimum level of 0.87, 0.65 and 0.83 respectively during the study period. The Current ratio ranges between 0.83 to 1.17 which is well within the standard limit of 2:1. Least standard deviation and coefficient of variation is observed in Sagar Cements and highest deviation and variation is seen in India Cements. This implies a steady or less fluctuating or volatile trend in the current ratios of Sagar Cements and a more volatile or fluctuating trend in India Cements.

**Table 1.2** ANOVA Table for Current Ratio

Source	Sum of squares	Degrees of freedom	Mean squares	F value	P Value
Between Groups(SST)	0.0493	2.0	0.0247	1.39596	0.285062
Within Groups(SSE)	0.212	12.0	0.0177		
Total	0.2614	14.0	-		

**Source:** Calculated from Annual Reports.

From Table 1.2, P value is less than the calculated F value. Hence, the null hypothesis H0A is rejected.

**Inference:**

There is significant difference in current ratios of selected Companies during the study period.

**Table 1.3** Correlation Analysis of Current Ratio

	Ultra Tech Cements	India Cements	Sagar Cements
Ultra Tech Cements	1		
India Cements	0.56	1	
Sagar Cements	0.33	0.22	1

While studying the correlation between the current ratios of the selected companies in table 1.3, one may find a highest range of correlation between Ultra tech cements and India cements. This implies that the trend of current ratios of these two companies are almost in the same direction and the factors affecting the current ratio of these companies are more related than any other set of company taken for the study. The lowest range of correlation is seen between Sagar cements and India cements that mean the factors affecting the current ratio of Sagar cements and the factors affecting the current ratio of India cements are less related. Otherwise to say the factors affecting the current ratio of Sagar cements and India cements are 22 percent same and 78 percent different.

**LIQUID RATIO TRENDS**

The liquid ratio otherwise known as the quick ratio is a measure of liquidity ratio which reflects the capability of a company to use its cash or quick assets to settle the current liabilities immediately. The quick ratio is calculated by adding cash and cash equivalents to arrive at liquid assets and then dividing it by current liabilities. A quick ratio of 1: 1 indicates highly solvent position. This ratio serves as a supplement to the current ratio in analyzing liquidity. To study the trend of Liquid Ratio in selected companies, Ultra Tech Cements, India Cements and Sagar Cements, the data are presented in Table 2.1.

**Table 2.1** Liquid Ratio

Year	Ultra Tech Cements	India Cements	Sagar Cements
2018-19	0.61	0.54	0.62
2019-20	0.77	0.48	0.62
2020-21	0.98	0.42	0.77
2021-22	0.72	0.58	0.61
2022-23	0.71	0.87	0.65
Total	3.79	2.89	3.27
Average	0.76	0.58	0.65
Minimum	0.61	0.42	0.61
Maximum	0.98	0.87	0.77
SD	0.12	0.16	0.06
CV	15.79	27.59	9.23

**Source:** Calculated from Annual Reports.

The liquid ratio of Ultra Tech Cements, India Cements and Sagar Cements touched the maximum level of 0.98, 0.87 and 0.77 respectively and a minimum level of 0.61, 0.42 and 0.61 respectively during the study period. The Current ratio ranges between 0.42 to 0.98 which is well within the standard limit of 1:1. Least standard deviation and coefficient of variation is observed in Sagar Cements and highest deviation and variation is seen in India Cements. This implies a steady or less fluctuating or volatile trend in the current ratios of Sagar Cements and a more volatile or fluctuating trend in India Cements.

**Table 2.2** ANOVA Table for Liquid Ratio

Source	Sum of squares	Degrees of freedom	Mean squares	F value	P Value
Between Groups(SST)	0.0817	2	0.0408	2.28849	0.143898
Within Groups(SSE)	0.2141	12	0.0178		
Total	0.2957	14			

**Source:** Calculated from Annual Reports.

From Table 1.2, P value is less than the calculated F value. Hence, the null hypothesis H0B is rejected.

**Inference:**

There is significant difference in liquid ratios of selected Companies during the study period.

**Table 2.3 Correlation Analysis of Liquid Ratio**

	Ultra Tech Cements	India Cements	Sagar Cements
Ultra Tech Cements	1		
India Cements	-0.47	1	
Sagar Cements	0.88	-0.32	1

While studying the correlation between the Liquid ratios of the selected companies in table 2.3, one may find a highest range of correlation between Ultra tech cements and Sagar cements. This implies that the trend of Liquid ratios of these two companies almost move in the same direction and the factors affecting the Liquid ratio of these companies are more related than any other set of company taken for the study. The correlation between Ultra tech cements and India cements is found to be the lowest and negative. Similarly the correlation between India cements and Sagar cements is also found to negative. A negative correlation implies an inverse relation between these sets of companies. Otherwise to say the factors adversely affecting the Liquidity position of one company favors the liquidity position of the other and vice versa.

**FINDINGS:**

1. The current ratio of all the three companies is well within the standard current ratio 2:1. The current ratio of Sagar cements shows a steady trend throughout the study period of five years while the current ratio of India cements is more volatile during the same period. Thus Sagar cements performed well with respect to current ratio followed by Ultra Tech Cements in second place and India Cements in the Last place.
2. The Liquid ratio of all the three companies is well within the standard liquid ratio 2:1. The Liquid ratio of Sagar cements shows a steady trend throughout the study period of five years while the liquid ratio of India cements is more volatile during the same period. Thus Sagar cements performed well with respect to liquid ratio followed by Ultra Tech Cements in second place and India Cements in the Last place.
3. There is significant difference in current ratios of selected Companies during the study period.
4. There is significant difference in liquid ratios of selected Companies during the study period.
5. A highest range of correlation between Ultra tech cements and India cements is found that implies the trend of current ratios of these two companies are almost in the same direction and the factors affecting the current ratio of these companies are more related than any other set of companies taken for the study.
6. A highest range of correlation between Ultra tech cements and Sagar cements is found that implies the trend of Liquid ratios of these two companies are almost moving in the same direction and the factors affecting the Liquid ratio of these companies are more related than any other set of companies taken for the study.

**CONCLUSION:**

The above study reveals that all the three companies selected for the study perform well within the standard in maintaining the liquidity position. Out of the three companies the small cap company Sagar cements comes first in the race of maintaining the liquidity position followed by the large cap company Ultratech Cements, while the mid cap company India cements lag far behind the other two companies in comparison.

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