

A COMPARATIVE STUDY ON LIQUIDITY OF SELECTED CEMENT COMPANIES IN INDIA

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Abstract

Cement is a very crucial substance for infrastructure development. It was invented in England in the year 1824 and is known as Portland cement. In India first Cement Company was established in the year 1914 at Porbandar, Gujarat with a capacity of 10,000 tonnes. India is the 2nd largest producer in worldwide production of cement after China. There are 145 manufacturers of cement in India. Massive investment is required to establish the cement manufacturing plant and short-term funds also need in high volume to fulfill daily-day requirements. So, the top 10 cement manufacturing companies in India were selected for study and decided to examine the liquidity for the period of 10 years from 2010-11 to 2019-20.

Keywords: Cement, cement manufacturer, short-term fund, liquidity

INTRODUCTION

Cement is the concrete material used in construction work. The cement industry in any country plays a vital role in the development of a country as well as in economic growth. There are more than 145 manufacturers engaged in the production of cement. India was in the 2nd largest position in the production of cement with 320 MTPA in worldwide production after china followed by the USA, Turkey, and other countries. It is expected to reach at reach 401 MTPA in 2020-21. India's cement production is expected to rise between 5-7 percent in FY20, backed by demands in roads, urban infrastructure, and commercial real estate. The compound Annual Growth Rate (CAGR) in the production of cement in India is 5.59%.

To boost consumption Government had taken initiatives like sanctioning schemes for improving roads and highways connectivity and housing facility-related programs and growing demand from the commercial real estate sector. Out of the different end-user industries of cement, the housing segment accounted for the highest demand in FY 2018. Within this, 38% of demand was generated by the rural housing sector, followed by the urban housing sector was 32%. Such high demand for cement from the housing sector may be attributed to the fast execution of affordable government housing schemes like Pradhan Mantri Awas Yojna and Housing for all by 2022. Apart from housing, commercial and industrial investments, the infrastructure segment accounted for a considerable demand for cement in India. The CAGR for the consumption of cement is 5.20%.

There is a high growth seen in cement manufacturing in the last decade. There a huge long-term, as well as short-term fund, is required for the cement manufacturing unit. So, it needs to examine the solvency of cement companies. In accounting, solvency is determined from two viewpoints: (i) long-term solvency and; (ii) short-term solvency. Short-term solvency is known as liquidity.

LIQUIDITY

Liquidity means the ability of the business unit to pay short-term liabilities. Short-term liabilities mean current liabilities.

“Liquidity is the ability of the firm to meet its current obligations as they fall due.”

- Salomon J. Flink

Short-term fund providers want to know how promptly or readily the firm can meet its current liabilities. Therefore, a firm must ensure that it does not suffer from a lack of liquidity or the capacity to pay its current obligations. If a firm fails to meet such current obligations due to a lack of good liquidity position, its goodwill in the market is likely to be affected beyond repair. Even a very high degree of liquidity is not good for a firm because such a situation represents unnecessarily excessive funds of the firm being tied up in current assets. Therefore, it is very important to have a proper balance regarding the liquidity of the firm.

LITERATURE REVIEW

Mohammed R. Khan (1997) completed a study “A Study of Financial Analysis of Cement Industry in India” in the year 1997. He discussed industrialization, industrial development in India, and the importance of the cement industry in the National Economy. He selected 18 cement companies for 11 years period from 1982-83 to 1992-93. He found that the liquidity position of the majority of the companies shows variations. The comparative analysis of the Gross Profit and Liquidity Index shows an inverse relationship. Total assets to fixed assets turnover ratios show a decreasing trend. The working capital ratio shows volatility and frequently the working capital was recovered negatively. The Debt-equity ratio was very high during the whole period of study for all companies.

Rajeswari N. (2000) conducted a study on “Liquidity Management of Tamil Nadu Cement Corporation Ltd., Alangulam – a case study”. In the study, she identified that the liquidity position of Tamil Nadu Cements Corporation Ltd. (TANCEM) was not stable. Regarding liquidity ratios, there was too much liquidity in the year 1993-94 and 1994-95. A very high degree of liquidity was also bad as idle assets earn nothing and affected profitability. During 1995-96 and 1996-97, liquidity ratios were below the standard ratio and TANCEM suffered from a lack of liquidity. In the year 1997-98, the liquidity ratio was just above the standard ratio. It was found that there was an unstable position in maintaining liquidity. In this way, she identified that the liquidity position of Tamil Nadu Cements Corporation Ltd. (TANCEM) was not satisfactory in terms of the Quick ratio and Current ratio. She concluded that necessary steps ought to be taken to improve the liquidity position of the company.

S. C. Bardia (2006) studied “Liquidity Management of Steel Authority of India Limited”. He has analyzed the overall performance of liquidity maintained by the steel sector and the amount tied up in various components of working capital. In this study, he found that there was a positive relationship between liquidity and profitability.

Adolphus J. Toby (2008) conducted a study on the “Liquidity performance relationship of Nigerian manufacturing companies”. He took 87 manufacturing companies for his study and data analyzed for 12 years i.e. 1990-2002. He measures four liquidity measures as independent variables and ten others covering profitability, efficiency, and leverage measures as dependent variables. The results of the study have revealed a significant relationship between liquidity, profitability, efficiency, and leverage measures. The result shows that a 1 percent increase in liquidity could bring about a 21.9 percent increase in profitability, a 16.1 percent increase in efficiency, and a 16.6 percent increase in leverage. Within the framework of target money supply, monetary policy could be used to facilitate the monetary transmission mechanism by integrating a minimum liquidity requirement for the manufacturing industry as one of the objectives of macroeconomic policy.

RESEARCH METHODOLOGY

➤ Objectives:

To examine the liquidity and short-term financial strength during the period of study of the selected cement companies under study.

➤ Hypotheses:

Ho₁ There is no significant difference in the current ratio of selected cement companies.

Ho₂ There is no significant difference in the quick ratio of selected cement companies.

➤ Universe:

The universe of the study consists of all the limited companies working in India and listed on the stock exchange of India in the cement industry.

➤ Sample:

The top 10 Indian cement companies were selected based on Revenue and Market share as of 31st March 2020.

➤ Period of Study:

The period of the study is 10 years i.e. 2010-11 to 2019-20.

➤ Data Collection:

The required data for the present study has been collected from the secondary data of published annual reports and financial statements of selected cement companies in India.

➤ Tools and Techniques for Data Analysis:

The current ratio and Quick ratio were calculated as well as the average, and standard deviation also calculated. A non-parametric test (Kruskal-Wallis Test) through the SPSS program was used to test the hypothesis.

DATA ANALYSIS

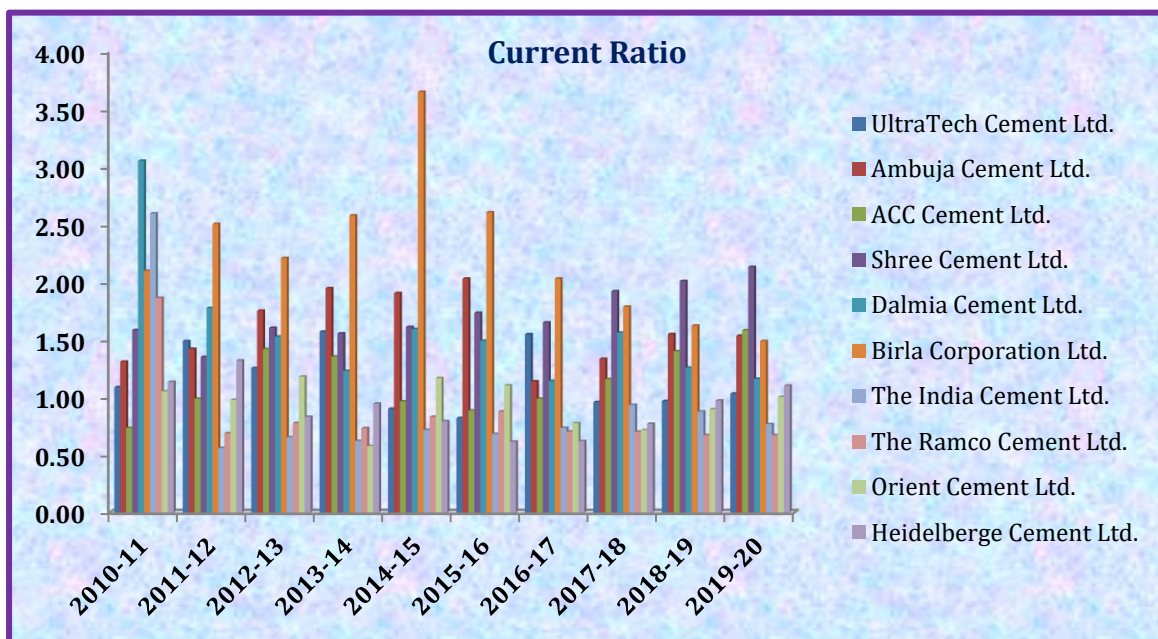
1. Current Ratio:

The Current ratio for the period of study for 10 cement companies is as under:

Table: 1 Current Ratio

Name of Company	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	Av g.	SD
UCL	1.09	1.49	1.25	1.57	0.90	0.82	1.55	0.96	0.97	1.03	1.16	0.28
ACL	1.31	1.42	1.75	1.95	1.90	2.03	1.14	1.33	1.55	1.53	1.59	0.30
ACCCL	0.73	0.99	1.42	1.35	0.96	0.88	0.99	1.16	1.40	1.58	1.15	0.28
SCL	1.58	1.35	1.60	1.56	1.61	1.73	1.65	1.92	2.01	2.13	1.71	0.24
DCL	3.05	1.78	1.53	1.23	1.59	1.49	1.14	1.56	1.26	1.16	1.58	0.56
BCL	2.10	2.51	2.21	2.58	3.65	2.61	2.03	1.79	1.62	1.49	2.26	0.63
ICL	2.60	0.56	0.65	0.62	0.72	0.68	0.73	0.93	0.88	0.77	0.91	0.60
RCL	1.86	0.69	0.78	0.73	0.83	0.88	0.70	0.70	0.67	0.67	0.85	0.36
OCL	1.05	0.98	1.18	0.58	1.17	1.10	0.78	0.72	0.90	1.00	0.95	0.20
HCL	1.13	1.32	0.83	0.95	0.79	0.62	0.62	0.77	0.97	1.10	0.91	0.23
Overall (Mean)	1.31											

Graph: 1 Current Ratio



Interpretation:

From Table-1 and Graph-1, it is clear that the overall mean of the Current Ratio for selected companies for the selected period of study was 1.31:1. The range of Current ratio was 0.56:1 to 3.65:1. The highest ratio during the period was 3.65:1 for Birla Corporation Ltd. in the year 2014-15 while the lowest ratio was 0.56:1 for The India Cement Ltd. in the year 2011-12. Out of 10 selected companies, there were 4 companies show a Current ratio higher than the overall average ratio. Those four companies are Ambuja Cement Ltd., Shree Cement Ltd., Dalmia Cement Ltd., and Birla Corporation Ltd. with 1.59:1, 1.71:1, 1.58:1, and 2.26:1 respectively. The highest average Current ratio during the period of study was 2.26:1 for Birla Corporation Ltd. The standard current ratio is 2:1.

❖ UltraTech Cement Ltd. shows a Current ratio between 0.82:1 and 1.57:1. It is below the standard for all 10 years.

- ❖ Ambuja Cement Ltd. shows a ratio between 1.14:1 and 2.03:1. Out of ten years in 2 years it was 1.95:1 and 1.90:1 and in one year it was 2.03:1 which is better and near to standard.
- ❖ ACC Cement Ltd. shows a ratio between 0.73:1 and 1.58:1 which is below the standard.
- ❖ Shree Cement Ltd. shows variation in the ratio between 1.35:1 and 2.13:1. Out of ten years of study two years more than standard and one year near to standard which shows a good liquid position.
- ❖ Dalmia Cement Ltd. shows a ratio between 1.14:1 and 3.05:1. Out of ten years, only 1 year is more than the standard in the remaining 9 years it is below the standard which indicates the worst liquid position of the company.
- ❖ Birla Corporation Ltd. shows a ratio between 1.49:1 and 3.65:1. Out of ten years period, there were 7 years in which the company's liquidity is very high than the standard. It indicates the strong liquid position of the company.
- ❖ The India Cement Ltd. varies between 0.56:1 and 2.60:1. Out of ten years period 9 years, it is below 1 which shows a very poor liquid position.
- ❖ The Ramco Cement Ltd. shows a ratio between 0.67:1 and 1.86:1. In all ten years, it is below the standard which indicates a very worst position.
- ❖ Orient Cement Ltd. shows a ratio between 0.58:1 and 1.18:1. In all ten years, it is below the standard which indicates a very poor position.
- ❖ Heidelberge Cement Ltd. shows a ratio between 0.62:1 and 1.32:1. In all ten years, it is below the standard which indicates a very poor position.

Test of Hypothesis:

Ho₁ There is no significant difference in the Current ratio of selected cement companies.

	Current Ratio
Chi-Square	64.406
df	9
Asymp. Sig.	0.000

As p-value of the **Kruskal-Wallis Test** is less than 0.05 as well as 0.1 which indicates that the null hypothesis is rejected at 5% and 10% levels of significance. It shows that there is a significant difference in the Current ratio between selected companies.

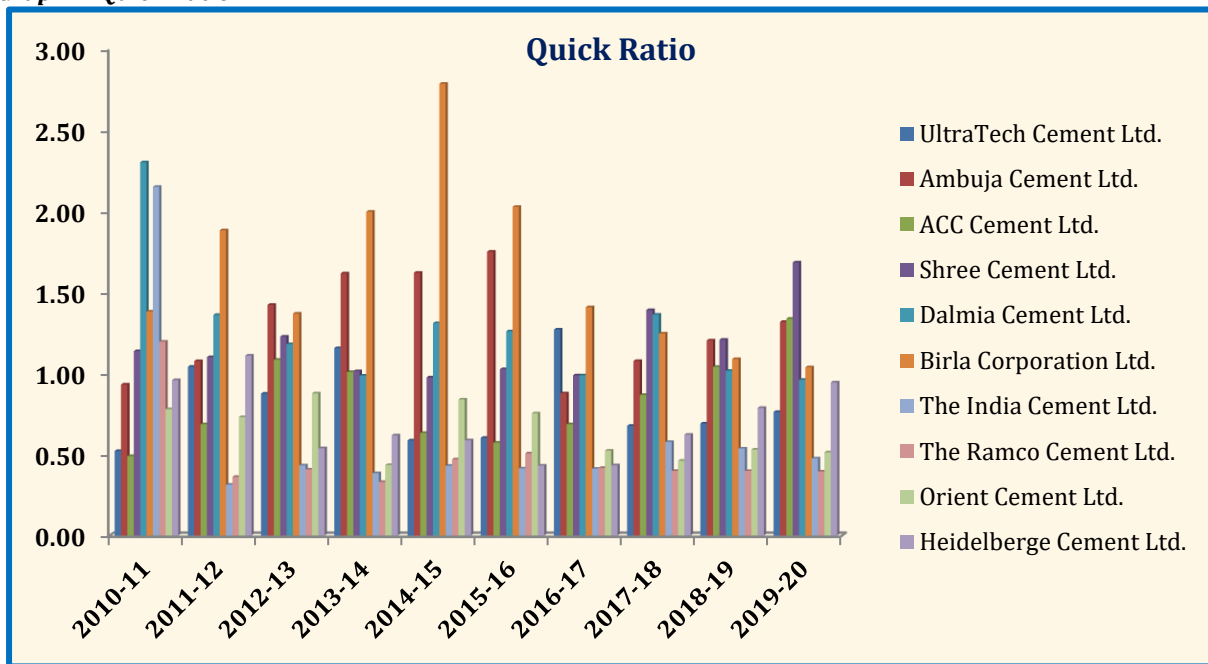
2. Quick Ratio

The Quick ratio for the period of study for 10 cement companies is as under:

Table: 2 Quick Ratio

Name of Company	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	Avg.	SD
UCL	0.52	1.04	0.88	1.16	0.59	0.60	1.27	0.68	0.69	0.76	0.82	0.26
ACL	0.93	1.08	1.43	1.62	1.62	1.75	0.88	1.08	1.21	1.32	1.29	0.31
ACCCL	0.49	0.69	1.09	1.01	0.63	0.57	0.69	0.87	1.04	1.34	0.84	0.27
SCL	1.14	1.10	1.23	1.02	0.98	1.03	0.99	1.39	1.21	1.69	1.18	0.22
DCL	2.30	1.36	1.18	0.99	1.31	1.26	0.99	1.36	1.02	0.96	1.27	0.40
BCL	1.38	1.88	1.37	2.00	2.79	2.03	1.41	1.25	1.09	1.04	1.62	0.54
ICL	2.15	0.31	0.43	0.38	0.43	0.41	0.41	0.58	0.54	0.48	0.61	0.55
RCL	1.20	0.36	0.41	0.33	0.47	0.51	0.42	0.40	0.40	0.40	0.49	0.25
OCL	0.78	0.73	0.88	0.44	0.84	0.75	0.52	0.46	0.53	0.51	0.64	0.17
HCL	0.96	1.11	0.54	0.62	0.59	0.43	0.43	0.62	0.79	0.95	0.70	0.24
Overall (Mean)	0.95											

Graph: 2 Quick Ratio



Interpretation:

From Table-2 and Graph-2, it is clear that the overall mean of the Quick Ratio for selected companies for the selected period of study was 0.95:1. The range of Quick ratio was 0.31:1 to 2.79:1. The highest ratio during the period was 2.79:1 for Birla Corporation Ltd. in the year 2014-15 while the lowest ratio was 0.31:1 for The India Cement Ltd. in the year 2011-12. Out of 10 selected companies, there were 4 companies show a Quick ratio higher than the overall average ratio. Those four companies are Ambuja Cement Ltd., Shree Cement Ltd., Dalmia Cement Ltd., and Birla Corporation Ltd. with 1.29:1, 1.18:1, 1.27:1, and 1.62:1 respectively. The highest average Quick ratio during the period of study was 1.62:1 for Birla Corporation Ltd. The standard Quick ratio is 1:1.

- ❖ UltraTech Cement Ltd. shows a Quick ratio between 0.52:1 and 1.27:1. It is below the standard for 7 years.
- ❖ Ambuja Cement Ltd. shows a ratio between 0.88:1 and 1.75:1. Out of ten years in 8 years, it was above standard and in 1 year near to standard.
- ❖ ACC Cement Ltd. shows a ratio between 0.49:1 and 1.34:1. Out of 10 years, 4 years are above standard.
- ❖ Shree Cement Ltd. shows variation in the ratio between 0.98:1 and 1.69:1. Out of 10 years 8 years are more than standard and in the remaining 2 years near standard which shows a good liquid position.
- ❖ Dalmia Cement Ltd. shows a ratio between 0.96:1 and 2.30:1. Out of ten years in 7 years, it is more than standard while in the remaining 3 years it is near to standard which indicates the good liquid position of the company.
- ❖ Birla Corporation Ltd. shows a ratio between 1.04:1 and 2.79:1. In all 10 years periods, it shows above standard with double than standard in 3 years which company's liquidity is very high-level liquidity. It indicates the strong liquid position of the company.
- ❖ The India Cement Ltd. varies between 0.31:1 and 2.15:1. Out of ten years in 9 years, it is below 1 which shows a very poor liquid position.
- ❖ The Ramco Cement Ltd. shows a ratio between 0.33:1 and 1.20:1. Out of ten years in 9 years, it is below the standard which indicates a very worst position.
- ❖ Orient Cement Ltd. shows a ratio between 0.44:1 and 0.88:1. In all ten years, it is below the standard which indicates a very poor position.
- ❖ Heidelberg Cement Ltd. shows a ratio between 0.43:1 and 1.11:1. Out of 10 years, it is below standard in 8 years which indicates a very poor position.

Test of Hypothesis:

Ho₂ There is no significant difference in the Quick ratio of selected cement companies.

	Quick Ratio
Chi-Square	63.229
df	9

Asymp. Sig.

0.000

As p-value of the **Kruskal-Wallis Test** is less than 0.05 as well as 0.1 which indicates that the null hypothesis is rejected at 5% and 10% levels of significance. It shows that there is a significant difference in the Quick ratio between selected companies.

CONCLUSION

It is concluded that the current ratio and quick ratio both ratios of Birla Corporation Ltd., Shree Cement Ltd., Ambuja Cement Ltd., and Dalmia Cement Ltd. are good. It indicates that the liquidity of those four companies is good in comparison to other selected companies. The India Cement Ltd. and The Ramco Cement Ltd. had to restructure their current assets and current liability. Both the ratios are worst for both companies. It may be a cause for short-term insolvency.

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