THINK INDIA JOURNAL

ISSN:0971-1260

Vol-22- Issue-14-December-2019

Financial Performance Of Selected Cement Companies In India –A Comparative Study

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Abstract
Cement industry is one of the second largest in the worldand employing the people in globalwide. The cement manufacturing companies contributes to the construction industry. The paper contributes to fine the performance of top companies in India. The data was collected from annual reports of selected companiesfor analysis presented in the websites since 2015 to 2019. The data analyzed by using ANOVA as a statistical tool. The analysis of the data shows that there is a difference of performance of selected companies in India. To analyzethe company's performance the ratio analysis method is used such as ratio's are selected that gross profit, net profit, current ratio, quick ratio and debt equity ratio.
***Key Words**: Cement companies, Market Capitalization, Ratio's, ANOVA*

1. Introduction

The cement industry in India is thesecond another largest in the world. It has a total cement production capacity about 455 million tons in the November 2018. The cement is a recurring commodity has a higher correlation with GDP. It is providing employment in the construction housing sector. The cement is required in the construction of home, dam roads, concrete roads,bridges,asbestos roofs, and sanitary waresto build everywhere cement is need to use for development of country. The use of cement has vitally increased form decade of years and no substitute for cement. The sufficient production of cement is required for construction and manufacturing activatesthe industry is the major contribution in the economy growth of India. The real estate, construction and infrastructure sector a booming in India. The real estatesectorhas thehigh demand of cement about 67% of total consumption in India. The another sector is infrastructure consuming 13% and Commercial construction is consuming 11% and industrial construction is 9% of total consumption in India. The production concerned 5 to 6% the industry is growing.

2. Cement Companies and Market Capitalization:

For the study top five companies have been selected to analyze the financial performance.

i.Ultratech Cement:

ii. Shree Cement:

iii. Ambuja Cement:

iv. ACC

v. Ramco Cement

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The contribution to cement companies of Indian economy construction industry in India depends on the cement industry. The table -1 shows the top 5 companies listed in the Indian cement company's market shareas on 06-08-2019. Out of 10 companies the study purposefive companies selected to measure the performance of cement industry using gross profit, net profit, current ratio, quick ratio, and D/E ratio.

Table -1

No	Company	Established	Headquarters	Market Capitalization(` Cr)
1	Ultratech	1987	Mumbai , Maharashtra	1,19,637,62
2	Shree Cements	1970	Ajmeer, Rajasthan	70,524.12
3	Ambuja Cements	1983	Mumbai, Maharashtra	40,070.32
4	ACC	1936	Mumbai, Maharashtra	29,009.38
5	Ramco Cements	1957	Chennai	17,385.98

Source: https://www.moneycontrol.com/stocks/marketinfo/marketcap/bse/cement-major.html

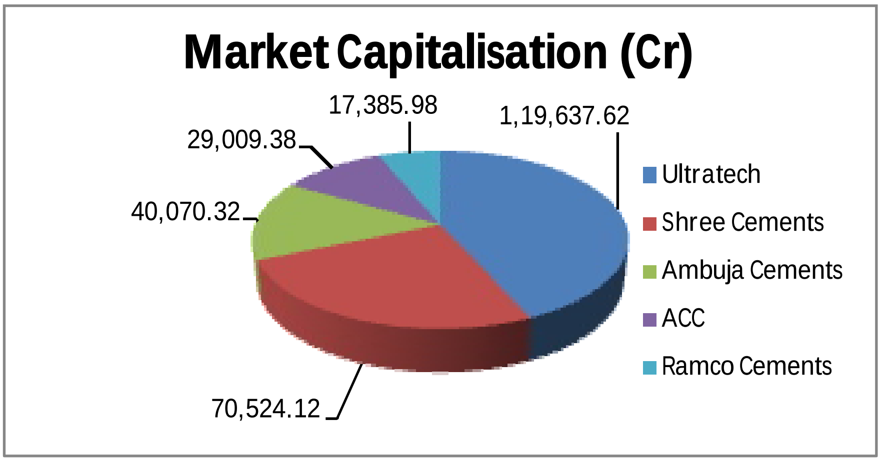

Chart -1

3. Review of Literature

Dr. Kavitha Muthukurmaran and Dr. Vani Haridasan (2018) form his analysis the Indian economy inflation rate has declined in the two years due to this up to some extent control on cost of raw materials and other expenses. Theanalysis is based on fundamental tools and statistical tools to determine the health of a company. The results vary for different models and on different perspectives of people for high and quick growth, steady growth, high profits, less affected y external factors.

Dr.AI.Kamalavalli & S.Hemalatha (2018) analyzed the profitability analysis of selected cement companies has been made about the profitability by using multiple regression analysis found that all the three variables found to be significant associated with the level of return on equity and correlation analysis reveals that positive relationship between FPR,NPR with ROA.

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Mrs.J.Dhivya, Mrs.P.Shobanapriya, Mrs.P.Devika, Mrs.P.Karthika, Mr.K.Bakiyaraj (2017) studiedthe performance of cement companies with reference to ACC Limited. The study shows performance of ACC the position of liquidity is satisfactory and the solvency ratio shows that the company was strong in long term liabilities.

Dr. A.Y.Kettiramalingam, K.Sowmiya and P.Sangeetha (2017) conducted a survey on performance of selected cement companies using financial ratio and trend analysis , and conducted a test correlation and ANOVA the relationship between the companies and variance. The Shree cement company performance was good.

M.Devi and Dr. C.Mugunthan (2017) stated that the two company's profitability ratio is satisfactory and the twocompany's short term liquidity position of ultra tech Cement Company limited is not satisfaction during the period because of current ration and quick ratio level is below one and India cement company limited current ratio is below 2.

Dr. R.Venkatacham &V.Kasthuri (2016) conducted a study on financial performance of cement industry throughfinancial ratios, statistical tools and techniques used to know the overall position of the companies. In his he find that the profitability of cement companies having the impact of current ratio, liquidity ratio, debt equity ratio and interest coverage ratio. He given a suggestion to reduce the interest burden improves the quality of products and builds the brand image. The industry tries to increase the production and sales for increasing profit.

Dr. P.Raja and S.Jagadeesan (2016) analyzed Indian cements companies using the terms profitability, liquidity and credit performance as a financial tool ratio analysis method used.

Mohd.Ajmal (2015) studied on financial performance of Cement Corporation of India limited evaluated through financial ration and liquidity position of the company. The resultsof financialperformance of CCI form 2008 to 2013 shows that the short term solvency position is not satisfactory during the period. The company did not acquired adequate profit and the newt profit shows very low trends. Form the analysis the sales is not significant impact on net liquidity position.

Mohanet al. (2015) in his article the profitability analysis selected cement companies in India mainly focused on the analysis form 2005 to 2014. The statistical tools used for analyzing the mean, standard deviation, coefficient of variation and the compound annual growth rate of ambuja cement is satisfactory.

Gopi(2015) analyzedperformance of cement companies two step methodology using Dupont approach through coefficient of correlation between the equity and companies. He found that the return on equity of all three leading cement companies have declined during 2005 to 2015.

4. Purpose of the study:

The purpose of the research paper is to analyze the financial performance of selected cement companies in India a period of 2015 to 2019.

5. Objectives of the study:

1. Toknow the profitability position of the cement companies in India.
2. Toanalyze liquidity position of cement companies in India.
3. To evaluate the long-term solvency of selected cement companies.

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6. Research methodology:

Sources of Data: the study is based on the secondary sources such as annual report of companies, websites, articles and research papers.

Methods of Data Collection: The data collected from the published annual reports in the websites of the selected companies.

Period of the study: the period of the study is five years since 2015 to 2019.

Sample size: Five top cement companies in the market sharewere selected for marketing analysis.

Statistical Tools: Mean,Standard deviation, covariance, ANOVA used to test the hypothesis through SPSS 21

7. Evaluation of Financial Performance:

Financial performance of an organization was evaluated in terms of its Profits, liquidity, and Long term solvency.

Profitability:

Any organization works to obtain to earn the profit.A business needs profits for existence and to expand and diversification of business in the market. The profits can be measured with gross profit ratio, net profit ratio and operating profit ratio.

Gross profit ratio is refers to gross profit and selling prices of goods per unit. It reflects the efficiency of the firms functions. Net profit is ratio of net profit and sales. It indicates the efficiency of the management of manufacturing, selling, administrative activities of the firm. The net profit ratio reveals that the overall profitability of the organization and higher the ratio is better the profitability.

Liquidity: The Liquidity ratio refers to meet its current obligations when they become due. If it hasexcess liquidity it effects on profitability. Bankers and suppliers of goods extend credit if their current assets are enough to pay off their obligation. Liquidity will be measured with the help of current ratio and quick ratio.

Current Ratio: Current ratio is the ratio of current assets and current liabilities. The current ratio is an indication of the firm liquidity and ability to pay its high current position of firm and low current position of the firm is not good. Thecurrent ratio will be 2.:1 is considered to be satisfactory.

Quick Ratio: Quick Ratio is also known as acid test or liquid ratio. The Quick ratio is the ratio of Liquid assets and Liquid Liabilities.A quick ratio of 1:1 is considered to be satisfactory.

Solvency:

The term solvency refers to the capacity of a concern to meet its obligations. The long-term gratitude of a firm includes debenture holders and loans provided by financial institutions. The long term creditors were long barrowings, payments of the maturity and security of their loans. The solvency ratio indicates the ability to meet the fixed interest and costs to repay long barrowings. Debt equity ratio is the one of the important measurement of long term solvency.

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Debt Equity ratio:Debt equity ratio indicates the ratio of borrowed funds and the owner's capital. The debt equity ratio is measure the relative interest of owners and creditors in the firm. The Debt Equity ratio of 1:1 may be considered satisfactory.

Testing of hypothesis:

Ha1: There is no significant differencebetween gross profit ratio and selected cement companies in India.

Table -2Gross Profit Ratio							
Company/Year	2019	2018	2017	2016	2015	Mean	SD
Ultratech	19.58	21.74	23.56	21.54	19.91	21.27	1.60
Shree Cements	24.72	29.10	33.45	37.71	22.95	29.59	6.10
Ambuja Cements	19.95	21.98	23.94	19.97	23.62	21.89	1.91
ACC	14.74	15.36	13.70	14.04	15.12	14.59	0.71
Ramco Cements	20.49	25.78	31.34	31.99	21.95	26.31	5.26

Source: http://www.moneycontrol.com/

Table 2.1ANOVA of Gross Profit Ratio						
Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	644.4686	4	161.1171	11.24748	0.000	2.866081
Within Groups	286.4946	20	14.32473			
Total	930.9632	24				

Source: Data analysis using SPSS 23

Table 2 shows thatShree cementthe maximum mean values of gross profit is 29.59, standard deviation is 6.10 and follow by Ramco Cement mean value is 26.31, standard deviation is 5.26, Ambuja Cements mean value is 21.89, standard deviation is 1.91, Ultratech Cement mean value is 21.27, standard deviation is 1.60 and ACC mean valueis 14.59 , standard deviation is 0.71. It concludes that Shree cements performance is greaterthan selected cement companies.

Table 2.1 shows that the significant value is 0.000 which is less than 5% percent confidence interval. Therefore, it concludes that null hypothesis is rejected and accepted alternative hypothesis. Hence, there is a significantdifferencegross profit ratio and the selected cement companies in India.

Ha2: There is no significant differencebetween net profit ratio and selected cement companies in India.

Table-3Net profit Ratio							
Company/Year	2019	2018	2017	2016	2015	Mean	SD
Ultratech	6.87	7.49	10.99	9.99	8.78	8.82	1.71
Shree Cements	8.11	14.07	15.58	20.73	6.60	13.02	5.75
Ambuja Cements	13.09	11.94	10.13	8.53	14.99	11.74	2.52
ACC	10.17	6.89	5.39	5.01	9.95	7.48	2.46
Ramco Cements	9.83	12.61	16.43	15.52	6.64	12.21	4.05

Source: http://www.moneycontrol.com/

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Table 3.1 ANOVA Net Profit Ratio						
Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	112.892	4	28.22301	2.178001	0.0085	2.866081
Within Groups	259.1643	20	12.95822			
Total	372.0563	24				

Source: Data analysis using SPSS 23

Table 3 shows that Shree cement the maximum mean values of gross profit is 13.02, standard deviation is 5.75 and follow by Ramco Cement mean value is 12.21, standard deviation is 4.05, Ambuja Cements mean value is 11.74, standard deviation is 2.52, Ultratech Cement mean value is 8.82, standard deviation is 1.71 and ACC mean value is 7.48 , standard deviation is 2.46. It concludes that Shree cements performance is higher than the selected cement companies.

Table 3.1 shows that the significant value is 0.0085 which is less than 5% percent confidence interval. Therefore, it concludes that null hypothesis is rejected and accepted alternative hypothesis. Hence, there is a significant difference net profit ratio and the selected cement companies in India.

Ha3: there is no significant difference in current ratio and selected cement companies in India.

Table-4Current Ratio							
Company/Year	2019	2018	2017	2016	2015	Mean	SD
Ultratech	0.97	0.96	1.55	0.86	0.90	1.05	0.28
Shree Cements	2.01	1.92	1.65	1.56	1.61	1.75	0.20
Ambuja Cements	1.55	1.34	1.23	2.03	1.90	1.61	0.35
ACC	1.40	1.16	0.99	0.88	0.96	1.08	0.21
Ramco Cements	0.67	0.70	0.70	0.88	0.83	0.76	0.09

Source: http://www.moneycontrol.com/

Table 4.1 ANOVA of Current Ratio						
Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	3.470056	4	0.867514	14.79793	0.0000	2.866081
Within Groups	1.17248	20	0.058624			
Total	4.642536	24				

Source: Data analysis using SPSS 23

Table 4 shows that Shree cement the maximum mean values of gross profit is 1.75, standard deviation is 0.24, and follow by Ramco Cement mean value is 0.76, standard deviation is 0.09, Ambuja Cements mean value is 1.61, standard deviation is 0.35, Ultratech Cement mean value is 1.05, standard deviation is 0.28 and ACC mean value is 1.08 , standard deviation is 0.21. It concludes that Shree cements performance is higher than the selected cement companies.

Table 4.1 shows that the significant value is 0.000 which is less than 5% percent confidence interval. Therefore, it concludes that null hypothesis is rejected and accepted alternative

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hypothesis. Hence, there is a significant difference current ratio and the selected cement companies in India.

Ha4: there is no significant difference in quick ratio and selected cement companies in India.

Table-5Quick Ratio

Company/Year	2019	2018	2017	2016	2015	Mean	SD
Ultratech	0.69	0.68	1.27	0.66	0.59	0.78	0.28
Shree Cements	1.21	1.39	0.99	0.86	0.98	1.09	0.21
Ambuja Cements	1.21	1.08	0.95	1.75	1.62	1.32	0.35
ACC	1.04	0.87	0.69	0.57	0.63	0.76	0.19
Ramco Cements	0.40	0.40	0.42	0.51	0.47	0.44	0.05

Source: http://www.moneycontrol.com/

Table 5.1 ANOVA Quick Ratio

Source of Variation	SS	Df	MS	F	P-value	F crit
Between Groups	2.280824	4	0.570206	10.11649	0.000121	2.866081
Within Groups	1.12728	20	0.056364			
Total	3.408104	24				

Source: Data analysis using SPSS 23

Table 5 shows that Shree cement the maximum mean values of gross profit is 1.09, standard deviation is 0.28, and follow by Ramco Cement mean value is 0.44, standard deviation is 0.05, Ambuja Cements mean value is 1.32, standard deviation is 0.35, Ultratech Cement mean value is 0.78 , standard deviation is 0.28 and ACC mean value is 0.76 , standard deviation is 0.19. It concludes that Shree cements performance is higher than the selected cement companies.

Table 5.1 shows that the significant value is 0.000121 which is less than 5% percent confidence interval. Therefore, it concludes that null hypothesis is rejected and accepted alternative hypothesis. Hence, there is a significant difference Quick Ratioand the selected cement companies in India.

Ha5: there is no significant difference in debt equity ratio and selected cement companies in India.

Table-6Debit Equity Ratio

Company/Year	2019	2018	2017	2016	2015	Mean	SD
Ultratech	0.63	0.64	0.22	0.23	0.35	2.07	0.21
Shree Cements	0.29	0.38	0.17	0.11	0.12	1.07	0.12
Ambuja Cements	0.54	0.48	0.17	0.23	0.18	1.60	0.18
ACC	0.00	0.01	0.01	0.00	0.00	0.02	0.01
Ramco Cements	0.32	0.25	0.30	0.57	0.86	2.30	0.26

Source: http://www.moneycontrol.com/

Table -6.1 ANOVA of Debit Equity Ratio

Source of Variation	SS	Df	MS	F	P-value	F crit
Between Groups	0.662296	4	0.165574	5.393641	0.004108	2.866081
Within Groups	0.61396	20	0.030698			
Total	1.276256	24				

Source: Data analysis using SPSS 23

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Table 6 shows that Shree cement the maximum mean values of Debt Equity Ratio is 1.07, standard deviation is 0.12, and follow by Ramco Cement mean value is 2.30, standard deviation is 0.26, Ambuja Cements mean value is 1.60, standard deviation is 0.18, Ultratech Cement mean value is 2.07, standard deviation is 0.21 and ACC mean value is 0.02 , standard deviation is 0.01. It concludes that Ramco cements performance is higher than the selected cement companies.

Table 6.1 shows that the significant value is 0.004108 which is less than 5% percent confidence interval. Therefore, it concludes that null hypothesis is rejected and accepted alternative hypothesis. Hence, there is a significant difference Debit Equity Ratioand the selected cement companies in India.

Table -7

Company/Ratio	GP	NPR	CR	QR	DER
Ultratech	21.27	8.82	1.05	0.78	2.07
Shree Cements	29.59	13.02	1.75	1.09	1.07
Ambuja Cements	21.89	11.74	1.61	1,32	1.60
ACC	14.59	7.48	1.08	0.76	0.02
Ramco Cements	26.31	12.48	0.76	0.44	2.30

Source: Data analysis using SPSS 23

The table -7 shows that theaverage Gross profit ratio of the Ultratech Cements were 21.27, Shree Cements' were 29.59, AmbujaCements 21.89, ACC were 14.59 and Ramco Cements 26.31. the average Net profit ratio of the Ultratech Cements were 8.82, Shree Cements were 13.02, AmbujaCements11.74, ACC were 7.48 and Ramco Cements 12.48.the average Current Ratio of the Ultratech Cements were 1.05 Shree cements were 1.75, AmbujaCements1.61, ACC were 1.08 and Ramco Cements 0.76.The average Quick ratios of the Ultratech Cements were0.78, Shree cements were 1.09, AmbujaCements1.32, and ACC were 0.76 and Ramco Cements 0.44. The average Debit Equity Ratio of the Ultratech Cements was2.07, Shree cements were 1.07, AmbujaCements1.60, and ACC were 0.02 and Ramco Cements 2.30.Hence it concludes that an average the performance of Shree cement is satisfactory.

No.	Hypothesis	Sig. value	Results
1	There is no significant differencebetween gross profit ratio and selected cement companies in India.	0.000	Reject Null Hypothesis
2	There is no significant differencebetweennet profit ratio and selected cement companies in India.	0.0085	Reject Null Hypothesis
3	There is no significant differencebetweencurrent ratio and selected cement companies in India.	0.000	Reject Null Hypothesis
4	There is no significant differencebetweenquick ratio and selected cement companies in India.	0.000121	Reject Null Hypothesis
5	There is no significant differencebetweendebt equity ratio and selected cement companies in India.	0.004108	Reject Null Hypothesis

Source: Based on hypothesis tested

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Conclusion:

The contribution of Indian cement industry to Indian economy is significant Thefinancial performance of five major selected cements companies are Ultratech Cement, Shree Cement,Ambuja Cement Limited, Associate Cement Companies Limited and Ramco Cements the null hypothesis have been rejected and accepted of alternative hypothesis. The analysis of data shows that there is a significant difference in selected cement companies during the period of 2015 to 2019 in India with respect to gross profit ratio, net profit ratio, current ratio, quick ratio, and debt equity ratio.

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