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An Analysis of Indian Cement Industry Based on Profitability Performance

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Abstract

Profitability is the ability of a business to earn a profit. A profit is what is left of the revenue a business generates after it pays all expenses directly related to the generation of the revenue, such as producing a product, and other expenses related to the conduct of the business activities. This is one of the major issues for the investors as well as management because it finds out the various ratio-such as Net Profit Ratio; Return on Equity; Return on Capital Employed and Return on Net Worth, related with the investors and management, which make the business comparable to the peer companies of the industry. This paper makes an attempt to provide an insight into the profitability performance of 10 leading cement manufacturers in India. It also makes an effort to observe and test the inter firm's industry position. Profitability ratios are ranked and selected into a uniform boundary to compare their performance. The study is based on secondary data collected from published annual reports cover a five years' period (2013 to 2017). The available data have been analyzed by using important profitability ratios and some statistical tools such as Mean, SD and Rank are also used with the help of SPSS 23 software.
Keywords: *Indian Cement Industry, Profitability Performance and Ratio Analysis.*

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1. INTRODUCTION

Every sector of the economy is playing an important role in the economic development of the country since times immemorial. The economy is broadly categorized into three sectors viz. agricultural sector (Primary Sector), Industrial sector (Secondary Sector) and service sector. Each of the sectors is playing a vital role and is significant for the economic development of every country. Now a days, industrial sector has shaped the economic destiny of various developing countries especially India. With regard to industrial sector, cement industry provides the basic foundation of infrastructural development and providing social overheads in the country. At present the big challenge before the planners of the economy is infrastructural development which can be achieved only through the presence of strong cement industry which provides the basic raw material for construction of roads, bridges and buildings etc. Cement is the most essential raw material in any kind of construction activity. Accordingly cement industry plays a crucial role in the infrastructural development of the country. Given the vast geographical size and massive population of the country, various construction activities undertaken by the central Govt., State Govt., Public Sector Undertakings and other organizations, including private sector generate huge demand for cement. Moreover, provision for housing is the first and foremost requirement of every household and therefore, first private cement industry was laid down in the year 1914, when it first started working in Gujarat. The Indian cement Industry is consisted of 20 large cement plants and 365 mini cement plants with an installed capacity of 140 million tonnes.

With cement production capacity of nearly 366 million tonnes, as of 2015, India was the second largest cement producer in the world. In 2016, country's cement production capacity has been achieved to 395 million tonnes, which is expected to further increase to 550 million tonnes by 2025. On the other hand, China Produced 2483.18 MT and Consumed 2511 MT of cement in 2016. As India's current per capita consumption of cement (201 kg as of March 2017) is much lesser than the developed and other developing economies, so there is a significant business opportunity to cater to the unmet and rising demand. Out of the total capacity, 98 percent lies with the private sector and the rest with public sector, with the top 20 companies accounting for around 70 per cent of the total production. 210 large cement plants account for a cumulative installed capacity of over 350 million tonnes, while over 350 mini cement plants have an estimated production capacity of nearly 11.10 million tonnes, as of 2016. Cement Industry in India is centralised in 3 major state - of Andhra Pradesh, Rajasthan and Tamil Nadu as out of total 210 large cement plants in India, 77 are situated in these three states. (www.ibef.org)

The Union Budget 2016–17 has been favourable for the infrastructure sector, mainly for roads, which would eventually influence the cement industry of the country. In the budget, the Government of India, allocated a total of USD 8.22 billion for the development of roads & highways of India, bracing the cement industry of India. Housing sector is considered to drive the cement industry in India to a great extent, which held nearly 67 per cent of the total cement consumption in India. (Source: Union Budget 2016–17, Emkay Global Financial Services)

Thrust on infrastructure development and Housing for all with 2 crore houses in Urban areas and 4 Rural areas is likely to revive the demand for cement sector. These sectors are considered to drive the cement industries in India to a great extent, which held nearly 67 per cent of the total cement consumption in India.

2. REVIEW OF LITERATURE

The research work, surveys and studies that deal with the cement industry and the subject matter under consideration had been examined and analysed. The important among them with regard to the cement industry conducted by research scholars are:

Alovsat Muslumov (2005)[1] concluded that the privatization was associated with a declining value added and shareholders' profitability in Turkish cement industry. A decline in the value added and shareholders' profitability were mainly caused by the decrease in return on assets. The decline in the return on asset was traced to declining asset productivity. These results are not consistent with previous cross-sectional privatization studies and a number of country studies.

Burange, LG. and Shruti, Yamini (2009)[2] Ph.D thesis submitted to *"university of Mumbai, department of economics"* titling *"performance of Indian cement Industry: the competitive landscape"* The focus of this work is the performance of Indian cement Industry in some key areas which are: Cement, History, Evolution, Decontrol, Performance, Dynamics. The Cement Industry is experiencing a boom on account of the overall growth of the Indian economy primarily because of increased industrial activity, flourishing real estate business, growing construction activity and expanding investment in the infrastructure sector. The performance of the industry under different policy regimes, truly establishes that decontrol of the industry and liberalization of the economy has led to remarkable improvement in the indicators such as installed capacity, capacity utilization, per capita consumption and exports. The industry experienced complete shift in the technology of production, from wet process to dry process. The competitiveness among the firms in Indian cement Industry has also been evaluated. For the year 2006-07, out of the sample of seventeen firms (90.21% of the total market share), about 47% have recorded above industry average performance in the overall competitiveness index. The marginal difference between the competitiveness of different firms reveals the tough competition in the Industry.

S. Chandrakumarmangalam and P. Govindasamy (2010)[3] investigate the relationship between the leverage (financial leverage, operating leverage and combined leverage) and the earning per share, and this study also explains the relationship between the Debt equity ratio and Earning per Share and how effectively the firm be able debt financing, the results suggest that the leverage and profitability and growth are related and the leverage is having impact on the profitability of the firm.

Mohan Kumar, Safeer Pasha & Bhanu Prakash (2015)[4], explained that Cement industry is a largest industry in world economy and Indian cement industries place second largest in the world. It is playing vital role to providing employment, infrastructure and housing sector, it attracted FDI worth US$ 3,084.89 million during the year 2000 to 2014. The production capacity is projected to reach 550MT by financial year 2020. The research paper mainly focuses on analyses of profitability of selected cement companies in India during period of 2005 to 2014, the tools used for analysis are mean, standard deviation, co-efficient of variation and compound annual growth rate, the study found that the profitability position of Ambuja cements is satisfactory when compare to other companies.

Dr. M. Thyigarajan and Mr J. Uday Kumar (2015)[7] in their paper "Profitability analysis of select aluminium companies in India" the main objective of this research paper is to analyse the profitability position of the selected aluminium companies for 10 years (2005-2014). The study is based on the secondary data, the tools used for analysis are Mean, Standard deviation, co-efficient of variation and compound annual growth. The study ascertains the National Aluminium Company Limited shows satisfactory performance in concern with profitability.

Sasikala and Balakrishnan (2015)[6] evaluated the problems and prospects of selected cement companies in India. This research article was based on secondary data collected from annual report of cement industries and profile of the industries. Financial analysis is a powerful tool which helps in determining the problems in the operation and financial position of the industries. The company should enrich its performance for meeting challenges and exploiting chances in future and helps the management to take financial decisions. Based on the findings, suggestions are given by the researcher for better improvement of the cement industry in future. This study also finds out the extents where the industries can expand the position precision of its assets and funds.

Akki Siva Naga Raju, (2016)[7]**,** explained in his study that capital budgeting helps to decide whether or not funds should be invested in long-term projects and helps to analyze the proposals for expansion or creating additional capacities to analyze various proposals regarding capital investment and to choose the best out of many alternative proposals.

Research Gap: The above researches have not studied cement industry performance based on profitability. This work will fill the gap.

3. OBJECTIVES OF THE STUDY

The main objective of the present work is to appraise the performance in respect of profitability on selected cement manufactures in India and its profitability ratios are compared with its immediate competitors. More specifically, it seeks to do well upon mainly the following issues:

- To assess the profitability position with the help of widely used financial ratios of the selected companies;
- To observe the profitability performance of companies under the study;
- To compare the performance of selected companies based on overall profitability with the help of statistical tools.

4. HYPOTHESIS OF THE STUDY

The hypotheses of the present study are as under:

1. **Null Hypothesis (H_0):** There is no significant difference between profitability performance of selected Cement Companies of India; and
2. **Alternative Hypothesis (H_1):** There is significant difference between profitability performances of selected Cement Companies of India.

5. MATERIALS AND METHODS

The present study is based on 10 listed cement manufacturing firms in India. The study covers a period of 5 years i.e. from 2012-13 to 2016-17. The secondary data obtained from the audited balance sheets and profit & loss accounts part and parcel of annual reports of the selected companies. The data so collected, have been analyzed by using various Profitability indicators such as Operating Profit Margin, Profit before Interest and Tax, Net profit Margin, Return on Capital Employed, Return on Equity, Return on Long-term Fund, Earning per Share and

Dividend per Share. An attempt has been made to measure the profitability performance of major cement manufacturers in the light of said financial indicators.

6. Data Analysis

Profitability Ratio: Profitability ratios replicate the final result of business operations. There are two types of profitability ratios: profit margin ratios and rate of return ratios. Profit margin ratios show the relationship between profit and sales. Since profit can be measured at different stages, there are several measures of profit margin. The most popular profit margin ratios are: operating profit margin, and PBIT Margin. Rate of return ratios reflects the re1ationship between profit and investment. The important rate of return measures are: return on assets, earning power, return on capital employed, and return on equity. These ratios are very useful for the management as well as for the investors, present and future. Following are the data analysis of profitability ratios of selected companies:

1. Operating Profit Margin : Operating Profit Ratio establishes the relationship between operating Profit and net sales. Higher operating ratio indicates that the firm has got enough margins to meet its non operating expenses well as to create reserve and pay dividends. It can be computed as follows:

Operating Profit Ratio = Operating Profit / Sales × 100

Table 1: Operating Profit Margin of Major Cement Companies

Year	Name of Company									
	ACC	Ambuja Cements	Birla Corp	Dalmia Bharat	Heidelberg Cement	India Cement	Mangalam Cement	Prism Cement	Shree Cement	UltraTech Cement
2012-13	19.33	25.41	15.09	10.98	6.99	17.90	18.50	5.45	27.92	23.16
2013-14	14.58	18.02	8.50	12.06	8.43	11.37	7.99	2.82	23.60	18.82
2014-15	12.84	19.32	9.39	14.40	15.75	15.42	9.81	5.07	20.82	18.29
2015-16	13.03	16.18	8.71	16.79	14.35	18.21	5.19	5.46	23.71	19.14
2016-17	12.69	18.15	11.09	25.22	16.23	14.90	13.36	5.59	28.08	20.79
Mean	14.49	19.42	10.56	15.89	12.35	15.56	10.97	4.88	24.83	20.04
Standard Deviation	2.81	3.53	2.73	5.68	4.32	2.76	5.15	1.17	3.12	1.98
Co-efficient of Variance	19.37	18.20	25.87	35.72	34.99	17.75	46.94	23.92	12.57	9.87

Source: *Calculated on the basis of Annual Reports of selected Companies.*

Mean value of Shree Cement Limited (24.83) is highest among the selected companies on the basis of Operating profit margin, whereas performance of Prism Cement (4.88) was worst. On the basis of consistency, performance of Ultratech Cement Limited (9.87) is best as the CV of this company is lowest, on the other hand Mangalam Cement Limited (46.94) was the most inconsistent company among the selected companies.

2. PBIT MARGIN: PBIT Ratio is useful to compare multiple companies, especially within a given industry, and it also helps to evaluate how a company has grown over time. The PBIT Margin is defined as:

PBIT Margin = (Operating Profit +Other Income)/ Sales × 100

Table 2: Profit before Interest and Tax of Major Cement Companies

Year	Name of Company									
	ACC	**Ambuja Cements**	**Birla Corp**	**Dalmia Bharat**	**Heidelberg Cement**	**India Cement**	**Mangalam Cement**	**Prism Cement**	**Shree Cement**	**UltraTech Cement**
2012-13	14.08	18.92	10.56	8.64	4.10	11.73	14.80	2.09	19.47	18.20
2013-14	9.25	12.14	3.94	9.46	1.06	5.05	3.98	-0.70	13.83	13.41
2014-15	7.90	13.63	4.40	11.31	8.96	9.53	6.13	2.61	6.35	13.13
2015-16	7.42	9.22	3.96	12.03	8.59	12.98	0.84	2.67	7.24	13.66
2016-17	7.20	8.45	6.42	17.66	10.32	10.42	8.76	2.36	12.89	15.07
Mean	**9.17**	**12.47**	**5.86**	**11.82**	**6.61**	**9.94**	**6.90**	**1.81**	**11.96**	**14.69**
Standard Deviation	**2.86**	**4.18**	**2.82**	**3.54**	**3.88**	**3.03**	**5.28**	**1.42**	**5.35**	**2.10**
Co-efficient of Variance	**31.17**	**33.49**	**48.17**	**29.94**	**58.78**	**30.49**	**76.57**	**78.60**	**44.75**	**14.27**

Source: *Calculated on the basis of Annual Reports of selected Companies.*

Mean Score of Ultratech Cement Limited (14.69) is highest among the selected companies on the basis of Profit before Interest and Tax, whereas performance of Prism Cement (1.81) was worst. On the basis of consistency, again performance of Ultratech Cement Limited (14.27) is best as the CV of this company is lowest, on the other hand Prism Cement (78.60) was the most inconsistent company among the selected companies.

3. Net Profit Margin: This ratio establishes the relationship between net profit and net sales. It indicates managements' efficiency in manufacturing, administering and selling the product. A firm with high net profit margin would be in an advantageous position to survive in the face of falling selling prices, rising cost of production or declining demand for the product. It is calculated as a percentage of sales. It is computed as under:

Net Profit Ratio = Net profit / Net Sales × 100

Table 3: Net Profit Ratio of Major Cement Companies

Year	Name of Company									
	ACC	Ambuja Cements	Birla Corp	Dalmia Bharat	Heidelberg Cement	India Cement	Mangalam Cement	Prism Cement	Shree Cement	UltraTech Cement
2012-13	9.34	13.33	10.36	21.68	2.79	3.55	10.95	-1.24	17.95	13.15
2013-14	9.81	14.13	4.30	21.65	-3.36	-3.65	4.24	-1.64	13.37	10.57
2014-15	9.95	14.99	5.46	14.31	2.91	0.66	1.94	0.26	6.60	8.78
2015-16	5.01	8.53	4.80	32.08	2.33	3.26	-2.43	0.15	8.17	9.02
2016-17	5.39	10.46	6.39	28.47	4.43	3.00	4.03	0.34	15.88	10.99
Mean	7.90	12.29	6.26	23.64	1.82	1.36	3.75	-0.43	12.39	10.50
Standard Deviation	2.48	2.70	2.42	6.88	3.00	3.03	4.84	0.94	4.88	1.76
Co-efficient of Variance	31.38	22.00	38.66	29.11	164.91	222.03	129.15	-220.38	39.40	16.78

Source: *Calculated on the basis of Annual Reports of selected Companies.*

Mean Score of Dalmia Bharat Limited (23.64) is highest among the selected companies on the basis of Net Profit Ratio, whereas performance of Prism Cement (-0.43) was worst. On the basis of consistency, performance of Ultratech Cement Limited (16.78) is best as the CV of this company is lowest, on the other hand India Cement Limited (222.03) was the most inconsistent company among the selected companies.

4. Return on Capital Employed: Return on capital employed is the indicator of the operational efficiency of the company. It measures how much investors are earning on the capital they have invested in that business. Return on Capital Employed is a performance measure and it indicates how much return is generated from Invested Capital. The return on capital Employed is defined as:

ROCE = [Profit after Tax + Interest] / Net Capital Employed ×100

Table 4: Return on Capital Employment of Major Cement Companies

Year	Name of Company									
	ACC	Ambuja Cements	Birla Corp	Dalmia Bharat	Heidelberg Cement	India Cement	Mangalam Cement	Prism Cement	Shree Cement	UltraTech Cement
2012-13	25.46	25.52	11.48	9.55	3.01	8.73	16.12	4.45	27.24	20.48
2013-14	16.34	16.33	6.91	11.00	0.93	5.15	3.80	4.03	17.70	14.08
2014-15	14.78	18.25	7.87	6.37	11.12	7.63	7.08	6.51	9.45	13.53
2015-16	11.84	12.23	8.22	5.97	9.70	9.90	1.40	8.43	7.71	13.93
2016-17	10.61	7.37	7.32	7.27	13.18	7.96	12.16	9.37	18.46	14.95

Mean	15.81	15.94	8.36	8.03	7.59	7.87	8.11	6.56	16.11	15.39
Standard Deviation	5.86	6.79	1.82	2.16	5.33	1.76	6.03	2.36	7.86	2.89
Co-efficient of Variance	37.06	42.60	21.71	26.93	70.20	22.29	74.28	35.96	48.76	18.77

Source: *Calculated on the basis of Annual Reports of selected Companies.*

Mean Score of Shree Cement Limited (16.11) is highest among the selected companies on the basis of Return on Capital Employment, whereas performance of Prism Cement (6.56) was worst. On the basis of consistency, performance of Ultratech Cement Limited (18.77) is best as the CV of this company is lowest, on the other hand, India Cement Limited (74.28) was the most inconsistent company among the selected companies.

5. Return on Equity: The Return on Equity ratio is perhaps the most important of all the financial ratios to investors in the company. It measures the return on the money the investors have put into the company. In general, the higher the percentage, the better, with some exceptions, as it shows that the company is doing a good job using the investors' money. The return on net worth is defined as:

ROE = Net Profit / Share Holders Fund ×100

Table 5: Return on Equity of Major Cement Companies

Year	**Name of Company**									
	ACC	**Ambuja Cements**	**Birla Corp**	**Dalmia Bharat**	**Heidelberg Cement**	**India Cement**	**Mangalam Cement**	**Prism Cement**	**Shree Cement**	**UltraTech Cement**
2012-13	14.37	14.73	11.04	7.65	3.70	4.47	15.87	-5.45	26.12	17.43
2013-14	14.00	13.64	5.15	8.71	-4.96	-4.64	5.89	-8.09	16.71	12.54
2014-15	14.18	14.81	6.70	4.31	6.92	0.89	3.49	1.44	8.07	10.68
2015-16	7.00	7.83	5.80	5.24	4.37	4.06	-4.17	0.84	7.36	10.48
2016-17	6.95	5.08	6.74	4.55	7.88	3.39	7.24	1.83	17.39	10.97
Mean	11.30	11.22	7.09	6.09	3.58	1.63	5.66	-1.89	15.13	12.42
Standard Deviation	3.95	4.48	2.31	1.97	5.08	3.77	7.21	4.57	7.72	2.92
Co-efficient of Variance	34.96	39.93	32.57	32.38	141.81	230.88	127.35	- (242.25)	51.05	23.48

Source: *Calculated on the basis of Annual Reports of selected Companies.*

Mean Value of Shree Cement Limited (15.13) is highest among the selected companies on the basis of Return on Equity, whereas performance of Prism Cement (-1.89) was worst. On the basis of consistency, performance of Ultratech Cement Limited (23.48) is best as the CV of this company is lowest, on the other hand, India Cement Limited (-242.25) was the most inconsistent company among the selected companies.

6. Return on Long-Term Funds: Return on Long-term funds establishes the relationship between net profit and the long-term funds. It tells us that earning of the company which reflects operating condition of the firm. The term long-term funds refer to the total investment made in business for long-term. It is calculated by dividing earnings before Interest and Tax (EBIT) by the total long term funds. The return on Long-term funds is defined as:

Return on Long term fund = EBIT / Long-term Fund ×100

Table 6: Return on Long-Term Funds of Major Cement Companies

Year	Name of Company									
	ACC	Ambuja Cements	Birla Corp	Dalmia Bharat	Heidelberg Cement	India Cement	Mangalam Cement	Prism Cement	Shree Cement	UltraTech Cement
2012-13	25.46	25.52	11.48	9.55	3.01	8.73	16.12	4.45	27.24	20.48
2013-14	16.34	16.33	6.91	11.00	0.93	5.15	3.80	4.03	17.70	14.08
2014-15	14.78	18.25	7.87	6.37	11.12	7.63	7.08	6.51	9.45	13.53
2015-16	11.84	12.23	8.22	5.97	9.70	9.90	1.40	8.43	7.71	13.93
2016-17	10.61	7.37	7.32	7.27	13.18	7.96	12.16	9.37	18.46	14.95
Mean	15.81	15.94	8.36	8.03	7.59	7.87	8.11	6.56	16.11	15.39
Standard Deviation	5.86	6.79	1.82	2.16	5.33	1.76	6.03	2.36	7.86	2.89
Co-efficient of Variance	37.06	42.60	21.71	26.93	70.20	22.29	74.28	35.96	48.76	18.77

Source: *Calculated on the basis of Annual Reports of selected Companies.*

Mean Value of Shree Cement Limited (16.11) is highest among the selected companies on the basis of Return on Long-Term Funds, whereas performance of Prism Cement (6.56) was worst. On the basis of consistency, performance of Ultratech Cement Limited (18.77) is best as the CV of this company is lowest, on the other hand Mangalam Cement Limited (74.28) was the most inconsistent company among the selected companies.

7. Earnings Per Share: Earnings per share (EPS) is the portion of a company's profit allocated to each outstanding share of common stock. Earnings per share serves as an indicator of a company's profitability. In a given fiscal year, a publicly-traded company’s profit divided by the number of shares outstanding. This is considered the single most important aspect in determining a share’s price and value, because the calculation of earnings per share shows the amount of money to which a shareholder would be entitled in the event of the company’s liquidation. In general, earnings per share apply only to common shares. It is calculated:

Earnings per Share = (Net Income – Preference Dividends) / No. of Equity Shares Outstanding or Issued

Table 7: Earnings per Share of Major Cement Companies

Year	Name of Company									
	ACC	Ambuja Cements	Birla Corp	Dalmia Bharat	Heidelberg Cement	India Cement	Mangalam Cement	Prism Cement	Shree Cement	UltraTech Cement
2012-13	56.52	42.15	35.04	25.45	1.36	5.32	28.98	-1.21	288.19	96.87
2013-14	58.36	41.95	16.85	30.65	-1.80	-5.29	11.09	-1.66	225.98	78.21
2014-15	62.23	48.35	22.78	15.45	2.63	0.96	6.71	0.29	122.38	73.00
2015-16	31.51	26.05	20.43	40.10	1.71	4.49	-7.67	0.17	130.59	79.25
2016-17	32.08	24.45	27.79	35.65	3.36	5.45	13.72	0.35	384.39	95.74
Mean	48.14	36.59	24.58	29.46	1.45	2.19	10.57	-0.41	230.31	84.61
Standard Deviation	15.06	10.68	7.07	9.56	1.98	4.56	13.20	0.95	110.34	10.94
Co-efficient of Variance	31.29	29.19	28.76	32.44	136.35	208.60	124.91	-230.47	47.91	12.93

Source: *Calculated on the basis of Annual Reports of selected Companies.*

Mean Value of Shree Cement Limited (230.31) is highest among the selected companies on the basis of Earnings per Share, whereas performance of Prism Cement (-0.41) was worst. On the basis of consistency, performance of Ultratech Cement Limited (12.93) is best as the CV of this company is lowest, on the other hand Mangalam Cement Limited (-230.47) was the most inconsistent company among the selected companies.

8. Dividend Per Share: The portion of a company's earnings distributed to shareholders divided by the total number of shares outstanding or issued. The dividends per share determine how much each investor receives each time a dividend payment is made.

Dividends per Share = Total dividends paid) / No. of Equity Shares Outstanding or Issued

Table 8: Dividends per Share of Major Cement Companies

Year	Name of Company									
	ACC	Ambuja Cements	Birla Corp	Dalmia Bharat	Heidelberg Cement	India Cement	Mangalam Cement	Prism Cement	Shree Cement	UltraTech Cement
2012-13	30.00	18.00	7.00	10.00	0.00	2.00	6.00	0.00	20.00	9.00
2013-14	30.00	18.00	6.00	10.00	0.00	0.00	3.00	0.00	22.00	9.00
2014-15	34.00	25.00	6.00	7.50	0.00	0.00	2.00	0.00	24.00	9.00
2015-16	17.00	14.00	6.00	10.00	0.00	1.00	0.50	0.00	24.00	9.50
2016-17	17.00	14.00	6.50	0.00	0.00	1.00	0.75	0.00	140.00	10.00
Mean	25.60	17.80	6.30	7.50	0.00	0.80	2.45	0.00	46.00	9.30
Standard Deviation	8.02	4.49	0.45	4.33	0.00	0.84	2.22	0.00	52.57	0.45
Co-efficient of Variance	31.32	25.25	7.10	57.74	0.00	104.58	90.81	0.00	114.29	4.81

Source: *Calculated on the basis of Annual Reports of selected Companies.*

Mean Value of Shree Cement Limited (46.00) is highest among the selected companies on the basis of Dividends per Share, whereas performance of Prism Cement and Heidelberg Cement Limited (0.00) were worst as these two companies do not distribute any dividend during the period of study. On the basis of consistency, performance of Ultratech Cement Limited (4.81) is best as the CV of this company is lowest, on the other hand Shree Cement Limited (114.29) was the most inconsistent company among the selected companies. Prism Cement and Heidelberg Cement Limited were not included while comparing consistency.

Testing Hypothesis: Motaal Rank Test is used to test the hypothesis of the present problem.

The table-9 exhibits the list of ten major players of cement industry considering their 8 profitability ratios. The estimated profitability ratios are ascertained on the basis of simple average value for the 5 successive financial years from 2012-13 to 2016-17. Table-9 contains the ultimate rank of cement companies on the basis of average profitability during the period of study. The industry shows significant variation across firms in terms of all Profitability ratios.

Table 9: Profitability Performance on the basis of Mean

Company	Rank on the basis of Average Profitability (Mean)								Total	Ultimate Rank
	OPM	PBIT	NPM	ROCE	ROE	ROLTF	EPS	DPS		
ACC	6	6	6	3	3	3	3	2	**32**	**3**
Ambuja Cements	3	2	3	2	4	2	4	3	**23**	**2**
Birla Corp	9	9	7	5	5	5	6	6	**52**	**5**
Dalmia Bharat	4	4	1	7	6	7	5	5	**39**	**4**
Heidelberg Cement	7	8	8	9	8	9	9	9.5	**67.5**	**8**
India Cement	5	5	9	8	9	8	8	8	**60**	**7**
Mangalam Cement	8	7	7	6	7	6	7	7	**55**	**6**
Prism Cement	10	10	10	10	10	10	10	9.5	**79.5**	**9**
Shree Cement	1	3	2	1	1	1	1	1	**11**	**1**
UltraTech Cement	2	1	4	4	2	4	2	4	**23**	**2**

Result: Table no 9. contains the ultimate Motaal Rank of Cement companies on the basis of average profitability during the period of study. The industry shows significant variation across firms in terms of all profitability ratios. Hence H0 is rejected and alternative hypothesis, there is significant difference between profitability performances of selected cement companies of India, is accepted.

The Table-10 exhibits the consolidated profitability performance of ten major cement companies to illustrate their individual position on the basis of consistancy.

Table 10: Profitability Performance on the basis of Consistancy

Company	Rank on the basis of Average Profitability (Mean)								Total	Ultimate Rank
	OPM	PBIT	NPM	ROCE	RONW	ROLTF	EPS	DPS		
ACC	5	4	4	6	4	6	4	4	**37**	**5**
Ambuja Cements	4	5	2	7	5	7	3	3	**36**	**4**
Birla Corp	7	7	5	2	3	2	2	2	**30**	**2**
Dalmia Bharat	9	2	3	4	2	4	5	5	**34**	**3**
Heidelberg Cement	8	8	8	9	8	9	8	9.5	**67.5**	**10**
India Cement	3	3	10	3	9	3	9	7	**47**	**6**
Mangalam Cement	10	9	7	10	7	10	7	6	**66**	**9**
Prism Cement	6	10	9	5	10	5	10	9.5	**64.5**	**8**
Shree Cement	2	6	6	8	6	8	6	8	**50**	**7**
UltraTech Cement	1	1	1	1	1	1	1	1	**8**	**1**

The ultimate Rank has been calculated taking lower the aggregate of the individual Rank

Result: Table 10 contains the ultimate Motaal Rank of Cement companies one the basis of average consistancy during the period of study. The industry shows significant variations across firms in terms of consistency among all ratios. Hence our H0 is rejected and alternative hypothesis is accepted.

7. FINDINGS

- Among the top ten Cement companies selected for the study Shree Cement was having the highest Operating Profit margin of 24.83% as per last five years' performance. UltraTech Cement was at the second place with operating profit margin of 20.04%.
- In the area of Profit before Interest and Tax, UltraTech Cement was in the top most position among the five cement companies with 5 years average of 14.69%. Ambuja Cement was in the second place in average PBIT margin 12.47%.
- In Net Profit Ratio, Dalmia Bharat Cement was the best performer, as it had the highest average Net Profit Margin of 23.64%. Thus, it had chances of earning higher profits. Shree Cement came at the second position with 12.39%.
- Among the top ten leading cement manufactures of India, cut-throat competition was found in top four companies in terms of Return on Capital Employed, leading by Shree Cement with 16.11% Ambuja Cement with 15.94%, followed by ACC with 15.81%, and UltraTech Cement with 15.39%.
- In the area of Return on Equity, Shree Cement was the best performer among the leading cement manufacturers, as it had grown strongly with a 5-year average of 15.13%. Thus, it had a potential return on the money for the investors have put into the company. UltraTech Cement was at the second place with operating profit margin of 12.42%.
- The Return on long-term fund was highest for Shree Cement with 5-year average of 16.11%. Thus, Shree Cement shows highest soundness among the top five companies. Ambuja Cement was much closed to Shree Cement with an average return of 15.94%.

- The Earnings per Share was highest for Shree Cement with 5-year average of 230.31. Thus; Shree Cement shows highest soundness among the top five companies. UltraTech Cement was next to Shree Cement with an average EPS of 84.61.
- The Dividend per Share was highest for Shree Cement with 5-year average of Rs. 46.00. Thus; Shree Cement shows highest soundness among the top five companies. ACC was next to Shree Cement with an average EPS of Rs. 25.60.
- The study revealed that Shree Cement was in the highest profitability position during the study period compared to other industry players. UltraTech Cement was next to Shree Cement during the selected period of study.
- Table No. 10 clears that Ultratech Cement is the most consistent company under study, whereas Prism Cement and Heidelberg Cement performed badly and ranked 9 and 10 in most of the parameters.

8. CONCLUSION

The companies selected for the study shows that the industry is somewhat doing well as far as profitability ratios are concerned. It is notable that Ultratech Cement, Shree Cement, ACC, and Ambuja Cement are the top performer of the industry. Table No. 9 cleared that Shree Cement is the star performer in this group of companies under study and Ultratech Cement ranked second in the course of performance. Prism Cement and Heidelberg Cement performed badly and ranked 9 and 10 in most of the parameters. Table No. 10 apparent that Ultratech Cement is the most consistent company under study, whereas Mangalam Cement and Heidelberg Cement performed badly and ranked 9 and 10 in the course of consistency.

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