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A Comparative Study of Profitability in Selected Cement Companies in India.

Abstract :

Indian cement industry plays very important role in infrastructural development of our country. Cement industry is one of the leading industries for growth and development of country. Profitability is the measurement of the success of Business. In simple words, Profitability is the capacity of the firm to generate income continuously. In the present research study, researcher tries to make comparison of Profitability in selected cement companies viz., ACC Cement, Ambuja Cement, J.K. Cement, Prism Cement and Ultratech cement. Researcher has used various profitability ratios and F test one way ANNOVA Table as statistical tools for analysis and comparison of data.

Key words:

Profitability Analysis, ACC Cement, Ambuja Cement, J.K. Cement, Prism Cement and Ultratech cement.

Cement Industry: An Overview:

Indian cement industry plays very important role in infrastructural development of our country. Cement industry is one of the leading industries for growth and development of country. It provides large employment opportunities.

Quality of Indian cement industry is improved by following international quality standards and now-a-days providing tough competition to cement companies in foreign countries. Indian cement industry stands at 2nd position in cement production in all over the world and also attracts foreign direct investment. Demand of cement industries has been increasing because of rapid infrastructural development and construction activities in India.

In this paper researcher has conducted profitability analysis of cement companies viz., ACC Cement, Ambuja Cement, J.K. Cement, Prism Cement and Ultratech cement. This research study will be helpful for various stakeholders of cement companies like owners, shareholders, manager etc. They are interested to get idea about profitability and financial soundness of companies in which they have invested their fund.

This research study aims to provide analyzed information about gross profit, net profit, return on capital employed, return on net worth and return on long term funds of selected cement companies in India, which is useful for whole corporate sector. This research study is useful for readers, students and future researchers as a source of reference.

Profitability Analysis- BriefIdea:

In the context of Business, profitability is very common term. Profitability is the measurement of the success of Business. In simple words, Profitability is the capacity of the firm to generate income continuously.

To earn profit is the basic goal of business to survive for a long time in the market and to maintain reputation in the market also. It is very important for any firm to attract investors and this is only possible if firm is profit making. It the business is able to earn more profit then they are able to provide highest return to their shareholders on their investment and retain their interest in the company.

It is necessary to differentiate between the word profit and profitability. As per accounting point of view profit means deduction of total expenses from total revenue. Profitability is percentage of sales known as profit margin.

In the area of accounting, profitability can be measured with the help of different ratios. The following ratios are formulated by researcher to analyze Profitability in selected cement companies of India.

1. Gross Profit Ratio = Gross Profit/Net Sales × 100
2. Net Profit Ratio = Net Profit/Net Sales × 100
3. Return on Capital Employed = EBIT/Total Capital Employed × 100
4. Return on Net worth = Earnings after Tax & Pref. Dividend/Networth×100 (Return on Owner's Equity)
5. Return on Long term Funds = EBIT/Long term funds × 100

Review of Literature:

Shine and Soemen (1998) gave conclusion that there is a strong negative relation between the cash conversion cycle and corporate profitability for a large sample of listed American companies during the 1975-1994 periods.

Vijayakumar and Venkatachalan (2003) explained that it is advisable for the company to maintain optimum level of working capital. Because excess working capital may reduce the profitability and insufficient working capital may danger the solvency of company.

Eljelly (2004) found that, that efficient liquidity management involves planning and controlling current assets and current liabilities in such a manner that reduce the risk of inability to meet due short-term obligations and avoids excessive investment in these assets. The study found that the cash conversion cycle was of more importance as a measure of liquidity than the current ratio That affects profitability.

Dr. S.K. khartik titto Varghese, (2011) they conclude that the profitability generally depends upon the better utilization of resources and manpower. It is advisable to increase capacity of production with the use of advanced technology. These will helpful to reduce cost of production and increase profitability.

Asha Sharma and R.B. Sharma (2011), they identify and study the movement of key financial parameters and their relationship with profitability of textile industry. It is an attempt to study whether the key identified parameters move in a synchronous way going up and coming down with basic profitability parameters.

Importance of the Study

Present research study will be helpful to understand the overall earning capacity of Cement Industry in India. This research will be helpful to compare figures of Profitability in selected cement companies in India. This research will be helpful to all the stakeholders who are directly or indirectly connected with the company, to know about financial soundness of the company and safety of their Investment.

Objectives of the Study

1. To get idea about overall earning capacity of selected Cement companies in India.
2. To measure and compare the profitability of selected Cement companies in India.
3. To know about financial soundness and solvency of selected cement companies in India.

Period of the Study

The research study has been made on the basis of the financial data for the period of last five years i.e. year 2009-2010; to year 2013-14 of the selected cement companies in India.

Selection of the sample unit

Universe of the study consists of all cement companies established in India as per the Indian Companies Act 1956. From the above mentioned universe, the researcher has randomly selected five cement companies viz. ACC Cement, Ambuja Cement, J.K. Cement, Prism Cement and Ultratech cement.

Sources of the data collection

The present study is mainly based on the secondary data obtained from the Annual Report of ACC Cement, Ambuja Cement, J.K. Cement, Prism Cement and Ultratech cement and from various websites, News Papers, Magazines for batter reliability and authenticity.

Tools and Techniques for Data Analysis

An Analysis and Interpretation of Financial Data is done through Ratio analysis and test of hypothesis (F-Test one way ANNOVA Table at 5% level of significance). Using MS excel for calculating Test of Hypothesis.

Hypothesis of the Study

1. H0: There is no significant difference in Gross Profit Ratio between the Selected Companies and within the Selected Companies during the study period.
2. H0: There is no significant difference in Net Profit Ratio between the Selected Companies and within the Selected Companies during the study period.
3. H0: There is no significant difference in Return on Capital Employed between the Selected Companies and within the Selected Companies during the study period.
4. H0: There is no significant difference in Return on Net Worth between the Selected Companies and within the Selected Companies during the study period.
5. H0: There is no significant difference in Return on Long Term Funds between the Selected Companies and within the Selected Companies during the study period.

Data Collection and Statistical Analysis of Profitability
[1] Gross Profit Ratio

Table No : 1 Gross Profit to Net Sales Ratio (in %)

Company\Year	2009-10	2010-11	2011-12	2012-13	2013-14
Acc	27.68	16.29	14.96	14.41	9.44
Ambuja	22.87	19.93	17.90	19.60	12.67
J.K.	17.38	6.53	15.46	14.82	8.61
Prism	14.61	6.24	2.93	2.10	-0.72
Ultratech	22.56	14.27	17.71	18.48	13.63

Table No : 2 Analysis of Variances (ANOVA)

Sources of Variations	SS	DOF	MS	F_{cal}	F_{tab}
Between the sample	394.84	4	98.71	2.71	2.87
Within the sample	729.42	20	36.47		
Total	1124.27	24			

The table no 1 shows that there was declining trend in gross profit ratio of ACC Cement during the study period. There was fluctuating trend in gross profit ratio of Ambuja cement 22.87% in year 2009-10, 19.93% in year 2010-11, 17.90% in year 2011-12, 19.60% in year 2012-13 and 12.67% in year 2013-14. There was fluctuating trend in gross profit ratio of J.K. cement 17.38% in year 2009-10, 6.53% in year 2010-11, 15.46 % in year 2011-12, 14.82% in year 2012-13 and 8.61% in year 2013-14. There was declining trend in gross profit ratio of Prism Cement and Ultratech cement during the study period.

Table no 2 shows the analysis of variance at 5% level of significance between and within the sample. Value of Fcal 2.71 is less than Ftab 2.87. So Null Hypothesis H0 is accepted then there is no significant difference in gross profit ratio between and within the sample units during the study period

[2] NET Profit Ratio

Table No : 3 Net Profit to Net Sales Ratio (in %)

Company\Year	2009-10	2010-11	2011-12	2012-13	2013-14
Acc	19.69	14.26	13.45	9.13	9.61
Ambuja	16.78	16.84	13.96	12.86	13.55
J.K.	10.89	2.68	6.84	7.88	3.41
Prism	8.80	2.82	-0.66	-1.24	-1.59
Ultratech	15.30	10.42	13.09	12.96	10.40

(Source : Annual reports of selected companies and www.moneycontrol.com)

Table No : 4 Analysis of Variances (ANOVA)

Sources of Variations	SS	DOF	MS	F_{cal}	F_{tab}
Between the sample	150.50	4	37.63	1.09	2.87
Within the sample	687.40	20	34.37		
Total	837.91	24			

Table no 4 shows the analysis of variance at 5% level of significance between and within the sample. Value of Fcal is 1.09 less than Ftab 2.87. So Null Hypothesis H0 is accepted then there is no significant difference in Net profit ratio between and within the sample units during the study period

The table no 3 shows that there was declining trend in Net profit ratio of ACC Cement and Ambuja cement during the study period. There was fluctuating trend in Net profit ratio of J.K. cement 10.89% in year 2009-10, 2.68% in year 2010-11, 6.84% in year 2011-12, 7.88% in year 2012-13 and 3.41% in year 2013-14. There was declining trend in Net profit ratio of Prism Cement during the study period. There was fluctuating trend in Net profit ratio of ultratech cement 15.30% in year 2009-10, 10.42% in year 2010-11, 13.09% in year 2011-12, 12.96% in year 2012-13 and 10.40% in year 2013-14.

[3] Return on capital employed

Table No: 5 EBIT to Total Capital Employed Ratio (in %)

Company\Year	2009-10	2010-11	2011-12	2012-13	2013-14
Acc	35.80	20.75	21.26	25.46	16.34
Ambuja	27.04	21.60	21.93	25.52	16.33
J.K.	17.86	7.25	18.59	16.92	7.32
Prism	21.85	9.97	6.25	4.45	4.03
Ultratech	27.22	15.45	21.69	20.48	14.08

(Source : Annual reports of selected companies and www.moneycontrol.com)

Table No : 6 Analysis of Variances (ANOVA)

Sources of Variations	SS	DOF	MS	F_{cal}	F_{tab}
Between the sample	565.52	4	141.38	2.97	2.87
Within the sample	950.49	20	47.52		
Total	1516.00	24			

The table no 5 shows that there was fluctuating trend in Return on capital employed ratio of ACC Cement 35.80 % in year 2009-10, 20.75 % in year 2010-11, 21.26% in year 2011-12, 25.46% in year 2012-13 and 16.34 % in year 2013-14. There was fluctuating trend in Return on capital employed ratio of Ambuja cement 27.04% in year 2009-10, 21.60% in year 2010-11, 21.93% in year 2011-12, 25.52% in year 2012-13 and 16.33% in year 2013-14. There was fluctuating trend in Return on capital employed ratio of J.K. cement 17.86% in year 2009-10, 7.25% in year 2010-11, 18.59 % in year 2011-12, 16.92% in year 2012-13 and 7.32% in year 2013-14. There was declining trend in Return on capital employed ratio of Prism Cement and Ultratech cement during the study period.

Table no 6 shows the analysis of variance at 5% level of significance between and within the sample. Value of Fcal 2.97 is greater than Ftab 2.87. So Null Hypothesis H0 is rejected then there is significant difference in return on capital employed ratio between and within the sample units during the study period

[4] Return on Net Worth

Table No : 7 Earnings after Tax & Pref. Dividend to Net worth Ratio (in %)

Company\Year	2009-10	2010-11	2011-12	2012-13	2013-14
Acc	26.70	17.31	18.42	14.37	14.00
Ambuja	18.83	17.24	15.22	14.73	13.64
J.K.	20.81	5.62	13.75	13.75	5.51
Prism	21.46	7.93	-2.61	-5.45	-8.09
Ultratech	23.73	13.16	19.02	17.43	12.54

Table No : 8 Analysis of Variances (ANOVA)

Sources of Variations	SS	DOF	MS	F_{cal}	F_{tab}
Between the sample	606.29	4	151.57	2.61	2.87
Within the sample	1161.95	20	58.09		
Total	1768.23	24			

The table no 7 shows that there was fluctuating trend in Return on net worth ratio of ACC Cement 26.70 % in year 2009-10, 17.31 % in year 2010-11, 18.42% in year 2011-12, 14.37% in year 2012-13 and 14.00 % in year 2013-14. There was declining trend in Return on net worth ratio of Ambuja cement during the study period. There was fluctuating trend in Return on net worth ratio of J.K. cement 20.81% in year 2009-10, 5.62% in year 2010-11, 13.75 % in year 2011-12, 13.75% in year 2012-13 and 5.51% in year 2013-14. There was declining trend in Return on net worth ratio of Prism Cement and Ultratech cement during the study period.

Table no 8 shows the analysis of variance at 5% level of significance between and within the sample. Value of Fcal 2.61 is less than Ftab 2.87. So Null Hypothesis H0 is accepted then there is no significant difference in return on net worth ratio between and within the sample units during the study period.

[5] Return on Long Term Fund

Table No : 9 EBIT to Long Term Funds Ratio (in %)

Company\Year	2009-10	2010-11	2011-12	2012-13	2013-14
Acc	35.80	20.78	21.26	25.46	16.34
Ambuja	27.04	21.63	21.93	25.52	16.33
J.K.	18.39	7.43	19.27	18.12	7.71
Prism	22.64	10.33	6.60	5.01	4.44
Ultratech	27.43	15.83	21.90	21.09	14.33

Table No : 10 Analysis of Variances (ANOVA)

Sources of Variations	SS	DOF	MS	F_{cal}	F_{tab} <
Between the sample	576.00	4	144.00	3.20	2.87
Within the sample	901.19	20	45.06		
Total	1477.20	24			

The table no 9 shows that there was fluctuating trend in Return on long term fund ratio of ACC Cement 35.80 % in year 2009-10, 20.78 % in year 2010-11, 21.26% in year 2011-12, 25.46% in year 2012-13 and 16.34 % in year 2013-14. There was declining trend in Return on long term fund ratio of Ambuja cement during the study period. There was fluctuating trend in Return on long term fund ratio of J.K. cement 18.39% in year 2009-10, 7.43% in year 2010-11, 19.27% in year 2011-12, 18.12% in year 2012-13 and 7.71% in year 2013-14. There was declining trend in Return on long term fund ratio of Prism Cement during the study period. There was fluctuating trend in Return on long term fund ratio of Ultratech cement 27.43% in year 2009-10, 15.83% in year 2010-11, 21.90% in year 2011-12, 21.09% in year 2012-13 and 14.33% in year 2013-14.

Table no 10 shows the analysis of variance at 5% level of significance between and within the sample. Value of Fcal 3.20 is greater than Ftab 2.87. So Null Hypothesis H0 is rejected then there is significant difference in return on long term fund ratio between and within the sample units during the study period.

Table No : 11 Findings of the Study

Profitability Ratios	F_{cal}	F_{tab}	Findings
1. **Gross Profit Ratio** • Between the selected companies and within the selected companies	2.71	2.87	Null Hypothesis H0 is accepted*
2. **Net Profit Ratio** • Between the selected companies and within the selected companies	1.09	2.87	Null Hypothesis H0 is accepted*
3. **Return on Capital Employed** • Between the selected companies and within the selected companies	2.97	2.87	Null Hypothesis H0 is rejected**
4. **Return on Net worth** • Between the selected companies and within the selected companies	2.61	2.87	Null Hypothesis H0 is accepted*
5. **Return on Long term funds** • Between the selected companies and within the selected companies	3.20	2.87	Null Hypothesis H0 is rejected**

***If Null Hypothesis H0 is accepted** then there is no significant difference in concerned ratio between and within the sample units during the study period.

****If Null Hypothesis H0 is rejected** then there is significant difference in concerned ratio between and within the sample units during the study period.

CONCLUSION

Rapid growth and development of infrastructure during last decade increase the demand of cement industries in India. From the data collection, statistical data analysis, and findings of selected Cement companies viz,. ACC Cement, Ambuja Cement, J.K. Cement, Prism Cement and Ultratech cement, the researcher may come to the conclusion that most of the selected companies faces fluctuating trends in profitability ratios. As per the study of last five years of profitability ratios, overall Profitability of ACC Cement is highest and prism cement is lower. But from the year 2009-10 to 2013-14 profitability is gradually declining in selected companies.

The profitability position is satisfactory in all the selected companies during the study period because all the profitability ratios are above the ideal ratios. But during the study period researcher found that the figures of ratios are slightly declining and fluctuating. This minor fluctuation is because of the tough competition, government economic policies, tax structure and overall economic environment of country. Researcher found that profitability ratios are very poor in prism cement as compare to ACC cement, Ambuja cement, J.k. Cement and ultratech cement during the study period. The company should have to take some actions to improve profitability position in prism cement.

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