

PROFITABILITY ANALYSIS OF CEMENT COMPANIES IN INDIA: A COMPARATIVE STUDY OF ACC LTD, AMBUJA CEMENT AND ULTRATECH CEMENT COMPANIES

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Abstract

Profitability determines the performance of any industry concerning different variables like operating profit, profit before interest and tax (PBIT), gross profit, cash profit and net profit, etc. On the other hand, profitability analysis helps the business decision-makers to forecast the profitability of any investment proposal based on different analytical tools like ratio analysis, correlation and regression analysis, coefficient of variation, etc. It also helps to review the present performance concerning past trends of any industry based on the above parameters and make decisions for the future. The present scenario of the cement industry in India is quite different. Hence, it is of paramount importance to analyze the profitability of the cement industry of India since it accounts for 5.37 percent in the Index of Industrial Production i.e.; IIP and one of the eight major core sector industries in India. Taking into consideration the above need, the present paper focuses on the profitability analysis of ACC Ltd, Ambuja Cement and UltraTech Cement companies in India based on operating profit ratio, PBIT ratio, gross profit ratio, cash profit ratio and net profit ratio for the period 2004-05 to 2018-19 i.e.; 15 years. The study found no significant difference in the overall profitability of the sample companies except in cash profit and net profit during the period.

Keywords: *Profitability analysis, cement companies, performance, ratio, one way ANOVA and regression analysis.*

I. Introduction

Profitability is the ability of a given investment to earn a return from its use (Harward& Upton, 1961). It is an important yardstick for measuring the efficiency of a company to earn the profit. Profitability simply means the capacity to make a profit and a profit is what is left over from income earned after deducting all costs and expenses related to earning that income. Profitability analysis is a component of enterprise resource planning that allows the business decision-makers to forecast the profitability of a

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proposal or optimize the profitability of an existing project. On the other hand, profitability analysis provides an insight into the operating as well as financial efficiency of the company concerning different variables like operating profit, profit before interest and tax, gross profit, cash profit and ultimately the net profit of the concern. In the profitability analysis, profitability ratios are most important because they show the amount of profit earned by the company. It shows whether the company is performing well in its operations or not. Profitability ratios are used as a tool for all companies to measure their efficiency in business.

II. Research Design

Literature Review:

Hijazi and Tariq (2006) study attempted to determine the capital structure of listed firms in the cement industry of Pakistan for the period 1997-2001 and concluded that out of four independent variables, except the firm size, tangibility of assets, profitability and growth significantly related with the determination of the capital structure of the cement companies in Pakistan. Bhayani (2010) concluded that liquidity, age of the firm, operating profit ratio, interest rate and inflation played a vital role in the determination of the profitability of the Indian cement industry. Demor (2012) suggested regularizing and optimizing cash balance with proper planning and control. Improper planning and delays in the implementation of projects led to a rise in their costs. Also, the burden of interest produced a deteriorating effect and reduced the percentage of net profit and the study suggested the companies reduce the interest burden gradually by increasing the owner's fund. Panigrahi (2013) studied the relationship between inventory management and profitability for the top five Indian cement companies for 10 years from 2001-10 and concluded that there was a significant negative linear relationship between inventory conversion period and profitability. The study also found that the firm's profitability had a negative relationship with the financial debt ratio and further concluded that profitability increases with a decrease in the financial debt ratio. Muhammad et al (2016) studied the relationship between working capital management and profitability of the Tobacco industry of Pakistan and found a strong negative relationship between variables of working capital management and profitability and emphasized maintaining the cash conversion cycle at an optimum level. Hemalatha and Kamalavalli (2018) concluded that there was a positive correlation between gross profit ratio (GPR), net profit ratio (NPR) and return on assets (ROA) of 15 cement companies for 10 years from 2005-15. Also, GPR, NPR, and OPR (operating profit ratio) were positively correlated with ROE (return on equity). From the regression analysis, the study found that an increase of one rupee in GPR decreases ROA by \square 8.92. Similarly,

an increase of one rupee in GPR decreases ROE by \square 16.32. The study suggested the Andhra Cements Ltd and CCI Ltd improve its operational efficiency to increase its profitability.

Objectives of Study:

The present study is intended for the following objectives to pursue:

1. To analyze the overall profitability of ACC Ltd, Ambuja Cement and UltraTech Cement companies in India;
2. To study the impact of operating profit, PBIT, gross profit and cash profit i.e.; independent variables on the net profit i.e.; dependent variable;
3. To conclude whether there is any significant difference in the performance of sample companies based on overall profitability analysis or not.

Scope of Study:

The present study is focused on three major cement producing companies of India selected on random basis i.e., ACC Ltd, Ambuja Cement and UltraTech Cement. The period of study is remained 15 years i.e., from 2004-05 to 2018-19. The data has been extracted from various magazines, periodicals, and newspapers and various previous studies have also been considered for the completion of the present study. Various websites, particularly, m.moneycontrol.com and other internet sources have also been taken into consideration for study. Further data is processed with the help of computer software i.e. MS Excel version 2010 and IBM SPSS Statistics 20. Only secondary data has been considered as there is no primary probe in the present study.

Methodology of Study:

For analysis and interpretation, various mathematical and statistical methods like percentage, mean, standard deviation, coefficient of variation, CAGR, skewness and kurtosis have been applied. One way analysis of variance i.e., ANOVA is also applied to analyze the test of statistics. Further, regression analysis has been applied to study the impact of independent variables i.e., operating profit ratio, PBIT ratio, gross profit ratio and cash profit ratio on dependent variable i.e., net profit ratio.

III. Analysis and Interpretation

Operating Profit Ratio:

Operating profit is a measure of profitability. The operating profit ratio indicates how much profit a company makes after paying the variable costs of production such as wages, raw materials, etc. It is also expressed as a percentage of sales and then shows the efficiency of a company controlling the costs and expenses associated with business operations. A relatively high value of operating profit ratio indicates that the firm can meet its costs and other day to day expenses with no difficulty in its operations. It is calculated with the following formula:

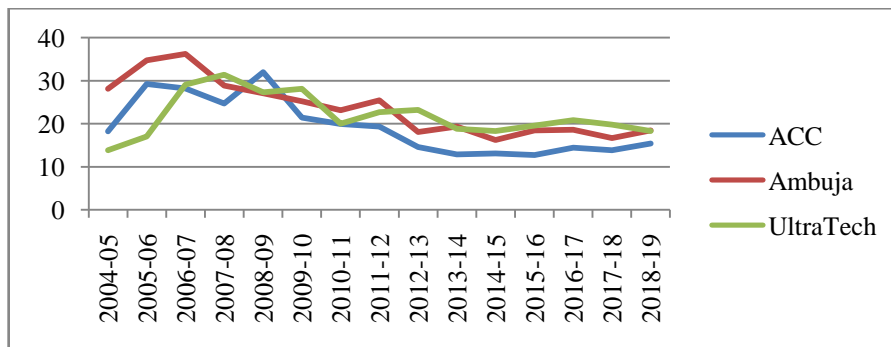
$$\text{Operating Profit Ratio} = \frac{\text{Operating Profit}}{\text{Net Sales}} \times 100$$

Table 1.1 (a): Analysis of Operating Profit Ratio (X₁)

Company Statistics	ACC Ltd	Ambuja Cement	UltraTech Cement	Overall
Count (N)	15	15	15	
Mean (Avg)	19.3	23.61	21.85	21.59
STDEVA	6.48	6.44	4.99	5.97
Coeff. of Var.*	33.56	27.27	22.83	27.89
CAGR**	-1.2	-2.98	2	-0.73
Skewness	0.785	0.69	0.561	0.679
Kurtosis	-0.677	-0.545	-0.539	-0.587

*in times **in percentage. Data compiled from moneycontrol.com

Figure 1.1 (a): Operating Profit Ratio of ACC, Ambuja and UltraTech Cement.



Interpretation:

Table 1.1 (a) analyses the mean, standard deviation (SD), co-efficient of variation (CV), skewness and kurtosis of X_1 i.e., operating profit ratio of the selected sample companies for the period. It indicates that the mean ratio of operating profit to net sales ranges from 23.61 to 19.3 with an overall mean of 21.59 during the period under study. The standard deviation ranges from 6.48 to 4.99 with an overall SD of 5.97 showing that UltraTech Cements has a low SD as compared to ACC Ltd concerning overall value. The CV ranges from 22.83 percent to 33.56 percent with an overall value of 27.89 percent among the top three cement companies. The mean percentage is high in Ambuja Cement followed by UltraTech and ACC Ltd. However, only UltraTech Cement has shown a positive (2 percent) CAG as compared to ACC Ltd (-1.2 percent) and Ambuja Cement (-2.98 percent). Therefore, it can be concluded that Ambuja Cement has a higher mean ratio of operating profit as compared to UltraTech Cement and ACC Ltd.

Test of Statistics:

Null Hypothesis H_0 : There is no significant difference among the mean values.

Alternative Hypothesis H_a : There is a significant difference among the mean values.

Level of significance is fixed at 5 per cent i.e., $\alpha = .05$ be the level of significance.

Table 1.1 (b): ANOVA

Sources of Variation	SS	df	MS	F-Value	P-Value	F-Critical
Between Groups	141.16	2	70.58	1.96	0.154	3.22
Within Groups	1516.24	42	36.1			
Total	1657.4	44	106.68			

SS = Sum of Squares, df = degrees of freedom, MS = Mean Square

As per Table 1.1 (b), the calculated F-value (1.96) < the F-Critical (3.22) at 5 percent level with df being $v_1=2$ and $v_2=42$ and hence could have arisen due to chance. The analysis supports the null hypothesis of no significant difference in sample means. Therefore, it can be concluded that the difference in operating profit ratio of ACC Ltd, Ambuja Cement and UltraTech Cement is insignificant and just a matter of chance.

Profit before Interest and Tax Ratio:

Profit before interest and tax is a ratio of profit before interest and taxes to net revenue earned. It is also a measure of the company's profitability on sales over a specified period. It is the difference between operating revenue and operating expenses. A decrease in PBIT margin largely results from a reduction in revenue and higher operating costs. PBIT is most useful when compared against other companies in the same industry. The PBIT margin reflects the more efficient cost management and the more profitable business. It is computed with the following formula:

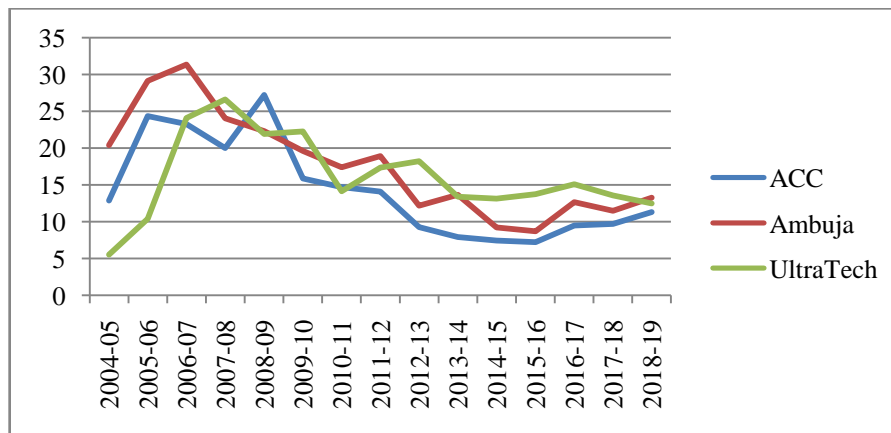
$$\text{Profit before Interest and Tax Ratio} = \frac{\text{Profit before Interest and Tax}}{\text{Net Sales}} \times 100$$

Table 1.2 (a): Profit before Interest and Tax Ratio (X₂)

Company Statistics	ACC Ltd	Ambuja Cement	UltraTech Cement	Overall
Count (N)	15	15	15	
Mean (Avg)*	14.30	17.61	16.12	16.01
STDEVA	6.56	6.95	5.62	6.38
Coeff. of Var.**	45.91	39.45	34.87	40.08
CAGR**	-5.14	-7.7	3.43	-3.13
Skewness	0.804	0.628	0.269	0.567
Kurtosis	-0.589	-0.450	-0.161	-0.400

*in times **in percentage. Data compiled from moneycontrol.com

Figure 1.2 (a): Profit before Interest and Tax Ratio of ACC Ltd, Ambuja Cement and UltraTech Cement (in percentage)



Interpretation:

Table 1.2 (a) analyses the mean, standard deviation (SD), coefficient of variation (CV), skewness and kurtosis of X_2 i.e., profit before interest and tax of selected samples. It indicates that the mean ratio of PBIT margin to net revenue earned during the period under study ranges from 17.61 to 14.3 with an overall mean of 16.01. The standard deviation ranges from 6.95 to 5.62 with an overall value of 6.38. However, the CV ranges from 45.91 percent to 34.87 percent with an overall value of 40.08 percent among the top three cement companies. However, only UltraTech Cement has shown a positive (3.43 percent) CAG as compared to ACC Ltd (-5.14 percent) and Ambuja Cement (-7.7 percent) The result shows that the mean percentage of PBIT is high in Ambuja Cement followed by UltraTech Cement and the ACC Ltd. Therefore, it can be concluded that Ambuja Cements has the higher mean ratio of PBIT as compared to ACC Ltd and UltraTech Cement.

Test of Statistics:

Null Hypothesis H_0 : There is no significant difference among the mean values.

Alternative Hypothesis H_a : There is a significant difference among the mean values.

Level of significance is fixed at 5 per cent i.e., $\alpha = .05$ be the level of significance.

Table 1.2 (b): ANOVA

Sources of Variation	SS	df	MS	F-Value	P-Value	F-Critical
Between Groups	82.55	2	41.27	1.091	0.345	3.22
Within Groups	1589.19	42	37.84			
Total	1671.74	44	79.11			

SS = Sum of Squares, df = degrees of freedom, MS = Mean Square

As per Table 1.2 (b), the calculated F-value (1.091) < the F-Critical (3.22) with at 5 percent level with df being $v_1=2$ and $v_2=42$ and hence could have arisen due to chance. The analysis supports the null hypothesis of no significant difference in sample means. Therefore, it can be concluded that the difference in profit before interest and tax margin of ACC, Ambuja and UltraTech Cement is insignificant and just a matter of chance.

Gross Profit Ratio:

Gross profit is a profitability ratio that measures how efficiently a company uses its material and labour to produce and sell products profitably. This ratio is important because it shows management and investors how profitable the core business activities are without taking into consideration the indirect costs. It is calculated with the following formula:

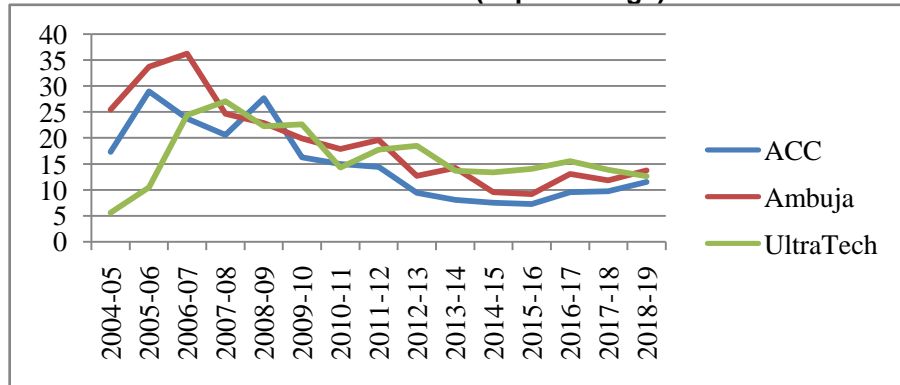
$$\text{Gross Profit Ratio} = \frac{\text{Gross Profit}}{\text{Net Sales}} \times 100$$

Table 1.3 (a): Gross Profit Ratio (X₃)

Company Statistics	ACC Ltd	Ambuja Cement	UltraTech Cement	Overall
Count (N)	15	15	15	
Mean (Avg)*	15.14	18.98	16.38	16.83
STDEVA	7.24	8.32	5.71	7.09
Coeff. of Var.**	47.84	43.83	34.85	42.17
CAGR	-7.59	-9.03	0.35	-5.42
Skewness	0.777	0.865	0.249	0.63
Kurtosis	-0.556	-0.017	-0.152	-0.24

*in times **in percentage. Data compiled from moneycontrol.com

Figure 1.3 (a): Gross Profit Ratio of ACC Ltd, Ambuja Cement and UltraTech Cement (in percentage)



Interpretation:

Table 1.3 (a) analyses the mean, standard deviation (SD), co-efficient of variation (CV), skewness and kurtosis of X₃ i.e., gross profit margin ratio of selected samples. It indicates that the mean ratio of gross profit to net revenue earned during the period under study ranges from 18.98 to 15.14

with an overall mean of 16.83. The standard deviation ranges from 8.32 to 5.71 with an overall value of 7.09. However, the CV ranges from 47.84 percent to 34.85 percent with an overall value of 42.17 percent among the top three cement companies. However, only UltraTech Cement has shown a positive (0.35 percent) CAG as compared to ACC Ltd (-7.59 percent) and Ambuja Cement (-9.03 percent). The result shows that the mean percentage is high in Ambuja Cement followed by UltraTech Cement and the ACC Ltd. Therefore, it can be concluded that Ambuja Cement has the higher mean ratio of gross profit margin as compared to ACC Cements.

Test of Statistics:

Null Hypothesis H_0 : There is no significant difference among the mean values.

Alternative Hypothesis H_a : There is a significant difference among the mean values.

Level of significance is fixed at 5 per cent i.e., $\alpha = .05$ be the level of significance.

Table 1.3 (b): ANOVA Table 1.3 (b): ANOVA

Sources of Variation	SS	df	MS	F-Value	P-Value	F-Critical
Between Groups	115.14	2	57.57	1.131	0.332	3.22
Within Groups	2137.77	42	50.9			
Total	2252.91	44	108.47			

SS = Sum of Squares, df = degrees of freedom, MS = Mean Square

As per Table 1.3 (b), the calculated F-value (1.131) < the F-Critical (3.22) at 5 percent level with df being $v_1=2$ and $v_2=42$ and hence could have arisen due to chance. The analysis supports the null hypothesis of no significant difference in sample means. Therefore, it can be concluded that the difference in gross profit of ACC Ltd, Ambuja Cement and UltraTech Cement is insignificant and just a matter of chance.

Cash Profit Ratio:

Cash profit is the profit recorded by the business that uses the cash basis of accounting. Under this method, revenues are based on cash receipts and expenses are based on cash payments. Consequently, cash profit is the net change in cash from these receipts and payments during a reporting time. It does not include the other types of cash receipts and payments than

those involved with the sale of goods or services. It is computed with the following formula:

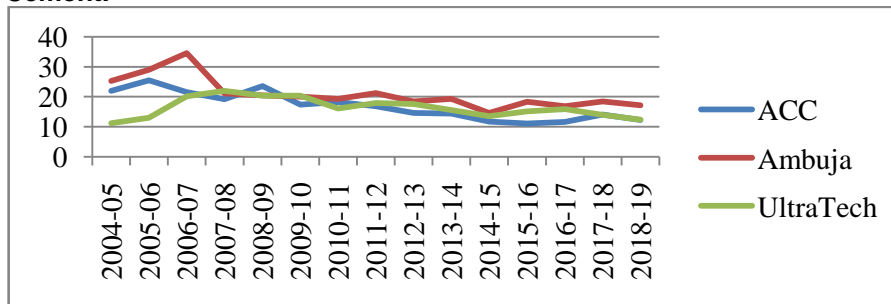
$$\text{Cash Profit Ratio} = \frac{\text{Cash Profit}}{\text{Net Sales}} \times 100$$

Table 1.4 (a): Cash Profit Ratio (X₄)

Company Statistics	ACC Ltd	Ambuja Cement	UltraTech Cement	Overall
Count (N)	15	15	15	
Mean (Avg)*	16.94	20.94	16.34	18.08
STDEVA	4.66	5.14	3.33	4.38
Coeff. of Var.**	27.49	24.52	20.38	24.13
CAGR	-6.02	-2.81	1.57	-2.42
Skewness	0.424	1.659	0.224	0.543
Kurtosis	-0.995	2.839	-1.048	-0.094

*in times **in percentage. Data compiled from moneycontrol.com

Figure 1.4 (a): Cash Profit Ratio of ACC, Ambuja and UltraTech Cement.



Interpretation:

Table 1.4 (a) analyses the mean, standard deviation (SD), co-efficient of variation (CV), skewness and kurtosis of X₄ i.e., cash profit ratios of selected samples. It indicates that the mean ratio of cash profit to net revenue earned during the period under study ranges from 20.94 to 16.34 with an overall mean of 18.08. The standard deviation ranges from 5.14 to 3.33 with an overall value of 4.38. However, the CV ranges from 27.49 percent to 20.38 percent with an overall value of 24.13 percent among the top three cement companies and UltraTech Cement has shown a positive (1.57 percent) CAG as compared to Ambuja Cement (-2.81 percent) and ACC Ltd (-6.02 percent). The result shows that the mean percentage of cash profit ratio is high in Ambuja Cement followed by ACC Ltd and the

UltraTech Cement. Therefore, it can be concluded that Ambuja Cement has a higher mean ratio of cash profit as compared to UltraTech Cement.

Test of Statistics:

Null Hypothesis H₀: There is no significant difference among the mean values.

Alternative Hypothesis H_a: There is a significant difference among the mean values.

Level of significance is fixed at 5 per cent i.e., $\alpha = .05$ be the level of significance.

Table 1.4 (b): ANOVA

Sources of Variation	SS	df	MS	F-Value	P-Value	F-Critical
Between Groups	187.65	2	93.82	4.889	0.012	3.22
Within Groups	806.04	42	19.19			
Total	993.69	44	113.01			

SS = Sum of Squares, df = degrees of freedom, MS = Mean Square

As per Table 1.4 (b), the calculated F-value (4.889) > the F-Critical (3.22) at 5 percent level with df being $v_1=2$ and $v_2=42$ and hence could have not arisen due to chance. The analysis rejects the null hypothesis of no significant difference in sample means. Therefore, it can be concluded that there is a significant difference in the cash profit of ACC Ltd, Ambuja Cement and UltraTech Cement.

Net Profit Ratio:

The net profit ratio is also a ratio of profitability which shows the percentage of profit from business operations after deducting operating expenses, interest expenses, taxes and preferred stock dividends from revenue. Common stock dividends are the only major debit item left out to be included. It indicates how well the company converts its sales into a profit. It is both, a measure of efficiency and overall business health. It is computed as:

$$\text{Net Profit Ratio} = \frac{\text{Net Profit}}{\text{Net Sales}} \times 100$$

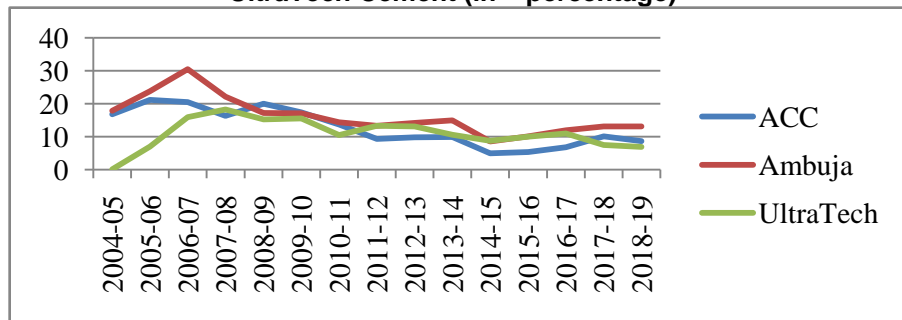
Table 1.5 (a): Net Profit Ratio (X₅)

Company Statistics	ACC Ltd	Ambuja Cement	UltraTech Cement	Overall
Count (N)	15	15	15	

Mean (Avg)*	12.74	16.15	10.92	13.27
STDEVA	5.57	5.7	4.61	5.23
Coeff. of Var.**	43.72	35.25	42.17	40.38
CAGR	-9.84	-4.74	4.31	-3.43
Skewness	0.204	1.257	-0.605	0.285
Kurtosis	-1.426	1.748	0.824	0.382

*in times **in percentage. Data compiled from moneycontrol.com

Figure 1.5 (a): Net Profit Ratio of ACC Ltd, Ambuja Cement and UltraTech Cement (in percentage)



Interpretation:

Table 1.5 (a) analyses the mean, standard deviation (SD), co-efficient of variation (CV), skewness and kurtosis of X_5 i.e., net profit ratio of selected samples. It indicates that the mean ratio of net profit to the company's total revenue earned during the period under study ranges from 16.15 to 10.92 with an overall mean of 13.27. The standard deviation ranges from 5.7 to 4.61 with an overall value of 5.23. However, the CV ranges from 43.72 percent to 35.25 percent with an overall value of 40.38 percent among the top three cement companies. However, only UltraTech Cement has shown a positive (4.31 percent) CAGR as compared to Ambuja Cement (-4.74 percent) and ACC Ltd (-9.85 percent). The result shows that the mean percentage of the net profit ratio is high in Ambuja Cement followed by ACC Ltd and the UltraTech Cement. Therefore, it can be concluded that Ambuja Cement has a higher mean ratio of net profit as compared to UltraTech Cement.

Test of Statistics:

Null Hypothesis H_0 : There is no significant difference among the mean values.

Alternative Hypothesis H_a : There is a significant difference among the mean values.

Level of significance is fixed at 5 per cent i.e., $\alpha = .05$ be the level of significance.

Table 1.5 (b): ANOVA

Sources of Variation	SS	df	MS	F-Value	P-Value	F-Critical
Between Groups	211.68	2	105.84	3.842	0.029	3.22
Within Groups	1157.01	42	27.55			
Total	1368.69	44	133.39			

SS = Sum of Squares, df = degrees of freedom, MS = Mean Square

As per Table 1.5 (b), the calculated F-value (3.842) > the F-Critical (3.22) at 5 percent level with $df_1=2$ and $df_2=42$ and hence could not have arisen due to chance. The analysis rejects the null hypothesis of no significant difference in sample means. Therefore, it can be concluded that there is a significant difference in the net profit margin of ACC, Ambuja and UltraTech Cement.

Regression Analysis:

Table 1.6 (a): SUMMARY OUTPUT

Regression Statistics	
Multiple R	0.970624862
R Square	0.942112622
Adjusted R Square	0.936323885
Standard Error	1.421805687
Observations	45

Table 1.6 (b): ANOVA

	df	SS	MS	F	Significance F
Regression	4	1316.01	329	162.749	3.542
Residual	40	80.86	2.02		
Total	44	1396.87	331.02		

SS = Sum of Squares, df = degrees of freedom, MS = Mean Square

Table 1.6(c): Coefficients

	Coefficients	Standard Error	t-Stat	P-value

Intercept	-1.00487841	1.81	-0.555	0.582
Operating Profit Ratio	- 1.133251459	0.239	-4.751	2.611
Profit before interest and tax Ratio	1.594488033	0.317	5.035	1.06
Gross Profit Ratio	- 0.426248193	0.261	-1.632	0.111
Cash Profit Ratio	1.127763993	0.138	8.157	4.85

V_5 = dependent variable= net profit ratio

V_5 = -1.00487841- 1.133251459 (operating profit ratio) + 1.594488033 (profit before interest and tax ratio) - 0.426248193 (gross profit ratio) +1.127763993 (cash profit ratio).

As per Table 1.6 (c), the net profit is not influenced by the operating profit, profit before interest and tax, gross profit and cash profit of ACC Ltd, Ambuja Cement and UltraTech Cement. Hence, the independent variables do not influence the dependent variable significantly.

IV. Summary and Conclusions

From the above analysis, it can be summarized that the Ambuja Cement has the highest operating profit followed by UltraTech Cement and ACC Ltd. However, the variation in operating profit is high in ACC Ltd as compared to Ambuja Cement and UltraTech Cement. Profit before interest and tax (PBIT) is also high in Ambuja Cement followed by ACC Ltd and UltraTech Cement but the variation in PBIT is high in ACC Ltd followed by Ambuja and UltraTech Cement. Further, the gross profit is high in Ambuja Cement followed by UltraTech Cement and ACC Ltd, however, the variation in gross profit is high in ACC Ltd followed by Ambuja Cement and UltraTech Cement. The cash profit is high in Ambuja Cement followed by ACC Ltd and UltraTech Cement but the variation in cash profit is high in ACC Ltd followed by Ambuja Cement and UltraTech Cement and a significant difference is found in the cash profit of these cement companies. Further, Ambuja Cement has the highest net profit followed by ACC Ltd and UltraTech Cement. However, the variation in net profit is high in ACC Ltd followed by UltraTech Cement and Ambuja Cement. Also, the net profit of ACC Ltd, Ambuja Cement and UltraTech Cement is not influenced by the operating profit, PBIT, gross profit and cash profit of these companies.

Conclusion

Hence it is concluded that the overall profitability of Ambuja Cement is comparatively high followed by UltraTech Cement and ACC Ltd and the

independent variables i.e. operating profit, profit before interest and tax, gross profit and cash profit have no significant impact on the dependent variable i.e. a net profit of sample companies. Further, based on overall profitability, there is no significant difference found in the performance of sample companies and the overall profitability position of ACC Ltd, Ambuja Cement and UltraTech Cement found satisfactory with no significant difference among the sample companies except in the cash profit and net profit.

V. FINDINGS AND SUGGESTIONS

Findings

- The present study found that the Ambuja Cement Company has high operating efficiency as compared to UltraTech Cement and ACC Ltd. It is also found that Ambuja Cement is more efficient in controlling its costs and expenses associated with its operations as compared to other sample companies. However, UltraTech Cement is found more consistent in its annual growth performance in its operating efficiency as compared to other companies under study.
- Due to its high operating efficiency, the Ambuja Cement Company has also reported a high degree of operating revenue which reflects that the company is more efficient in its cost management as compared to UltraTech Cement and ACC Ltd. However, the Ambuja Cement has also reported high variability in its operating revenue as compared to other sample companies but only UltraTech Cement has shown consistent annual growth in its operating revenue as compared to others.
- The study also found that Ambuja Cement is using its material and labour more efficiently to sell its products in the market as compared to UltraTech Cement and ACC Ltd. However, only UltraTech Cement is found more consistent to use its material and labour as compared to other sample companies.
- It is found that Ambuja Cement has reported the highest cash profit as compared to UltraTech Cement and ACC Ltd which shows that Ambuja Cement is more efficient on its cash receipts and cash payments as compared to UltraTech Cement and ACC Ltd.
- The study also found that Ambuja Cement is more efficient in converting its sales into profit as compared to UltraTech Cement and ACC Ltd. However, the UltraTech Cement is more consistent in converting its sales into profit than ACC Ltd and Ambuja Cement.
- It is also found that the cash profit and net profit of ACC Ltd., AmbujaCement and UltraTech Cement shown a significant difference as compared to operating profit, PBIT and gross profit.

Suggestions

- However the operating profit of Ambuja Cement found high and increasing during the period of study. Hence it is recommended that the UltraTech Cement and ACC Ltd should also either control its operating expenditure or increase its net sales to further increase its operating profit.
- The profit before interest and tax also found high in Ambuja Cement during the period of study. Hence the study recommended the UltraTech Cement and ACC Ltd to increase its profit before interest and tax by reducing its cost of goods sold, mortgage payments, insurance costs, payroll, postage and property taxes etc.
- The study also found the highest gross profit in Ambuja Cement during the period. Therefore it is recommended that UltraTech Cement and ACC Ltd should also increase its gross profit either by marginally increasing its prices for cement, reducing direct cost of goods and inventory waste or introducing new packages of small quantity cement bags like 10 kg or 20 kg bags in the market.
- Ambuja Cement has also reported highest cash profit during the period of study. Hence the study recommended the UltraTech Cement and ACC Ltd to increase its cash profit either by offer discounts for its customers for early payments, conducting customer credit checks, improving its inventory or using electronic payments methods.
- The Ambuja Cement has also recorded highest net profit during the period of the study. Therefore, it is recommended that the UltraTech Cement and ACC Ltd should also increase its net profit by finding new customers, increasing cash conversion cycle, reviewing current pricing structure and reducing inventory and overheads etc.

VI. LIMITATIONS OF STUDY AND SCOPE OF FURTHER RESEARCH

Limitations of the Study

The study has the following limitations: the present study could not cover the overall components of profitability but is limited only to the specific components. The financial data could only be available up to the FY 2018-19 as annual reports for FY 2019-20 was not available for certain companies. The study is based on secondary data obtained from financial reports of ACC Ltd., Ambuja Cement and UltraTech Cement, therefore the quality of study depends purely on the accurateness, consistency and excellence of secondary data. Estimation and measurement tools applied are based on the availability of data; hence any change in the source of data collection might influence results.

Scope of Further Research

The scope of further research is as follows: researchers should take all companies of the industry rather than random selection because profitability varies across companies. Further, more components of profitability may be considered to arrive at more conducive results. It is suggested for researchers that each component of profitability should be considered individually for its position in company, industry and economy. This attempt would assist in the formulation of some sort of theory. The scope of further research may be extended to other components of profitability which are not covered in the present study.

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