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AN ANALYSIS OF LEVERAGE IN CEMENT INDUSTRY IN INDIA

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ABSTRACT

The leverage position of the firm indicates the amount of other people's money that is being used in attempting to generate profits. Typically, the financial analyst is most concerned with long-term debts, since these commit the firm to pay interest over the long-run and eventually repay the sum borrowed. Since the claims of creditors must be satisfied prior to the distribution of earnings to shareholders, present and prospective shareholders pay close attention to degree of indebtedness and ability to firm regarding indebtedness and ability to serve debts, since the more indebtedness present, the higher the probability that the firm will be unable to satisfy the claims of all of its creditors. Management obviously must be concerned with indebtedness, since it recognizes the attention paid to it by other parties and since it certainly does not wish to see the firm become insolvent.

KEYWORDS: *Leverage Position, Long-term Debts, Shareholders, Debt-equity Ratio.*

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Introduction

Debt Equity Ratio

The debt-equity ratio is a principal tool of capital structure analysis of a concern. The relationship between owners' capital and borrowed capital is a measure of long-term financial solvency of a firm. This ratio shows the relative claims of lenders and shareholders against the assets of the firm. The following formula is used to calculate debt-equity ratio:

$$\text{Debt-Equity Ratio} = \frac{Debt}{Equity}$$

Here, the term debt signifies total indebtedness of the company as consisting of its long term and short term obligations. Equity refers to own funds, as represented by owners' capital. Owners' capital means total of equity share capital, preference share capital and reserves and surplus minus miscellaneous expenditure, if any.

From the creditors' view point, the debt-equity measures the extent to which their interest is covered by owned funds. Higher the coverage of owned funds, the lower will be the ratio and greater will be the protection to the creditors against the possible losses in the event of liquidation. This ratio is also important for judging the financing policy of the management as to whether they are following over-conservative policy of financing or not. An ideal norm of the ratio is 1:1 that is, the long-term debt should not exceed the owned funds in the business concern. This ratio differs from industry to industry. According to Gitman, "Firms with large amounts of fixed assets and stable cash flows typically have high debt-equity ratios, while other, less capital intensive, firms normally have lower debt-equity ratios."

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Table 1 showing debt-equity ratio of the cement companies under study from 2013-14 to 2017-18.

Table 1: Debt-Equity Ratio of Cement Companies under Study (From 2013-14 to 2017-18)

(Ratio in times)

Year	ACC Cement	Ambuja Cement	Shree Cement	UltraTech Cement
2013-14	–	–	0.12	0.35
2014-15	–	–	0.11	0.23
2015-16	0.01	–	0.17	0.22
2016-17	0.01	–	0.38	0.64
2017-18	–	–	0.29	0.63
Average	0.00		0.21	0.41
S.D.	–	–	0.12	0.21
C.V. (%)	–	–	54.75	50.28

Source: Annual Reports & Accounts of Cement Companies under Study for the period from 2013-14 to 2017-18.

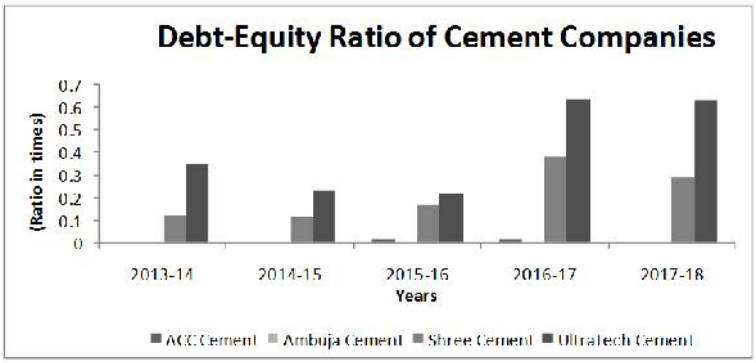

Fig. 1: Debt-Equity Ratio

ACC Cement

It can be noted from the Table 1 that the debt-equity ratio of ACC Cement was insignificant or negligible during the period under study from 2013-14 to 2017-18. The reason was that the debt amount of the company was either nil or negligible in comparison to its equity amount.

Ambuja Cement

Similar Debt-equity ratio of Ambuja Cement was nil during the period under study from 2013-14 to 2017-18. It shows that the debt amount of the company was nil or in other words it is a zero debt company.

Shree Cement

The debt-equity ratio of Shree Cement showed a fluctuating trend during the period under study. During the year 2013-14, the ratio was 0.12 times which decreased slightly to 0.11 times in 2014-15 but increased to 0.17 times in 2015-16 and reached up to 0.38 times in 2016-17. After that, it declined and came down to 0.29 times in the final year 2017-18. The average of the debt-equity ratio was 0.21 times which can be regarded satisfactory. The coefficient of variation was 54.75 percent showing fluctuations that should be kept in control.

UltraTech Cement

It can be noted from the Table 1 that the debt-equity ratio of UltraTech Cement showed a fluctuating trend during the period under study. During the year 2013-14, the ratio was 0.35 times which decreased to 0.23 times in 2014-15 and came down slightly to 0.22 times in 2015-16. After that, it inclined sharply to 0.64 times in 2016-17 which declined slightly to 0.63 times in the final year 2017-18. The average of the debt-equity ratio was 0.41 times which can be regarded satisfactory. The coefficient of variation was 50.28 percent showing fluctuations that should be kept in control.

An overall comparison of debt-equity ratio among all the cement companies under study reveals that the average ratio was nil for ACC and Ambuja Cement whereas among remaining companies, it was higher at 0.41 times for UltraTech Cement and 0.21 times for Shree Cement. From this analysis, it can be concluded that cement companies refers to use their own funds and they don't depend on outside debt for their business operations.

Statistical Analysis: F-test

Following hypothesis has been tested for the ratio:

H_0: There is no significant difference between debt-equity ratio of the cement companies under study.

H=: There is significant difference between debt-equity ratio of the cement companies under study.

Table 2 shows one way ANOVA statistics computed for the debt-equity ratio of the companies under study for the period from 2013-14 to 2017-18.

Table 2: One Way ANOVA for Debt-Equity Ratio

Source of Variation	Sum of Square	Degree of Freedom	Mean Sum of Square	Fc	Ft
Between Companies	0.5805	3	0.1935	13.2308	3.24
Within Companies	0.2340	16	0.0146		
Total	0.8145	19			

Decision: "F" test indicates that the calculated value of Fc = 13.2308 and tabular value of Ft = 3.24 at 5% level of significance. As the calculated value of F is more than table value of F the null hypothesis has been rejected. It means there is a significant difference between the debt-equity ratio of the companies under study.

Proprietary Ratio

The proprietary ratio reveals the percentage of the total investment in assets that has been financed by the shareholders. This ratio is also known as the shareholders' equity ratio or net worth to total assets ratio. This ratio is calculated by dividing owners' capital by total assets as shown below:

$$\text{Proprietary Ratio} = \frac{Owners' Capital}{Total Assets}$$

The difference between the percentage of proprietary ratio and 100 percent represents the ratio of total liabilities to total assets, the percentage of the assets supplied by the creditors. A high proprietary ratio shows a stronger financial position of the firm. "Since there is a relatively greater margin of safety for outside creditors and less long-term debt pressure from the point of view of the owners." On the other hand, a low proprietary ratio shows a over dependence on outside sources for long term financial needs.

Table 3 showing proprietary ratio of the cement companies under study from 2013-14 to 2017-18.

Table 3: Proprietary Ratio of Cement Companies under Study (From 2013-14 to 2017-18)

(Ratio in times)

Year	ACC Cement	Ambuja Cement	Shree Cement	UltraTech Cement
2013-14	1.00	1.00	0.90	0.74
2014-15	1.00	1.00	0.90	0.81
2015-16	0.99	1.00	0.86	0.82
2016-17	0.99	1.00	0.72	0.61
2017-18	1.00	1.00	0.78	0.61
Average	1.00	1.00	0.83	0.72
S.D.	0.01	-	0.08	0.10
C.V. (%)	1.09	-	9.55	14.39

Source: Annual Reports & Accounts of Cement Companies under Study for the period from 2013-14 to 2017-18.

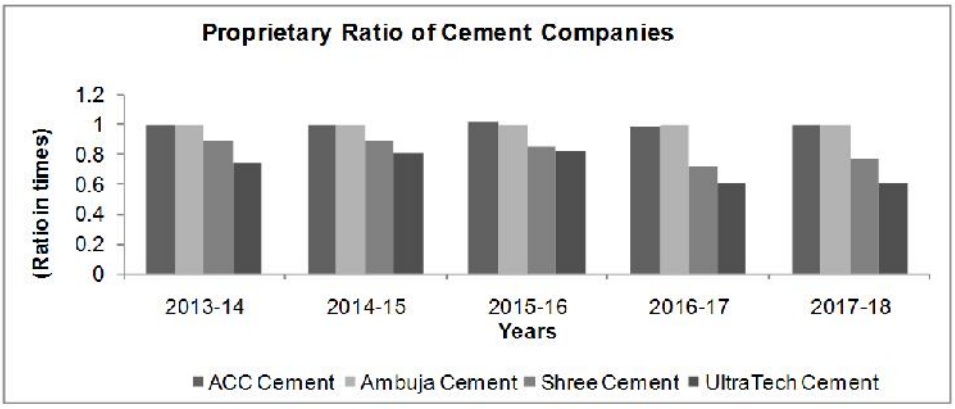

Fig. 2: Proprietary Ratio

ACC Cement

It can be noted from the Table 3 that the Proprietary ratio of ACC Cement was 1 times or 100 percent most of the time during the period under study from 2013-14 to 2017-18. Only a small variation as 1.00 to 0.99 times observed in 2015-16 and 2016-17 respectively. From this, it is clear that total assets of the company were financed by its shareholders and outside finance was insignificant.

Ambuja Cement

Similar to ACC Cement, the Proprietary ratio of Ambuja Cement was 1 times or 100 percent for the entire period under study from 2013-14 to 2017-18. No variation was observed in the ratio. From this, it is clear that total assets of the company were financed by its shareholders and outside finance was nil.

Shree Cement

The proprietary ratio of Shree Cement showed a fluctuating trend during the period under study. During the year 2013-14, the ratio was 0.90 times which remained same in 2014-15. Then, it decreased to 0.86 times in 2015-16 and further came down to 0.72 times in 2016-17 which increased up to 0.78 times in the final year 2017-18. The average of the proprietary ratio was 0.83 times which can be regarded satisfactory. Coefficient of variation was 9.55 percent showing a low fluctuating trend which was insignificant.

UltraTech Cement

It can be noted from the Table 3 that the proprietary ratio of Shree Cement showed a fluctuating trend during the period under study. During the year 2013-14, the ratio was 0.74 times which increased to 0.81 times in 2014-15 and inclined slightly to 0.82 times in 2015-16. Then, it decreased sharply to 0.61 times in 2016-17 and remained same in the final year 2017-18. The average of the proprietary ratio was 0.72 times which can be regarded satisfactory. Coefficient of variation was 14.39 percent showing a moderate fluctuating trend which should be kept in control.

An overall comparison of proprietary ratio among all the cement companies under study reveals that the average ratio was highest i.e. 1.00 times or cent percent for ACC and Ambuja Cement followed by Shree Cement at 0.83 times and lowest 0.72 times for UltraTech Cement. The proprietary ratio is used as a screening device for financial analysis, highest ratio for ACC and Ambuja Cement and higher ratio for remaining cement companies under study means sufficient comfort for their creditors since it points towards lesser dependence on external sources of these companies.

Statistical Analysis: F-test

Following hypothesis has been tested for the ratio:

H_0: There is no significant difference between proprietary ratio of the cement companies under study.

H_1: There is significant difference between proprietary ratio of the cement companies under study.

Table 4 shows one way ANOVA statistics computed for the proprietary ratio of the companies under study for the period from 2013-14 to 2017-18.

Table 4: One Way ANOVA for Proprietary Ratio

Source of Variation	Sum of Square	Degree of Freedom	Mean Sum of Square	F_c	F_t
Between Companies	0.2834	3	0.0945	22.8990	3.24
Within Companies	0.0660	16	0.0041		
Total	0.3494	19			

Decision: "F" test indicates that the calculated value of Fc = 22.8990 and tabular value of Ft = 3.24 at 5% level of significance. As the calculated value of F is more than table value of F the null hypothesis has been rejected. It means there is a significant difference between the proprietary ratio of the companies under study.

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