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AN EMPIRICAL STUDY ON THE LEVERAGE ANALYSIS OF THE SELECTED CEMENT COMPANIES IN INDIA

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ABSTRACT

Inclusion of debt capital along with the owner's capital termed as leverage. It is related to the long-term solvency of the concern. The present study aims to examine the long-term solvency of the selected cement companies in India. The study is based on the secondary data for the period of five years that is from 2016-17 to 2020-21. The researcher used both accounting and statistical tools for analyzing the data. The study revealed that the overall performance of the companies under study period are not satisfactory but they need improve their performance at some stages.

KEY WORDS: Leverage, Long-Term solvency, overall performance.

INTRODUCTION:

The function of financial manager is very crucial among all the decisions of the business organization. The financial manager under capital structure decisions has to take the decision relates to the proportion of debt capital along with the owner's capital and the inclusion of debt capital with owner's capital creates financial risk for the equity shareholders and in positive situation it gives the advantage of Trading on equity for the shareholders. The present study focused on the impact of leverage on the performance of the selected cement companies in India. cement is the key raw material for the construction sector. India stood on the second rank in the world for manufacturing the cement. Cement is the key raw material for the construction business. India is the second largest cement manufacturing country in the world after China. Out of the total global installed capacity of the production of cement, India consists of the 7% capacity. During the FY 20 the total cement production reached at 329 MT while it is assumed to be reached at 381 MT in FY 22. The overall cement production of the country accounted for 262 MT in FY 21. There is a plenty of opportunities in India for the infrastructural and constructional development which benefited the cement industry. Besides all this, the Government of India also promotes the cement industry through various infrastructural projects.

REVIEW OF LITERATURE:

1. Dr. M. Krishnamoorthi in his study on "Long Term Solvency (Leverage) Analysis of Selected Steel Companies in India – An Empirical Study" tried to examine the leverage position and long-term financial soundness of the selected steel companies in India. The study is based on secondary data. Period of the study is of 6 years that is from 2006 to 2011. The study concludes that the debt- equity ratio of Bhusan and VISA is highest than others. SAIL is better in proprietary ratio but Bhushan, JSW and VISA is below average condition.

2. Parmar NikulGovindbhai (2018), in his study on "A Study on Evaluating Long Term Solvency of Selected Indian FMCG Companies" tries to scrutinize the solvency condition of the selected Indian FMCG companies. The study founded that the ITC has maintained proprietary and debt equity ratio. HUL has maintained capital gearing ratio and revenue from operations and colgate does not maintained leverage ratios during the study period. The overall ITC is best among sample companies.

3. Hiral Desai (2015), made a study on "Solvency Analysis of Selected Pharmaceutical Companies in India". The main objective of the study is to understand the soundness of liquidity and financial position of the selected pharmaceutical companies. Lupin, Dr. Reddy's Lab & Cipla have been able to repay its debt during the study period. The result of Dr. Reddy's Lab& Cadila Health shows a high Debt Equity ratio, it indicates that there is more investment of debt capital than equity. DTR of Cipla & Cadila Health shows the efficiency of debt management and DTR of rest of the companies shows unsatisfactory condition. The Total Debts to Owners Fund ratio of Dr. Reddy's Lab & Cadila Health shows more use of debt capital as compared to owner's capital. The interest coverage ratio is higher in Lupin which indicates better ability of the company to meet interest obligation.

OBJECTIVES OF THE STUDY:

1. To study about leverage position of selected cement companies in India.

2. To study about the long- term financial strengths of companies.

3. To compare the leverage position of a companies.

4. To offer suggestion to improve the leverage management of the company on this study.

HYPOTHESIS OF THE STUDY:

1. H0: There is significant difference between Debt Equity Ratio of selected companies.

   H1: There is no significant difference between Debt Equity Ratio of Selected companies.

2. H0: There is no significant difference between Proprietary Ratio of selected companies.

   H1: There is significant difference between Proprietary Ratio of selected companies.

3. H0: There is no significant difference between Interest Coverage Ratio of selected companies.

4. H1: There is significant difference between Interest Coverage Ratio of selected companies.

RESEARCH METHODOLOGY:

Sampling Design:

- **Sources List:** The study is based on the secondary data and the data will be collected from the secondary sources. It included the financial statement of the selected companies, magazine and other journals, articles, books and the published and unpublished documents have been considering in the research.

- **Sample Period:** The research will be carried out for the period of five years that is from 2016-17 to 2020-21.

- **Tools for Analysis:** Both accounting and statistical tools were applied to study the data. Financial ratios, Mean, Standard Deviation and Coefficient of Variation, ANOVA (One Way) test were used for the treatment of the data.

- **Sample Size & Profile:** The researcher selects the leading cement companies of India.

No.	Name of the Company	Brief Profile
1	Ultra Tech Cement Ltd.	Ultra Tech cement is the leading cement manufacturing company in India with a market cap of Rs. 85363.84 crore. It is the Indian multinational conglomerate company. The company was incorporated by the Aditya Birla group in the year 1857. The company started its business in 1983 with the brand name 'Ultra Tech Cement'. The company is the largest cement exporter in India. Tag Line: The Engineer's Choice Head Quarter: Mumbai, Maharashtra.

2	Ambuja Cements Ltd.	Ambuja Cements Limited is known as Gujarat Ambuja Cement Limited formerly. The company was established in 1983. The Global cement conglomerate of Switzerland acquired the business of Ambuja cement in 2006. The market capitalization of the company is Rs. 37105.87. Tag Line: Giant compressive strength, Is Cement mein Jaanhai. Head Quarter: Mumbai, Maharashtra.
3	ACC Limited	Associate Cement Companies Limited is a group of companies like FW Dinshaw, Kellick Nixon, Khataus and Tata was founded in 1936. It is one of the leading cement manufacturing companies in India. The market capitalization of the company is Rs. 27639.93 crore. Tag Line: Build Beautiful, Cementing Relationship. Head quarter: Mumbai, Maharashtra.
4	Shree Cements Ltd.	Shree cement is one of the leading cement manufacturing companies in India. The company was established in the year 1979. The market capitalization of the company is Rs. 38460.30 crore. Tag Line: Sasta Nahin, Sabse Achcha Head quarter: Ajmer District, Rajasthan
5	Jaypee Group	Jaypee Group is one of the leading cement manufacturing companies in India. The company was established in the year 1979. The market capitalization of the company is Rs. 2644.81 crore. Tag Line: "Work for Safe, Healthy, Clean And Green Environment." Head quarter: Uttar Pradesh

DATA ANALYSIS & INTERPRETATION:

1. Debt- Equity Ratio:

Table No. 1: Debt Equity Ratio

YEAR	Ultratech Cement	Shree Cement	JAYPEE Group	ACC Cement	Ambuja Cement
2016-17	0.22	0.17	1.38	0.01	0
2017-18	0.64	0.38	2.12	0.01	0
2018-19	0.7	0.29	5.64	0	0
2019-20	0.47	0.18	-6.41	0	0
2020-21	0.34	0.12	-1.75	0.01	0
Mean	0.47	0.23	0.20	0.01	0
SD	0.20	0.11	4.53	0.01	0
C.V.	42.34	46.15	2312.40	91.29	0

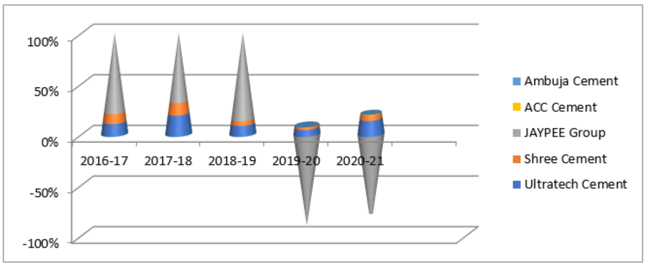

Chart No.1: Debt Equity Ratio

Interpretation: The above Table reveals that Ultratech cement Ltd has highest Mean Value with 0.47 while Abuja ltd has zero (0) Mean Value and other selected cement companies are maintaining moderate levels in Debt equity ratio. The Standard Deviation of Jaypee group is 4.53, the highest which means a higher degree of variability and zero (0) variability was observed in Ambuja cement. The coefficient of variation of Debt equity ratio of Jaypee group is maximum while Ambuja cement is zero (0).

Testing of Hypothesis:

H_0: There is significant difference between Debt equity ratio of selected companies.

H_1: There is no significant difference between Debt equity ratio of selected companies.

Table No.2: ANOVA Variation

Source of Variation	SS	df	MS	F	Fcrit
Between Groups	0.7583	4	0.1896	0.045	2.87
Within Groups	82.373	20	4.1187		
Total	83.1313	24			

Sources: computed by researcher

Conclusion: F-value (0.045) is less than the table value (2.87) therefore null hypothesis is accepted. Therefore, H1 is rejected. Hence, it is revealed that there is no significant difference between Debt equity ratio of selected cement companies.

2. Propritary Ratio:

Table No. 3: Propritary Ratio

YEAR	Ultratech Cement	Shree Cement	JAYPEE Group	ACC Cement	Ambuja Cement
2016-17	0.61	0.69	0.61	0.64	0.83
2017-18	0.50	0.59	0.39	0.63	0.81
2018-19	0.44	0.63	0.08	0.66	0.84
2019-20	0.58	0.67	-0.07	0.68	0.83
2020-21	0.54	0.72	-0.14	0.71	0.80
Mean	0.53	0.66	0.17	0.66	0.82
SD	0.07	0.05	0.32	0.03	0.02
C.V.	12.53	7.73	182.58	4.83	2.00

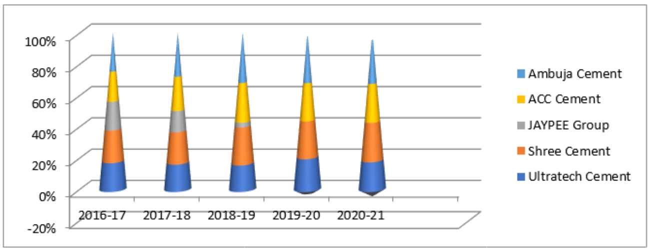

Chart No. 2: Propritary Ratio

Interpretation:
The above Table reveals that Ambuja cement has highest Mean Value with 0.82 while Jaypee group has lowest Mean Value0.17andother selected cement companies are maintaining moderate levels in Proprietary ratio. The Standard Deviation of Jaypee group is 0.32, the highest which means a higher degree of variability and 0.3 and 0.2 variability was observed in ACC cement and Ambuja cement. The coefficient of variation of Proprietary ratio of Jaypee group maximum while Ambuja cement the minimum.

Testing of Hypothesis:

H_0: There is no significant difference between Proprietary ratio of selected companies.

H_1: There is significant difference between Proprietary ratio of selected companies.

Table No. 4: ANOVA Variation

Source of Variation	SS	df	MS	F	F crit
Between Groups	6.648	4	1.66	83	2.87
Within Groups	0.414	20	0.020		
Total	7.062	24			

Sources: computed by researcher

Conclusion: F-value (83) is more than the table value (2.87) therefore null hypothesis is rejected. Therefore, H1 is accepted. Hence, it is revealed that there is significant difference between Proprietary ratio of selected cement companies.

3. Interest Coverage Ratio:

Table No. 5: Interest Coverage Ratio

Year	Ultratech Cement	Shree Cement	JAYPEE Group	ACC Cement	Ambuja Cement
2016-17	7.63	12.83	-0.48	12.69	19.71
2017-18	3.97	14.51	-0.62	13.69	16.11
2018-19	3.51	6.10	0.15	17.75	20.87
2019-20	4.06	7.84	-0.15	24.56	24.32
2020-21	7.40	13.24	-0.11	33.68	30.07
Mean	5.31	10.90	-0.24	20.47	22.22
SD	2.02	3.70	0.31	8.73	5.28
C.V.	38.04	33.89	-127.21	42.66	23.76

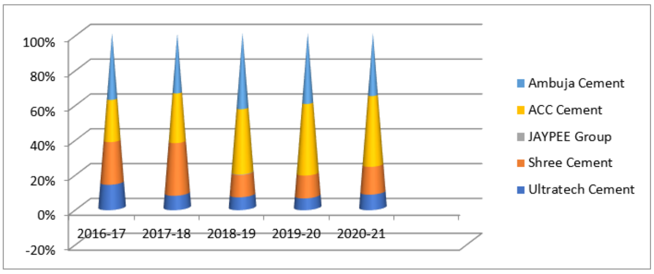

Chart No. 3 Interest Coverage Ratio

Interpretation: The above Table reveals that Ambuja cement has highest Mean Value with 22.22 while Jaypee group has lowest Mean Value-0.24 and other selected cement companies are maintaining moderate levels in Proprietary ratio. The Standard Deviation of ACC cement is 8.73, the highest which means a higher degree of variability and 0.31 variability was observed in Jaypee group. The coefficient of variation of Interest coverage ratio Ultra Trach Cement is maximum while Jaypee group the minimum.

Testing of Hypothesis:

H_0: There is significant difference between Interest coverage ratio of selected companies.

H_1: There is no significant difference between Interest coverage ratio of selected companies.

Table No . 6: ANOVA Variation

Source of Variation	SS	df	MS	F	F crit
Between Groups	20112.63	4	5028.15	-15.35	2.87
Within Groups	-6551.28	20	-327.56		
Total	13561.35	24			

Sources: computed by researcher

Conclusion: F-value (-15.35) is less than the table value (2.87) therefore null hypothesis is accepted. Therefore, H1 is rejected. Hence, it is revealed that there is no significant difference between Interest coverage ratio of selected cement companies.

SIGNIFICANCE OF THE STUDY:

Leverage is the two-sword edge as the positive impact of leverage will increase the wealth of the shareholders while the negative impact may result in to financial risk of the equity shareholders and hence, it is necessary to check out the impact of leverage on the financial performance of the company. The present study will help the various stock holders to know about the long-term solvency of the selected cement companies in India which will helps them to take the key decisions regarding the management, investment and so on.

FUTURE SCOPE OF THE STUDY:

The present study examines the leverage position of the selected cement companies in India. The study can be further done to find out the impact of liquidity on the capital structure decisions, investment decisions and dividend decisions of the company.

LIMITATIONS OF THE STUDY:

1. The present study is based on the secondary data and the secondary data is the limitation itself.
2. The study is based on the financial ratios which is based on the historical cost.
3. The period of the study is of five years which is limited to analyse the leverage aspect of any business concern.

FINDINGS:

1. **Debt Equity Ratio:** Debt equity ratio of selected companies is not satisfactory during the study period. That means the total debt and total liabilities against total shareholder's fund of the companies are not satisfactory.
2. **Proprietary Ratio:** Proprietary ratio shows fluctuation trend in the study during the study period. But the proprietary ratio is not satisfactory during the study period. It means
3. **Interest Coverage Ratio:** Interest coverage ratio of selected cement companies during the study period are not satisfactory. It indicates that the capacity of the company to pay interest expense.

SUGGESTIONS:

From the findings of the study we concluded that the overall performance of all sample companies is not satisfactory but between the sample companies Jaypee group and ACC cement are well performed. So, from study we find out that cement industry needs to improve their performance regarding for financial strength

CONCLUSION:

The researcher give overview of all the chapters and also give suggestion on the bases of the study knowledge. In this study overall performance of the companies are not satisfactory but they need improve their performance at some stages. This study compares five company's data and give necessary suggestion on it to improve their performance.

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