

“A Study of Working Capital Management of Cement Industries in India”

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Abstract:- Working capital is considered to be life-giving force to an economic entity and managing working capital one of the most important functions of corporate management. Working capital management (WCM) is the management of short-term financing requirements of a firm which includes maintaining optimum balance of working capital components – receivables, inventory and payables – and using the cash efficiently for day-to-day operations.

The main objectives of this study are to examine and evaluate the working capital management in Cement Industries Limited, examine the management pattern of inventory, liquidity position and receivables management. This also finds the relationship between Working Capital Efficiency and Profitability, Profitability..

Key Points:- Working Capital, Liquidity, Profitability,

I. INTRODUCTION

Cement industry, which has been signed out from investigation in the present study, is indeed the backbone of economic growth in any country. A thick relationship has been found between the level of economic growth and the quantum of cement consumption in developed as well developing countries. Cement industry, through its forward linkages provides the maximum stimulus to growth in other industry also. One employee in cement manufacturing activity supports eight to ten persons in related activities.

In India, since independence, great emphasis has been laid on the development of cement industry. It is one of the key basic industries in India. It plays dominant role in the national economy. Cement industry ranks second after the Iron and steel industry. Cement is indispensable in building and construction works. The production and consumption of cement, to a large extent, indicates a country's progress. The development of transport, infrastructure, irrigation and power projects etc. depends to a very large extent on the availability of the cement.

The per capita consumption level of cement is regarded as one of the indicators of development and standard of living in a nation. Keeping in mind the above importance of the cement industry in the economic development, it is required to do an in-depth study of the problems faced by the industry especially in the area of working capital management. The study aims to analyse the working capital issues like liquidity and profitability aspects of the working capital management. It also analyse the various sources of working capital finance

II. AN ATTEMPT WAS MADE IN THE PRESENT STUDY TO

1. To analyse and evaluate working capital management with respect to trade off between liquidity and profitability.
2. To study the various factors affecting working capital requirements in cement industry.
3. To assess the relative significance of various sources of financing of working capital.
4. To analyse relative asset liquidity and relative finance liquidity in cement industry.
5. To suggest, on the basis of conclusion, innovations in the management of working capital in cement companies in India.

III. HYPOTHESIS

1. Current Ratio of cement companies does not differ significantly among the years.
2. Current Ratio does not differ significantly among the various cement companies over the years.
3. Quick Ratio of cement companies does not differ significantly among the years.
4. Quick Ratio does not differ significantly among the various cement companies over the years.

IV. DATA AND METHODOLOGY

The study covers five years period from 2003-04 to 2008-09. This study is based on secondary data which is collected from annual reports of the company and various studies made available through library work. The collected data has been tabulated, analyzed and interpreted with the help of different financial ratios and statistical tool like correlation. Four hypotheses have been tested statistically to arrive at a conclusion.

V HYPOTHESIS TESTING

The following hypothesis are tested with the help of ANOVA (single factor) F test Analysis of variance (ANOVA) enable us to test for the significance of the difference among more than two sample mean. Using analysis of variance, we will be unable to make inference about whether our sample are drawn from population having same mean

1. **Null Hypothesis:** Current Ratio of cement companies does not differ significantly among the years.

SUMMARY				
Group	Count	Sum	Average	Variance
Column 1	19	24.23	1.275263	0.766093
Column 2	19	25.44	1.338947	0.715543
Column 3	19	26.87	1.414211	0.406404
Column 4	19	30.85	1.623684	0.276247
Column 5	19	32.42	1.706316	0.551247
Column 6	19	32.86	1.729474	0.607394

ANOVA						
Sources of Variation	SS	DF	MS	F	P- value	F crit
Between Group	3.667741	5	0.733548	1.324522	0.259207	2.298431
Within group	59.81269	108	0.55381			
Total	63.48044	113				

Above table state that the calculated value of F ratio (1.324) is lower than the table value of F (2.298) at 5% significance level; This lead to the acceptance of null hypothesis. I conclude that Current Ratio of cement companies does not differ significantly among the years.

2. Null Hypothesis:

Current Ratio does not differ significantly among the various cement companies over the years.

Sr No	Group	Count	Sum	Average	Variance
1	A C C Ltd	6.00	8.04	1.34	0.03
2	Ambuja Cements Ltd	6.00	10.05	1.68	0.18
3	Andhra Cements Ltd	6.00	5.12	0.85	1.00
4	Binani Cement Ltd.	6.00	5.23	0.87	0.15
5	Birla Corporation Ltd.	6.00	10.88	1.81	0.21
6	Century Textiles & Inds. Ltd	6.00	6.30	1.05	0.02
7	Dalmia Cement (Bharat) Ltd	6.00	11.43	1.91	0.84
8	Gujarat Sidhee Cement Ltd	6.00	6.53	1.09	0.37
9	Heidelberg Cement India Ltd	6.00	9.44	1.57	0.85
10	India Cements Ltd	6.00	8.95	1.49	0.42
11	J K Lakshmi Cement Ltd	6.00	12.87	2.15	0.45
12	K C P Ltd	6.00	8.78	1.46	0.13

13	Madras Cements Ltd	6.00	16.80	2.80	0.84
14	Mangalam Cement Ltd	6.00	9.45	1.58	0.47
15	N C L Industries Ltd	6.00	7.91	1.32	0.02
16	O C L India Ltd	6.00	8.60	1.43	0.01
17	Prism Cement Ltd	6.00	7.83	1.31	0.13
18	Shree Digvijay Cement Co. Ltd	6.00	9.85	1.64	1.96
19	Ultratech Cement Ltd	6.00	8.61	1.44	0.15

(Source: PROWESS, CMIE Database.)

ANOVA						
Sources of Variation	SS	DF	MS	F	P- value	F crit
Between Group	22.30505	18	1.23917	2.859017	0.000504	1.713439
Within group	41.17538	95	0.433425			
Total	3.48043	113				

Above table state that the calculated value of F ratio (2.85) is higher than the table value of F (1.71) at 5% significance level; This lead to the rejection of null hypothesis and acceptance of alternate hypothesis. I conclude that Current Ratio differs significantly among the various cement companies over the years

Hypothesis 3: Quick Ratio of cement companies does not differ significantly among the years.

SUMMARY				
Group	Count	Sum	Average	Variance
Column 1	19	10.22	0.537895	0.22684
Column 2	19	10.45	0.55000	0.190689
Column 3	19	11.71	0.616316	0.180491
Column 4	19	13.59	0.715263	0.143104
Column 5	19	14.9	0.78738	0.354398
Column 6	19	16.44	0.865263	0.33956

ANOVA						
Sources of Variation	SS	DF	MS	F	P- value	F crit
Between Group	01.676429	5	0.335286	1.401812	0.229386	2.298431
Within group	25.831470	108	0.239180			
Total	27.507900	113				

Above table state that the calculated value of F ratio (1.40) is lower than the table value of F (2.98) at 5% significance level; This lead to the acceptance of null hypothesis. I conclude that Quick Ratio of cement companies does not differ significantly among the years.

Hypothesis 4: Quick Ratio does not differ significantly among the various cement companies over the years

Sr No	Group	Count	Sum	Average	Variance
1	A C C Ltd	6.00	2.53	0.42	0.02
2	Ambuja Cements Ltd	6.00	4.01	0.7	0.08

3	Andhra Cements Ltd	6.00	3.10	0.52	0.49
4	Binani Cement Ltd.	6.00	2.58	0.43	0.17
5	Birla Corporation Ltd.	6.00	2.95	0.49	0.05
6	Century Textiles & Inds. Ltd	6.00	2.52	0.42	0.00
7	Dalmia Cement (Bharat) Ltd	6.00	2.57	0.43	0.03
8	Gujarat Sidhee Cement Ltd	6.00	3.22	0.54	0.12
9	Heidelberg Cement India Ltd	6.00	5.19	0.87	0.48
10	India Cements Ltd	6.00	5.67	0.95	0.17
11	J K Lakshmi Cement Ltd	6.00	8.38	1.40	0.31
12	K C P Ltd	6.00	3.47	0.58	0.09
13	Madras Cements Ltd	6.00	9.17	1.53	0.28
14	Mangalam Cement Ltd	6.00	3.49	0.58	0.10
15	N C L Industries Ltd	6.00	4.18	0.70	0.02
16	O C L India Ltd	6.00	4.34	0.72	0.01
17	Prism Cement Ltd	6.00	2.48	0.41	0.01
18	Shree Digvijay Cement Co. Ltd	6.00	4.02	0.67	0.90
19	Ultratech Cement Ltd	6.00	0.35	0.58	0.03

(Source: PROWESS, CMIE Database.)

ANOVA					
Sources of Variation	SS	DF	MS	F	F crit
Between Group	10.70049	18	0.594471	3.360111	1.713439
Within group	16.80742	95	0.176920		
Total	27.50790	113			

Above table state that the calculated value of F ratio (3.360) is higher than the table value of F (1.71) at 5% significance level; This lead to the rejection of null hypothesis and acceptance of alternate hypothesis. I conclude that Quick Ratio differs significantly among the various cement companies over the years.

VI. FINDING

1. The mean values of current ratio and quick ratio are not much high in the cement industry as its average current ratio is 1.28 and its average quick ratio is 0.54. Ranking of liquidity among the companies indicate that Birla Corporation Ltd, Heidelberg Cement India Ltd, and J K Lakshmi Cement Ltd are leading and they are at the top in terms of current and quick ratio.
2. Andhra Cements Ltd, a public sector enterprise has shown very poor performance in working capital management in comparison to other private companies. It has very low level of current ratio and it also has declining trend. In 2003-04 its current ratio was 0.26 that declines to 1.71 in 2008-09. Its quick ratio is negligible and that shows the high level of accumulation of inventories. Andhra Cements Ltd is very poor in managing their liquidity position.

VII. SUGGESTION

Keeping in view the above observations relating to the study, the following measures are suggested which would go a long way to improve the management of working capital in the cement manufacturing companies in India.

1. During the course of investigation it has been found that 8 companies are giving more attention to the only liquidity aspects of working capital management and taking more conservative decisions leading to the decline in profitability of the company. There is an urgent need to bring about the change in the attitude of the management. They should be more aggressive in working capital management by giving equal weightage to both liquidity and profitability aspects of working capital management.
2. Ultratech Cement Ltd. has very poor performance compare to other private companies so there is an urgent need to look in to the problems and tone up its efficiency.
3. Madras Cements Ltd has shown good performance in very short span as it has been able to maintain its aggressive approach towards the working capital management. Other companies are also required to adopt more aggressiveness in maintaining their current ratio 2:1 and improving their profitability.

VIII. STUDY CONCLUDES THAT

To conclude the study, it can be said that the adoption of above measures will doubtlessly help the selected companies to improve their overall performance in the management of working capital. With the efficient management of working capital, selected companies can utilized their capacity optimally and accelerate economic growth of India by increasing the production of cement at reasonable cost.

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