

A STUDY ON WORKING CAPITAL ANALYSIS OF CEMENT INDUSTRY IN INDIA

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ABSTRACT

Working capital management is connected with the difficulties that happen in attempting to manage the current assets, the current liabilities and the interrelationship that exists between them. The term current assets means assets which in the normal course of business can be, or will be, converted into cash within one year or shorter period. The core current assets are cash, easily salable securities, debtors and inventory. Current liabilities are which are to be paid within a year or shorter period of time, out of the current assets or earning of the concern. The basic current liabilities are accounts payable, bills payable, bank overdraft, and outstanding expenses. The main objective of working capital management is to see the firm's current assets and current liabilities in such a way that a satisfactory level of working capital is maintained smoothly. The main objectives of this study are to examine and evaluate the working capital management in selected Cement Industries, examine the management pattern of inventory, liquidity position and receivables management. This also finds the relationship between Working Capital Efficiency and Profitability, Profitability...

KEYWORDS: *Working Capital, Liquidity, Profitability, Current Liabilities, Outstanding Expenses.*

Introduction

Cement Company, in any nation, plays a important role in the growth of the country. Cement industry in India was fall under full control and supervision of the government. However, it got relief at a large extent after the economic reforms. But also government interference, especially in the pricing of cement, is still evident in India. " it is observed that the cement industry players will continue to increase their annual cement production in upcoming years and the country's cement production will growing at a compound annual growth rate of around 12 per cent during 2011-12 to 2013-14 to reach 303 MMT," according to a report titled 'Indian cement industry forecast to 2012' by research firm RNCOS.

The contribution of Cement Industry in India GDP is significant sound to the economic development of the india. The cement industry in India treated as one of the oldest sectors in India. The industry is runing by the growth in the housing sector, the infrastructure development, and construction of transportation systems. The existence of a company hugely depends on its ability to efficiently and effectively manage its working capital. Working capital management involves the process of converting investment into inventories and accounts receivables into liquid cash for the firm to use in paying its operational bills.

Objectives of the Study

- To analyse the profitability of the selected cement industries of India.
- To study the working capital situation of the selected cement industries of India.
- To assess the the liquidity position of the selected cement industries of India.
- To suggest, on the basis of conclusion to the management of working capital in cement companies in India.

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Hypothesis of the Study

- There is no significant difference in net profit ratio within the samples & between the samples.
- There would be no significant difference in the current ratio of all the sampled units during period of study.
- There would be no significant difference in the liquidity ratio of all the sampled units during period of study.
- There would be no significant difference in the ratio of all working capital turnovers the sampled units during period of study.

Data and Methodology

The study covers five years period from 2015-16 to 2019-20. The present 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 ANOVA. Four hypotheses have been tested statistically to arrive at a conclusion.

Hypothesis Testing

The following hypothesis is tested with the help of ANOVA, 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 or not.

Null Hypothesis: There is no significance difference in net profit ratio within the sample and between the sample.

Year	Ultratech	Ambuja	ACC	JK Lakshmi	Ramco	Ri	Avg.
2015-16	11.42	15.84	14.08	3.36	8.06	52.76	10.55
2016-17	12.09	14.96	11.39	7.10	11.71	57.25	11.45
2017-18	13.96	11.86	9.40	7.32	10.42	52.96	10.59
2018-19	09.40	14.55	7.79	5.42	3.65	40.81	8.16
2019-20	8.78	14.37	8.91	4.14	6.64	42.84	8.57
Cj	55.65	71.58	51.57	27.34	40.48	246.62	-
Avg.	11.13	14.32	10.31	5.47	8.09	-	49.34

ANOVA Table

Sources of Variances	Sum of Squares	Degree of Freedom	Mean Squares (S.S/D.F)	Fcal Value	Ft Table Value
RSS	40.48	4	10.12	2.92	3.01
CSS	220.38	4	55.10	15.92	3.01
ESS	55.37	16	3.46		
TSS	316.23	24			

H₀- This is Saccepted, because ($F_c < F_t$) i.e. (2.92 < 3.01).

H₁:- This is rejected, because ($F_c > F_t$) i.e. (15.92 > 3.01).

Above table state that the calculated value of F ratio (2.92) is lower than the table value of F (3.01) at 5% significance level; This lead to the acceptance of null hypothesis. It is conclude that net profit Ratio of cement companies does not differ significantly among the years.

Null Hypothesis: There would be no significant difference in the current ratio of all the sampled units during period of study.

Year	Ultratech	Ambuja	Acc	JK Lakshmi	Ramco	Ri	Avg.
2015-16	0.68	1.17	0.58	0.72	0.55	3.7	0.74
2016-17	0.76	1.16	0.88	1.00	0.60	4.5	0.9
2017-18	0.66	1.21	0.72	0.74	0.68	4.01	0.80
2018-19	0.76	1.27	0.84	0.68	0.74	4.29	0.85
2019-20	0.59	1.26	0.81	0.48	0.72	3.86	0.77
Cj	3.45	5.97	3.93	3.72	3.29	20.36	-
Avg.	0.69	1.19	0.78	0.74	0.66	-	4.06

ANOVA Table

Sources of Variances	Sum of Squares	Degree of Freedom	Mean Squares (S.S/D.F)	Fcal Value	Ft Table Value
RSS	0.08	0.08	0.08	1.67	3.01
CSS	0.94	4	0.23	0.23	3.01
ESS	0.19	16	0.01		
TSS	1.23	24			

H₀: This is accepted, because (1.67 < 3.01)

H₁: This is accepted, because (0.23 < 3.01)

Above table indicates the calculated value of 'F'. The calculated value of 'F' is 1.67 and 0.23. 1.67 is less than to table value of 'F' at 5% level of significance is 3.01. Whereas 0.23 is less than to table value of 'F' at 5% level of significance is 3.01. It indicates that null hypothesis is accepted and alternative hypothesis is also accepted.

Hypothesis 3

There would be no significant difference in the liquidity ratio of all the sampled units during period of study.

Year	Ultratech	Ambuja	ACC	JK Lakshmi	Ramco	Ri	Avg.
2015-16	0.85	0.92	0.86	0.64	0.52	3.79	0.758
2016-17	0.57	0.88	0.73	0.22	0.21	2.61	0.522
2017-18	0.69	0.91	0.9	0.04	0.02	2.56	0.512
2018-19	0.67	0.91	0.75	0.3	0.1	2.73	0.546
2019-20	0.66	0.92	0.74	0.2	0.3	2.82	0.564
Cj	3.44	4.54	3.98	1.4	1.15	14.51	-
Avg.	0.688	0.908	0.796	0.28	0.23	-	2.88

ANOVA Table

Sources of Variances	Sum of Squares	Degree of Freedom	Mean Squares (S.S/D.F)	Fcal Value	Ft Table Value
RSS	0.20	4	0.05	3.92	3.01
CSS	1.89	4	0.47	36.13	3.01
ESS	0.20	16	0.01		
TSS	2.30	24			

H₀: This is rejected, because ($F_c > F_t$) i.e. (3.92 > 3.01).

H₁: This is rejected, because ($F_c > F_t$) i.e. (36.13 > 3.01).

The above table shows 3.92 is more than to table value of 'F' at 5% level of significance is 3.01. Whereas 36.13 is more than to table value of 'F' at 5% level of significance is 3.01. It indicates that null hypothesis is rejected and alternative hypothesis is also rejected.

Hypothesis 4

There would be no significant difference in the ratio of all working capital turnovers the sampled units during period of study.

Year	Ultratech	Ambuja	ACC	JK Lakshmi	Ramco	Ri	Avg.
2015-16	19.90	3.39	19.6	5.05	1.86	49.8	9.96
2016-17	17.72	5.83	12.08	10.79	2.02	48.44	9.68
2017-18	21.75	6.30	14.16	2.39	1.51	46.11	9.22
2017-19	20.85	7.72	09.04	3.76	1.66	43.03	8.60
2019-20	21.81	6.73	10.02	2.71	1.44	42.71	8.54
Cj	102.03	29.97	64.9	24.7	8.49	230.09	-
Avg.	20.40	5.99	12.98	4.94	1.69	-	46

ANOVA Table

Sources of Variances	Sum of Squares	Degree of Freedom	Mean Squares (S.S/D.F)	Fcal Value	Ft Table Value
RSS	8.01	4	2.002	0.34	3.01
CSS	1122.84	4	280.71	47.71	3.01
ESS	94.13	16	5.88		
TSS		24			

H₀: This is accepted, because (0.34 < 3.01)

H₁: This is rejected, because (47.71 > 3.01)

The above table shows that cal.F 0.34 is less than to table value of 'F' at 5% level of significance is 3.01. Whereas 47.71 are more than to table value of 'F' at 5% level of significance is 3.01. It indicates that null hypothesis is accepted and alternative hypothesis is rejected.

Finding

On the basis of analysis it is found that net profit ratio of Ambuja cement is high in all the years of the study and JK laxmi cement has a minimum net profit ratios during the years of the study. current ratio is also much high in the ambuja cement industry and lower in JK laxmi cement. Liquidity ratio shows the position of liquidity of the company and it is also too much high among all the companies but it is lower in JK laxmi and Ramco cement industry.

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.

- Suggestion to all these industries is that they have to increase their working capital. Looking to all the ratio of working capital, the performance of Ultratech is best as in the sense of working capital.
- All of the industries have to make more convincing advertisement and increase the customer satisfaction. So that they can get very high customer support in future.
- The present study analyses the efficiency of working capital management and its components i.e. inventory, cash and bank balances, and various current liabilities with reference to cement industry of India. The study also attempts to determine the efficiency and effectiveness of management in each segment of working capital. Since the net concept of working capital has been widely taken in the present study, the management of both current assets and current liabilities are also critically reviewed in due course.

Conclusion of the Study and Future Scope

To conclude the study, it can be said that With the efficient management of working capital, selected cement companies of india can utilized their capacity with the optimum use of their efficiency and accelerate economic growth of India by increasing the production of cement at reasonable cost without incurring any expenses... The present study was conducted for only five Indian cement companies for a period of five years. There may be significant scope for further studies considering a greater number of years for the same purpose. The scope for further research may be extended to working capital management components other than cement industry.s

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