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The Analysis of Management of working capital of selected cement companies

Abstract:

The present study evaluated the problems and prospects of selected cement companies in India. For the purpose of investigation purely secondary data is collected from annual report of cement industries and profile of the industries.   The study covers a period of 7 years from 2008-09 to 2014-2015. Financial analysis is a very useful tool which helps in determining the problems in the operation and financial position of the industries. The scope of the problem and prospects is very wide; hence this study has analyzed only the management of working capital problems of the selected Indian cement company. Study accompanied on problems and prospects of cement companies provided an assessment of problems in working capital analysis and prospects of the cement companies based on their balance sheet and profit and loss a/c. The tools are use for analysis accounting ratio and Statistical tools like Mean, S.D. (Standard Deviation) and ANOVA. Based on the findings, suggestions are given by the researcher for better improvement of the management of cement industry in future. This study also finds out the extents where the industries can manage their working capital of selected Indian cement companies.

Keywords: *Cement, Working Capital, secondary data*

1. Introduction

In olden days, various types of building materials were used for construction of public historical and religious buildings sand, stone and in the special case; marbles were used for this purpose. Gradually cement and new types of material had developed in Europe. In 1824 an English man Joseph Aspadin, patented on artificial made by calcinations of an argillaceous limestone known as Portland cement. The word "cement" traces to the Romans, who used the term Opus caementum to pronounce masonry like present concrete that was made from crumpled rock with scorched lime. In 1914, India Cement Company Ltd. was established in Porbandar using a capability of 10,000 tons installed capacity for production. The early insertion to the cement industry in India was during the 1st world war and then the industry started mounting at a speed in dealings of production, industrial units, and installed capability. The cement marketplace in India is estimated to develop at a compound annual growth rate of 8.96% throughout the year 2014 to 2019. In India, 67% of the overall consumption of cement for the housing sector is the major demand for cement.

2. Review of literature

Sarma, S.N. and Reddy, A.V. (1985) made a study on the liquidity position of the Nizam factories limited during the year 1972-73 to 1981-82.In this research, They identify the factors influencing the liquidity and this studies aim that the major element that is affecting the liquidity position of the firm in the government policies with respect to the input and output as well.

Balaguru and Ramakrishnan (1986) reported that under freeze and thaw cycling, behavior of fiber reinforced concrete is similar to the behavior of plain concrete. The addition of entrained air improves freeze thaw durability. The moisture absorption is found to be less in fiber concrete than in plain concrete. It was also found that the modulus of rupture decreases with freeze thaw cycling.

Vijayakumar, A. and Venkatachalam, A. (1995) in their study on profitability and viability working capital and profitability- An Empyreal analysis, facing 13 firms from sugar industry, in Tamil Nadu covering ten years period from 1982- 83 to 1991-92. They have been applied Correlation and regression

to measure the impact of working ratios on profitability. The study has revealed that liquid ratio, cash turnover ratio and receivable turnover ratio have positively influenced the profitability.

3. Objective of Study

To study the management of working capital of selected cement companies.

4. Hypothesis of Study

H_0 There is no significant difference in management of working capital of selected cement companies.

H_1 There is a significant difference in management of working capital of   selected   cement companies.

5. Universe and sample selection for the study

There are so many cement companies which are listed in stock exchange of India. Out of these Cement Companies, This study uses data collected from 7 years of following cement industries based on sales turnover above 1000 Core.
Researcher was randomly selected 5 Cement Companies for the period of 2008-09 to 2014-15.
1. Ambuja cements ltd.
2. Binani cement Ltd.
3. Ultratac cement Ltd.
4. J.K. Lakshmi cement Ltd.
5. Sanghi cement Ltd.

6. Profitability Analysis from the view Working Capital

6.1   Current ratio
Current ratio expresses the precise relation between current assets and current liabilities. It is calculated by dividing current assets with current liabilities.

$$\text{Current Ratio} = \frac{\text{Current assets}}{\text{Current liabilities}}$$

It indicates the availability of current assets in rupees for every one rupee of current liabilities. A high ratio means that the firm has more investment in current assets. While a low ratio indicates that the firm in question is unable to retire its current liabilities. In fact, a satisfactory current ratio for any given firm is difficult to judge. For most manufacturing undertakings, a ratio of 2:1 is traditionally considered a bench-mark of adequate liquidity.

Table 6.1.1   Current Ratio of selected Cement Companies

Name of company	Ambuja cement	Binani cement	Ultra Tech cement	J. K. Lakshmi cement	Sanghi cement
2008-09	1.19	1.58	0.88	2.22	1.86
2009-10	1.21	1.12	1.09	1.72	1.37
2010-11	1.22	0.31	0.66	1.00	1.17
2011-12	1.28	0.95	0.76	0.74	0.81

2012-13	1.27	0.08	0.59	0.68	1.05
2013-14	1.42	0.06	0.59	0.48	0.81
2014-15	0.97	0.06	0.70	0.47	1.07
Average	1.22	0.59	0.75	1.04	1.16
S.D	0.14	0.62	0.18	0.67	0.36
C.V	11.05	103.97	23.91	64.41	31.39

Current ratio of Ambuja cement was in mix trend. Ambuja Cement Company was earning highest 1.42:1 in 2013-14 and lowest ratio was 0.97:1 in 2014-15. Current ratio of Binani cement was in decreasing trend, There were a big different before and after 2010-11. Binani Cement Company was earning highest 1.58:1 in 2008-09 and lowest ratio was 0.06:1 in 2013-14 and 2014-15. In this five companies Ambuja Cement Company's position was good and Binani cement Company's position was not so good.
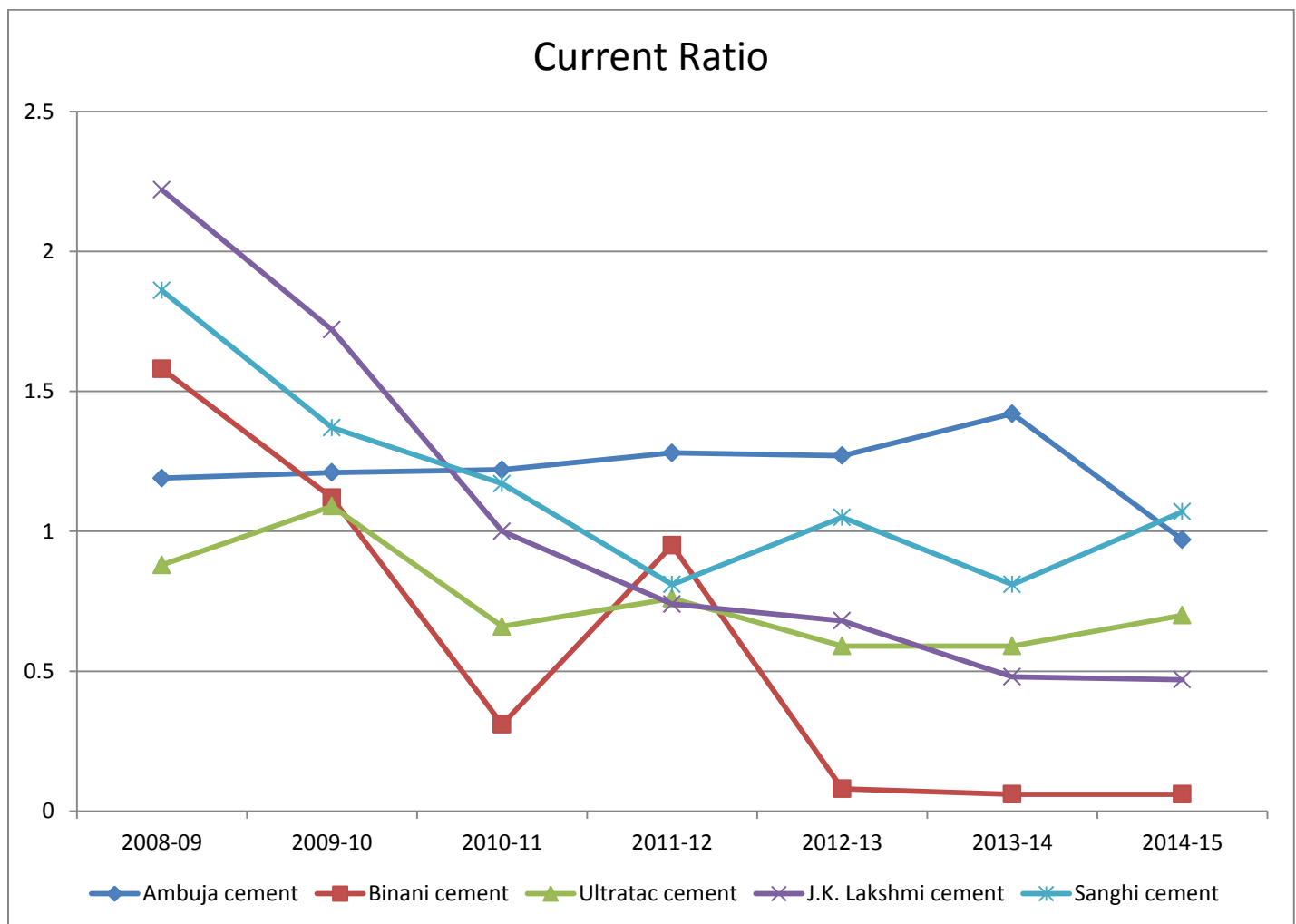
Graph 6.1.1 Current ratio of selected Cement Company

Table 6.1.2 Descriptive Calculation of Current ratio								
Descriptive								
			Std.	Std.	95% Confidence Interval for Mean			
					Lower	Upper		
	N	Mean	Deviation	Error	Bound	Bound	Minimum	Maximum
Ambuja cement	7	1.2229	.13512	.05107	1.0979	1.3478	.97	1.42
Binani cement	7	.5943	.61790	.23354	.0228	1.1657	.06	1.58
Ultra Tech cement	7	.7529	.17997	.06802	.5864	.9193	.59	1.09
J. K. Lakshmi cement	7	1.0443	.67260	.25422	.4222	1.6663	.47	2.22
Sanghi cement	7	1.1629	.36500	.13796	.8253	1.5004	.81	1.86
Total	35	.9554	.49007	.08284	.7871	1.1238	.06	2.22

Tests for the difference between Companies

H0: Difference between Current Ratio of different companies is insignificant.

H1: Difference between Current Ratio of different companies is significant.

Table 6.1.3 ANOVA Tests of Current ratio between Companies					
ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	2.057	4	.514	2.526	.061
Within Groups	6.108	30	.204		
Total	8.166	34			

Conclusion:

Calculated value of F is 2.53. At 5% level of Significance and 4 degrees of freedom Null hypothesis is to be accepted. Thus the difference between Current Ratio of different companies is insignificant.

6.2   Quick or Acid-test ratio

This ratio takes the quickly realizable assets and measures them against current liabilities. This is a more refined if somewhat conservative estimate of the firm's liquidity, since it establishes a relation between quick or liquid assets and current liabilities.. The quick ratio is, then, expressed as a relation between quick assets and current liabilities, as

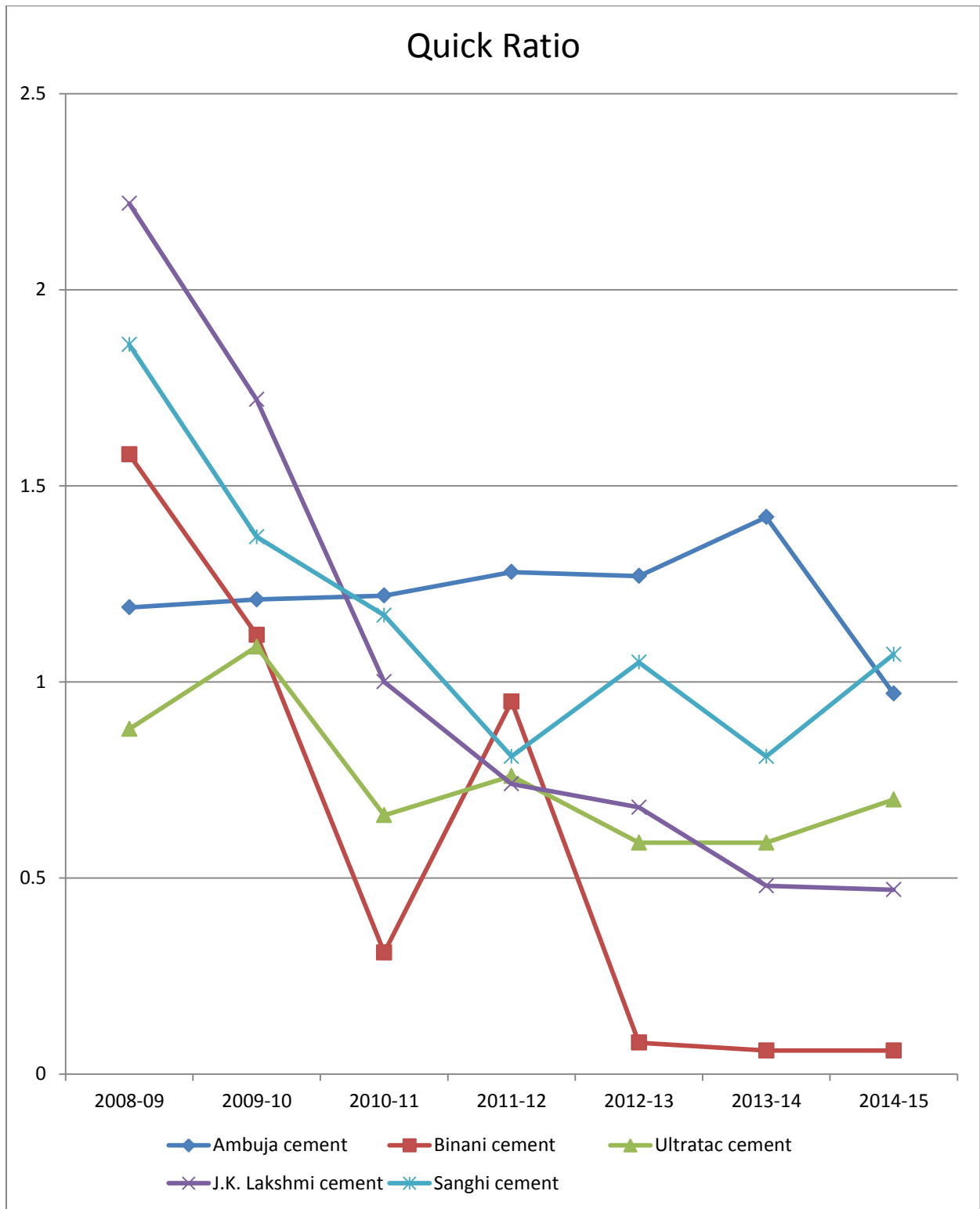$$\text{Quick Ratio} = \frac{\text{Quick assets}}{\text{Current liabilities}}$$

Conventionally, a quick ratio of 1:1 is considered to be a more satisfactory measure of liquidity position of an enterprise.

Table 6.2.1   Quick Ratio of selected Cement Companies

Name of company	Ambuja cement	Binani cement	Ultra Tech cement	J. K. Lakshmi cement	Sanghi cement
2008-09	1.01	1.58	0.43	1.99	1.23
2009-10	1.02	1.12	0.48	1.53	0.92
2010-11	0.95	0.31	0.66	0.85	0.61
2011-12	1.01	0.95	0.76	0.67	0.38
2012-13	1.04	0.08	0.59	0.62	0.73
2013-14	1.18	0.06	0.59	0.46	0.51
2014-15	0.75	0.06	0.70	0.44	0.86
Average	0.99	0.59	0.60	0.94	0.75
S.D	0.13	0.62	0.12	0.59	0.28
C.V	12.94	103.97	19.52	63.34	38.02

Quick ratio of Ambuja cement was in mix trend. Ambuja Cement Company was earning highest 1.18 in 2013-14 and lowest ratio was 0.75 in 2014-15. Quick ratio of Binani cement was in decreasing trend, There were a big different before and after 2010-11. Binani Cement Company was earning highest 1.58 in 2008-09 and lowest ratio was 0.06 in 2013-14 and 2014-15. In these five companies Ambuja Cement Company's position was good and Binani cement Company's position was not so good.

Graph 6.2.1 Quick ratio of selected Cement Companies.

Quick Ratio

Table 6.2..2 Descriptive Calculation of Quick ratio								
Descriptive								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Ambuja cement	7	1.2229	.13512	.05107	1.0979	1.3478	.97	1.42
Binani cement	7	.5943	.61790	.23354	.0228	1.1657	.06	1.58
Ultra Tech cement	7	.7529	.17997	.06802	.5864	.9193	.59	1.09
J. K. Lakshmi cement	7	1.0443	.67260	.25422	.4222	1.6663	.47	2.22
Sanghi cement	7	1.1629	.36500	.13796	.8253	1.5004	.81	1.86
Total	35	.9554	.49007	.08284	.7871	1.1238	.06	2.22

Tests for the difference between Companies

H0: Difference between Liquid Ratio of different companies is insignificant.

H1: Difference between Liquid Ratio of different companies is significant.

Table 6.2.3 ANOVA Tests of Quick ratio between Companies					
ANOVA					
	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	2.057	4	.514	2.526	.061
Within Groups	6.108	30	.204		
Total	8.166	34			

Conclusion:

Calculated value of F is 2.53. At 5% level of Significance and 4 degrees of freedom Null hypothesis is to be accepted. Thus the difference between Liquid Ratio of different companies is insignificant.

6.3   Debtors Ratio

Financial analysts apply debtor turnover ratio and average collection period to judge quality or liquidity of debtors. Debtors turn over, collection period, again Schedule of debtors. The term debtors include trade debtors and bills receivables. The debtor turnover ratio indicates the relationship between net credit sales and average days of debtors. The debtors' turnover ratio is usually supplemented by average collection period (Average days of debtors). It can be calculated as follows:

$$\text{Debtors Ratio} = \frac{\text{Debtors + Bills Receivable}}{\text{Credit Sales}} \times 365$$

**Table 6.3.1**

Debtors Ratio of selected Cement Companies

Name of company	Ambuja cement	Binani cement	Ultra Tech cement	J. K. Lakshmi cement	Sanghi cement
2008-09	43.26	58.46	28.45	65.23	58.26
2009-10	42.51	60.25	25.78	57.40	50.38
2010-11	42.84	55.60	22.63	52.42	87.95
2011-12	42.84	17.00	17.65	51.91	48.45
2012-13	41.18	4.33	18.47	46.52	55.82
2013-14	43.43	1.38	18.42	38.94	68.93
2014-15	36.79	11.62	17.76	36.62	47.10
Average	41.84	29.81	21.31	49.86	59.56
S.D	2.34	26.97	4.38	10.08	14.56
C.V	5.60	90.49	20.56	20.21	24.45

Debtors ratio of Binani cement was in mix trend, There were a big different 2009-10 and 2013-14. Binani Cement Company was maximum collection time 60 days in 2009-10 and minimum collection time was 1.38 days. Ultra Tech Cement Company was earning highest 28 days in 2008-09 and lowest ratio was 18 days in 2014-15. Debtors ratio of J.K. Lakshmi cement was in decreasing trend. That means its passion was good.

Graph 6.3.1   Debtors ratio of selected Cement Companies.
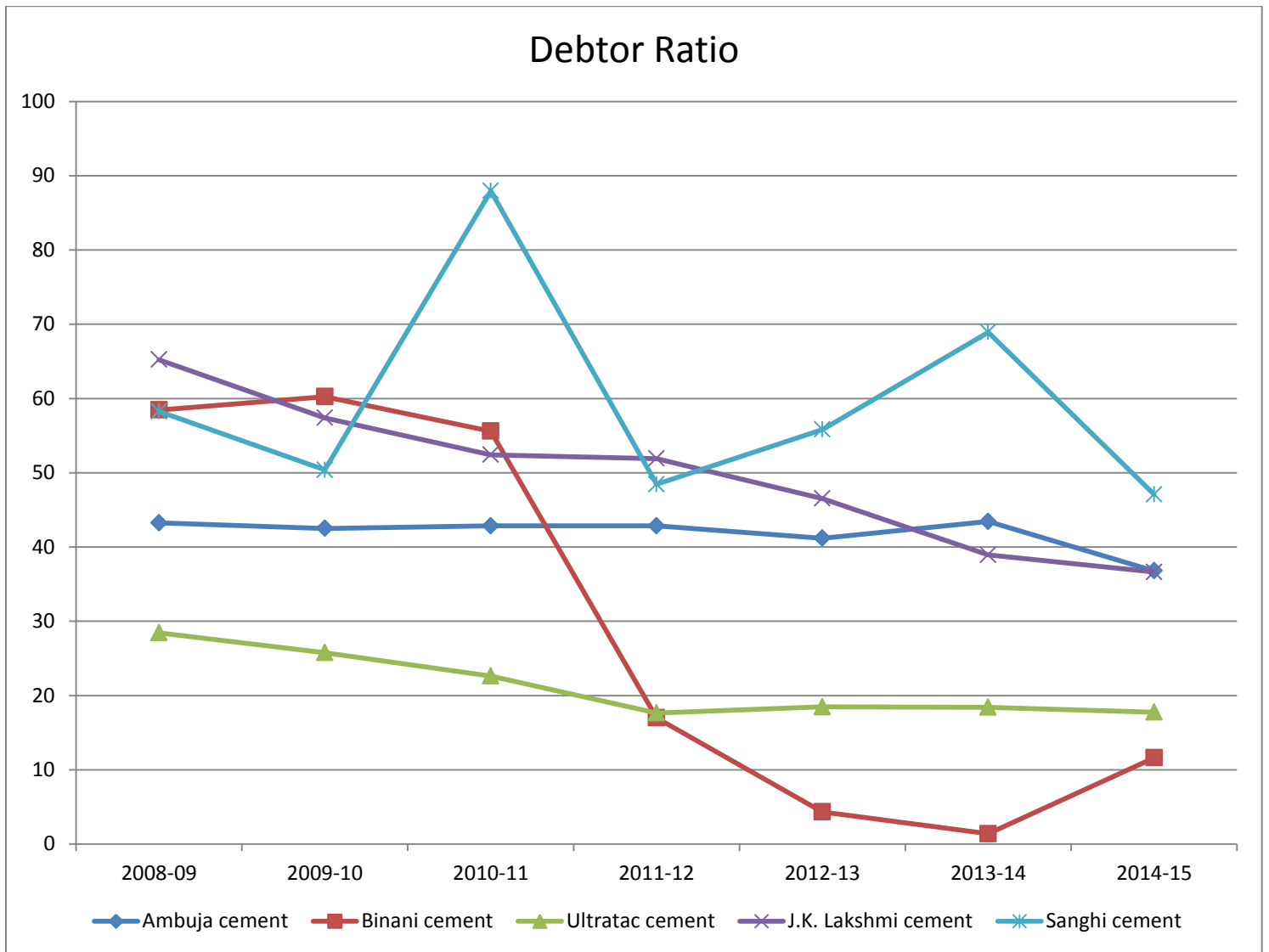
Table 6.3.2 Descriptive Calculation of Debtors ratio								
Descriptive								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Ambuja cement	7	41.8357	2.34277	.88548	39.6690	44.0024	36.79	43.43
Binani cement	7	29.8057	26.97223	10.19455	4.8606	54.7509	1.38	60.25
Ultra Tech cement	7	21.3086	4.38023	1.65557	17.2575	25.3596	17.65	28.45
J. K. Lakshmi cement	7	49.8629	10.07922	3.80959	40.5411	59.1846	36.62	65.23
Sanghi cement	7	59.5557	14.56264	5.50416	46.0875	73.0239	47.10	87.95
Total	35	40.4737	19.50997	3.29779	33.7718	47.1756	1.38	87.95

Tests for the difference between Companies

H0: Difference between Debtor Ratio of different companies is insignificant.

H1: Difference between Debtor Ratio of different companies is significant.

Table 6.3.3 ANOVA Tests of Debtors ratio between Companies					
ANOVA					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	6546.699	4	1636.675	7.678	.000
Within Groups	6395.024	30	213.167		
Total	12941.723	34			

Conclusion:

Calculated value of F is 7.68. At 5% level of Significance and 4 degrees of freedom Null hypothesis is to be rejected. Thus the difference between Debtor Ratio of different companies is significant.

Limitations of the study:

This study is established on only secondary data and this study is limited to 7 years from 2008-09 to 2014-15 for the analysis and conclusions. A few of the companies had to be compulsorily excluded from analysis because of non-availability of data either due to non-submission of statements or due to their closure/merger/suspension of operation during the study period. There are many financial performance measurements using ratio analysis. There might be difficult to use all the measures. Financial analysis can easily be window-dressed.

Conclusion

Study accompanied on problems and prospects of cement companies provide an opinion of assessment of problems in Working capital analysis and prospects of the cement companies based on their balance sheet and profit and loss a/c. On the base of above research Ambuja Cement Company had good position of working capital and Binani Cement Company had poor position of Working capital. Ultra Tech Cement

Company had also strong position of working capital The study may also be useful to creditors and the financial institutions in their effective credit policy formulation. The study will act as a guide to investors in their investment decisions.

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