DOI: 10.36347/sjebm.2016.v03i04.005

Scholars Journal of Economics, Business and Management e-ISSN 2348-5302

Senthilkumar M *et al.*; Sch J Econ Bus Manag, 2016; 3(4):188-193 p-ISSN 2348-8875

(An International Publisher for Academic and Scientific Resources)

A Study on Financial Performance of Select Cement Companies in India – With Special Reference to Working Capital Management

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Abstract: Cement industry is the key industry in development of a nation. Efficient financial management is necessary for successful running of cement companies. Among them efficient working capital management is very important. Inefficient working capital management may lead a company even to bankrupt. The study analysed working capital management of nine selected cement companies in India for the study period of ten years from 2004-05 to 2013-14. For this purpose the study used ratio analysis and Y-score model. The results of the study showed that results of Y-score of ACC Ltd., Ambuja Cements Ltd., Chettinad Cements Ltd., Shree Cements Ltd. and Ultratech Cements Ltd. was more than the standard norm during all the years of the study period, hence their working capital management efficiency was good during the study period. Y-score of JK cements was more than the standard norm during six years of the study period and it was more than the standard norm only during four years of the study period in case of India cements.
Keywords: working capital, current ratio, liquidity, y-score and absolute liquid ratio.

INTRODUCTION

Cement industry is considered as one of the key industries in the India, because it is the key industry for infrastructural developments. Most of the cement companies in India are joint stock companies in nature. Joint stock companies are funded by few industrialists and several public. In other words joint stock companies are running with public money in terms of shareholders. Shareholders' primary aim is to get good return for their investment in terms of wealth maximization (increase of share value) and fair annual return (dividend). These are possible only when the concerned company runs its management efficiently. Performance of management can be classified into marketing, human resource and finance. Among them efficient management of financial aspect is very important, because finance is the lifeblood for any other activities of a business concern. Financial management of a company can be broadly divided into three viz., short term fund management, long term fund management and profitability management. Short term fund management is also known as working capital management, efficient management of working capital is one of the difficult tasks. The term working capital refers to short term fund which has been used for the purpose of facing payment of daily financial obligations such as wages, material, salary and other such expenses. General opinion is working capital should be positive, which means amount of current assets should be more than the amount of current liabilities.

LITERATURE REVIEW

Hitesh D. Vyas and Vishal shah, [1] in their study found that the financial performance of Birla and Ultra-tech cement companies performed better in terms of finance, and the performance was not so in case of JK cement and JK lakshmi cement. Venkataramana N *et al*[2] evidenced that the receivable to current assets ratio was not satisfactory but receivable to assets ratio position was better. They also found significant impact of receivable management on working capital management. Sachinmittal*et al.*[3] in their study evidenced that both the selected companies had no significant relationship between working capital and total assets and also there was no significant between working capital and sales. AcharekarSachin Vilas Vijaya and Shingare Vishal Sundar Rama, [4] found that Birla corporation Ltd, Heidelberg cement India Ltd. and JK lakshmi cement Ltd were leading and they were the top in terms of current and quick ratio. Andhra cements Ltd., a public sector enterprise had shown very poor performance in working capital management.

STATEMENT OF THE PROBLEMS

Nations development is depended on infrastructure of the country. Cement industry is base for development infrastructure of a country. Cement industry is the key industry in India. There are many companies in this industry. It provides more employment directly and indirectly. A company may

survive only when it gets profit every year. Many factors affect profitability of a company. Efficient financial management is necessary for successful running of cement companies. Among them efficient working capital management is very important. Inefficient working capital management may lead a company even to bankrupt. Hence the study has analyzed working capital performance of select cement companies.

OBJECTIVES OF THE STUDY

- To study working capital of select cement companies in terms of liquidity ratios and
- To study overall working capital management efficiency using Y-score model.

METHODOLOGY

The study analyzed working capital management of nine selected cement companies in India for the study period of ten years from 2004-05 to 2013-14. For this purpose the study used accounting variables, which were collected from financial reports of concerned companies. The study used ratio analysis and Y-score model of Dr. S.S. Srivastava and Dr. R.A.Yadav. The model is based on four ratios namely, (a) Cash flow to total tangible assets; (b) Current ratio; (c) Net sales to total tangible assets; and (d) Defensive assets to total operating expenses.

Assessment of working capital position as per the model is:

$$Y = 14.5166\ V2 + 0.0015\ V25 + 0.8715\ V31 + 0.7914\ V35$$

Where

V2 = Cash flow to total tangible assets

$$\frac{\text{Cash Flow}}{\text{Total Tangible Assets}}$$

V25= Current assets to current liabilities

$$\frac{\text{Current Assets}}{\text{Current Liabilities}}$$

V31= Net sales to total tangible assets

$$\frac{\text{Net Sales}}{\text{Total Tangible Assets}}$$

V35= Defensive assets to total operating expenses

$$\frac{\text{Defensive Assets}}{\text{Total Operating Expenses}}$$

It fixed a cut off rate to assess working capital performance which is 1.7068. If the Y-Score of a company is more than this cut off, the working capital efficiency is good otherwise it is not good.

RESULTS AND INTERPRETATION

Working Capital

The term working capital refers to difference between the amount of current assets and current liabilities. Efficient management of working capital can be understood to some extent with the amount of working capital of a company. Table 1 presents the results of amount of working capital of nine selected cement companies in India.

Table 1: Working Capital of Selected Cement Companies Rs. in Crore

Year	ACC	AMC	BVC	CC	INC	JKC	RAC	SHC	UTC
2004-05	191.36	192.09	18.81	85.07	1061.17	115.46	149.35	77.82	398.35
2005-06	479.23	476.02	17.57	72.18	1139.29	317.04	98.38	64.94	216.47
2006-07	-18.65	418.24	21.15	44.93	1283.52	316.52	220.24	489.47	204.99
2007-08	-6.09	865.65	30.60	248.29	1165.88	380.42	377.72	616.12	25.33
2008-09	-857.75	238.25	34.56	236.55	990.21	587.07	473.41	745.20	118.89
2009-10	-993.07	741.15	36.22	386.06	1602.35	327.10	589.41	615.46	173.30
2010-11	-46.44	1134.08	46.33	221.58	1785.48	537.82	508.81	530.47	304.80
2011-12	1423.17	2263.91	-10.25	-345.98	-943.75	347.03	-469.55	710.74	2228.82
2012-13	1152.50	2693.84	-9.54	-86.40	-784.19	131.45	-360.57	854.73	1577.82
2013-14	-133.07	2847.61	-8.78	80.58	-880.07	314.64	-455.14	832.62	3270.82
Mean	119.12	1187.08	17.67	94.29	641.99	337.46	113.21	553.76	851.96
SD	761.59	1026.28	20.68	204.12	1071.11	148.17	405.94	280.37	1119.64
CV	639.36	86.45	117.09	216.49	166.84	43.91	358.58	50.63	131.42

Source: Computed from data collected from Annual Reports[5].

The results of amount of working capital of sample companies showed that working capital of Ambuja cements, JK cements, Shree cements and Ultra Tech cements were positive during all the years of the study period and, whereas and working capital of ACC ltd. was negative for six years of the study period and the amount of working capital of Barak Valley cements, India cements and Ramco cements were negative for

three years and working capital of Chettinad cements was negative for two years of the study period. There was very high deviation in the amount of working capital of ACC ltd and Ramco cements and deviation was low for JK cements and Shree cements.

It was found from table 2 that current ratio of JK cements and Shree cements were found to be good during the study period. Barak Valley cements and India cements had very high current ratio during first half of the study period and it was low during the second, but its mean value was more than two because of very high current ratio during certain period. Current ratio of Ambuja cements, Chettinad cements, Ramco cements and Ultra cements were found to be satisfied and current ratio of ACC was very low. Working capital in terms of liquid ratio high for Barak Valley cements company, it was high during first three years for India Cements and it was too low during last three years and during other years it was good. Liquid ratio of JK cements was found good during the study period except during last three years of the study period. Working capital management in terms of liquid ratio of Shree cements was good during most of the years of the study period. Liquid ratio of ACC cements and Ultra Tech cements was found to be poor during the study period. The absolute liquid ratio was found to be good for Ambuja Cements, JK Cements and Shree Cements during the study period. The ratio was satisfactory in certain number of years of the study period in case of ACC Ltd. and India cements. Absolute ratio of Barak Valley Cements, Chettinad cements, Ramco Cements and Ultratech cements was not good during the study period. There was high deviation in absolute ratio in case of India cements, Ramcocements, Shree cements and Chettinad cements and deviation was low in case of Ambuja cements, Ultratech cements and ACC cements.

Table 3 shows that over the study period of ten years, overall score of Y-score of ACC Ltd. ranged between 3.00 and 5.19. These results indicated that during all the years of the study period, the calculated values of Y-score of ACC Ltd. was more than its standard (1.7068), So, the overall working capital management of the company was good. Overall Y-score of Ambuja cements was high during all the years of the study period. It ranged from 3.34 to 7.58. The above results indicated that the calculated values of Y-score was more than the standard (1.7068) during all the years of the study period, so it is interpreted that overall working capital management of the company was good. Overall Y-score of Barak Valley Cements Ltd. was high during the first six years of the study period, it was low during 2010-11 and 2012-13, but they were more than the standard norm (1.7068), Y-score of the company was below the standard norm during 2011-12 and 2013-14. Y-score of the company ranged from 0.83 to 6.66. The above results showed that the calculated values of Y-score was more than the standard (1.7068) during all the years of the study period except during 2011-12 and 2013-14, so working capital management of the company was good during eight years of the study period and it was poor during 2011-12 and 2013-14, since the calculated Y-score was less than the standard norm during those years.

The overall score Y-score of Chettinad Cements Corporation Ltd. was high during all the years of the study period. It ranged from 2.14 to 4.56 during the study period. The results indicated that during all the years of the study period the calculated values of Y-score of the company was more than the standard norm (1.7068), hence working capital management efficiency of the company was good. Overall score of Y-score model of India cements Ltd. was more than the standard (1.7068) during the period from 2006-07 to 2009-10 and it was about standard during 2011-12 and during 2004-05, 2005-06, 2010-11, 2012-13 and 2013-14 the calculated values of Y-score was below the standard norm. The results showed that working capital efficiency of India cements Ltd. was good during the period from 2006-07 to 2009-10, since during those years the overall Y-score was above the standard and it was satisfactory during 2011-12, since it was about the standard. During other years working capital management efficiency of the company was not good. Overall score of Y-score model of JK Cements Ltd. was more than the standard (1.7068) during seven years of the study period and it was below the standard norm during four years of the study period viz., 2004-05, 2005-06, 2010-11 and 2013-14. Hence, the results of the table showed that working capital efficiency of JK cements ltd. was good during six years of the study period during 2006-07 to 2009-10, 2011-12 and 2012-13, since Y-score during those years was more than the standard norm. Working capital management efficiency of JK cements ltd. was not good during other years, because overall Y-score was not above the standard norm during these years.

Overall score of Y-score model of Ramco Cements Ltd. was more than the standard (1.7068) during all the years of the study period except during the last year (2013-14). Therefore working capital efficiency of Ramco Cements Ltd. was good during the study period except during 2013-14, but during 2010-11 Y-score was about the standard. Overall score of Y-score of Shree cements ltd. was more than the standard during all the years of the study period. It ranged between 3.59 and 7.23. These results indicated that overall management of working capital of Shree Cements Ltd. was good. Overall Y-score of Ultratech cements ltd. was high during all the years of the study period. It ranged from 1.82 to 4.65. The above results indicated that the calculated values of Y-score was more than the standard (1.7068) during all the years of the study period, so it is interpreted that overall working capital management of the company was good.

Table 2: Liquidity Ratios of Select Cement Companies

Year	ACC			AMC			BVC			CC			INC			JKC			RAC			SHC			UTC		
	CR	LR	ALR	CR	LR	ALR	CR	LR	ALR	CR	LR	ALR	CR	LR	ALR	CR	LR	ALR	CR	LR	ALR	CR	LR	ALR	CR	LR	ALR
2004-05	1.19	0.66	0.06	1.49	0.68	0.22	3.64	3.20	0.36	2.07	0.82	0.22	4.45	3.87	0.01	1.76	1.32	0.45	1.90	1.11	0.26	2.05	1.07	0.18	1.91	1.26	0.13
2005-06	1.31	0.91	0.41	1.68	1.10	0.54	3.19	2.61	0.13	1.67	0.74	0.20	4.05	3.54	0.12	2.65	2.21	1.48	1.43	0.99	0.22	1.42	0.69	0.12	1.39	0.71	0.11
2006-07	0.99	0.66	0.33	1.36	0.86	0.56	4.41	3.42	0.27	1.26	0.81	0.16	3.96	3.43	0.53	2.48	1.96	0.90	1.56	1.23	0.14	2.72	2.17	1.24	1.27	0.70	0.12
2007-08	1.00	0.71	0.36	1.59	0.95	0.58	3.64	2.82	0.12	2.59	1.53	0.17	2.19	1.85	0.43	2.31	1.91	0.50	1.94	1.34	0.06	2.28	1.92	0.97	1.02	0.54	0.08
2008-09	0.73	0.48	0.24	1.14	0.74	0.51	3.83	3.29	0.28	1.61	1.06	0.11	1.86	1.54	0.07	2.89	2.45	0.40	2.08	1.33	0.09	2.09	1.86	0.69	1.10	0.54	0.08
2009-10	0.73	0.49	0.29	1.31	0.93	0.73	3.33	2.77	0.35	2.06	1.44	0.20	2.26	1.91	0.04	1.91	1.25	0.37	2.08	1.32	0.07	1.64	1.27	0.43	1.13	0.50	0.06
2010-11	0.99	0.69	0.45	1.42	1.08	0.77	4.79	3.99	0.35	1.46	0.98	0.04	2.60	2.15	0.03	2.32	1.53	0.79	1.86	1.20	0.07	1.58	1.14	0.51	1.09	0.52	0.04
2011-12	1.42	1.09	0.20	1.75	1.43	0.75	0.82	0.69	0.06	0.65	0.26	0.00	0.56	0.31	0.00	1.47	0.98	0.59	0.69	0.36	0.03	1.35	1.10	0.23	1.49	1.04	0.04
2012-13	1.35	1.01	0.15	1.95	1.62	0.82	0.82	0.69	0.02	0.90	0.35	0.01	0.65	0.43	0.00	1.15	0.63	0.37	0.78	0.41	0.03	1.60	1.23	0.26	1.25	0.88	0.02
2013-14	0.96	0.63	0.08	1.90	1.62	0.78	0.87	0.78	0.06	1.10	0.43	0.01	0.62	0.38	0.00	1.32	0.77	0.36	0.73	0.33	0.03	1.56	1.02	0.11	1.57	1.16	0.05
Mean	1.07	0.73	0.26	1.56	1.10	0.62	2.93	2.43	0.20	1.54	0.84	0.11	2.32	1.94	0.12	2.03	1.50	0.62	1.50	0.96	0.10	1.83	1.35	0.47	1.32	0.78	0.07
SD	0.24	0.20	0.13	0.26	0.34	0.18	1.52	1.24	0.13	0.59	0.43	0.09	1.46	1.34	0.19	0.59	0.62	0.36	0.57	0.42	0.08	0.44	0.47	0.39	0.27	0.28	0.04
CV	23	28	52	17	31	29	52	51	68	38	51	79	63	69	157	30	41	57	38	44	83	24	35	82	21	36	49

Table-3: Y-Score Results of Selected Cement Companies

Results	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14
ACC Ltd.										
V2	0.14	0.28	0.28	0.19	0.23	0.16	0.18	0.14	0.14	0.14
V25	1.19	1.31	0.99	1.00	0.73	0.73	0.99	1.42	1.35	0.96
V31	0.95	1.07	1.11	0.94	0.93	0.82	0.92	0.97	0.94	0.95
V35	0.20	0.33	0.29	0.35	0.27	0.30	0.33	0.40	0.35	0.23
Y-Score	3.00	5.19	5.19	3.89	4.32	3.29	3.61	3.17	3.13	3.04
Ambuja Cements Ltd.										
V2	0.22	0.42	0.38	0.22	0.19	0.17	0.16	0.16	0.14	0.15
V25	1.49	1.68	1.36	1.59	1.14	1.31	1.42	1.75	1.95	1.90
V31	0.88	1.45	1.09	0.83	0.87	0.76	0.80	0.83	0.72	0.75
V35	0.14	0.19	0.27	0.31	0.25	0.40	0.44	0.59	0.61	0.63
Y-Score	4.14	7.58	6.71	4.20	3.66	3.46	3.34	3.51	3.19	3.36
Barak Valley Cements Ltd.										
V2	0.37	0.24	0.27	0.17	0.15	0.19	0.05	-0.01	0.04	0.03
V25	3.64	3.19	4.41	3.64	3.83	3.33	4.79	0.82	0.82	0.87
V31	0.85	0.80	1.02	0.78	0.93	1.10	0.88	0.81	0.94	0.81
V35	0.70	0.59	0.42	0.62	0.56	0.48	0.56	0.43	0.38	0.55
Y-Score	6.66	4.66	5.15	3.69	3.40	4.09	2.01	0.83	1.75	1.63
Chettinad Cements Corporation Ltd.										
V2	0.10	0.12	0.23	0.23	0.24	0.20	0.19	0.21	0.19	0.16
V25	2.07	1.67	1.26	2.59	1.61	2.06	1.46	0.65	0.90	1.10
V31	0.63	0.73	0.98	0.89	0.65	0.68	0.65	0.81	0.93	0.86
V35	0.22	0.21	0.28	0.39	0.59	0.62	0.44	0.19	0.17	0.20
Y-Score	2.14	2.48	4.37	4.48	4.56	4.03	3.67	3.91	3.74	3.19
India Cements Ltd.										
V2	0.02	0.03	0.12	0.12	0.09	0.08	0.04	0.07	0.06	0.01
V25	4.45	4.05	3.96	2.19	1.86	2.26	2.60	0.56	0.65	0.62
V31	0.35	0.45	0.55	0.49	0.48	0.48	0.44	0.54	0.56	0.54
V35	0.95	0.84	0.79	0.92	0.73	0.82	0.78	0.20	0.26	0.23
Y-Score	1.38	1.52	2.91	2.95	2.33	2.21	1.59	1.70	1.51	0.86
JK Cements Ltd.										
V2	0.02	0.04	0.13	0.16	0.09	0.11	0.05	0.08	0.10	0.05
V25	1.76	2.65	2.48	2.31	2.89	1.91	2.32	1.47	1.15	1.32
V31	0.28	0.60	0.76	0.77	0.70	0.62	0.61	0.71	0.78	0.57
V35	0.69	0.57	0.47	0.53	0.65	0.32	0.34	0.36	0.24	0.31
Y-Score	1.02	1.61	2.93	3.44	2.44	2.32	1.57	2.14	2.28	1.44
Ramco Cements Ltd.										
V2	0.09	0.11	0.20	0.15	0.11	0.11	0.08	0.11	0.11	0.07
V25	1.90	1.43	1.56	1.94	2.08	2.08	1.86	0.69	0.78	0.73
V31	0.55	0.74	0.82	0.59	0.54	0.52	0.44	0.54	0.60	0.54
V35	0.31	0.28	0.47	0.38	0.31	0.35	0.35	0.23	0.23	0.18
Y-Score	2.05	2.44	4.03	3.05	2.31	2.28	1.78	2.26	2.31	1.59
Shree Cements Ltd.										
V2	0.19	0.19	0.37	0.39	0.31	0.38	0.24	0.32	0.31	0.23
V25	2.05	1.42	2.72	2.28	2.09	1.64	1.58	1.35	1.60	1.56
V31	0.74	0.71	0.82	1.09	1.07	1.10	0.95	1.29	1.09	1.01
V35	0.19	0.22	0.82	0.76	0.72	0.57	0.39	0.53	0.43	0.34
Y-Score	3.60	3.59	6.67	7.23	5.97	6.87	4.61	6.22	5.78	4.50
Ultratech Cements Ltd.										
V2	0.07	0.13	0.24	0.20	0.19	0.22	0.13	0.15	0.14	0.11
V25	1.91	1.39	1.27	1.02	1.10	1.13	1.09	1.49	1.25	1.57
V31	0.78	0.96	1.18	0.91	0.96	1.06	0.81	0.84	0.79	0.71
V35	0.24	0.14	0.15	0.18	0.14	0.13	0.17	0.34	0.35	0.40
Y-Score	1.82	2.82	4.65	3.90	3.77	4.25	2.78	3.23	3.02	2.60

Source: Computed from Annual Reports[5]

CONCLUSION

The results of analysis of working capital management of nine select cement companies showed that Y-score model exhibits overall working capital management efficiency of a company. In this study overall Y-score of ACC ltd., Ambuja Cements Ltd., Chettinad Cements Ltd., Shree cements Ltd. and Ultratech Cements Ltd. was more than the standard norm during all the years of the study period, hence their working capital management efficiency was good during the study period. Y-score of Ramco cements ltd. was more than the standard norm during nine years of the study period and it was below the standard norm during the year 2013-14, so its working capital management was efficient during nine years. Y-score of Barak Valley cements was more than the standard norm during eight years, it was not so during 2011-12 and 2013-14. Y-score of JK cements was more than the standard norm during six years of the study period and it was more than the standard norm only during four years of the study period in case of India cements.

REFERENCES

1. Hitesh DV, Shah V; A study on financial statement analysis of cement Industry in India, Radix International Journal of banking,finance and accounting, 2012; 1(12):1-19.
2. Venkataramana N, Ramkrishnan K, Chengalrayulu P; Impact Of receivable management on working capital and profitability: A study on select cement companies in India, International Journal of marketing, financial service & management research, 2013; 2(3):163-171.
3. Mittal S, Joshi N, Shrimali K; Empirics on working capital management; A case of Indian cement industry, International conference on humanities economics and geography, 2012; 212-216.
4. Vijaya ASV, Rama SVS; A study of working capital management of cement industries in India, International Referred Journal of Engineering and Science (IRJES), 2013; 2(8):1-17.
5. Annual Reports of selected companies from 2004-05 to 2013-14.