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A COMPARATIVE ANALYSIS OF WORKING CAPITAL MANAGEMENT OF COAL INDIA LTD. AND GUJARAT MINERAL DEVELOPMENT CORPORATION LTD

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ABSTRACT

Working capital management plays a significant role in keeping the wheels of firm running. The intention of this study is to compare and analyze the efficiency of working capital management of selected units. To achieve the objectives two coal industries listed in Bombay stock exchange are selected for the study. Secondary data collected from the period 2011-2016 from annual published reports and investment sites. Various financial ratios and statistical tool as spearman correlation coefficient and "t test" used in the present study to determine the relationship between liquidity and profitability. The study disclosed that liquidity and profitability position of Coal India Ltd. is better than Gujarat Mineral Development Corporation Ltd.

KEYWORDS: Working Capital, Liquidity, Profitability, Financial ratios.

INTRODUCTION

Working Capital is not unknown phenomenon in the area of financial management. As the name suggest, an amount requires meeting the short - term obligations of the business enterprise. It is that part of capital used for meeting the recurring expenses of business. Working capital plays significant role in keeping the wheels of firm running. Management of working capital indicates the liquidity position of the business houses. Its nature is short - term period investment in the elements of working capital as cash -in- hand, at bank, marketable securities, inventories, debtors and suppliers etc. Management of all the components of working capital is essential for long term survival and growth of the business. Operating cycle is an average period of time require for business to receive cash from initial expenditure on production to sales. It decides the requirement of working capital of organization. Higher the length of operating cycle, more the amount of working capital required and vice-versa. Longer operating cycle harms or affects the profitability of firms. A firm allowed more time period to collect its debt back and asked to pay off the short term obligations in less time would face difficulty in situation of shortage of funds or its unavailability. In efficient management of short- term lived investment in current assets and the current liabilities could lead to low rate earnings as well as impact on the image of the concern. Thus, the need of working capital management is felt necessary in irrespective of size of business and has become greater in recent years.

Working capital is the administration of current assets and current liabilities in such a manner that enhances maximum return on its assets and minimizes the obligation of its liabilities. Keeping in mind that excess investment in current assets than it's require could blocked the unnecessary funds in inventories may affect the profitability position, again depositing lower amount in current assets could harm the goodwill of the company. Tradeoff between liquidity and profitability is vital because inefficient management of working capital could result in being unsuccessful in business and firms are likely to become insolvent. Proper management of working capital not only assists the firm in liquidity but also increases the shareholder's value.

LITERATURE REVIEW

Gelda (2013) enlightened the performance and working capital management of ICICI and HDFC banks for the study period of five years. Secondary data for the study collected from audited annual reports and from various other sources such as library. Objective of the study is to compare the working capital management of the selected sample. Well known financial ratios were used to analysis and interpret the collected data. The study concluded that both banks liquidity position were not maintained properly.

Sharma (2013) made a comparative study on working capital management of two major steel industries SAIL and Tata Steel Ltd. The primary objective of the study is to investigate the effect of working capital management on the profitability and liquidity. To attain the objective secondary data as financial statements collected for the period 2008-2012. Financial ratios were used to determine the effectiveness of working capital management by finding current assets, fixed assets & sales. The study finds negative relationship exists between profitability and liquidity.

Kovelskiy (2015) undertook a study on working capital management on MSME's, the study conducted on five samples each from micro, small, medium enterprises in the industrial state Ludhiana. Primary data collected from well structured questionnaire by personally visiting these enterprises. The study revealed that majority of micro enterprises used bank overdraft facility to finance the working capital requirements. Working capital requirement can't be neglected in all MSME's. To avoid shortage of working capital and poor profitability, estimation of working capital should be made in advance.

Dimple &Jain (2013) investigated to know the comparative study of the impact of working capital management on liquidity and profitability by selecting two giant IT sectors Infosys & TCS. The study entirely depended on the secondary data collected from published annual reports for the period 2002-2012. To analyze the data, statistical tool as spearman correlation and financial ratios implemented in the study. The authors found in the comparative study that there is positive relationship between liquidity, profitability and risk of the companies.

Prajapati &Patel (2012) conducted a study to know the comparative position in working capital management of steel industries. Five major players in steel industries are SAIL, Tata steel ltd., JSW steel ltd. and Jindal steel & power ltd. And Essar steel ltd. Selected as sample size. Secondary data collected from audited published annual reports from the period 2006-2011. The study applied mean, standard deviation, ANOVA & ratio analysis to analyze the collected data. The study revealed that selected sample units maintained the current ratio below 2:1 except Tata Steel Ltd.

Sivaranjani & Kishori (2016) analyzed the relationship of working capital management and firm's profitability by selecting top five NSE listed Indian steel companies. For the comparative analysis of working capital management

among the selected companies, secondary data collected from annual published reports from the period 2011-2015. Researchers used statistical technique as ratio analysis, chi-square, regression analysis and correlation to determine the comparative position. The results showed that linear relationship exists between operating cycle and profitability. Proper handling of inventory, accounts receivable and accounts payable can increase the profitability of the firms.

Barot (2016) undertook a comparative study of working capital management on textile industries. The author chose two textile industries Vardhaman and Raymond for the study. The objective of the study is to analyze and compare working capital management of selected companies. Secondary data gathered from investment sites and published annual reports for ten years 2006-2015. The researcher applied ratio analysis to interpret the data, found that Raymond Ltd. maintained sound level of working capital in comparison to Vardhaman, optimal level of working capital management increases the profitability of the companies.

Balaputhiran & Nimalathasan (2011) highlighted the working capital management between listed manufacturing and chemical & Pharmaceuticals sectors in Colombo stock exchange. The researchers selected ten manufacturing, chemical and pharmaceuticals companies for the study, extracted secondary data from company's websites and annual financial statements for the period five years 2003-2007. Statistical techniques as ratio analysis (inventory conversion period, debtors' conversion period, creditors' conversion period, cash conversion period) employed in the study. The study revealed chemical and pharmaceuticals is good in inventory conversion period, cash conversion period in comparison to manufacturing sectors. Based on debtors' conversion and creditors conversion period manufacturing sectors is better.

Panigrahi (2014) attempted a case study on the relationship of working capital with liquidity, profitability and risk of bankruptcy of ACC ltd. The study collected secondary data from annual reports available from moneycontrol.com for the period of ten years 2001-2010. To conduct the case study statistical tool as financial ratios, spearman rank correlation, "t" test and Altman's Z score test applied that found with negative working capital during the study period, the ACC ltd. able to generate profits due to aggressive working capital management policy.

Yarshad &Gondal (2013) undertook a case study on the impact of working capital management on profitability of Pakistan cement industry. The objective of the study is to determine the relationship of working capital with profitability. Study gathered secondary financial statements of 21 listed cement companies from Karachi stock exchange for the period of 2004-2010. Researchers used ratio analysis, regression analysis to test the hypothesis in the study. The study found significant negative relationship between working capital and profitability of selected firms.

OBJECTIVES OF STUDY

The objective of the present study is to investigate the working capital management efficiency of Coal India Ltd. And Gujarat Mineral Development Corporation Ltd.

- To measure the liquidity and profitability position of selected companies.
- To determine the relationship between liquidity and profitability of selected units.

Hypotheses Framed

- **H_0:** There is no relationship between liquidity and profitability of the selected company.

- **H_1**: There is significant relationship between liquidity and profitability of selected units in the study.

RESEARCH METHODOLOGY

Research Design

Sample Size: Non-probability judgmental sampling technique has been used in the present study. Two coal industries listed in the BSE are selected as the sample size. The list is as follows:

- Coal India Ltd.
- Gujarat Mineral Development Corporation Ltd.

Data Collection: To achieve the aforesaid objectives of the study secondary financial data from period 2011-2016 of the firms listed in the BSE collected from annual reports and other sources as investment sites.

Statistical Methods: To analyze the collected financial data ratio analysis and statistical tool as spearman rank co-correlation and "t" test used in the study.

Table 1: Liquidity Position of Coal India Ltd. and Gujarat Mineral Development Corporation Ltd

Coal India Limited							
Year	**Current Ratio**	**Quick ratio**	**Current Assets (Rs.in crores.)**	**Current Liabilities (Rs.in crores.)**	**Net Working Capital (CA-CL)**	**Working Capital Turn Over Ratio**	**C.A TO TOTAL ASSETS**
2011-2012	2.41	2.40	21080.58	7855.12	13225.46	0.037	0.68
2012-2013	1.97	1.97	23144.66	10138.81	13005.85	0.027	0.67
2013-2014	1.76	1.75	15215.72	5888.97	9326.75	0.033	0.60
2014-2015	1.86	1.85	10778.14	2279.23	8498.91	0.044	0.48
2015-2016	1.75	1.72	6378.17	1978.93	4399.24	0.037	0.30

Sources: money control.com

Gujarat Mineral Development Corporation Ltd.							
Year	**Current Ratio**	**Quick Ratio**	**Current Assets (Rs.in Lakh)**	**Current Liabilities (Rs.in Lakh)**	**Net Working Capital (CA-CL)**	**Working Capital Turn Over Ratio**	**Current Assets To Total Assets**
2011-2012	1.13	1.07	99880.76	50749.53	49131.23	3.31	0.310
2012-2013	1.46	1.43	121178.52	47829.06	73349.46	2.28	0.324
2013-2014	1.67	1.63	129777.01	35187.53	94589.48	1.36	0.328
2014-2015	2.21	2.16	130775.70	31187.49	99588.21	1.42	0.312
2015-2016	2.17	2.13	159987.43	36277.47	123709.96	0.96	0.362

ANALYSIS AND INTERPRETATION

A company short -term pay - off capacity is measured in terms of current ratio, quick ratio and working capital turnover ratio. Ideal current ratio in every company should be 2:1, Higher current ratio signify good solvency position of the company but keeping high current ratio implies more fund is invested in stock.

Table 1 shows the liquidity ratios of Coal India Limited and Gujarat Mineral Development Corporation Ltd. It shows the current ratio, Quick ratio, Net Working Capital Turnover ratio and current assets to total assets ratio of the two companies between the periods of 2011-2016. CIL achieved the highest current ratio and quick ratio in 2011-12 with a ratio of 2.41 and 2.40 respectively. On the other hand GMDCL, the highest current ratio and quick were recorded in 2014-15 with a ratio 2.21 and 2.16 respectively. On liquidity comparism, it is deduced that CIL is more liquid than GMDCL. Working capital turnover ratio of CIL was highest in 2014-15 while GMDCL achieves highest in 2011-12 with ratio of 3.31. CIL records highest CATA in 2011-12 with figure 0.68 ratio whereas GMDCL kept highest CATA in 2015-16 with ratio 0.362.However, it is observed from statistical data that both companies keeps a good liquidity ratios.

Table 2: Profitability Position of Coal India Ltd. and Gujarat Mineral Development Corporation Ltd.

Coal India Limited						
Year	**Gross Profit Ratio**	**Net Profit Ratio**	**R.O.C.E**	**Debtors Turnover Over Ratio**	**Inventory Turnover (In days)**	**Average Collection Period (In days)**
2011-2012	-29.69	1939.37	43.29	41,586.	16.24	0.008
2012-2013	-106.22	2780.50	49.99	472.82	16.22	0.77
2013-2014	-130.66	4775.98	95.34	37.88	46.31	9.63
2014-2015	-63.78	3457.16	83.04	31.13	51.33	11.72
2015-2016	-304.15	9873.45	107.01	32.65	314.65	11.17

Gujarat Mineral Development Corporation Ltd.						
Year	**Gross Profit Ratio**	**Net Profit Ratio**	**R.O.C.E**	**Debtors Turn Over Ratio**	**Inventory Turn Over ratio (In days)**	**Average Collection Period (In days)**
2011-12	39.99	29.85	35.46	40.78	14.64	8.95
2012-13	53.96	35.87	27.78	39.76	18.59	9.18
2013-14	38.17	34.04	21.99	28.14	12.80	12.97
2014-15	27.09	35.26	16.30	21.34	12.90	17.10
2015-16	16.16	20.17	9.99	13.33	12.95	27.38

Sources: moneycontrol.com

From Table 2 above shows the profitability ratios of Coal India Ltd. and Gujarat Mineral Development

Corporation Ltd. It shows the gross and net profit ratios, return on capital employed, debtors turn over ratios and average collection period of two companies CIL and GMDCL. CIL has made no gross profit through the study period 2011-2016. Whereas GMDCL earns gross profit throughout the year with highest ratio 53.96 % in 2012-13. CIL records highest net profit ratio in 20115-16 with ratio 9873.45 % while net profit ratio of GMDCL is high in 2012-13 with 35.87%. On Profitability ratio basis, it is deduced that CIL is sound in profitability than GMDCL. However, it is noted from the above financial data that both companies keeps a good profitability ratios

In the same table II shows the Activity ratios of CIL and GMDCL. It shows the Debtor Turnover ratio, Inventory turnover and Average Collection Period of the two companies between the period of 2011-2016. CIL record the highest DTR in 2012 with a ratio of 41586. which is going to take 0.008 days to collect the debt back in 2011-2012, inventory turnover of CIL was recorded in 2012- 2013 where it take 16.22 (approximately) 16 days for inventory to convert in to sales. For GMDCL, the highest DTR was shown in 2011-12 with a ratio 40.78 which takes 8.95 days to collect the outstanding from debtors in 2011-12, which the best inventory turnover was recorded in 2012 where it take 12.80 (approximately 13 days) for inventory to turn to turnover.

Table 3: Relationship between Liquidity and Profitability. (Coal India Ltd.)

Year	Current Ratio	R_1	ROCE	R_2	D (R_2-R_1)	D^2	Spearman Rank Correlation (r)
2011-12	2.41	1	43.29	5	-4	16	-1
2012-13	1.97	2	49.99	4	2	4	
2013-14	1.76	4	95.34	2	-2	4	
2014-15	1.86	3	83.04	3	0	0	
2015-16	1.75	5	107.01	1	-4	16	

Gujarat Mineral Development Corporation Ltd.

Year	Current Ratio	R_1	R.O.C.E	R_2	D (R_2-R_1)	D^2	Spearman Rank Correlation (r)
2011-12	1.13	5	35.46	1	-4	16	0.9
2012-13	1.46	4	27.78	2	-2	4	
2013-14	1.67	3	21.99	3	0	0	
2014-15	2.21	1	16.30	4	-3	9	
2015-16	2.17	2	9.99	5	-3	9	

Correlation is significant at the 0.05 level (One- tailed test)

Table 3 shows the relationship between liquidity and profitability. The Spearman's rank coefficient of correlation and t test is used to measure the relationship between the profitability and liquidity and measure the significant difference in their respective means. The value of Spearman's rank coefficient of correlation of CIL is -1, which is significant difference at 5% level of significant (observed t test value infinity > critical value of t distribution 2.353) and we reject our null hypothesis. However, the value of Spearman's rank correlation of GMDCL is 0.9 which is significant at 5% level of confidence (observed t test value 3.573 > critical value of t distribution 2.353) Thus we will reject our null hypothesis. It indicates that there is significant positive relation between liquidity and profitability.

CONCLUSIONS

The prime objective of this study is to analyze the efficiency of working capital management of CIL and GMDCL. The results shows that the mean value of current ratio (1.95) of CIL is much better than (1.728) GMDCL, also the average value of return on capital employed (75.73%) is far better as compare to (22.30%) GMDCL. Thus, profitability position of CIL is good rather than GMDCL. Also the study discloses that there is a positive relationship between liquidity

& profitability of both the companies.

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