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M. Nagamani
Associate Professor, Department of Commerce, PSGR Krishnammal College for Women, Peelamedu, Coimbatore- 641004. Tamil Nadu, India.

T. Priyadharshini
Ph.D Research Scholar, Department of Commerce, PSGR Krishnammal College for Women, Peelamedu, Coimbatore- 641004. Tamil Nadu, India.

Correspondence:
M. Nagamani
Associate Professor, Department of Commerce, PSGR Krishnammal College for Women, Peelamedu, Coimbatore- 641004. Tamil Nadu, India.

Working capital management of selected sugar industries in Tamil Nadu listed in BSE & NSE

M. Nagamani, T. Priyadharshini

Abstract
This paper examines the impact of Working capital Management of selected sugars industries in Tamil Nadu. Objective of the study is to analyze the working capital position of selected Sugar industries in Tamil Nadu. For this purpose a sample of Selected Sugar industries in Tamil Nadu companies listed on the National Stock Exchange (NSE) have been selected for the study. The data have been taken for a period of five years from 2000 to 2014; from the official database of Center for Monitoring Indian Economy (CMIE) namely Prowess and company websites. Ratios have been used to analyse the working capital position of the selected companies.

Keywords: Sugar Industries in Tamil Nadu, Liquid ratio, Ratio analysis, Working Capital Ratio.

1. Introduction
Capital is what makes or breaks a business, and no business can run successfully without enough capital to cover both short-and long-term needs. Maintaining sufficient levels of short-term capital is a constantly ongoing challenge, and in today's turbulent financial markets and uncertain business climate external financing has become both harder and more costly to obtain. Companies are therefore increasingly shifting away from traditional sources of external financing and turning their eyes towards their own organizations for ways of improving liquidity. One efficient but often overlooked way of doing so is to reduce the amount of capital tied-up in operations, that is, to improve the working capital management of the company.

Working capital is a financial metric of operating liquidity which describes the amount of cash tied up in operations and defines the short term condition of a company. A positive working capital position is required for the continuous running of a company's operations, i.e. to pay short term debt obligations and to cover operational expenses. A company with a negative working capital balance is unable to cover its short-term liabilities with its current assets.

In the words of shubin," working capital is the amount of funds necessary to cover the cost of operating the enterprise."

Working capital is calculated with the following formula: Working Capital = Current Assets-Current Liabilities

The above formula includes three important balance sheet accounts which all have a direct impact on the business, namely accounts receivable (A/R), accounts payable (A/P) and inventory. These accounts are often referred to as the three areas of working capital.

Clearly, the importance of the above components differs between companies and industries, and whereas for example retailers and manufacturers often have large inventories of finished goods, work-in-progress (WIP) and raw materials, banks and insurance companies do not hold any traditional inventory. However, regulation requires both banks and insurance companies to maintain certain reserve levels. In addition to the required reserves, these types of businesses typically hold major positions of liquid assets and large portfolios of interest-bearing investments in which deposits and premiums received from customers are invested.

2. Reviews
Monika Bolek (2013) [1] In this study it reveals that the liquidity management in a company may be analyzed in terms of the dynamic approach represented by the cash conversion cycle or the static approach represented by the current ratio. It examines that the Current Ratio to be a dependent ratio,

Assuming that the Cash Conversion Cycle reflects the operational decisions affecting the level of current assets and liabilities. In the study, 61 regression models were used to assess liquidity ratios in non-financial companies listed on the Warsaw Stock Exchange in the period 1997–2010. The results show that the correlation between the Current Ratio and the Cash Conversion Cycle becomes stronger; the aggressive and moderate strategies are characterized by an increased number of cash conversion cycles, while the conservative strategy reveals a decreased number of these cycles.

Mansavi Gumber, Dr. Surender Kumar (2012)[2] examine that the working capital management involves managing the relationship between a firm's short term assets and its short term liabilities. The objective of this study is to form a comparative study between fertilizer industry and co-operative Sector and also to analyse the significance and growth of various constituents of both current assets and current liabilities. It reveals that liquidity and profitability are inversely related. The result shows that the public sector was much more efficient in the management of cash as compared to the co-operative sector which was laming in this regard and was way behind it. It was observed and concluded that the co-operative sector was better off than the public sector as regards liquidity and payment to creditors as their credit period were much shorter than the public sector.

1. Monika Bolek, "Dynamic and static liquidity measures in working capital strategies", European Scientific Journal, vol.9, No.4, ISSN: 1857 – 7881 (Print), e - ISSN 1857- 7431, February 2013.
2. Mansavi Gumber, Dr. Surender Kumar,"A Comparative Analysis of Management of Working Capital in Fertiliser Industry", International Journal of Innovations in Engineering and Technology (IJIET), vol.1, issue 2, ISSN: 2319-1058, August 2012.

3. Statement of the problem

Working capital represents that part of resources of the business which makes the business work. In the absence of proper management of working capital it would be difficult to achieve the objectives of the business enterprise. Hence the study has been undertaken to analyse the efficiency position and working capital management of selected companies.

4. Objectives

- To assess the efficiency position of the companies.
- To evaluate the working capital of the companies using accounting ratios.

5. Research Methodology

To achieve the above mentioned objectives of the study analytical research is used. A sample of two sugar companies namely Bannariamman Sugars and Rajshree sugars & chemicals listed in National stock exchange have been selected for the purpose of study. These two companies have been the top two companies listed on NSE under this category. The data have been taken for a continuous period of fifteen years from 2000-2014 from the official database of Center for Monitoring Indian Economy (CMIE) namely Prowess and company websites.

6. Ratios Used For Analysis

1. Current Ratio
2. Liquid Ratio
3. Absolute Liquid Ratio
4. Inventory Turnover Ratio
5. Working Capital Turnover Ratio
6. Average Collection Period
7. Average Payment Period.

7. Analysis and Interpretation

7.1 Current Ratio

Current ratio may be defined as the relationship between current assets and current liabilities. It is a measure of general liquidity and is most widely used to make an analysis of short term financial position or liquidity of a firm. It is calculated by dividing the total of current assets by total of the current liabilities.

$$\textbf{current ratio} = \frac{\textbf{current assets}}{\textbf{current liabilities}}$$

Table 1: Current Ratio

Year	Bannariamman sugars	Rajshree sugars and chemicals
2014	0.87	0.76
2013	0.99	0.50
2012	0.95	1.04
2011	0.93	0.67
2010	1.21	0.73
2009	1.29	0.61
2008	1.26	0.51
2007	1.90	0.71
2006	1.50	0.68
2005	0.78	0.68
2004	0.71	0.66
2003	0.68	0.68
2002	0.62	1.02
2001	0.68	0.82
2000	0.54	0.74
Average	0.994	0.721

Source: computed

From the above table it is found that Bannariamman sugars and Rajshree sugars & chemicals average current ratio is less than the standard norm 2:1 and the current assets have to be increased or current liabilities reduced to meet with the norm.

7.2 Liquid Ratio

The term liquidity refers to the ability of a firm to pay its short term obligations as and when they become due. In calculating this ratio, inventories and prepaid expenses are excluded from the current assets because they cannot be converted into cash immediately. This ratio is calculated by dividing the liquid assets by current liabilities.

$$\textbf{liquid ratio} = \frac{\textbf{liquid assets}}{\textbf{current liabilites}}$$

Table 2: Liquid Ratio

Year	Bannariamman sugars	Rajshree sugars and chemicals
2014	0.67	0.62
2013	0.70	0.36
2012	0.75	0.52
2011	0.95	0.75
2010	0.68	0.78
2009	0.89	0.68
2008	1.28	0.43
2007	0.88	0.80
2006	0.76	0.34
2005	0.61	0.36
2004	0.60	0.36
2003	0.62	0.37
2002	0.68	1.90
2001	0.98	0.84
2000	0.72	0.69
Average	0.785	0.653

Source: computed

It is found that the Bannariamman sugars and Rajshree sugars and chemicals average liquid ratio is less than the standard norm of 1:1,which implies that there is no sufficient liquid assets to pay off the current liabilities.

7.3 Absolute Liquid Ratio

The debtors and bills receivable may sometimes not be recovered easily. So these should be excluded from the liquid assets in order to derive at absolute liquid assets. Thus the ratio is calculated by dividing the absolute liquid assets by current liabilities.

$$\textbf{Absolute liquid ratio} = \frac{\textbf{Absolute liquid assets}}{\textbf{current liabilites}}$$

Table 3: Absolute Liquid Ratio

Year	Bannariamman sugars	Rajshree sugars and chemicals
2014	0.20	0.14
2013	0.29	0.14
2012	0.20	0.52
2011	0.02	0.08
2010	0.53	0.05
2009	0.40	0.07
2008	0.02	0.08
2007	1.02	0.09
2006	0.74	0.34
2005	0.17	0.32
2004	0.11	0.30
2003	0.06	0.32
2002	0.06	0.65
2001	0.30	1.08
2000	0.18	0.05
Average	0.29	0.28

Source: computed

It is found that the Bannariamman sugars and Rajshree sugars and chemicals Absolute liquid ratio is less than the standard norm of 0.5:1 and it has no sufficient Absolute liquid Assets to pay off the Current Liability.

7.4 Inventory Turnover Ratio

Inventory turnover ratio indicates whether inventory has been efficiently used by the firm or not. The purpose is to see the funds that have been locked up in inventory. Inventory turnover ratio indicates the number of times the stock has been turned over during the period and evaluates the efficiency with which the firm is able to manage its inventory. The ratio is calculated by dividing cost of goods sold by average inventory at cost.

$$\textbf{Inventory turnover ratio} = \frac{\textbf{Cost of goods sold}}{\textbf{Average inventory at cost}}$$

Table 4: Inventory Turnover Ratio

Year	Bannariamman sugars	Rajshree sugars and chemicals
2014	0.55	3.34
2013	1.76	3.56
2012	1.93	5.04
2011	1.69	5.68
2010	3.71	3.50
2009	2.74	4.12
2008	2.41	4.19
2007	3.38	3.95
2006	3.19	2.58
2005	2.12	2.19
2004	1.81	1.92
2003	1.71	4.01
2002	2.38	2.52
2001	1.56	1.92
2000	1.64	1.76
Average	2.172	3.352

Source: computed

From the above table it is found that Average Inventory turnover ratio Bannariamman Sugars has been 2.172 times and for Rajshree Sugars & chemicals it has been 3.352 on an average during a year. Higher the Inventory Turnover Ratio, lower is the Working capital required and Vice Versa. In case of both the companies the Inventory Turnover Ratio is not satisfactory.

7.5 Working Capital Turnover Ratio

Working capital turnover ratio indicates the velocity of the utilization of net working capital. This ratio indicates the number of times the working capital is turned over in the course of a year. This ratio measures the efficiency with which the working capital is being used by the firm. It is calculated by dividing cost of sales by average working capital.

$$\textbf{Working capital turnover ratio} = \frac{\textbf{Cost of sales}}{\textbf{Average working capital}}$$

Table 5: Working Capital Turnover Ratio

Year	Bannariamman sugars	Rajshree sugars and chemicals
2014	0.67	9.82
2013	2.42	18.13
2012	2.86	17.97
2011	2.11	21.25
2010	13.84	8.43
2009	3.84	5.68
2008	3.07	13.20
2007	5.74	6.30
2006	4.86	10.82
2005	3.19	7.00
2004	2.64	4.04
2003	2.50	10.46
2002	3.55	4.18
2001	1.78	2.21
2000	1.99	2.15
Average	3.67	9.44

Source: computed

From the above table it is found that in case of both the companies, average working capital turnover has been good comparatively Rajshree sugars and chemicals has been found to turnover working capital better than that of Bannariamman sugars.

7.6 Average Collection Period

The average collection period represents the average number of days for which a firm has to wait before its receivables are converted into cash. The ratio is calculated by dividing the number of working days by debtor's turnover ratio.

$$\textbf{Average collection period} = \frac{\textbf{No of working days}}{\textbf{Debtor's turnover ratio}}$$

Table 6: Average Collection Period

Year	Bannariamman sugars(days)		Rajshree sugars and chemicals (days)	
	Debtor's turnover ratio	Average collection period	Debtor's turnover ratio	Average collection period
2014	0.55	663	18.01	20
2013	1.76	207	13.31	27
2012	1.93	189	14.46	25
2011	1.69	215	22.03	16
2010	3.71	98	28.78	12
2009	9.29	39	21.68	16
2008	8.58	42	14.13	25
2007	11.60	31	19.83	18
2006	10.66	34	37.11	9
2005	7.61	48	87.90	4
2004	8.94	40	52.61	6
2003	10.17	36	59.71	6
2002	12.93	28	38.11	9
2001	15.97	23	32.43	11
2000	18.07	20	31.75	11
Average	8.23	114 days	32.79	15 days

Source: computed

From above table it is Rajshree sugars and chemicals found that the average collection period of is shorter compared to Bannariamman sugars. It implies quick payment by debtors and efficient collection performance. Bannariamman sugars debtor's period is too long and it has to be minimized by changing the norms.

7.7 Average Payment Period

The average payment period represents the average number of days a firm takes to pay its creditors. The ratio is calculated by dividing the number of working days by creditor's turnover ratio.

$$\textbf{Average payment period} = \frac{\textbf{No of working days}}{\textbf{Creditor's turnover ratio}}$$

Table 7: Average Payment Period

Year	Bannariamman sugars		Rajshree sugars and chemicals	
	Creditor's turnover ratio	Average payment period	Creditor's turnover ratio	Average payment period
2014	0.71	514	1.041	350
2013	2.35	155	1.40	260
2012	1.93	189	1.07	341
2011	1.33	273	0.93	392
2010	1.91	190	0.90	405
2009	1.50	244	0.61	598
2008	1.14	320	0.89	424
2007	2.59	140	1.32	276
2006	1.22	298	1.50	243
2005	0.69	528	0.785	464
2004	0.95	386	0.854	427
2003	0.87	420	1.114	327
2002	1.03	352	0.48	760
2001	0.90	404	0.47	776
2000	0.89	410	0.68	536
Average	1.334	322	0.94	440

Source: computed

From above table it is found that the Bannariamman sugars and Rajshree sugars and chemicals average payment period of is longer for the both companies. It implies delay in payment by creditors and no efficient payment performance can be done due to cash deficit.

7.8 Findings

- ✓ Bannariamman sugars and Rajshree sugars & chemicals current ratio is less than the standard norm and has current assets no sufficient to pay off the current liabilities.
- ✓ Bannariamman sugars and Rajshree sugars & chemicals liquid ratio is less than the standard norm and liquid assets are no sufficient to pay off the current liabilities.
- ✓ Absolute liquid ratio is very low for the both the Companies has no sufficient absolute liquid assets to meet with the current liabilities.
- ✓ Inventory Turnover ratio of both the companies are not satisfactory both the companies.
- ✓ Bannariamman sugars and Rajshree sugars & chemicals have utilized its Working Capital very efficiently.
- ✓ Average collection period is short and the payment period is long for Bannariamman sugars but the Rajshree

sugars & chemicals Company which is a good sign of cash conversion.

- ✓ Average collection period is long and the payment period is too long for both the companies.

8. Conclusion

From the study working capital management of selected sugars has helped to know about the performance and evaluation of the company. It also has given a clear idea about the efficiency of the company. The study has revealed that the efficiency and working capital position are not satisfactory during the study period.

The companies can put forth efforts to increase the earning of high profit through proper management and by proper utilizations of available resources. It will help to improve companies' performances.

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