

## Working Capital Management in Small Enterprise -A Case Study of Sri Nagavalli Solvent Oils Ltd

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**Abstract:** Small and Medium Enterprises(SMEs)play a crucial role in Indian economy.SMEs' success much depends upon effective working capital management.This paper deals with working capital management in Sri Nagavalli Solvent oils Ltd, which is an Indian Small Enterprise of Srikakulam district in the state of Andhra Pradesh. It is a Supplier and Manufacturer of rice bran Oil Company.In this paper an attempt is made to examine the structure and composition of working capital in the Enterprise during the period of study covering ten years from 2006-07 to 2015-16. An attempt is also made to analyze the liquidity position, to find the gross working and networking turnover and to examine the efficiency in cash, debtors and inventory management in the Small Enterprise under study.

**Keywords:**Cash Turnover, Debtors turnover, Inventory turnover, Liquidity,Small Enterprise

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### I. Introduction

Working Capital Management is concerned with the management of current assets and current liabilities and the relationship between them. Efficient working capital management is essential for successful running of any Enterprise.Especially SMEs' success much depends upon effective working capital management. Sri Nagavalli solvent oils Pvt. Ltd.is the Supplier and manufacturer of rice bran oil. This is a Private Company incorporated on 17 February 1989. It is classified as Non-Government Company and is registered at Registrar of Companies, Hyderabad. Its authorized share capital is Rs. 10,000,000 and its paid up capital is Rs. 10,000,000. It has a man power of 40. This SME has an annual turnover of Rs. 3788.5 lakhs. The total current assets of the company are Rs.1401.73 lakhs and current liabilities are Rs. 1153.81 lakhs as per 2015-16 Accounts.In this paper an attempt is made toexamine working capital management in Sri Nagavalli solvent oils Pvt. Ltd

### II. Review Of Literature

Mishra (1975)<sup>1</sup> studied the efficiency of working capital management in six sample public sector units. The study identified that management of various components of working capital in sample units was highly unsatisfactory. Suk, Seung and Rowland (1992)<sup>2</sup> in their research conducted an in-depth survey to analyze the liquidity practices of ninety four sample Japanese companies operating in the United States. Sivarama (1999)<sup>3</sup> in his study on working capital management in the Indian paper industry, found a close association between profitability and working capital efficiency.Reddy (2000)<sup>4</sup> analyzed the working capital management in thirty small scale industries in the Cuddapah district of Andhra Pradesh and found that debtor management policy and the collection mechanism to be very unsystematic and highly inefficient that resulted into excess investment in debtors. Ghosh and Maji (2003)<sup>5</sup> made an empirical study on the relationship between utilization of current assets and operating profitability in the Indian cement and tea industries. Bardia (2004)<sup>6</sup> conducted a study on the issue pertaining to the relationship between working capital management and profitability of a Navaratna steel manufacturing public sector enterprise. Prof. B.P.Singh (2012)<sup>7</sup> investigated the relationship between the components of working capital and profitability. He observed that the telecom industry is operating below average so far as working capital is concerned. Pasupathi (2013)<sup>8</sup> conducted a comparative study of WCM performance in commercial vehicles, passenger cars and multi utility vehicles and twoandthree wheelerssectors of Indian automobile industry. UtkarshGoel et al. (2015)<sup>9</sup> conducted a study to explore the impact of corporate governance practices on Working capital Management (WCM) in Indian firms.S. Selvanayaki et al. (2015)<sup>10</sup> focused on evaluating the WCM practices adopted by the rice milling firms and analyzed its impact on profitability. Venkateswararao.P, Surya Chandra Rao.D and HemaVenkata Siva Sree.Ch (2017) examined working capital management in PL Plast Pvt Ltd.It was found that there was no study on working capital management in a solvent oil company. Hence, this study is taken up.

### III. Objectives

The general objective of the study is to examine the working capital management in Sri Nagavalli Solvent oils Ltd. The specific objectives include the following.

1. To examine the structure and composition of working capital in Sri Nagavalli Solvent oils Ltd during the period of study.
2. To analyze the liquidity position of Small Enterprise during the period of study.
3. To find the gross working and networking turnover in the company.
4. To examine the efficiency in cash, debtors and inventory management in the SME under study.
5. To offer suggestions for effective working capital management if required.

### IV. Hypotheses

**H<sub>01</sub>:** Current ratio in Sri Nagavalli Solvent oils Ltd is uniform during the period of study.

**H<sub>02</sub>:** Quick ratio in Sri Nagavalli Solvent oils Ltd is uniform during the period of study.

**H<sub>03</sub>:** Super quick ratio in Sri Nagavalli Solvent oils Ltd is uniform during the period of study.

**H<sub>04</sub>:** Gross working capital turnover ratio in Sri Nagavalli Solvent oils Ltd is uniform during the period of study.

**H<sub>05</sub>:** Net working capital turnover ratio in Sri Nagavalli Solvent oils Ltd is uniform during the period of study.

**H<sub>06</sub>:** Cash turnover ratio in Sri Nagavalli Solvent oils Ltd is uniform during the period of study.

**H<sub>07</sub>:** Inventory turnover ratio in Sri Nagavalli Solvent oils Ltd is uniform during the period of study.

**H<sub>08</sub>:** Debtors turnover ratio in Sri Nagavalli Solvent oils Ltd is uniform during the period of study.

**H<sub>09</sub>:** Average collection period in Sri Nagavalli Solvent oils Ltd is uniform during the period of study.

### V. Methodology

The present study is mainly based on secondary data. The data is taken from the financial statements including balance sheet, trading account and profit and loss account of Sri Nagavalli Solvent oils Ltd. The period of study is ten years covering the financial years from 2006-07 to 2015-16. The data gathered is analyzed through the technique of percentages and certain appropriate ratios relating to working capital management. The ratios covered includes current ratio, quick ratio, super quick ratio, gross working capital turnover ratio, net working capital turnover ratio, cash turnover ratio, inventory turnover ratio, debtors turnover ratio and average collection period. Chi square test is used for testing the hypotheses formed.

### VI. Analysis And Discussion Of Results

Working capital structure of Sri Nagavalli solvent oils Pvt. Ltd is presented in table 1. It is observed that Inventory was 32.66 percent of total current assets during 2009. It is the lowest percentage during the period of study. Its percentage was highest at 62.87 during 2011. Debtors as a percentage of total current assets varied in between 30.74 during 2013 and 51.97 during 2009. Of all current assets inventory occupied highest percentage during the period of study except during 2007, 2008, 2009 and 2016. It is also observed that cash and bank balance as a percentage of current assets varied between 0.69 during 2011 and 12.02 during 2016. Loans and advances as a percentage of current assets varied between 0.02 during 2016 and 10.88 during 2015. Other current assets as a percentage of total current assets varied between 0.07 during 2011 and 5.30 during 2012. Sundry Creditors occupied highest percent of current liabilities during the period of study. They varied between 52.25 during 2009 and 92.39 during 2011. Short-term borrowings were nil for the first five years of the study. Short-term borrowings as a percentage of current assets varied between 47.50 during 2012 and 67.64 during 2015. Short-term provisions by the firm were made for all years except 2012. Short-term provisions as a percentage of current liabilities varied between 0.05 during 2015 and 23.04 during 2009. Other current liabilities vary between 5.67 percent during 2011 and 28.39 percent during 2009. It is observed that Net Working Capital in the company varied between Rs.137.04 Lakhs during 2013 to Rs.625.52 Lakhs during 2011. It was maintained at high levels during 2011 and 2010.

**Table 1:** Working Capital structure of Sri Nagavalli Solvent oils Ltd, Srikakulam (Figures in Lakhs)

Particulars	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
<b>Current Assets</b>										
Cash & Bank balances	13.59	13.61	40.89	39.02	6.52	1.31	59.32	143.51	83.72	168.54
% of TCA	3.91	2.14	8.96	6.47	0.69	0.14	4.89	9.58	5.49	12.02
Debtors	165.85	327.6	237.09	195.04	304.74	310.61	372.77	481.24	515.45	711.67
% of TCA	47.70	51.43	51.97	32.34	32.46	32.31	30.74	32.13	33.83	50.77
Loans & Advances	31.4	36.14	28.01	20.52	36.67	0.7	0.34	4.33	165.71	0.28

% of TCA	9.03	5.67	6.14	3.40	3.91	0.07	0.03	0.29	10.88	0.02
Other Current Assets	0.74	0.96	1.19	0.54	0.62	50.96	42.33	42.28	39.59	28.49
% of TCA	0.21	0.15	0.26	0.09	0.07	5.30	3.49	2.82	2.60	2.03
Inventory	136.12	258.6	149.02	348.01	590.14	597.63	737.79	826.2	719.26	492.72
% of TCA	39.15	40.60	32.66	57.70	62.87	62.17	60.84	55.17	47.20	35.15
<b>Total Current Assets (TCA)</b>	347.73	636.93	456.21	603.13	938.7	961.21	1212.58	1497.56	1523.76	1401.73
<b>Current Liabilities</b>										
Sundry Creditors	94.01	213.76	62.98	153.18	297.97	322.66	329.45	302.09	319.87	299.07
% of TCL	62.19	79.43	52.25	77.93	92.39	74.57	75.50	72.78	77.02	79.88
Other current liabilities	25.88	27.81	31.77	37.38	17.77	110.02	100.43	98.13	94.78	65.97
% of TCL	19.00	10.76	28.39	19.69	5.67	13.35	9.74	7.76	7.38	5.72
Short term borrowings	0	0	0	0	0	391.49	595.18	848.95	868.2	779.42
% of TCL	0.00	0.00	0.00	0.00	0.00	47.50	57.70	67.16	67.64	67.55
Short term provisions	31.28	27.54	25.78	5.99	6.81	0	6.45	14.87	0.67	9.36
% of TCL	22.96	10.65	23.04	3.16	2.17	0.00	0.63	1.18	0.05	0.81
<b>Total Current Liabilities (TCL)</b>	136.22	258.5	111.91	189.83	313.18	824.17	1031.51	1264.04	1283.52	1153.81
<b>NWC</b>	211.51	378.43	344.3	413.3	625.52	137.04	181.07	233.52	240.24	247.92

Source: Annual Reports of Sri Nagavalli solvent oils Pvt. Ltd.. from 2006-07 to 2015-2016

The current ratio in the company has varied between 1.16 during 2012 and 4.07 during 2009 as was shown in the table. The current ratio of the company is maintained at normal levels during the second half of the study period. It is found in the significance test that current ratio is uniform during the period of study.

**Table 2: Current Ratio (Figures in Lakhs)**

Years	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Current Assets	347.73	636.93	456.21	603.13	938.7	961.21	1212.58	1497.56	1523.76	1401.73
Current Liabilities	136.22	258.5	111.91	189.83	313.18	824.17	1031.51	1264.04	1283.52	1153.81
Current ratio	2.55	2.46	4.07	3.17	2.99	1.16	1.17	1.18	1.18	1.21

Source: Annual Reports of Sri Nagavalli solvent oils Pvt. Ltd. from 2006-07 to 2015-2016

Calculated value of  $\chi^2$  for current ratio = 4.911.

The Critical value of  $\chi^2$  at 9 degrees of freedom at 5% level of Significance is 16.919.

Calculated value is less than Critical Value i.e., 4.911 < 16.919.  $H_0$  is accepted.

The quick ratio of the company as shown in table has varied between 0.44 during 2012 to 2.74 during 2009. It is found in the significance test that quick ratio is uniform during the period of study.

**Table 3: Quick ratio (Figures in Lakhs)**

Years	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Liquid Assets	211.61	378.33	307.19	255.12	348.56	363.58	474.79	671.36	804.5	909.01
Current Liabilities	136.22	258.5	111.91	189.83	313.18	824.17	1031.51	1264.04	1283.52	1153.81
Quick ratio	1.55	1.46	2.74	1.34	1.11	0.44	0.46	0.53	0.62	0.78

Source: Annual Reports of Sri Nagavalli solvent oils Pvt. Ltd.. from 2006-07 to 2015-2016

Calculated value of  $\chi^2$  for Quick ratio =4.154.

The Critical value of  $\chi^2$  at 9 degrees of freedom at 5% level of Significance is 16.919

Calculated value is less than Critical Value i.e., 4.154<16.919, Hence,  $H_{02}$  is accepted.

The super quick ratio of the company as shown in the table has varied between 0.001 during 2012 and 0.36 during 2009. It is found in the significance test that super quick ratio is uniform during the period of study.

**Table 4: Super Quick Ratio (Figures in Lakhs)**

Years	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Cash	13.59	13.61	40.89	39.02	6.52	1.31	59.32	143.51	83.72	168.54
Current Liabilities	136.22	258.5	111.91	189.83	313.18	824.17	1031.5	1264.04	1283.52	1153.81
Super Quick ratio	0.09	0.05	0.36	0.20	0.02	0.001	0.05	0.11	0.06	0.14

Source: Annual Reports of Sri Nagavalli solvent oils Pvt. Ltd.. from 2006-07 to 2015-2016

Calculated value of  $\chi^2$  for Super Quick ratio = 0.939.

The Critical value of  $\chi^2$  at 9 degrees of freedom at 5% level of Significance is 16.919.

Calculated value is less than Critical Value i.e., 0.939<16.919, Hence,  $H_{03}$  is accepted.

The gross working capital turnover ratio of the company as shown in the table has varied between 2.03 during 2015 and 7.12 during 2007. It is found in the significance test that net working capital turnover ratio is uniform during the period of study.

**Table 5: Gross working capital Turnover Ratio (Figures in Lakhs)**

Years	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Sales	2479.2	2764.2	3084.3	2307.0	2769.0	4936.3	4659.9	4670.6	3104	3788.5
Current Assets	347.73	636.93	456.21	603.13	938.7	961.21	1212.5	1497.5	1523.7	1401.7
Ratio	7.12	4.33	6.76	3.82	2.94	5.13	3.84	3.11	2.03	2.70

Source: Annual Reports of Sri Nagavalli solvent oils Pvt. Ltd.. from 2006-07 to 2015-2016

Calculated value of  $\chi^2$  for Gross Working Capital turnover ratio = 6.215.

The Critical value of  $\chi^2$  at 9 degrees of freedom at 5% level of Significance is 16.919

Calculated value is less than Critical Value i.e., 6.215<16.919, Hence,  $H_{04}$  is accepted.

The net working capital turnover ratio of the company as shown in the table has varied between 4.42 during 2011 and 36.02 during 2012. It is found in the significance test that net working capital turnover ratio is not uniform during the period of study.

**Table 6: Net Working Capital Turnover Ratio (Figures In lakhs)**

Years	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Sales	2479.2	2764.23	3084.3	2307.03	2769.05	4936.36	4659.93	4670.6	3104	3788.5
Net Working Capital	211.51	378.43	344.3	413.3	625.52	137.04	181.07	233.52	240.24	247.92
Ratio	11.72	7.30	8.95	5.58	4.42	36.02	25.73	20.00	12.92	15.28

Source: Annual Reports of Sri Nagavalli solvent oils Pvt. Ltd.. from 2006-07 to 2015-2016

Calculated value of  $\chi^2$  for Net Working capital turnover ratio = 60.389.

The Critical value of  $\chi^2$  at 9 degrees of freedom at 5% level of Significance is 16.919

Calculated value is greater than Critical Value i.e., 60.389>16.919, Hence,  $H_{05}$  is rejected.

The cash turnover ratio of the company as shown in the table has varied between 27.32 during 2015 and 203.25 during 2008. It is found in the significance test that cash turnover ratio is not uniform during the period of study

**Table 7: Cash Turnover Ratio. (Figures In lakhs)**

Years	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Sales	2479.2	2764.2	3084.3	2307.0	2769.0	4936.3	4659.9	4670.6	3104	3788.5
Average Cash Balance	19.66	13.6	27.25	39.95	52.11	33.25	30.31	101.41	113.61	126.13
Ratio	126.10	203.25	113.18	57.74	53.13	148.46	153.74	46.05	27.32	30.03

Source: Annual Reports of Sri Nagavalli solvent oils Pvt. Ltd.. from 2006-07 to 2015-2016

Calculated value of  $\chi^2$  for Cash turnover ratio =350.941.

The Critical value of  $\chi^2$  at 9 degrees of freedom at 5% level of Significance is 16.919

Calculated value is greater than Critical Value i.e. 350.941>16.919, Hence,  $H_{06}$  is rejected.

The inventory turnover ratio of the company as shown in table 9 has varied between 4.01 during 2015 to 17.70 during 2007. It is found in the significance test that Inventory turnover ratio is not uniform during the period of study.

**Table 8: Inventory Turnover Ratio (Figures In lakhs)**

Years	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Sales	2479.2	2764.23	3084.3	2307.03	2769.05	4936.36	4659.93	4670.6	3104.4	3788.5
Average Inventory	140.05	197.36	203.81	248.51	469.07	593.88	667.71	781.99	772.73	605.99
Ratio	17.70	14.00	15.13	9.28	5.90	8.31	6.97	5.97	4.01	6.25

Source: Annual Reports of Sri Nagavalli solvent oils Pvt. Ltd.. from 2006-07 to 2015-2016

Calculated value of  $\chi^2$  for Inventory turnover ratio =20.633.

The Critical value of  $\chi^2$  at 9 degrees of freedom at 5% level of Significance is 16.919

Calculated value is greater than Critical Value i.e. 20.633>16.919, Hence,  $H_{07}$  is rejected.

The debtor's turnover ratio of the company as shown in table has varied between 6.17 during 2016 to 16.04 during 2012. It is found in the significance test that Debtors turnover ratio is uniform during the period of study.

**Table 9: Debtors Turnover Ratio (Figures In lakhs)**

Years	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Sales	2479.2	2764.23	3084.3	2307.03	2769.05	4936.36	4659.93	4670.6	3104	3788.5
Average debtors	180.71	246.72	282.34	216.06	249.89	307.67	341.68	427.00	498.34	613.56
Ratio	13.71	11.20	10.92	10.67	11.08	16.04	13.63	10.93	6.22	6.17

Source: Annual Reports of Sri Nagavalli solvent oils Pvt. Ltd.. from 2006-07 to 2015-2016

Calculated value of  $\chi^2$  for Debtors turnover ratio = 7.776.

The Critical value of  $\chi^2$  at 9 degrees of freedom at 5% level of Significance is 16.919

Calculated value is less than Critical Value i.e., 7.776<16.919, Hence,  $H_{08}$  is accepted.

The average collection period as shown in table has varied between 23 days during 2012 to 59 days during 2015 and 2016. It is found in the significance test that Average collection period is not uniform during the period of study.

**Table 10: Average Collection Period (Figures In lakhs)**

Years	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Days in a year	365	365	365	365	365	365	365	365	365	365
Debtors Turnover Ratio	13.71	11.20	10.92	10.67	11.08	16.04	13.63	10.93	6.22	6.17
Average Collection Period	27	33	33	34	33	23	27	33	59	59

Source: Annual Reports of Sri Nagavalli solvent oils Pvt. Ltd.. from 2006-07 to 2015-2016

Calculated value of  $\chi^2$  for Average collection period = 39.582.

The Critical value of  $\chi^2$  at 9 degrees of freedom at 5% level of Significance is 16.919

Calculated value is greater than Critical Value i.e. 39.582>16.919. Hence,  $H_{09}$  is rejected

## VII. Conclusion

The above analysis depicts that inventory occupied first place followed by debtors as a percentage of current assets in Sri Nagavalli solvent oils Pvt. Ltd. during the period of study except 2007,2009 and 2016 . The firm has credit worthiness because there is a significant increase in creditors during the period of except 2009. Short term borrowings during the first five years of study were nil. Current ratio of the company is maintained at reasonable levels during the second half of study period. Debtors' turnover ratio was comparatively less in last two years of the study which reflects in high Average collection period. Net working capital turnover ratio, Inventory turnover Ratio, Cash turnover ratio and average collection periods are not uniform during the period of study and showed wide fluctuations. Collection of debts and cash utilization was poorly done in the company during the period of study. Current ratio, Quick ratio, super quick ratio, Gross working turnover ratio, and debtor turnover ratios are uniform during the period of study.

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