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Working Capital Management in a Small Enterprise - A Case Study of Power Oxides Pvt. Ltd

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ABSTRACT

This paper deals with working capital management in Power Oxides Pvt. Ltd. Power Oxides Pvt. Ltd., is a small private Enterprise located in Guntur district of Andhra Pradesh state in India. It is involved in Mining of non-ferrous metal ores, except uranium and thorium ores. It is classified as Non-govt Company and is registered at Registrar of Companies, Hyderabad. Its authorized share capital is Rs. 25, 00,000 and its paid up capital is Rs. 25, 00,000. This Enterprise has an annual turnover of Rs.104.46 lakhs. The total Current Assets of the company are Rs.117.96 lakhs and the current liabilities are Rs. 104.5 lakhs as per 2015-16 annual accounts. The company has man power of 250. In this paper an attempt is made to analyse the structure and composition of the working capital during the period of study covering ten years from 2006-07 to 2015-16. Attempt is also made to assess the liquidity position of the organisation, to examine gross working capital turnover, to study net working capital turnover and to examine the efficiency in utilisation of various current assets. Different ratios are calculated. Chi-square test is used to test the hypotheses formed.

KEY WORDS: Small Enterprise, Working capital, Current ratio, Debtors turnover, Average collection period

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INTRODUCTION

Efficient Working capital management is required for better maintenance of liquidity and profitability trade-off in any Enterprise. In this paper, an attempt is made to examine working capital management in Power Oxides Pvt. Ltd. Power Oxides Pvt. Ltd., is a small private Enterprise located in Guntur district of Andhra Pradesh state in India. It was started in 1983. It is involved in Mining of non-ferrous metal ores, except uranium and thorium ores. It is classified as Non-govt Company and is registered at Registrar of Companies, Hyderabad. Its authorized share capital is Rs. 25, 00,000 and its paid up capital is Rs. 25, 00,000. This Enterprise has an annual turnover of Rs.104.46 lakhs. The total Current Assets of the company are Rs.117.96 lakhs and the current liabilities are Rs. 104.5 lakhs as per 2015-16 annual accounts. The company has man power of 250. Power Oxides Pvt. Ltd possesses the latest ISO 9001, ISO/TS 16949 and ISO 14001 quality certification.

REVIEW OF LITERATURE

Mishra (1975)¹ 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)² 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)³ in his study on working capital management in the Indian paper industry, found a close association between profitability and working capital efficiency. Ghosh and Maji (2003)⁴ made an empirical study on the relationship between utilization of current assets and operating profitability in the Indian cement and tea industries. Bardia (2004)⁵ 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)⁶ 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)⁷ conducted a comparative study of WCM performance in commercial vehicles, passenger cars and multi utility vehicles and two and three wheelers sectors of Indian automobile industry. Utkarsh Goel et al. (2015)⁸ conducted a study to explore the impact of corporate governance practices on Working capital Management (WCM) in Indian firms. S. Selvanayaki et al. (2015)⁹ 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 Hema Venkata Siva Sree.Ch (2017)¹⁰ examined working capital management in PL Plast Pvt Ltd. Venkateswararao.P, and Hema Venkata Siva Sree.Ch (2018)¹¹ examined working capital management in Sri Rama Chandra Paper

Boards Ltd. Venkateswararao.P (2018)¹² examined working capital management in Tulasi seeds Pvt.Ltd. Venkateswararao.P, and Hema Venkata Siva Sree.Ch (2018)¹³ studied working capital management in Sri Nagavalli solvent oils Pvt. Ltd. Venkateswararao.P, and Hema Venkata Siva Sree.Ch (2018)¹⁴ analysed working capital management in Naga Hanuman Solvent Oils Private Limited. Venkateswararao.P (2018)¹⁵ examined working capital management in Cuddapah Spinning Mills Ltd. Venkateswararao.P, and Hema Venkata Siva Sree.Ch (2018)¹⁶ studied working capital management in Kristna Engineering Works. Venkateswararao.P, and Hema Venkata Siva Sree.Ch (2018)¹⁷ examined working capital management in Radhika Vegetables Oils Pvt. Ltd. Venkateswararao.P, and Hema Venkata Siva Sree.Ch (2018)¹⁸ examined working capital management in Power Plant Engineering Works in Andhra Pradesh. It was found that there was no study on working capital management in a mining company. Hence, this study is taken up.

OBJECTIVES

The general objective of the study is to examine the working capital management in Power Oxides Pvt. Ltd. The specific objectives include the following.

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

HYPOTHESES

H₀₁: Current ratio in Power Oxides Pvt. Ltd. is uniform during the period of study.

H₀₂: Quick ratio in Power Oxides Pvt. Ltd. is uniform during the period of study.

H₀₃: Super quick ratio in Power Oxides Pvt. Ltd. is uniform during the period of study.

H₀₄: Gross working capital turnover ratio in Power Oxides Pvt. Ltd. is uniform during the period of study.

H₀₅: Net working capital turnover ratio in Power Oxides Pvt. Ltd. is uniform during the period of study.

H₀₆: Cash turnover ratio in Power Oxides Pvt. Ltd. is uniform during the period of study.

H₀₇: Inventory turnover ratio in Power Oxides Pvt. Ltd. is uniform during the period of study.

H₀₈: Debtors turnover ratio in Power Oxides Pvt. Ltd. is uniform during the period of study.

H₀₉: Average collection period in Power Oxides Pvt. Ltd. is uniform during the period of study.

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 Power Oxides Pvt. 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.

ANALYSIS AND DISCUSSION OF RESULTS

Working capital structure of Power Oxides Pvt. Ltd is presented in table-1. It is observed that Inventory was 9.75 percent of total current assets during 2011. It is the lowest percentage during the period of study. Its percentage was highest at 69.23 during 2015. It is observed that inventory occupied highest percentage of current assets during the year 2015. Debtors as a percentage of total current assets varied in between 15.82 during 2015 and 81.30 during 2016. Of all current assets debtors occupied highest percentage during the period of study except 2008, 2010, 2012 and 2015. It is also observed that cash and bank balance as a percentage of current assets varied between 1.94 during 2016 and 47.55 during 2010. Loans and advances as a percentage of current assets varied between 1.78 during 2010 and 10.28 during 2009. There were no loans and advances during the last five years of the study. Other current assets as a percentage of total current assets varied between 2.95 during 2016 and 11.02 during 2011. Sundry creditors as a percentage of total current liabilities varied between 2.56 during 2011 and 78.79 during 2016. Short-term borrowings by the Business organisation were made during the years 2012, 2013, 2015 and 2016. Short-term borrowings as a percentage of current liabilities varied between 18.34 during 2016 to 85.09 during 2015. Short-term provisions were maintained only for the first five years of the study. Short-term provisions as a percentage of current liabilities were 81.17 during 2008 and 97.44 during 2011. Other current liabilities were nil during the first five years of study. They varied in between 2.86 during 2016 and 95.52 during 2014. It is observed that Net Working Capital in the company varied between Rs.13.46

Lakhs during 2016 to Rs.60.95 Lakhs during 2008. It was maintained at high levels during 2007 and 2008.

Table-1: Working Capital structure of Power Oxides Pvt. Ltd, during 2006-2007 to 2015-2016

(Figures in Lakhs)

Particulars	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Current Assets										
Cash & Bank balances	2.96	4.16	2.35	28.38	6.06	4.01	2.04	1.85	3.44	2.29
% of TCA	4.74	5.09	4.51	47.55	14.51	6.52	3.64	4.06	6.21	1.94
Debtors	38.7	33.73	31.34	13.49	25.6	26.26	29.6	36.12	8.76	95.9
% of TCA	62.00	41.28	60.11	22.60	61.32	42.71	52.84	79.33	15.82	81.30
Loans & Advances	1.97	3.99	5.36	1.06	1.42	0	0	0	0	0
% of TCA	3.16	4.88	10.28	1.78	3.40	0.00	0.00	0.00	0.00	0.00
Other Current Assets	3.58	3.87	4.09	4.31	4.6	3.06	4.75	2.54	4.84	3.48
% of TCA	5.74	4.74	7.84	7.22	11.02	4.98	8.48	5.58	8.74	2.95
Inventory	15.21	35.97	9	12.44	4.07	28.16	19.63	5.02	38.33	16.29
% of TCA	24.37	44.02	17.26	20.84	9.75	45.80	35.04	11.03	69.23	13.81
Total Current Assets (TCA)	62.42	81.72	52.14	59.68	41.75	61.49	56.02	45.53	55.37	117.96
Current Liabilities										
Sundry Creditors	1.75	3.91	2.15	0.59	0.13	13.45	10.08	0.3	0.57	82.34
% of TCL	16.25	18.83	11.90	4.38	2.56	41.56	38.31	4.48	2.69	78.79
Other current liabilities	0	0	0	0	0	2.26	3.18	6.39	2.58	2.99
% of TCL	0.00	0.00	0.00	0.00	0.00	6.98	12.09	95.52	12.18	2.86
Short term borrowings	0	0	0	0	0	16.65	13.05	0	18.03	19.17
% of TCL	0.00	0.00	0.00	0.00	0.00	51.45	49.60	0.00	85.09	18.34
Short term provisions	9.02	16.86	15.92	12.87	4.95	0	0	0	0	0
% of TCL	83.75	81.17	88.10	95.62	97.44	0.00	0.00	0.00	0.00	0.00
Total Current Liabilities (TCL)	10.77	20.77	18.07	13.46	5.08	32.36	26.31	6.69	21.19	104.5
NWC	51.65	60.95	34.07	46.22	36.67	29.13	29.71	38.84	34.18	13.46

Source: Annual Reports of Power Oxides Pvt. Ltd. Guntur from 2006-07 to 2015-2016.

CURRENT RATIO

Table-2: Current Ratio

(Figures in Lakhs)

Years	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Current Assets	62.42	81.72	52.14	59.68	41.75	61.49	56.02	45.53	55.37	117.96
Current Liabilities	10.77	20.77	18.07	13.46	5.08	32.36	26.31	6.69	21.19	104.5
Current ratio	5.79	3.93	2.88	4.43	8.21	1.90	2.13	6.81	2.61	1.13

Source: Annual Reports of Power Oxides Pvt. Ltd. Guntur from 2006-07 to 2015-2016.

The current ratio in the company was maintained at normal level in the company. It has varied between 1.13 during 2016 and 8.21 during 2011 was shown in the table. The current ratio of the company is maintained at normal levels. It is found in the significance test that current ratio is uniform during the period of study.

Calculated value of χ^2 for current ratio =12.140.

The Critical value of χ^2 at 9 degrees of freedom at 5% level of Significance is 16.919
Calculated value is less than Critical Value i.e., 12.140<16.919.

Hence H_{01} is accepted.

QUICK RATIO

The quick ratio of the company as shown in the table has varied between 0.80 during 2015 to 7.42 during 2011. 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	47.21	45.75	43.14	47.24	37.68	33.33	36.39	40.51	17.04	101.67
Current Liabilities	10.77	20.77	18.07	13.46	5.08	32.36	26.31	6.69	21.19	104.5
Quick ratio	4.38	2.20	2.39	3.51	7.42	1.03	1.38	6.06	0.80	0.97

Source: Annual Reports of Power Oxides Pvt. Ltd. Guntur from 2006-07 to 2015-2016.

Calculated value of χ^2 for Quick ratio =15.773.

The Critical value of χ^2 at 9 degrees of freedom at 5% level of Significance is 16.919
Calculated value is less than Critical Value i.e., 15.773<16.919.

Hence, H_{02} is accepted.

SUPER QUICK RATIO

Table-4: Super Quick Ratio

(Figures in Lakhs)

Years	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Cash	2.96	4.16	2.35	28.38	6.06	4.01	2.04	1.85	3.44	2.29
Current Liabilities	10.77	20.77	18.07	13.46	5.08	32.36	26.31	6.69	21.19	104.5
Super Quick ratio	0.27	0.20	0.13	2.11	1.19	0.12	0.08	0.28	0.16	0.02

Source: Annual Reports of Power Oxides Pvt. Ltd. Guntur from 2006-07 to 2015-2016.

The super quick ratio of the company as shown in the table has varied between 0.02 during 2016 and 2.11 during 2010. It is found in the significance test that super quick ratio is uniform during the period of study

Calculated value of χ^2 for Super Quick ratio =8.868.

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

Calculated value is less than Critical Value i.e., 8.868<16.919.

Hence, H_{03} is accepted.

GROSS WORKING CAPITAL TURNOVER RATIO

The Gross working capital turnover ratio of the company as shown in the table has varied between 0.59 during 2008 and 6.85 during 2010. It is found in the significance test that Gross 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	86.81	48.75	165.76	409.39	203.92	50.51	155.07	93.15	159.36	104.46
Gross working capital	62.42	81.72	52.14	59.68	41.75	61.49	56.02	45.53	55.37	117.96
Ratio	1.39	0.59	3.18	6.85	4.88	0.82	2.77	2.05	2.88	0.89

Source: Annual Reports of Power Oxides Pvt. Ltd. Guntur from 2006-07 to 2015-2016.

Calculated value of χ^2 for Gross Working Capital turnover ratio =13.534.

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

Calculated value is less than Critical Value i.e., 13.534<16.919.

Hence, H_{04} is accepted.

NET WORKING CAPITAL TURNOVER RATIO

The net working capital turnover ratio of the company as shown in the table has varied between 0.80 during 2008 and 8.86 during 2010. It is found in the significance test that net working capital turnover ratio is 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	86.81	48.75	165.76	409.39	203.92	50.51	155.07	93.15	159.36	104.46
Net Working Capital	51.65	60.95	34.07	46.22	36.67	29.13	29.71	38.84	34.18	13.46
Ratio	1.68	0.80	4.87	8.86	5.56	1.73	5.22	2.40	4.66	7.76

Source: Annual Reports of Power Oxides Pvt. Ltd. Guntur from 2006-07 to 2015-2016.

Calculated value of χ^2 for Net Working capital turnover ratio =14.918. The Critical value of χ^2 at 9 degrees of freedom at 5% level of Significance is 16.919 Calculated value is greater than Critical Value i.e., 14.918<16.919.

Hence, H_{05} is accepted.

CASH TURNOVER RATIO

The cash turnover ratio of the company as shown in the table has varied between 10.02 during 2012 and 60.14 during 2015. 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	86.81	48.75	165.76	409.39	203.92	50.51	155.07	93.15	159.36	104.46
Average Cash Balance	3.60	3.56	3.26	15.37	17.22	5.04	3.03	1.95	2.65	2.87
Cash Turnover Ratio	24.11	13.69	50.85	26.64	11.84	10.02	51.18	47.77	60.14	36.40

Source: Annual Reports of Power Oxides Pvt. Ltd. Guntur from 2006-07 to 2015-2016.

Calculated value of χ^2 for Cash turnover ratio =92.680.

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

Calculated value is greater than Critical Value i.e. 92.680>16.919.

Hence, H_{07} is rejected.

INVENTORY TURNOVER RATIO

The inventory turnover ratio of the company as shown in the table has varied between 1.91 during 2008 to 38.19 during 2010. 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	86.81	48.75	165.76	409.39	203.92	50.51	155.07	93.15	159.36	104.46
Average Inventory	16.26	25.59	22.49	10.72	8.26	16.12	23.90	12.33	21.68	27.31
Ratio	5.34	1.91	7.37	38.19	24.69	3.13	6.49	7.55	7.35	3.82

Source: Annual Reports of Power Oxides Pvt. Ltd. Guntur from 2006-07 to 2015-2016.

Calculated value of χ^2 for Inventory turnover ratio =114.500.

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

Calculated value is greater than Critical Value i.e. 114.500>16.919, Hence, H_{07} is rejected.

DEBTORS TURNOVER RATIO

The debtor's turnover ratio of the company as shown in table10 has varied between 1.35 during 2008 to 18.26 during 2010. It is found in the significance test that Debtors turnover ratio is not 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	86.81	48.75	165.76	409.39	203.92	50.51	155.07	93.15	159.36	104.46
Average debtors	36.26	36.215	32.535	22.415	19.545	25.93	27.93	32.86	22.44	52.33
Debtors Turnover Ratio	2.39	1.35	5.09	18.26	10.43	1.95	5.55	2.83	7.10	1.99

Source: Annual Reports of Power Oxides Pvt. Ltd. Guntur from 2006-07 to 2015-2016.

Calculated value of χ^2 for Debtors turnover ratio = 43.629.

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

Calculated value is greater than Critical Value i.e., 43.6289 > 16.919.

Hence, H_{08} is rejected.

AVERAGE COLLECTION PERIOD

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	2.39	1.35	5.09	18.26	10.43	1.95	5.55	2.83	7.10	1.99
Average Collection Period	153	270	72	20	35	187	66	129	51	183

Source: Annual Reports of Power Oxides Pvt. Ltd. Guntur from 2006-07 to 2015-2016.\

The average collection period as shown in the table has varied between 20 days during 2010 to 270 days during 2008. It is found in the significance test that Average collection period is not uniform during the period of study.

Calculated value of χ^2 for Average collection period = 507.877.

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

Calculated value is greater than Critical Value i.e. 507.877 > 16.919.

Hence, H_{09} is rejected.

CONCLUSION

It is clear that debtors occupied first place followed by inventory as a percentage of current assets in Power Oxides Pvt. Ltd. during the period of study. The Business organisation has credit worthiness because there is a significant increase in creditors and short term borrowings during the study period. Current ratio of the company is too high during some years of study which indicates that the company is not using its current assets or its short term financing facilities efficiently. Debtors' turnover ratio was very less during five years of the study which reflects in high Average collection period. Cash turnover ratio, Inventory turnover ratio, debtor turnover ratios 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 capital to total assets ratio, Gross working turnover ratio, Net working capital turnover ratio are uniform during the period of study.

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