

A Study On Working Capital Management With Special Reference To Oil India Limited

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ABSTRACT

Administration of Working Capital is a essential chore for every manager in an organization, because it directly affects the liquidity and profitability of an organization. The present study examines the importance of working capital management and its impact on profitability of Oil India Limited. A few important ratios have been measured for prominence the effectiveness of working capital management. Pearson's simple correlation coefficient has been applied for measuring the degree of relationship between the working capital management and profitability. The results inferred that out of eight ratios relating to working capital management, four ratios, viz., Current Ratio, Current Assets to Total Assets Ratio, Current Assets to Sales Ratio, and Cash Turnover Ratio, registered positive association with the selected profitability ratio (ROI), and the remaining ratios like Debtors Turnover Ratio, Inventory Turnover Ratio, Working Capital Turnover Ratio and Quick Ratio witnessed a negative association with the selected profitability ratio.

Keywords: Working Capital, Current Assets, Current Liabilities, Profitability

WORKING CAPITAL

Working capital refers to the difference between a company's current assets and current liabilities. It is a measure of a company's short-term liquidity and operational efficiency. Here are key points to understand about working capital:

DEFINITION

- **Current Assets:** These are assets that a company expects to convert into cash or use up within one year. Examples include cash, accounts receivable, inventory, and marketable securities.
- **Current Liabilities:** These are obligations that a company needs to pay off within one year. Examples include accounts payable, short-term loans, and other similar debts.

Formula

Working Capital = Current Assets – Current Liabilities

IMPORTANCE

1. **Liquidity Indicator:** Working capital is a measure of a company's ability to pay off its short-term liabilities with its short-term assets. Positive working capital indicates that a company can cover its short-term debts and continue operations, while negative working capital suggests potential liquidity problems.
2. **Operational Efficiency:** Efficient management of working capital ensures that a company can maintain smooth operations. This involves balancing the levels of inventory, managing receivables and payables, and ensuring sufficient cash flow.
3. **Financial Health:** Investors and creditors often look at working capital as an indicator of financial health. Companies with strong working capital positions are usually considered more stable and creditworthy.

WORKING CAPITAL MANAGEMENT

Working Capital Management refers to the process of efficiently managing a company's short-term assets and liabilities to ensure its day-to-day operations run smoothly. It involves monitoring, planning, and controlling

the current assets and current liabilities of a business to maintain a healthy cash flow and meet short-term financial obligations. Effective working capital management is essential for a company's financial health, profitability, and overall operational efficiency.

Working capital management is a critical aspect of financial management for businesses. It involves managing the company's short-term assets and liabilities to ensure smooth day-to-day operations and meet its short-term obligations. Proper working capital management is essential for maintaining liquidity, supporting growth, and avoiding financial difficulties. Here are the key components and strategies involved in working capital management

WORKING CAPITAL MANAGEMENT STRATEGIES

Working capital management is crucial for maintaining a company's financial health and ensuring its ability to meet short-term obligations and operational needs. Effective strategies in this domain help optimize liquidity, improve operational efficiency, and enhance profitability. Here are several key strategies for managing working capital:

1. Cash Management

- **Cash Flow Forecasting:** Regularly forecast cash flow to anticipate periods of surplus or deficit, allowing for proactive management.
- **Cash Reserves:** Maintain an appropriate level of cash reserves to handle unexpected expenses and take advantage of sudden opportunities.
- **Bank Relations:** Cultivate strong relationships with banks to ensure access to credit lines and favorable terms.

2. Receivables Management

- **Credit Policies:** Implement stringent credit policies to ensure only creditworthy customers are granted terms.
- **Invoicing:** Prompt and accurate invoicing to reduce the days sales outstanding (DSO).
- **Collections:** Actively manage collections, including follow-up on overdue accounts and offering discounts for early payments.
- **Factoring:** Consider factoring receivables to improve immediate cash flow if necessary.

3. Inventory Management

- **Inventory Optimization:** Use inventory management techniques like Just-In-Time (JIT) to minimize holding costs while ensuring sufficient stock.
- **ABC Analysis:** Categorize inventory into ABC categories to prioritize management efforts on high-value items.
- **Turnover Ratios:** Monitor and aim to improve inventory turnover ratios to reduce excess stock and obsolescence.

4. Payables Management

- **Payment Terms:** Negotiate favorable payment terms with suppliers to extend payables without harming relationships.
- **Early Payment Discounts:** Take advantage of early payment discounts where financially beneficial.
- **Staggered Payments:** Schedule payments strategically to manage cash flow effectively.

5. Short-term Financing

- **Credit Lines:** Maintain access to short-term credit facilities to bridge gaps in cash flow.
- **Trade Credit:** Use trade credit from suppliers as a short-term financing option.
- **Commercial Paper:** Consider issuing commercial paper as a short-term debt instrument if applicable.

6. Operational Efficiency

- **Process Optimization:** Streamline operations to reduce costs and improve cash flow.
- **Technology Integration:** Utilize technology for better inventory control, faster processing of receivables, and efficient cash management.

7. Financial Metrics Monitoring

- **Working Capital Ratio:** Regularly track the working capital ratio (current assets to current liabilities) to ensure liquidity.
- **Operating Cycle:** Monitor the operating cycle and cash conversion cycle to identify inefficiencies and areas for improvement.
- **Key Performance Indicators (KPIs):** Establish and monitor KPIs related to working capital components (e.g., DSO, DPO, inventory turnover).

- **Vendor Management**

- **Supplier Relationships:** Build strong relationships with suppliers to negotiate better terms and ensure reliable supply chains.
- **Vendor Diversification:** Avoid over-reliance on a single supplier to reduce risk.

9. Cost Control

- **Expense Management:** Regularly review and control operating expenses to ensure they are aligned with cash flow capabilities.
- **Budgeting:** Implement rigorous budgeting processes to plan and control cash outflows effectively.

10. Strategic Investments

- **Investment in Working Capital:** Balance investment in working capital to support growth without overextending resources.
- **Asset Management:** Optimize the use of assets to improve return on investment (ROI).

REVIEW OF LITERATURE

Bagchi and Khamrui (2012) analysed 10 FMCG companies for the period 2000- 2001 to 2009-10, relationship between working capital management and profitability of FMCG Company in India and explored joint impact of different components of working capital management on profitability. In this study it was found that both Cash conversion cycle and debt used by the firm were negatively associated with firm's profitability. Strong negative relation was found between working capital management and profitability. It was concluded that results could be further strengthened if the firms manage their working capital management in more efficient ways which would ultimately increase firm's profitability.

Rajdev (2013) studied working capital management of Makson Healthcare Private Limited with the help of ratio analysis, measures of central tendency, dispersion, Pearson's correlation, working capital components and it was found that company did not delay its commitments both for creditors and debtors. The findings suggested that liquidity was managed most by owner's past experience and data and hence no significant correlation between liquidity and profitability was seen. The study was limited only to single company hence reflected partial view of overall working capital management in Indian healthcare industry.

Madhavi (2014) conducted a study on working capital management of paper mills for the period of 2001-02 to 2010-11. In the analysis of data standard statistical techniques like percentages and averages had been used. The study found out that the management of APPML must initiate necessary steps to utilize its idle cash and bank balances in attractive investments or to pay back in short term liabilities (current ratio). The low quick ratio might also had liquidity position, if it had fast moving inventories and was more satisfactory in SSPBL with APPML. Cash ratio was not satisfactory in APPML as compared to SSPBL and it needed the attention of the management to include effective utilization of cash and bank balance.

Prakash and Ranganaya (2015). This study was on working capital management of Hatsun Agro Product Ltd Chennai. This study focused on company's working capital management on these six years. During the last six years company incurred profit. In this study importance was given to, if there was any increase or decrease in loss of the company in last six years. This study also analyzed the capital structure of the company. Tools of financial analysis might be used for analyzing the working capital management of the company. This study also found relationship between various components of the balance sheet.

Kumari and Anthuvan (2017) studied impact of working capital management on profitability of leading listed automobile companies in India. The study depicted that liquidity and profitability trade off could be tackled by improving and adopting effective working capital management strategies into manufacturing industries. The study revealed relationship between working capital management and profitability of 10 automobiles manufacturing firms from CMIE prowess database for 2006-2012. This was important as Indian economy endured 2008 financial crisis and it's after effects, which drained liquidity out of the system. Inventory models such as JIT, EOQ, and FSN would reduce overstocking of inventory in automobiles, so automobile companies could focus on reducing inventory turnover days to maximise profit.

NEED OF THE STUDY

The study aims at analyzing the how much working capital needed for the company per day. This study is used to management to take an appropriate action to maintain working capital in efficient manner. To know the level of the working capital maintained by the organization

SIGNIFICANCE OF THE STUDY

The present study is highly appropriate for empirically investigating the financial aspects of the Indian Petroleum Industry to get a deep insight of the financial performance of the industry. The study emphasis on comprehensive examination of the growth trends of the industry. The study is of great importance to the investors, competitors, policy makers and companies at present as well as guide for growth. Still there are very few studies relating to auto industries.

OBJECTIVE OF THE STUDY

- To analyze the working capital position of the company.
- To analyze the liquidity and profitability of the company.
- To analyze the net worth position of the company.

RESEARCH METHODOLOGY

This study is an analytical research. The research has to use facts or information already available and analyze these to make critical evaluation of the study. A sample size of the study is five years from 2018 to 2022. In data collection as basically used the secondary data, as available in the records of the unit as from the publication of the financial statements in the company annual reports as include the balance sheet and profit and loss account of the company. Analysis of data is made using certain financial tools and techniques as ratio analysis.

The following ratios have been applied for highlighting the efficiency of working capital management: Current Ratio (CR), Quick Ratio (QR), Current Assets to Total Assets Ratio (CATAR), Current Assets to Sales Ratio (CASR), Working Capital Turnover Ratio (WCTR), Inventory Turnover Ratio (ITR), Debtors Turnover Ratio (DTR), Cash Turnover Ratio (CTR), and Return on Investment (ROI) to measure the profitability. For measuring the degree of relationship between the working capital management and profitability, Pearson's simple correlation coefficient has been applied.

SOURCES OF DATA

The present study is based on secondary data. The financial data used in this study has been mainly taken from the annual reports of petroleum industries companies through the website.

LIMITATION OF THE STUDY

- The study is short term period of five accounting year from 2017-2018 to 2021-2022.
- The main constraint of this study is considered as the data used is secondary.
- The data was collected based on the company annual report.
- The reliability and accuracy of the calculation depends very much on the information found in the financial statements and its reliability.

DATA ANALYSIS AND RESULT

The impact of working capital on profitability is measured by computing Karl Pearson's correlation coefficients between ROI and the selected measures relating to the working capital management (Table 1). It is found that:

Table 1 Simple Correlation Analysis Between Selected Ratios Relating to Working Capital Management and Return on Investment of Oil India Ltd.

Particulars	2017-18	2018-19	2019-20	2020-21	2021-22	Correlation Coefficient
CR	1.513	1.420	1.315	1.530	1.327	0.314
QR	0.478	0.495	0.647	0.574	0.524	-0.321
WCTR	15.046	22.856	13.442	31.248	17.849	-0.654
CATAR	0.563	0.613	0.648	0.601	0.615	0.692
CASR	0.218	0.181	0.234	0.144	0.213	0.702
CTR	241.14	239.44	293.74	312.62	271.94	0.879*
ITR	12.980	13.574	14.542	17.634	15.642	-0.823*
DTR	26.24	31.75	36.75	46.44	43.57	-0.501
ROI (%)	18	22	17	7	20	

* indicates significant at 5% level.

- The correlation coefficient between ROI and CR is 0.314, which indicates that there is a positive association between the profitability and CR of the company, and the correlation coefficient is found to be statistically significant at 1% level.
- The correlation coefficient between ROI and QR is negative (-0.321), which is found to be statistically significant at 1% level.
- The correlation coefficient between ROI and WCTR is -0.654 which implies that there is a negative relationship between these two variables. The calculated value of correlation coefficient is found to be statistically significant at 1% level.

- The correlation coefficient between ROI and CATAR is 0.692. It implies that there is a positive correlation between profitability and the ratio of current assets to total assets. The coefficient is found to be statistically significant at 1% level.
- The coefficient of correlation between ROI and CASR is 0.702, which is also found to be statistically significant at 1% level. It indicates a higher degree of positive association between the two variables. Generally, the higher the CASR, the greater the efficiency of the employment of working capital and larger is the scope of profitability.
- The correlation coefficient between ROI and CTR shows a positive association (0.887), which is found to be statistically significant at 5% level.
- The correlation coefficient between ROI and ITR is negative (−0.823) and is found to be statistically significant at 5% level.
- The correlation coefficient between ROI and DTR is negative (−0.501) and is found to be statistically significant at 1% level. The study of the relationship between the profitability (ROI) and the receivables management (DTR) conforms to the generally accepted rule that the faster the DTR, the lower is the relative investment in receivables and the higher is the profitability.

Table 2 Determinants of Profitability of Oil India Limited

Variable	Coefficient	T	Remarks
CR	16.2165	0.2486	0.8269**
QR	5.2214	0.4793	0.6790**
CATAR	-0.0769	-2.0272	0.1798**
CASR	0.1213	0.2032	0.8578**
CTR	-10.6341	-8.7499	0.0128*
ITR	-6.0395	-1.3800	0.3016**
DTR	-1.7789	-4.7268	0.0420*
WCTR	2.6955	2.1570	0.1637**

Source: Computed

* Significant at 5% level; ** - Not Significant

R² = 0.903	Adj R² = 0.807	F = 9.341
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The determinant of profitability of Oil India Limited is studied with the help of multiple regression model. The values indicates that only two variables individually contribute significantly to variations in the ROI when other variables are kept constant. Creditor Turnover Ratio and Debtor Turnover Ratio was negatively correlated and influenced the profitability at 5% level of Significance. The other variables were found statistically not significant. It is clear that Creditor Turnover Ratio and Debtor Turnover Ratio was the strongest determinant of profitability at 5% level of significance.

The co-efficient determination (R²) is 0.903 which shows that independent variables contribute nearly 90% of the variation in the profitability of the company. It is 90% and the adjusted R² is around 81%.

Table 3 Correlation Matrix of Oil India Limited for the Period 2017-18 to 2021-22

Ratio	ROI	CA	QR	CATAR	CASR	WCTR	ITR	DTR	CTR
ROI	1								
CR	0.314	1							
QR	-0.321	0.541	1						
CATAR	0.692	0.847*	0.151	1					
CASR	0.702	0.674	0.047	0.871*	1				
WCTR	-0.654	-0.841*	-0.243	-0.914**	-0.947**	1			
ITR	-0.823*	-0.456	0.465	-0.814*	-0.732	0.716	1		
DTR	-0.501	-0.517	0.312	-0.647	-0.403	0.513	0.749	1	
CTR	0.879*	-0.078	0.556	-0.541	-0.706	0.526	0.823*	0.313	1

*indicates significance at 5% level; and ** indicates significance at 10% level.

It is observed that there is a very high degree of correlation between ITR and CTR (0.823817), between ITR and CATAR (−0.814), between CR and WCTR (−0.841), CATAR and WCTR (−0.914), CASR and WCTR (−0.947), and CR and CATAR (0.847). This high degree of correlation indicates that there is an existence of

multicollinearity because multicollinearity refers to the existence of high correlation between the independent variables.

CONCLUSION

Effective Working Capital Management requires a comprehensive approach that integrates various financial and operational strategies. By focusing on optimizing cash flow, managing receivables and payables efficiently, maintaining optimal inventory levels, and leveraging short-term financing options, companies can enhance their liquidity, support continuous operations, and ultimately drive profitability. Regular monitoring and adjustment of these strategies in response to changing business conditions are essential for maintaining financial stability and achieving long-term success.

Out of the selected eight ratios relating to working capital management, four ratios, viz., CR, CATAR, CASR, and CTR, registered positive association with the selected profitability ratio (ROI) and the remaining ratios like DTR, ITR, WCTR and QR witnessed negative association with the selected profitability ratio. Out of these eight selected ratios, only ITR and CTR have significant association with the profitability ratio. It reveals that the profitability of the company is highly influenced by the selected indicators of working capital management.

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