

## **Working Capital Management – Best Practices Adopted Across Multiple Industries**

**Zohra Zabeen Sabunwala<sup>1</sup>, Manmohan Vyas<sup>2</sup> and Dr. Kishore A. Wangal<sup>3</sup>**

*<sup>1</sup>Asst Prof, Indira School of Business Studies ,Tathawade, Pune*

*<sup>2</sup>Asst Prof, Indira School of Business Studies ,Tathawade, Pune*

*<sup>3</sup>Professor ,Dhanwate National College , Nagpur*

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### **ABSTRACT**

Working capital management is one of the most important factors impacting the performance of the firm. Efficient management of working capital is crucial of sustaining the business in the long run. Working capital best captured through Cash Conversion Cycle (CCC) or Cash Conversion Efficiency (CCE) reveals how good the company is at managing its working capital. Analysis of working capital management over the past few years has revealed that while many companies have enjoyed double-digit sales growth, but their CCE, which is the ratio of operating cash flow as a percentage of sales, has been decreasing year-on-year. This means that organizations are converting sales to cash at a lower rate and not taking advantage of the scale in good times. Improving the CCE will become all the more imperative in the face of slowdown due to economic downturn and with growing competition. This means companies would need to resort to both cost minimization and adopt the best practices in working capital management to improvise cash flows.

This paper focuses on the understanding and analysing the best practices adopted the by companies across several industries like automobile, steel, cement etc. to improve their working capital management and cash management capabilities to better survive and thrive in the competitive economic environment. The paper attempts to enlist best practices which can be adopted by companies to perform their operations efficiently and to improve their financial performance.

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**Keywords:** Best Practices, Cash Conversion Cycle, Cash management, Financial Performance, Working Capital

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## **Introduction**

The importance of working capital management is undisputable. Working Capital is the difference between resources in cash or readily convertible into cash (Current Assets) and organization commitments for which cash will soon be required (Current Liabilities). The objective of the working capital management is to maintain the optimum balance of each of the working capital components. Viability of the business is depended on how well the individual components of working capital vis. Receivables, Payables and Inventory are managed.

Firms would be able to reduce financing costs or increase the funds available for project financing, expansion etc. by reducing the amount of funds tied up in current assets. Working capital improvements become all the more important during times of falling demand and restricted credit markets. When working capital management becomes top-of-mind, the question arises as to whether any changes being made are going to be sustainable. The companies are adopting several ways to improve working capital management. Some companies become very near-sighted during volatile times and aim only to harvest the low-hanging fruit while some have taken the next step of building a solid foundation for a sustainable working capital.

The paper attempts to analyse the working capital performance of the firms in cement, steel and automobile industries and its impact on financial performance measured through Return on total assets.

## **Literature Review**

Moussawi et al in Corporate working capital management: Determinants and Consequences mainly focused on determining the relevance of the core factors to the efficiency of a firm's Working capital management. According to their findings, Working Capital efficiency positively and significantly impacts firm size, executive compensation, future firm sales growth, the proportion of outside directors on a Board, industry practices and it negatively and significantly impacts CEO share ownership. They also found that Working Capital efficiency unrelated with industry concentration.

On the contrary, Filbeck in An Analysis of Working Capital Management Results Across Industries found that Significant differences exist between industries across time with respect to measures of working capital measures and that working capital measures for a given firm are not static, and significant differences in these measures exist across time.

Deloof in Does Working Capital Management(WCM) Affect Profitability of Belgian Firms investigated the impact of WCM on corporate profitability by taking 2000 most important Belgian firms for the period 1991-1996 and found that Gross operating income negatively and significantly impacted by number of days accounts payable, number of days inventories, number of days accounts receivable but positively and significantly impacted by firm size (measured by the natural logarithm of sales), sales growth and fixed financial assets, and decreases with financial debt.

Padachi in Trends in Working Capital Management and its Impact on Firms' Performance: An Analysis of Mauritian Small Manufacturing Firms examined the impact of accounts receivables days, inventories days, accounts payable days and CCC on Return on Total Assets (ROTA) for a sample of 58 small manufacturing companies for the period of 1997-98 to 2002-03 and found that ROTA is significantly positively and significantly affected by Operating Profit Margin and capital-turnover ratio, but negatively and significantly impacted by the measures of WCM.

The above findings were also supported by Raheman and Nasr in Working Capital Management And Profitability – Case Of Pakistani Firms and they also found that Net Operating profitability is significantly negatively impacted by measures of elements of WCM i.e. Average Payment Period, Inventory turnover in days, Average Payment Period and Cash Conversion cycle.

Another important findings by Lazardidis and Tryfonidis in Relationship between working capital management and profitability of listed companies in the Athens stock exchange on the relationship between working capital management and profitability of listed companies in the Athens stock exchange for a sample of 131 companies listed on Athens stock exchange for a period of 2001-04 also found that CCC is significantly negatively related with profitability.

Mukhopadhyay in Working capital management in heavy engineering firms studied the effectiveness of working capital management of a firm with particular reference to its short term liquidity and solvency and impact on commercial operations of the organization and found that Gross working capital is significantly positively related with Inventory, Debtors and Receivables, Loans and Advances, Other current Assets and Net working capital and significantly and negatively related with current Liabilities and provision. The study also found significantly negative relation with current liabilities and provisions.

### Objectives of Research

1. Does working capital impacts the firm's financial performance?
2. What kinds of efforts are required to bring in the optimum level of working capital to reap fruits of better financial performance?

### Research Methodology

The study covers the analysis of working capital performance of approx. 500 BSE-listed public companies from three major industries vis. Automobile, Cement and Steel for the period 2008- 2011. These industries have been chosen particularly for the reason that they play a critical role in economic growth of the country and are among the largest ones in terms of seeking short term funds especially for their working capital requirement. The data has been sourced from CIME (Prowess) database and company specific annual reports.

The comparisons have been made with the previous years on selected parameters defined below to see the financial performance of the companies and trends in working capital management. This has been done for all the three industries to analyse inter industry ratios for comparison.

The working capital performance metrics are calculated from 2008 to 2011 year-end results, focusing on revenue, trade receivables and payables (excluding accruals, deferred income, and other cash and cash equivalents), and inventory.

### Explanatory Variables

1. *Days Receivable Outstanding = Accounts Receivable/(Total Revenue/365)*

Year-end trade receivables net of allowance for doubtful accounts, plus financial receivables, divided by one day of average revenue.

*Interpretation:*

A decrease in DRO represents an improvement while increase in DSO shows deterioration.

2. *Days Inventory Outstanding = Inventory/(Total Revenue/365)*

*Interpretation:*

A decrease in DIO represents an improvement while increase in DIO shows deterioration.

3. *Days Payables Outstanding = Accounts Payable/(Total Revenue/365)*

*Interpretation:*

An increase in DPO represents an improvement while a decrease shows deterioration. For purposes of the survey, payables exclude accrued expenses.

4. *Cash conversion Cycle = (Accounts Receivable days + Inventory days - Accounts Payable days)*

*Interpretation:*

The lower the number of days, the better it is.

$$5. \text{ Return on Total Assets} = \frac{\text{Earnings before Interest Depreciation amortization and Taxes (EBITDA)}}{\text{Total Assets (TA)}}$$

*Interpretation:*

Profitability is measured by Return on Total Assets (ROTA) as this ratio best captures the profitability as it captures the return the firm generates on the total funds invested. This ratio also brings the firms with different asset bases and earnings on the same platform making them comparable. This ratio basically tells us how effectively a company is using its assets to generate earnings before meeting other obligations like Interest, Tax, Depreciation, etc.

### Data Analysis & Interpretation

**Table 1:** Working Capital & Firm's Performance Metrics

Annual working capital performance by Automobile industry									
	ROTA	Inv. Days	% inc./dec.	A/R Days	% inc./dec.	A/P Days	% inc./dec.	CCC	% Inc./Dec.
2011	41	195	37	115	8	145	7	165	47
2010	40	142	-10	106	10	136	-16	112	20
2009	41	158	-16	96	-13	161	24	93	-44
2008	45	187	-23	110	-5	130	-1	167	-27
Annual working capital performance by Cement industry									
	ROTA	Inv. Days	% inc./dec.	A/R Days	% inc./dec.	A/P Days	% inc./dec.	CCC	% Inc./Dec.
2011	7	225	-18	56	-29	209	-13	72	-37
2010	3	275	10	79	25	239	-1	114	60
2009	6	250	-14	63	-32	241	5	72	-53
2008	5	290	-17	92	40	230	-15	152	-11
Annual working capital performance by Steel industry									
	ROTA	Inv. Days	% inc./dec.	A/R Days	% inc./dec.	A/P Days	% inc./dec.	CCC	% Inc./Dec.
2011	8	106	14	94	24	118	20	81	-15
2010	5	93	-11	76	7	98	1	71	-10
2009	11	105	3	71	-42	97	13	79	-43
2008	4	102	11	123	14	86	1	139	21

*Source: CMIE (Prowess Database)*

It can be seen from the working capital and firm's performance metrics that the in case of automobile industry, the cash conversion cycle has increased in all the years except 2009. The higher Cash conversion cycle has been mainly due to rise in Inventory days. This has resulted into decrease in ROTA from 45% in 2008 to 41% in 2011.

In case of Cement industry, the cash conversion cycle has decreased over a period of 2008 to 2011. The decrease in all the components of working capital has been seen which has resulted into rise in ROTA from 5% in 2008 to 7% in 2011.

For the Steel industry, there has been a dramatic decrease in cash conversion cycle from 139 in 2008 to 81 in 2011. This has resulted into rise in ROTA from 4% in 2008 to 8% in 2011.

The analysis shows that there is a relationship between cash conversion cycle and its impact on ROTA. The rise in cash conversion cycle results into decrease in ROTA and vice versa. The capability to adjust the cash conversion cycle by optimizing the working capital components can go a long way in improving financial performance of the firms.

### **Best Practices in Working Capital Management**

It is often said, you can lose money for some time, but you can only run out of cash once. The impact of ineffective working capital management can be complex and just as debilitating for a business. Companies with effective cash flow management practices not only generate more cash from their businesses, they have more flexibility to take advantage of opportunities as they arise and are less dependent on external financing.

While it is relatively easy to obtain short-term reductions in working capital by slowing down payments, speeding up collections, or starving inventory, long-term results require a sustained effort and continuous process improvement approach. More often than not, companies ignore working capital management or create short-term and artificial fixes.

To be successful in achieving the optimum level of working capital management, one needs cross-functional alignment of many managers, who will often see the cash flow management objective as secondary or in conflict with other measures or targets they must achieve. It cannot be implemented as a separate exercise from top line and bottom line performance optimization. A lot of effort goes into bringing the non optimal levels of current assets and current liabilities back to optimum levels. An optimum level is one at which balance is achieved between risk and efficiency. The optimum level of working capital depends on many factors like firm's credit policy, inventory management, bills paying capability, and also to some extent firm's future plans of growth and expansions. It may be feasible for one firm to minimize receivable and inventory than to maximize payables.

In the real world, there are substantial trade offs between cash flow management, customer service, cost and risk. In order to optimize the overall working capital management

performance of the organization, one needs to recognize and understand this trade offs and implement continuous process improvement strategies that take them into account. This requires a holistic approach across the functional boundaries of the organization, and ideally takes into account both supplier and customer value drivers.

Through effective working capital management, top performing organizations will be able to free up a huge amount of working capital that can be used to effectively manage their liquidity and profitability goals.

### **Conclusion**

1. The working capital needs for Automobile, Cement and Steel industry seems to be relatively similar as can be inferred from the Account Payable days, Account Receivable days and Inventory Days which are relatively equal. This might be because they have similar inventory management system and have similar kind of supply chain management system.
2. The working capital management does impact the performance of firms as depicted by the change in ROTA with the change in cash Conversion Cycle. It was observed that the rise in cash Conversion Cycle leads to decrease in ROTA and vice versa. The result is in line with the theory that smaller the funds tied up in the working capital, higher the return is as there would be lesser need of external financing and the freed up funds could be utilized for investment in profitable areas.
3. By deploying the best of the practices from benchmark companies, aligning the cross functional targets and implementing a top to bottom balanced approach towards resource optimization, the firm can achieve its required level of working capital needs and achieve its long term goals.
4. Its long term goals.

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