Journal of Accounting and Finance
Volume 25, No. 2
April-September 2011

Working Capital Management of Reliance Industries Limited - A Case Study

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Abstract

Working capital is an important/integral part of the operations of a business enterprise. Analogous to the circulatory system of the human body, smooth working capital management ensures that the business operating cycle keeps moving without any glitches in terms of payments of liabilities and/or procurement of inventories. In the event of an inefficient working capital management, the flow of money gets choked, supplies are interrupted and payments delayed. While inadequate working capital has the potential to disrupt production/ sales operations of otherwise well-run and well-managed business enterprises, excessive working capital has an adverse impact on profitability and, therefore, is equally undesirable. Thus, there is an imperative need to manage working capital effectively. Working capital management can also be understood as the managerial accounting strategy focusing on maintaining efficient levels of both components of working capital viz., current assets and current liabilities, in respect to each other. An emerging concept in the realm of working capital management, is that of zero working capital, where a company is able to manage receivables and inventories in a manner that almost exactly offsets the creditors. Given an overwhelming significance of the subject, a comprehensive study of RIL, India's largest corporate house, related to its working capital decisions and practices for the period 2000-2009 has been attempted here and more importantly for the first time, a unique attempt has been made to establish whether the concept of zero working capital (ZWC) is evident in the way India's largest corporate manages its operations. Amongst other findings on Reliance's working capital management, a notable one is the presence of/adherence to the concept of zero working capital (ZWC).

Keywords: *Working capital, Inadequate, Decision, Zero Working Capital (ZWC).*

INTRODUCTION

Interestingly, in India, most of the non-financial Indian companies, prima facie, appear to be adhering to a rather efficient and aggressive working capital management strategy wherein they are able to meet payments for carrying out their day-to-day business at no extra cost. This may perhaps be attributed, to a marked extent, to the concept of "***cash credit limit***" which is a unique feature of the Indian Banking system which has helped the Indian companies to adopt more aggressive approach in managing their working capital at a very high level of

efficiency. In this scheme, the bank allows a particular company a cash credit limit that can be used anytime a company has an emergent need of funds to tide over their working capital requirement. The company is free to return this borrowed amount as soon as it has surplus cash resulting from its normal business operations, and pay interest only for the amount borrowed, and only for the time borrowed. As a result, there is likely to be less interest costs of short-term funds, having positive impact on profitability.

Company Profile of RIL

The year 1966 saw the inception of Reliance Industries Limited, hereafter referred to as RIL, by Shri Dhirubhai H. Ambani. What started off as a small textile manufacturing unit was eventually incorporated in 1973 and the name confirmed in 1985 as RIL. The years have seen RIL diversify into a petrochemical major along with being a leading manufacturer of textiles products. RIL is the largest private-sector enterprise in India in terms of revenues, profits, net worth, assets and market capitalization. The company has overseas operations in more than 100 countries.

The year 2005-06 was a landmark year in the history of RIL. It marked a new strategic decision to demerge RIL's business into separate value-adding entities in an attempt to maximize the wealth of its shareholders – the ultimate corporate objective. In this process, RIL's investments in power generation and distribution, financial services and telecommunication services were demerged in to four separate entities. The successful implementation of the largest demerger process in Indian corporate history has demonstrated once again why RIL is the corporate leader in the Indian business spectrum because of its undying efforts to constantly focus on value-creation for its stake holders.

For the purpose of this paper all the relevant data have been calculated from the cash flow statements and the balance sheets of RIL. This paper focuses on studying the working capital management policy followed by RIL over the period 2001-2009. The contents of this paper have been divided into five sections. Section I lays down the objective, rationale, scope and methodology of the paper. Section II provides a detailed literature review of the myriad aspects covering working capital management. Section III examines the liquidity ratios of the company and attempts to determine the company's ability to pay its short-term debt obligations. Continuing with the same, it examines the components of current assets of RIL, to understand the factors leading to the differences in the two ratios. Section IV enumerates the concept of zero working capital within the realm of working capital/liquidity management, and investigates it through the debtors' and creditors' turnover ratios of RIL. Concluding observations are enumerated in section V.

Section I

Objective, Rationale, Scope and Methodology

The objective of the paper is to have a comprehensive analysis of the working capital decisions and practices followed by RIL over the past ten years through a study of its liquidity ratios, efficiency ratios related to utilization of current assets and the evaluation of its cash flows. The study has academic as well as practical significance.

It will help in understanding the working capital practices of the leading company in India. The scope of the study is limited to RIL's financial performance for the ten-year period 2001-2009.

Research Methodology

Research methodology adopted in the present study to analyze financial statement of RIL Ltd is as follows:

Secondary Data and Analysis: Analysis is based on secondary data. Secondary data source includes annual reports of the company, management presentation to investors, research reports related to the company, company press releases, online databases – Capitaline and ISI Emerging Markets.

Data Analysis: Financial ratios are used extensively for this study. The key financial ratios have been computed for all working capital decisions. Also, the unique concept of zero working capital has been targeted here through the computations of the net working capital (inventories +accounts receivables – accounts payable) and the ratio of major current assets over creditors. Also, liquidity ratios and efficiency ratios are the main ratios used to further understand the working capital decisions. All these ratios are computed on a year-to-year basis for RIL. To study the trends and implications, data have been divided into two sets. These sets have been used in the liquidity ratios. Mean for both these sets and entire data set is calculated to understand the changes over the period. From statistical point of view, the first set and the second set samples have been considered as two independent samples. We have used't' test to ascertain whether there are changes during the second phase, *vis-â-vis*, the first phase.

Section II

Literature Review

It has been observed that working capital management strategies add value to the organization. Strategies focused around working capital management create shareholder value (Christopher and Ryals, 1999). Better working capital management can significantly help companies improve their growth rates vis-à-vis competitors and ultimately increase the wealth of their shareholders. (Gupta, 2010). Farris II and Hutchison created a C2C (cash to cash) metric by using supply chain components (bridging across inbound material activities through manufacturing operations and the outbound sales activities), and also highlighted key leverage points necessary for the effective management of working capital. Ward (2004) showed evidence that reduction in cash-to-cash cycle time in working capital management increased earnings per share. Andrew and Sirkin (2003) highlight the importance of innovating through working capital management and operations to generate cash rather than simply product development.

Gentry et al. (1985) innovated on the concept of weighted cash conversion cycle (WCCC) which measures the weighted number of days funds are tied up in receivables, inventories, and payables, less the weighted number of days cash payments are deferred to suppliers. Banomyong (2005) highlighted that a company with a lower cash conversion cycle is more efficient because it turns its working

capital over more number of times in a year, which means that it generated more sales per unit of money invested in working capital management. Fazzari and Peterson (1993) explain that working capital is also a source of liquidity that should be used to smooth fixed investments in times of cash-flow shocks if firms face financial constraints. Jose, et al. (1996) examined the relationship between profitability measures and management of ongoing liquidity. Garcia-Teruel and Martinez-Solano (2007) in their study demonstrate that managers can create value by reducing their inventories and shortening the number of days for which their accounts are outstanding.

Burgstahler and Dichev (1997) found evidence that two components of earnings, viz., cash flow from operations and working capital changes can be used effectively to manage earnings and increase them. Deloof, M. (2003) posits that managers can increase profitability by reducing the number of days of accounts receivables and inventories. John (1993) claims that liquidity and working capital management have an impact on the costs of financial distress for the company. Smith (1973) stated that profitability and liquidity are the dual financial goals for any firm and a balance between the same needs to be maintained.

It has also been established that cash flows of the components of working capital are better predictors of growth and future earnings than the traditional cash flows (Ball, et al., 1993). Similar evidence has also been presented on the basis of accruals (Barth, et al., 2001). Increasing accounting conservatism has led to an increased relationship between current earnings and future operating cash flows (Kim and Kross, 2005).

Small companies which have limited access to both short-term and long-term assets are forced to keep larger quantum of liquid assets to meet their daily transactions and emergency cash requirements. The larger organizations with better access to credit maintain a low quantum of liquid assets to meet their liquidity needs and emergency requirements (Moss & Stine, 1993).

Various emerging concepts and models have been used to study working capital management. Traditionally, there seemed to be a gap between academic theory and the practitioner's viewpoints about working capital management. With time and technology however, more and more sophisticated techniques are available to make the working capital cycle more efficient (Gitman et al., 1979). Keown and Martin (1977) have come up with a chance constrained goal programming model for working capital management. Richards and Laughlin (1980) provided us the operating cash cycle concept which took into consideration both the cash inflows and outflows that occur in the realm of working capital management. Arcelus and Srinivasan (1993) integrated the main components of working capital management within a discounted cash flow framework to study the interplay amongst inventory, procurement, cash discounts, accounts payable and accounts receivables. Apart from examining the traditional/important aspects related to working capital management, the paper focuses on zero working capital (Brigham and Houston), explained in Section IV.

The literature review reveals a number of implications and gaps for further inquiry

into working capital management of companies. The available literature consists of examples of corporate practices from western countries. To the best of our knowledge, there is no in-depth study regarding the working capital management practices of an Indian company in the recent time. Also, there has been no study to understand whether the unique concept of Zero Working Capital finds evidence of being followed by an Indian company, that too, the largest Indian company. The present case study is a modest attempt to fill this gap.

Section III

Liquidity Management - Current Ratio and Acid-Test Ratio of RIL, 2001-09

The importance of adequate liquidity to meet current/short-term maturing obligations as and when they become due needs no emphasis. Maintenance of adequate liquidity without impairing the profitability is the foremost requirement of sound and efficient working capital management. From this perspective, while excessive liquidity may be desired by the short-term creditors, it may be undesirable/unwarranted to carry excessive funds on the part of companies as such funds are either non-earning or earn very little. Also, excessive liquidity may be indicative of slack management practices, as it might signal excessive inventories for the current requirements and poor credit management in terms of over-extended accounts receivables.

The liquidity ratios of RIL can be better understood by studying the current ratio and acid test ratio (quick ratio) of the company. The calculated values of these ratios are given in Table 1. RIL's liquidity position appears to be commendable during most of the period under reference (Table 1). RIL has satisfactory liquidity ratios in phase 1; it continued to have equally satisfactory liquidity ratios in phase 2; this is adequately supported by the non-significance of the 't' statistic. The mean of the current ratio is 1.48 in phase 1 and 1.56 in phase 2, which is highly satisfactory. The mean of the acid-test ratio (quick ratio) is 0.46 in phase 1 and 0.58 in phase 2. To understand the cause, of this substantial difference, in the two ratios, we have examined the individual components of current assets of RIL (Table 2). In sum, RIL has very satisfactory liquidity ratios, implying its ability to meet its short-term maturing obligations in time.

Table 1: Current Ratio and Acid-Test Ratio of RIL for the period, 2001-09

Year	*Current Ratio*	*Acid-Test Ratio (Quick Ratio)*
2001	1.85	0.87
2002	1.33	0.51
2003	0.99	0.20
2004	1.75	0.26
2005	1.66	0.55
2006	1.49	0.38
2007	1.15	0.34
2008	1.33	0.46
2009	2.18	1.17
Maximum	2.18	1.17
Minimum	0.99	0.20
Mean 2001-2009	1.52	0.52
Mean 2001-2004 (Phase 1)	1.48	0.46
Mean 2005-2009 (Phase 2)	1.56	0.58
't' statistic for the two phases under consideration (2001-2004 & 2005-2009)	.510	.227

To gain further understanding of the working capital management of RIL, and, to understand the reason for the difference between the current ratio and the acid-test ratio, we have studied the individual components of the current assets of RIL, viz., inventories, sundry debtors, cash and bank, and loans and advances. We have calculated the percentage share of each individual component in the total current asset value for each year of the time period under study (Table 2).

The percentage share of inventories in total current assets, has varied from a minimum of 23.21 percent to a maximum of 41.18 percent, during the period under reference; the percentage share of sundry debtors in total current assets has varied from a minimum of 8.35 percent to a maximum of 17.56 percent. Interestingly, the component of cash and bank balances has varied considerably from a minimum of 0.99 percent to 40.53 percent, in total current assets, during the same period. The component of loans and advances, in total current assets, has varied, from a minimum of 23.9 percent to 52.29 percent. It is seemingly evident, from the data tabulated below that the components of inventories and loans and advances occupy a significant portion of the current assets of RIL. This may then, perhaps, be the reason for the substantial difference in the current ratio and the acid-test ratio (Table 1).

The 't' statistic applied to all the percentage shares of the individual components of current assets vis-à-vis the total current assets of RIL indicates that the share of the components like inventories, sundry debtors, and cash and bank balances, have

remained stable, in terms of their percentage share allocation through the two phases in the period under study. The treatment of loans and advances, on the other hand, has shown statistically significant changes over the two phases under study. Even though the quantum of loans and advances has increased in phase 2 the percentage share allocation in the total current assets has actually decreased as implied by the 't' statistic.

Table 2: Individual Components of Current Assets as percentage of Total Current Assets of RIL, 2000-09

Year	*Inventories (Rs.in Crore)*	*Sundry Debtors (Rs. in Crore)*	*Cash & Bank (Rs. in Crore)*	*Loans & Advances (Rs. in Crore)*	*Total Current Assets (Rs. in Crore)*
2000	1,823.2 (23.21%)	842.46 (10.73%)	1,081.55 (13.77%)	4,106.74 (52.29%)	7,853.95 (100%)
2001	2,299.85 (35.62%)	1,134.17 (17.56%)	100.63 (1.56%)	2,922.58 (45.26%)	6,457.23 (100%)
2002	4,974.07 (25.57%)	2,722.46 (13.99%)	1,760.71 (9.05%)	9,993.42 (51.37%)	19,450.66 (100%)
2003	7,510.41 (33.59%)	2,998.11 (13.41%)	147.21 (0.66%)	11,701.39 (52.33%)	22,357.12 (100%)
2004	7,231.22 (31.84%)	3,189.93 (14.04%)	224.24 (0.99%)	12,064.38 (53.12%)	22,709.77 (100%)
2005	7,412.88 (26.05%)	3,927.81 (13.80%)	3,608.79 (12.68%)	13,503.03 (47.45%)	28,452.51 (100%)
2006	10,119.82 (41.18%)	4,163.62 (16.94%)	2,146.16 (8.73%)	8,144.85 (33.14%)	24,574.45 (100%)
2007	12,136.51 (40.57%)	3,732.42 (12.47%)	1,835.35 (6.13%)	12,209.07 (40.81%)	29,913.35 (100%)
2008	14,247.54 (33.2%)	6,227.58 (14.52%)	4,280.05 (9.98%)	18,130.67 (42.27%)	42,885.84 (100%)
2009	14,836.72 (27.1%)	4,571.38 (8.35%)	22,176.53 (40.53%)	13,127.64 (23.9%)	54,712.27 (100%)
Max (in terms of percentage component)	10,119.82 (41.18%)	1,134.17 (17.56%)	22,176.53 (40.53%)	4,106.74 (52.29%)	
Min (in terms of percentage component)	1,823.2 (23.21%)	4,571.38 (8.35%)	224.24 (0.99%)	13,127.64 (23.9%)	
Mean 2000-2009	8,259.22	3,350.99	3736.12	10,590.38	
Mean 2000-2004 (Phase 1)	4,767.75	2,177.43	662.87	8,157.70	
Mean 2005-2009 (Phase 2)	11,750.69	4,524.56	6,809.38	13,023.05	
't' statistic for the two phases under consideration (2001-2004 & 2005-2009)	-1.102	0.497	-1.360	3.220	

**The figures in brackets are the percentage equivalents of the component's share in the total current assets.

To investigate further into the working capital management of RIL and to understand the significance of the individual components of the current assets in the company's operations we have calculated the percentage component of each individual constituent of the current assets, vis-à-vis the sales for each year of the time period under study (Table 3).

The percentage share of inventories in sales turnover, has varied from a minimum of 9.92 percent to a maximum of 14.99 percent through the period under study. The percentage share of sundry debtors in sales, on the other hand, has varied from a minimum of 2.93 percent to a maximum of 6 percent, through the same period. The component of cash and bank balances has varied considerably, from a minimum of 0.29 percent to 14.24 percent, of sales during the same period. The component of loans and advances, has varied from a minimum of 8.43 percent to 23.35 percent of the sales. It is seemingly evident, from the relevant data that the component of sundry debtors occupies a rather insignificant part when compared to the sales turnover. This aspect is in line with the high debtors' turnover ratios exhibited by RIL (Table 5 in Section IV). Cash and bank balances also occupy a small share in the sales turnover of the company. These aspects may then perhaps be the reason behind the emergence of zero working capital in RIL.

The 't' statistic applied to all the percentage shares of the individual components of current assets of RIL vis-à-vis the sales indicates that the share of all the components like inventories, sundry debtors, cash and bank balances and loans and advances, has remained stable, in terms of their percentage share allocation through the two phases in the period under study.

Table 3: Individual Components of Current Assets as a percentage of Sales of RIL, 2001-09

Year	*Inventories (Rs.in Crore)*	*Sundry Debtors (Rs. in Crore)*	*Cash & Bank (Rs. in Crore)*	*Loans & Advances (Rs. in Crore)*	*Sales Turnover (Rs. in Crore)*
2001	2,299.85 (10.05%)	1,134.17 (4.96%)	100.63 (0.44%)	2,922.58 (12.77%)	22,886.51
2002	4,974.07 (10.95%)	2,722.46 (6.0%)	1,760.71 (3.88%)	9,993.42 (22.00%)	45,410.79
2003	7,510.41 (14.99%)	2,998.11 (5.98%)	147.21 (0.29%)	11,701.39 (23.35%)	50,108.09
2004	7,231.22 (12.81%)	3,189.93 (5.68%)	224.24 (0.40%)	12,064.38 (21.36%)	56,470.84
2005	7,412.88 (10.06%)	3,927.81 (5.32%)	3,608.79 (4.90%)	13,503.03 (18.32%)	73,710.46
2006	10,119.82 (11.13%)	4,163.62 (4.58%)	2,146.16 (2.36%)	8,144.85 (8.96%)	90,937.94
2007	12,136.51 (10.08%)	3,732.42 (3.10%)	1,835.35 (1.52%)	12,209.07 (10.14%)	1,20,431.1

Year	*Inventories (Rs.in Crore)*	*Sundry Debtors (Rs. in Crore)*	*Cash & Bank (Rs. in Crore)*	*Loans & Advances (Rs. in Crore)*	*Sales Turnover (Rs. in Crore)*
2008	14,247.54 (9.96%)	6,227.58 (4.35%)	4,280.05 (2.99%)	18,130.67 (12.68%)	1,43,004.98
2009	14,836.72 (9.92%)	4,571.38 (2.93%)	22,176.53 (14.24%)	13,127.64 (8.43%)	1,55,788.51
Maximum	7,510.41 (14.99%)	2,722.46 (6.0%)	22,176.53 (14.24%)	11,701.39 (23.35%)	
Minimum	14,836.72 (9.92%)	4,571.38 (2.93%)	147.21 (0.29%)	13,127.64 (8.43%)	
Mean 2001-2009	8,974.34	3,629.72	4,031.07	11,310.78	
Mean 2001-2004	5,503.89	2,511.17	558.20	9,170.44	
Mean 2005-2009	11,750.69	4,524.56	6,809.38	13,023.05	
't' statistic for the two phases under consideration (2001-2004 & 2005-2009)	1.548	1.989	-1.343	1.642	

**The figures in brackets are the percentage equivalents of the component's share in the sales turnover.

Section IV

Zero Working Capital (ZWC)

It may be recapitulated that zero working capital (ZWC) implies inventories + accounts receivables – payables (Brigham and Houston, 2009). In other words, we only consider the average inventories, average receivables and average payables as they form, in general, major part of operational cash flows dealing with working capital that a corporate can manage through its operational strategies on inventory management, receivables management and credit management.

The benefits of following the concept of zero working capital are manifold. The permanent reduction in working capital may result in less financial costs. It could perhaps motivate the companies to produce and deliver faster and could be helpful in gaining further business. It may lead to another set of savings in operating costs through lower inventories, storage costs and losses due to obsolete inventories. (Brigham and Houston, 2009)

The operating cash cycle for understanding the concept of zero working capital would be expressed through the fraction of annual sales in receivables plus the fraction of annual cost of goods sold in inventory minus the fraction of annual cost of goods sold in payables (Ross et al., 1993). The rationale is that inventories and receivables are the major constituents of current assets which affect sales. Further, suppliers finance inventories through accounts payable. Companies that have this figure, close to zero or even negative, can be called just-in-time companies in terms

of managing working capital.

We have then computed the net working capital arising out of the operating cycle as follows:

(i) Net Working Capital (NWC_{IRP}) = (Inventories+Receivables) – Payables.

To understand the concept of zero working capital in its entirety, for the second part of our computations, we have also calculated the operating cycle current ratio (OCCR) as follows:

(ii) Operating Cycle Current Ratio (OCCR) = (Inventories + Receivables) / Payables.

For the purpose of our analysis, all these aspects have been shown in Table 4.

Table 4: Zero Working Capital (ZWC) and the Operating Cycle Current Ratio (OCCR), of RIL, 2000-09

Year	*Major Operating Cycle Current Assets*		*Total Total Operational Current Assets (Inventories + Debtors) = (A) (Rs. in Crore)*	*Net Working Payables = (B) (Rs. in Crore)*	*Operating Capital (NWC_{IRP}) = (A-B) (Rs. in Crore)*	*Cycle Current Ratio (OCCR) = (A/B)*
	Inventories (Rs. in Crore)	*Debtors (Rs. in Crore)*				
2000	1,823.2	842.46	2,665.66	3,215.38	-549.72	0.82
2001	2,299.85	1,134.17	3,434.02	4,110.80	-676.78	0.83
2002	4,974.07	2,722.46	7,696.53	6,472.29	1,224.24	1.18
2003	7,510.41	2,998.11	10,508.52	9,490.89	1,017.63	1.10
2004	7,231.22	3,189.93	10,421.15	10,284.47	136.68	1.01
2005	7,412.88	3,927.81	11,340.69	13,659.72	-2,319.03	0.83
2006	10,119.82	4,163.62	14,283.44	12,563.50	1,719.94	1.13
2007	12,136.51	3,732.42	15,868.93	16,865.53	-996.60	0.94
2008	14,247.54	6,227.58	20,475.12	21,045.47	-570.34	0.97
2009	14,836.72	4,571.38	19,408.10	32,689.58	-13,281.48	0.59

It is interesting to note that RIL's working capital management does show the concept of zero working capital being followed as the net working capital (NWC_{IRP}) figures are really low; they are even negative in six out of the ten years under observation. RIL's debtors' collection period is significantly shorter than its creditors' payment period. This may be attributed to the goodwill of the company and it could enable the company enough scope to manage its working capital needs from these operating cash flows. Also, more importantly and significantly, the operating cycle current ratio (OCCR) is very close to one in all but one year indicating that the company does make a conscious effort to meet its working capital needs through its suppliers.

To further understand, the zero working capital concept, we have studied current assets' utilization ratios of RIL and examined the changes in approach followed by the company over the years 2002-09.

For this purpose, we have evaluated the following ratios:

i. **Debtors' turnover ratio:** It indicates the velocity of debt collection of a firm. In simple words, it indicates the number of times average debtors (receivables) are turned over during a year. The two basic components of accounts receivable turnover ratio are net credit annual sales and average trade debtors. The trade debtors for the purpose of this ratio include the amount of trade debtors and bills receivables. The average receivables are found by adding the opening receivables and closing balance of receivables and dividing the total by two. It should be noted that provision for bad and doubtful debts should not be deducted since this may give an impression that some amount of receivables has been collected.

   Debtors/receivables represent an important component of current assets among all business corporate enterprises as credit sales form an essential part of the modern competitive economic system. In fact, credit sales and therefore, receivables are treated as a marketing tool to promote sales and thereby profits. However, extension of credit involves both risk and cost. The management, therefore, should weigh both costs and benefits of granting/extending credit as per risk-return tradeoff approach.

ii. **Creditors' turnover ratio:** It signifies the credit period enjoyed by the firm in paying creditors. Accounts payable include both sundry creditors and bills payable. Like debtors' turnover ratio, creditors' turnover ratio can be calculated as credit purchases / average trade creditors. Creditors/trade credit forms the major component of current liabilities which, in turn, are important constituents of working capital management. Trade credit has an impact on the working capital cycle. As a result of credit purchases of inventories, the gross working capital cycle period referred to as net working capital cycle gets reduced.

iii. **Inventory turnover ratio:** A ratio showing how many times a company's inventory is sold and replaced over a period. It is calculated by dividing cost of goods sold by average inventory during the year.

   The objective of inventory management consists of two counter-balancing parts, namely, minimizing investments in inventory (with a view to reducing its carrying costs) and meeting demand for products by efficient production and sales operations (to minimize stock-out costs). In operational terms, its goal is to have a trade-off between costs and benefits associated with holding of inventory.

   A high inventory turnover ratio denotes significant improvement in facilities and means of communication, improved manufacturing practices and improved logistics and distribution, thereby making the firms/products more competitive.

   For the purpose of our analysis, all these ratios have been tabulated in Table 5.

Table 5: Inventory Turnover, Debtors' Turnover, Creditors' Turnover Ratios of RIL, Industry Average of Inventory Turnover and Debtors' Turnover Ratio, 2002-09

Year	*Inventory Turnover Ratio*	*Debtors' Turnover Ratio*	*Creditors' Turnover Ratio*	*Industry's Inventory Turnover Ratio*	*Industry's Debtors' Turnover Ratio*
2002	12.48 (29 days)	23.55 (15 days)	9 (41 days)	10.46 (35 days)	29.51 (12.37 days)
2003	8.03 (45 days)	17.51 (21 days)	8 (46 days)	9.65 (38 days)	30.44 (11.99 days)
2004	7.63 (48 days)	18.18 (20 days)	6.40 (57 days)	10.17 (36 days)	31.65 (11.53 days)
2005	9.99 (37 days)	20.56 (18 days)	6.08 (60 days)	9.82 (37 days)	32.44 (11.25 days)
2006	10.17 (36 days)	22.03 (17 days)	5.40 (68 days)	10.45 (35 days)	38.68 (9.44 days)
2007	10.64 (34 days)	29.98 (12 days)	5.52 (66 days)	9.89 (37 days)	38.18 (9.56 days)
2008	10.56 (35 days)	27.97 (13 days)	5.41 (67 days)	12.04 (30 days)	44.54 (8.19 days)
2009	10.06 (36 days)	27.10 (13 days)	3.90 (94 days)	10.06 (36 days)	32.91 (11.09 days)
Minimum	7.63 (48 days)	17.51 (21 days)	3.90 (94 days)	9.65 (38 days)	29.51 (12.37 days)
Maximum	12.48 (29 days)	29.98 (12 days)	9 (41 days)	12.04 (30 days)	44.54 (8.19 days)
Mean 2002-2009	9.95 (37 days)	23.36 (15.62 days)	6.21 (59 days)	10.03 (36 days)	31.01 (11.77 days)
Mean 2002-2005	9.53 (38.30 days)	19.95 (18.30 days)	7.37 (49.53 days)	10.61 (34.40 days)	38.58 (9.46 days)
Mean 2006-2009	10.36 (35.23 days)	26.77 (13.63 days)	5.05 (72.28 days)	12.04 (30.32 days)	44.54 (8.19 days)
't' statistic for the two phases under consideration (2002-2005 & 2006-2009)	-0.6733	-2.2487	-2.4788		

** The figures in brackets are the equivalents of the ratios in days, for easy interpretation.

From Table 5, we can see that the inventory turnover ratio has been the same throughout the period of study, 2002-2009. It is also nearly the same as industry standard, and has increased marginally after the demerger; showing little or no effect on increasing efficiency of converting inventories into raw materials. Also, it can be seen from Table 5, that debtors have enjoyed good terms with RIL since they

are given more time (15.87 days) to repay debt than industry average (11.77 days). Thus, the company has encouraged people to do business with it by selling goods on credit. The point to be noted is that after the demerger there has been a lot of change in company's policy, and it has followed stricter norms regarding debtors. This, however, has been an industry-wide trend in that period, 2006-2009. The creditors' turnover ratio has fallen over the years, from 5.12 in 2002 to 3.98 in 2009. Perhaps being a bulk buyer RIL enjoys higher credit payment period from its suppliers. It can be inferred that the company enjoys a good reputation amongst both debtors and creditors.

The findings of the 't' test conducted on the three computed ratios for the two phases under consideration, viz., 2002-2005 and 2006-2009 indicate that there are no significant changes in the ratios over the two phases under analysis.

Comparison of creditors' payment period and debtors' collection period is favourable for RIL; creditors' payment period is, on an average, almost four times that of the debtors' collection period. In concrete numbers, the average debtors' collection period is 15.62 days and average creditors' payment period is 59 days, for the period under study. It is useful to mention that this favourable alignment is not at the cost of tight credit terms offered by RIL in fact, the credit period offered by RIL to its debtors is better than the industry average.

Section V

Concluding Observations

From the working capital management analysis covered in this paper, it can reasonably be concluded that RIL has been working with the concept of zero working capital, and has effectively managed its working capital requirements for meeting creditors' payments from cash flows generated internally, through the major current assets of inventories and debtors. This is a significant finding, as it provides a useful insight into the recent trends in working capital management in the largest corporate entity of India.

RIL has maintained satisfactory liquidity ratios and, at the same time, the components of current assets have not occupied substantial share, vis-à-vis, its total sales. This may be an indication of its efficiency in managing its working capital.

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