Analysis of Working Capital Efficiency in Cipla Ltd.

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Abstract

Decisions relating to working capital involve managing relationships between a firm's short-term assets and liabilities to ensure a firm is able to continue its operations, and have sufficient cash flows to satisfy both maturing short-term debts and upcoming operational expenses at minimal costs, increasing firm's profitability.

The working capital very much associate with the operating cycle. A perusal of the operating cycle good reveal that funds invested in the operation are recycled back in to cash. The shorter the period of operating cycle the larger will be the turnover of the funds invested in various purposes. The shorter period of operating cycle shows better efficiency of a firm.

The efficiency of working capital management can be determined by the operating cycle of the firm. This paper aims at analyzing the efficiency of working capital management through the relationship between operating cycle period and profitability of Cipla Ltd.

To measure the Working Capital Management Efficiency, Operating cycle has been calculated and the relationship is made with Gross Profit Ratio.

Key Words: Working Capital, Operating Cycle, Profitability, Operating Profit

I. Introduction

A managerial accounting strategy focusing on maintaining efficient levels of both components of working capital, current assets and current liabilities, in respect to each other. Working capital management ensures a company has sufficient cash flow in order to meet its short-term debt obligations and operating expenses.

An effective working capital management system is an excellent way for many companies to improve their earnings. The two main aspects of working capital management are ratio analysis and management of individual components of working capital.

A few key performance ratios of a working capital management system are the working capital ratio, inventory turnover, current ratio, liquidity ratio, cash ratio and the collection ratio. Ratio analysis will lead management to identify areas of focus such as inventory management, cash management, accounts receivable and payable management.

II. Cipla Company Ltd– An Overview

In 1935, The Chemical, Industrial & Pharmaceutical Laboratories was set up, which came to be popularly known as Cipla. It was officially opened on September 22, 1937 when the first products were ready for the market. It is led by Dr. Yusuf K. Hamied, Chairman and Managing Director Cipla Ltd.

The company offers various drugs and healthcare products. It manufactures and sells various OTC products, prescription products, flavors and fragrances, pesticides, and animal products. They are offered in the form of tablets, capsules, injection, suspension, syrup, and tablet disp. The company exports its products to 180 countries across the

globe. The company's products are certified by various recognized regulatory authorities namely Food and Drug Administration (FDA), USA; Medicines and Healthcare products Regulatory Agency (MHRA), UK and so on. It operates manufacturing facilities and R&D centers located across India. The company is headquartered in Mumbai, Maharashtra, India.

III. Objectives of the Study

The main objective of the study is to examine the efficiency of working capital in Cipla Ltd. The specific objectives of this study are as follows:

1. To analyse the efficiency of working capital management in the profitability of Cipla.
2. Analysis of liquidity position of the company.
3. To analyse the turnover of components of working capital of Cipla and its effect on profitability.

IV. Data & Methodology

In order to achieve the objectives of study secondary data has been used. The data required for this study has been extracted from annual reports of Cipla Ltd. Data stretches over a period of 12 years starting from the year 2002 to 2013.

The collected data has been arranged in the form of tables so that meaningful inferences could be drawn. The analysis is carried out by making use of various financial ratios, simple statistical tools including graphs, correlation and multiple regression analysis.

V. Working Capital Efficiency on Profitability

From Table 1, it is depicted that Working Capital Cycle Period has increased by 56 days during the study period from 212 days (Year-2002) to 290 days (Year-2013). Working

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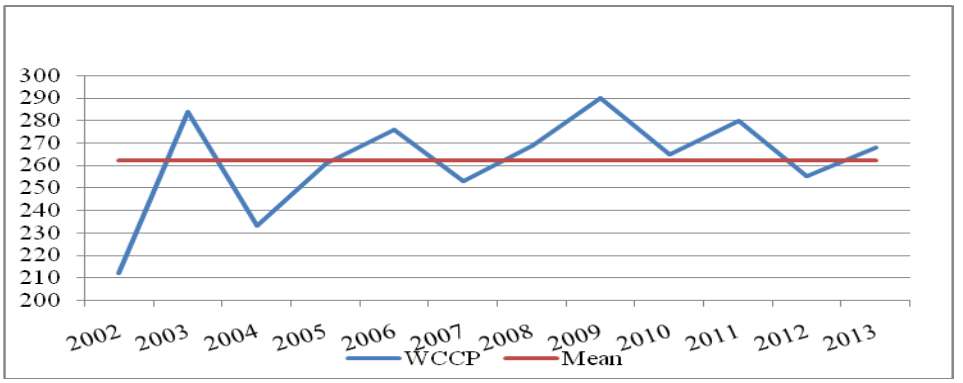
Capital Cycle Period was moving between 212 days to 290 days throughout the study period. On an average Working Capital Cycle Period is 262 days and very fluctuating throughout the study period.

Table 1: Efficiency of Working Capital Management

Year	Working Capital Cycle Period (in days)	Gross Profit ratio (%)
2002	212	22
2003	284	20
2004	233	19
2005	261	21
2006	276	22
2007	253	21
2008	269	19
2009	290	17
2010	265	23
2011	280	18
2012	255	20
2013	268	24
Average	262	21

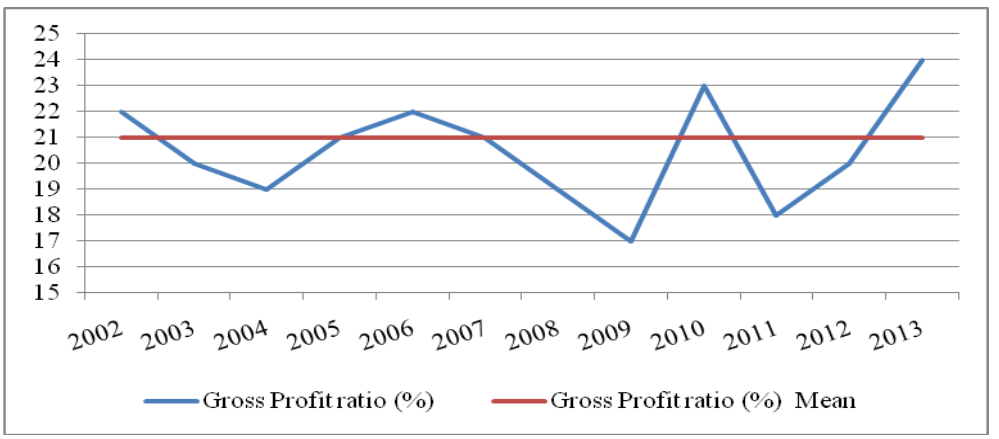
Trend and Mean deviation of Working Capital Cycle Period are shown in Figure 1. Closest WCCP with the mean is in year 2005 at 261 days, in spite of that WCCP is much fluctuating from starting three years. But after 2004 its movement is closer to mean of WCCP throughout the study period.

Figure 1: Trend of WCCP



Trend of profitability (Gross Profit Ratio) is quite similar to Working Capital Cycle Period but its movement is in opposite direction in most of the years during study period. Gross Profit Ratio is moving around 21% during the study period. Gross Profit ratio has shown a sustained profitability level in the company as it is closer to the mean of gross profit ratio.

Figure 2: Trend of GPR



VI. Effect of Working Capital Efficiency on Profitability

To determine the relationship and effectiveness of **Working Capital Efficiency on Profitability**, two variables have been taken, i.e. Profitability (Gross Profit Ratio-GPR)

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as Dependent Variables and Working Capital Cycle Period (WCCP) as Independent Variable. The equation to estimate effect of working capital efficiency on profitability is as under:

$$GPR = \alpha + \beta\ (WCCP\ ) + u_t$$

α = Exponential of the estimated value of intercept in equation

β = Estimated value of coefficient in equation

u_t = Error term

Table 2: Regression Analysis

	Coefficients	**t Stat**	**P-value**
Intercept	28.09841	3.807044	0.003446
WCCP	- 0.02897	- 1.03229	0.326254
R Square		0.096301	
Correlation		- 0.31032	
Standard Error		2.053685	

Table 2 shows the regression and correlation result through which effects of working capital efficiency on profitability has been analyzed. The correlation between WCCP & GP is negative at moderate level of 0.31. Value of regression coefficient shows that one unit change in WCCP reduces profitability by just 0.029 units, which shows insignificant result at 5% level. The independent variable explains only 10% (approx.) variation.

VII. Liquidity Position of Cipla Ltd.

Before analyzing the effectiveness of liquidity of company on profitability, liquidity of the company should be discussed first. The important liquidity ratios, viz. current ratio, liquid ratio and cash ratio have been used to examine the liquidity position of Cipla Ltd.

The current ratio as appeared in table 3, has moved between 2.11 to 4.43. On an average current ratio of the company is 2.95:1, which is higher than its standard of 2:1. This result shows that for every Rupee of current liability, there are current assets of Rs.2.95 available in the company.

Liquid ratio of the company is always more than one, as its standard is 1:1; company always maintains the average availability of liquid assets of Rs.1.86 as against current liabilities of Re.1.00.

On the basis of CR and LR, liquidity position of Cipla Ltd. is satisfactory. But when we see the cash ratio it is found that company has maintained low cash balance. On an average only Re.0.03 is available as compared to current liabilities of Re.1.00. Return on investment has reduced during the study period from 32% to 20%.

Table 3: Liquidity Position and Profitability of Cipla Ltd.

Year	CR	LR	C-R	ROI
2002	2.16	1.28	0.03	0.32
2003	2.16	1.18	0.02	0.26
2004	2.11	1.28	0.01	0.26
2005	2.25	1.29	0.02	0.28
2006	2.52	1.47	0.03	0.28
2007	3.01	1.97	0.07	0.23
2008	2.91	2.04	0.03	0.19
2009	3.15	2.15	0.02	0.17

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2010	3.58	2.34	0.02	0.22
2011	4.09	2.46	0.03	0.16
2012	4.43	2.84	0.02	0.18
2013	3.02	1.98	0.02	0.20
Average	2.95	1.86	0.03	0.23

VIII. Effect of Liquidity on Profitability

In the judgment of liquidity position and its impact on profitability, ROI (Return on Investment) ratio has been taken as Dependent Variables and CR (Current Ratio), LR (Liquid Ratio) and C-R (Cash Ratio) are taken as independent variables.

The equation to estimate effect of liquidity on profitability is as under:

$$GPR=\alpha + \beta_1 (CR) + \beta_2 (LR) + \beta_3 (C\text{-}R) + u_t$$

α = Exponential of the estimated value of intercept in equation

β_1 , β_2 and β_3= Estimated value of coefficient in equation

u_t = Error term

Table 4: Correlation

	ROI	**CR**	**LR**	**C-R**
ROI	1			
CR	- 0.80	1		
LR	- 0.84	0.98	1	
C-R	- 0.01	0.10	0.13	1

Table 4 depicts the coefficient of correlation between ROI and all independent variables. All independent variables are negatively correlated with profitability ratio. The correlation between ROI and CR is high degree of negative correlation at 0.80, ROI and

LR is high degree of negative at 0.84 and ROI & C-R is low degree of negative correlation at 0.01.

Table 5: Regression Analysis

	Coefficients	t Stat	P-value
Intercept	0.34927	8.297203	3.36E-05
CR	0.046312	0.8172	0.437472
LR	- 0.1442	- 1.80529	0.10867
C-R	0.397897	0.673638	0.519526
R Square			0.742374
Adjusted R Square			0.645764
Standard Error			0.03072

Table 5 shows the regression results showing effects of liquidity of Cipla Ltd. on profitability. The result shows insignificant effect of liquidity on profitability at 5% significance level. One unit change in current ratio increases profitability by just 0.046 unit, which is statistically not significant. For a unit increase in liquid ratio liquid ratio, profitability decreases by 0.144 unit. One unit increase in cash ratio increases profitability by 0.39 units. The independent variables explain 74 percent variation in the profitability.

IX. Turnover of Working Capital Components and Profitability

Table 6 shows the turnover of working capital component and profitability of Cipla Ltd. Turnover of Inventory (ITR) and Receivables turnover ratio (RTR) have registered slight increasing trend during the years. The average inventory ratio of the company is 3.57 times and Receivables turnover ratio is 4.13 times. Cash turnover ratio (CTR) has fluctuated between 1.26 times to 1.72 times. Operating profit ratio (OPR) is fluctuating around 0.21 times and become 0.24 times in 2013 from 0.22 times of 2002.

Table 6: Turnover of Working Capital Components and Profitability of Cipla Ltd.

Year	ITR	RTR	CTR	OPR
2002	3.61	5.61	1.72	0.22
2003	2.71	4.50	1.28	0.20
2004	3.68	4.20	1.57	0.19
2005	3.33	4.23	1.40	0.21
2006	3.35	3.66	1.32	0.22
2007	3.85	3.66	1.44	0.21
2008	3.87	3.08	1.36	0.19
2009	3.80	2.87	1.26	0.17
2010	3.78	3.65	1.38	0.23
2011	3.41	4.31	1.30	0.18
2012	3.91	4.69	1.43	0.20
2013	3.60	5.12	1.36	0.24
Average	3.57	4.13	1.40	0.21

X. Effect of Turnover of Working Capital Components on Profitability

The effect of turnover of working capital component on profitability of Cipla Ltd. is shown in table 7 and table 8. To determine the impact on profitability Operating Profit Ratio (OPR) is taken as Dependent Variables and; Inventory Turnover Ratio (ITR),

Receivables Turnover Ratio (RTR) and Cash Turnover Ratio (CTR) are used as Independent Variable.

The equation to estimate effect of liquidity on profitability is as under:

$$GPR=\alpha + \beta_1 (ITR) + \beta_2 (RTR) + \beta_3 (CTR) + u_t$$

α = Exponential of the estimated value of intercept in equation

β_1 , β_2 and β_3= Estimated value of coefficient in equation

u_t = Error term

Table 7: Correlation

	ITR	RTR	CTR	OPR
ITR	1			
RTR	-0.27901	1		
CTR	0.274315	0.57814	1	
OPR	0.038727	0.389053	0.273668	1

The coefficient of correlation between turnover ratios of component of working capital and profitability was shown in table 7. The coefficient of correlation between Inventory Turnover Ratio and Operating Profit Ratio is low degree of positive correlation at 0.038. Receivables turnover ratio and operating profit ratio is positively correlated at 0.389 of moderate level. Similarly, cash turnover ratio is also positively correlated at moderate level of 0.273.

Table 8: Regression Analysis

	Coefficients	t Stat	P-value
Intercept	0.126028	1.367933	0.20852
ITR	0.011052	0.450381	0.664391
RTR	0.011998	0.982787	0.354497
CTR	-0.00717	-0.0957	0.92611

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R Square	0.175828
Standard Error	0.021927

On the basis of regression analysis shown in exhibit 8, no independent variable is significant at 5% level. One unit change in ITR and RTR change profitability by just 0.011 unit in positive direction. One unit change in CTR changes profitability in opposite direction. The independent variables explain only 17 percent variations in profitability. The regression result is not satisfactory.

XI. Conclusion

Working capital management of Cipla is not effective as it fails in increasing profitability. Working capital cycle period is much fluctuating. Though, Liquidity position is good but surplus amount is involved to finance working capital. Company ignores the motives of holding cash. Turnover ratios are not much effective. The overall correlation and regression results are not satisfactory, which shows that working capital management of Cipla Ltd. is not effective to increase its level of profitability at different basis. It is hence suggested to Cipla Ltd. to control the length of the operating cycle so that company can increase its working capital efficiency. Company should ignore the excess finance in current assets so that their efficiency can be increased. Company should focus on proper management of its liquidity to increase the profitability.

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