

WORKING CAPITAL MANAGEMENT AND ITS EFFECTIVENESS ON THE PROFITABILITY OF CIPLA LTD. COMPANY

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Abstract - For a successful working of a business organization fixed and current assets play a vital role. Management of working capital is essential as it has direct impact on profitability and liquidity. An attempt has been made in this paper to study the working capital components and impact of working capital management on profitability of Cipla Ltd. The paper also makes an attempt to study the correlation between liquidity and profitability (PBT) of Cipla Ltd. The study is based on secondary data collected from annual reports of Cipla Ltd. for the study period 2002 to 2011. Ratio analysis and percentage method and co-efficient of correlation have been used to analyze the data. Multiple regressions were used to check the significant impact on the profitability of Cipla Ltd.

Keywords - Working Capital Management, Profitability, Business Organisation, Current Assets, Capital Component.

INTRODUCTION

A successful commercial organization needs two types of assets, viz., fixed assets: land, building, plant, machinery, furniture etc. these are not purchased for the purpose of sale but for the purpose of earning profit for many year and second is current assets i.e. raw materials, work-in-progress, finished goods, sundry debtors, bills receivables, cash, bank balance etc. these assets are purchased for the purpose of production and sales, like raw material into semi finished products, semi finished products into finished products, finished products into debtors and debtors transferred into cash or bills receivables.

The fixed assets are used in increasing production of an organization and current assets are used in using the more fixed assets and day to day working. The management of this working capital is known as working capital management. The term working capital refers to the amount of

capital which is readily available to an organization. Management of working capital deals with the problems that arise in managing the current assets, the current liabilities and inter-relationship that exists between them. It should neither be inadequate nor excessive.

Working capital is an important part of finance having a decisive influence on the liquidity, which is regarded as the lifeblood of a business plays a pivotal role in keeping the wheels of a business. Working capital management has always been a fascinating subject from the academic point of view and it must be admitted that in the real world situation also, efficiency with which working capital is managed in a concern is of great significance for its overall well being - its growth and decline.

OBJECTIVE OF THE STUDY

In this study an attempt has been made to analyze the size and composition of working

capital and whether such an investment has increased or declined over a period of time. After determining the requirements of current assets, one of the important tasks of the financial manager is to select an assortment of appropriate sources of finance for the current assets. Normally, the surplus of current assets to current liabilities should be financed by long - term sources. Precisely it is not possible to find out which long term source has been used to finance current assets, but it can be examined as to what proportion of current assets has been financed by long - term funds. Therefore, an attempt has been made in this regard.

In working capital analysis, the direction of change over a period of time is of crucial importance. Not only that, analysis of working capital trends provides a base to judge whether the practice and prevailing policy of the management with regard to working capital is good enough or an improvement is to be made in managing the working capital funds.

Hence in this study, an attempt is made about the trend of the working capital management of the selected enterprise. In addition, to have higher profitability, the firms may sacrifice solvency and maintained a relatively low level of current assets. When the firms do so, their profitability will improve as less funds are tied up in the idle current assets, but their solvency will be threatened. Hence, an attempt is made to study the association of profitability with the working capital ratios.

With this end in view, an effort has been made in this article to make an in depth study Cipla Ltd., in respect of its performance and its working capital management. The findings of this study not only throw light on technical weakness in the managerial activities of the companies, but may also help scholars and researchers to develop new ideas, techniques and methods in respect of the management of working capital.

COLLECTION OF DATA AND METHODOLOGY

This study is based on secondary data. The data required for this study have been extracted from the annual reports Cipla Ltd.. The study covered a period of fourteen years starting from 2001 - 2002 to 2010 - 2011. The study covers mainly the following aspects of working capital analysis (i) Component of Working Capital, (ii) Financing of Working Capital, (iii) Trends of Working Capital and (iv) Working Capital Impact on Profitability. Statistical techniques namely co - efficient of correlation and multiple regression are used for analyzing the data.

In this study, for the purpose of establishing definite relationships between working capital ratios and profitability ratio, correlation analysis has been applied. It implies interdependence of the set of variables. Further, in order to identify the influence of profitability, a linear multiple regression models were used. In the analysis, working capital ratios viz. CR, LR, WTR, ITR, RTR and WC/TA are taken as the independent variables Profit before Tax (PBT) to total assets ratios are used as dependent variable.

The used multiple regression equation is:

$$PBT/TA = a + b_1 CR + b_2 LR + b_3 WTR + b_4 ITR + b_5 RTR + b_6 TC \text{ in } S + b_7 WC/TA + e$$

Where, a, b₁, b₂, b₃, b₄, b₅, b₆ and b₇ are parameters to be estimated.

ANALYSIS OF THE FINDINGS OF THE STUDY

1. *Working Capital Analysis:* Table 1 shows that overall gross working capital has increased from Rs 9682.30 million in 2001-2002 to 47335.70 million in 2010-2011 which was also highest in the 10 yrs period. Gross working capital also includes cash, which was nearly 1.161% of gross working capital

in the year 2001-2002 had increased to 1.777 % in the year 2010-2011.

Table 1. Showing increasing trend of current liabilities in total current liabilities

Years	Inventory	Debtors	Cash	Other C. A.	Loans & Advances	Gross W.C.	Current Liabilities	Provisions	Total Current Liabilities	Net W.C.
2002	3962.82	2547.05	155.74	34.92	2991.77	9923	2469.99	2030.87	4500.86	5181.44
	41.93	26.31	1.61	0.36	30.80	100.00	34.88	45.12	100.00	
2003	5892.38	3553.66	131.16	25.4	3308.39	12310.99	3589.71	2376.46	5966.17	6944.82
	45.64	27.52	1.02	0.20	25.62	100.00	60.17	39.83	100.00	
2004	5689.42	4982.27	62.44	209.07	3419.1	14362.3	3753.53	3042.36	6795.89	7566.41
	39.61	34.69	0.43	1.46	23.81	100.00	55.23	44.77	100.00	
2005	7456.79	5873.23	153.8	135.17	3909.9	17528.89	4944.54	2839.85	7784.39	9744.5
	42.54	33.51	0.88	0.77	22.31	100.00	63.52	36.48	100.00	
2006	9570	8759.6	444.8	133.5	4015	22922.9	6359.00	2723.10	9082.10	13840.8
	41.75	38.21	1.94	0.58	17.52	100.00	70.02	29.98	100.00	
2007	9786	10287.8	131.4.9	248.3	6709.8	28346.8	5311.30	4101.30	9412.60	18934.2
	34.52	36.29	4.64	0.88	23.67	100.00	56.43	43.57	100.00	
2008	11204.9	13939.1	792.8	344.9	11158.1	37439.8	8709.80	4168.10	12877.90	24561.9
	29.93	37.23	2.12	0.92	29.80	100.00	67.63	32.37	100.00	
2009	13983.2	18371.5	530	234.5	11076.5	44195.7	10128.50	3917.10	14045.60	30150.1
	31.64	41.57	1.20	0.53	25.06	100.00	72.11	27.89	100.00	
2010	15125.8	15527.1	608.4	47	12215.9	43524.2	9982.50	2163.70	12146.20	31378
	34.75	35.67	1.40	0.11	28.07	100.00	82.19	17.81	100.00	
2011	18831.6	14970.4	841.3	3.6	12688.8	47335.7	9382.70	2198.80	11581.50	35754.2
	39.78	31.63	1.78	0.01	26.81	100.00	81.01	18.99	100.00	
Average	1015.0291	9881.171	503.534	141.636	7148.326	27824.958	6463.16	2956.16	9419.327	18405.637
	3.65	35.51	1.81	0.51	25.69	100.00	68.62	31.38	100.00	

This shows that cash had become one of the major components in gross working capital. As far as debtors are concerned it held 26.31% share in 2001-2002 which gradually increased to 41.51% in the year 2008-2009, with the all time low at 875.96 million in the year 2005-2006. Overall inventory had an average of 40.14% share in gross working capital. Debtors and Loans & advances were

the second and third biggest contributors to gross working capital with its average share of 32.71 % and 25.25 respectively. Taking Total current liabilities we see that it was all time high in the year 2009 with Rs. 10128.5 millions. In Cipla Ltd. total current liabilities is composed of current liabilities and provision. Current liabilities had an average share of 68.62% and provisions had an

average share of 31.38%. The variation of contribution of current liabilities had been ranging from 54.88% to 82.19% this shows increasing trend of current liabilities in Total Current Liabilities. Net working capital had

an average of Rs. 18405.637 millions. Overall it had positive net working capital. Net working capital was lowest in the year 2001-2002 with Rs 5181.44 millions and highest in the year 2010-2011 with Rs 35754.2 millions.

2. Financing of working Capital

Table 2. Financing of working Capital (Rs. In millions)

Year	Gross Working Capital	Sources of working capital		Total Long Term fund	% of L.T. used for working capital
		L.T	S.T		
2002	9682.3	5181.44	4500.86	9240.25	56.07
2003	12910.99	6944.82	5966.17	11648.62	59.62
2004	14362.3	7566.41	6795.89	15405.82	49.11
2005	17528.89	9744.5	7784.39	18376.26	53.03
2006	22922.9	13840.8	9082.1	25501.3	54.27
2007	28346.8	18934.2	9412.6	34724.8	54.53
2008	37439.8	24561.9	12877.9	44454.2	55.25
2009	44195.7	30150.1	14045.6	54551.4	55.27
2010	43524.2	31378	12146.2	60947.9	51.48
2011	47335.7	35754.2	11581.5	74511.4	47.98

To meet the financial requirement, an enterprise has various sources to finance its current assets like short term financing and long term financing. From the table 2 it is revealed that long term financing is contributing between zero to 59.62%. In the years 2004, and 2011 its share was below 50% but in year 2002-2003 it reached to the highest point i.e contributing almost 59.62%. The trend of last five year shows that this source of financing is gaining importance.

3. Working Capital Trend: Improving working capital management; whether it is effective or not and to make a judgment of policies or practices in an enterprise trend of working capital provides a good base for judgments. In table 3 trend of working capital of Cipla Ltd. is shown. It is revealed from the table that Cipla Ltd. working capital had a fluctuating trend. After little growth in the second last year of study period it had decreasing trend but after 2010 the net working capital increased sharply from Rs 43524.2 millions in 2010 to Rs 47335.7 millions in 2011. The linear least square

trend values of working capital in Cipla Ltd. are shown in table: 3. The yearly increase in working capital comes to Rs 4651.5 millions. Figure 1 shows the original and the trend value in which net working capital reached to all time high to Rs 47335.7 millions in the year 2011.

Table 3 Working Capital Trend Rs. Millions

Years	Original Working Capital	Trend Value
2002	9682.3	6893.23
2003	12910.99	11544.72
2004	14362.3	16196.22
2005	17528.89	20847.72
2006	22922.9	25499.21
2007	28346.8	30150.71
2008	37439.8	34802.2
2009	44195.7	39453.7
2010	43524.2	44105.19
2011	47335.7	48756.69

Source: Computed from Cipla Ltd. Annual Report

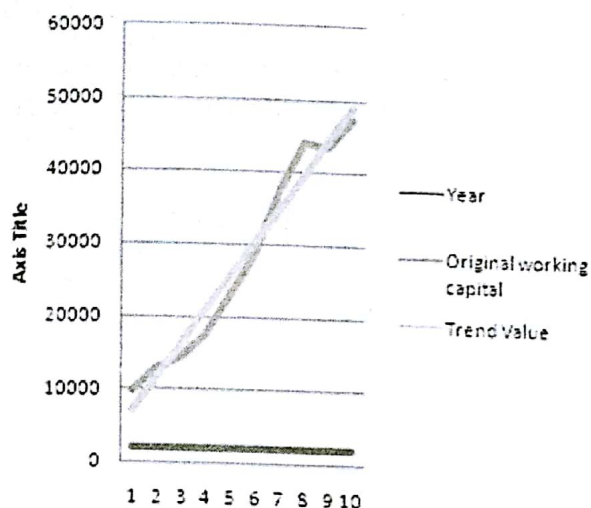


Figure 1. Working Capital Trend

4. *Effectiveness of working capital on profitability:* The average cash turnover ratio of 107.826 shows that company has adequate cash balance in company.

Inventory turnover ratio shows a good rotation of inventory in the company. In this sequence company improved its conversion of receivables so quickly in the last five years, which shows that company receives its cash from its debtors so quickly. In case of working capital turnover ratio, the result shows that company large amount of short time liabilities against the current assets which affects the working capital turnover ratio at low level. The current ratio is fluctuating during the study period and average shows the ideal position but liquid ratio up to the standard position. In the total assets, working capital keeps an adequate portion. Return on capital employed depicts the increasing trend that is very good sign for company to show the efficient use of capital in raising the profit.

Table 4. Liquidity Ratios and Profitability Ratio

Year	CTR	ITR	RTR	WTR	CR	LR	WC/TA	ROCE
2002	88.984	3.497	5.441	1.431	2.151	1.271	1.005	0.602
2003	118.160	2.630	4.361	1.200	2.164	1.176	1.057	0.546
2004	316.245	3.471	3.963	1.375	2.113	1.276	0.932	0.516
2005	151.341	3.121	3.963	1.328	2.252	1.294	0.954	0.538
2006	67.888	3.155	3.447	1.317	2.524	1.470	0.899	0.481
2007	26.870	3.610	3.434	1.246	3.012	1.972	0.816	0.360
2008	51.571	3.649	2.933	1.092	2.907	2.037	0.842	0.265
2009	94.748	3.591	2.733	1.136	3.147	2.151	0.811	0.223
2010	88.949	3.578	3.485	1.243	3.583	2.338	0.714	0.272
2011	73.504	3.284	4.131	1.306	4.087	2.461	0.635	0.183

CTR-cash turnover ratio, ITR- inventory turnover ratio, RTR- Receivables turnover ratio, WTR- working capital turnover ratio, CR- current ratio, LR- Liquid Ratio, WC to TA- working capital to total assets, ROCE- Return on capital employed.

MULTIPLE REGRESSION ANALYSIS

In the table: 5, the impact of working capital ratios on ROCE of Cipla Ltd. are shown with the help of multiple regression analysis. The table shows that the impact of different working capital ratios is statistically insignificant at 5% level as seen from the values of the regression co-efficient. For a

unit increase in cash turnover ratio, ROCE increased by 1.10 units, the coefficient of correlation between these two variables shows moderate correlation of 0.4229. Similarly, one unit increase in inventory turnover ratio would increase the profitability by 0.75 units; the correlation of these two variables shows low level negative correlation of -0.4873.

The co-efficient of regression between the profitability ratio and receivables turnover ratio is computed as 0.08 which implies that one unit increase in receivables turnover ratio would increase the profitability ratio by 0.08 unit and positive moderate correlated of 0.617. Change of one unit in Working capital turnover ratio increases 1.52 unit in profitability of Cipla Ltd.. One unit change in current ratio and liquid ratio increase the profitability by -1.58 and 1.86 units respectively. It is also inferred from the table that one unit increase in working capital to total assets ratio would decrease the profitability ratio by -1.47 units. The co-efficient of correlation between liquid ratio and ROCE is highest negative correlation among all with -0.918.

The independent variables explain 77% of the variations in the profitability of the Cipla Ltd..

Table 5. Multiple Regression Result

Constant	Standardized Coefficients	T	Sig.
	Coefficients		
CTR	0.00	-2.40	0.14
ITR	-0.75	-2.25	0.15
RTR	0.08	1.63	0.24
WTR	1.52	2.55	0.13
CR	-1.58	-2.28	0.15
LR	1.86	2.04	0.18
WC/TA	-1.47	-1.40	0.30

Dependent Variable: ROCE

Table 6. Correlation Result

	CTR	ITR	RTR	WTR	CR	LR	WC/TA	ROCE
CTR	1							
ITR	-0.1306	1						
RTR	0.207333	-0.36636	1					
WTR	0.413638	-0.11857	0.764374	1				
CR	-0.48135	0.37227	-0.39953	-0.3463	1			
LR	-0.49668	0.542068	-0.54004	-0.48272	0.967226	1		
WC/TA	0.344916	-0.50652	0.461312	0.253198	-0.96544	-0.95053	1	
ROCE	0.422912	-0.48733	0.661523	0.617611	-0.91816	-0.96874	0.901397	1

CONCLUSION

The current assets of Cipla Ltd. have witnessed fluctuation over the past years which were 34 times (approx.) in 2011 in comparison to that of 2001. Inventory, debtors and loans & advances played main role in this increase. Our study also shows that the contribution of long term source in working capital is below 53.66% in all the study period. It has also been found that during the study period, the working capital of Cipla Ltd. has registered increasing trend in from 2002. And regression results of the study show that the different working capital ratios have statistically insignificant impact on the ROCE of Cipla Ltd.

REFERENCE

Pandey, I. M., "Financial Management", ninth edition, 2005, Vikas Publishing House, New Delhi.

Maheshwari, S. N., "Management Accounting and Financial Control", 1996, Sultan Chand & Sons, New Delhi.

Smith K., "Profitability versus Liquidity Trade Off in Working Capital Management", in Reading on the Management of Working Capital., 1980, Ed. K.K. Smith, St. Paul, West Publishing Company, p. 549 - 562.

Deloof, M., "Does Working Capital Management Affect Profitability of

- Belgian Firms?" 2003, *Journal of Business, Finance and Accounting*, 30, P. 575 - 587.
- Cohn, R.A. and Pringle, J.J.,(1975),"Steps Towards an Integration of Corporate Financial Theory", in *Management of Working Capital: A Reader*, Keith V. Smith, ed., New York: West Publishing Company, p.369.
- Grass, M.,(1972),"Control of Working Capital", Essex: Grower Press Limited, p.xi-xiii.
- Blinder, A.S. and Maccini, L.J. (1991),"The Resurgence of Inventory Research; What Have We Learned?", *Journal of Economic Survey* 5, 291-328.
- Brennan, M., Maksimovic, V. and Zechner, J.,(1988),"Vender Financing", *Journal of Finance* 43, 1127-1141.
- Petersen, M.A. and Rajan, R.G.,(1997),"Trade Credit; Theories and Evidence" *Review of Financial Studies* 10,661-691.
- Emery, G.W.,(1987),"An Optimal Financial Response to Variable Demand", *Journal of Financial and Quantitative Analysis* 22, 209-225.
- Wilner, B.S., (2000),"The Exploitation of Relationships in Financial Distress: The Case of Trade Credit, *Journal of Finance* 55, 153-178.
- Ng. C.K., Smith, J.K. and Smith, R.L.,(1999),"Evidence on the Determinants of Credit Terms Used in Inter Firm Trade", *Journal of Finance* 54,1109-1129.