



An Analysis of Liquidity Management of Select Pharmaceutical Companies in India

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ABSTRACT

The term 'Liquidity' refers to the ability of a firm to meet its obligations in the short run usually one year. The Liquidity resources of a firm may be kept in various forms: cash in hand and cash at bank in current assets, reserve drawing power under a cash credit or overdraft arrangement and short term deposits. Cash balances in current account provide the highest degree of liquidity. This study examines how liquidity position of top five pharmaceutical companies based on sales. Statistical techniques like standard deviation, coefficient of variation, and Motaal's test have been employed in order to examine the liquidity position.

KEYWORDS : Liquidity, Working Capital, Current Ratio, Motaal's Test

INTRODUCTION

Liquidity management has become a basic and broad aspect of judging the performance of a corporate entity. Liquidity is one of the most important desired goals of an organization. The importance of adequate liquidity in the sense of the ability of an enterprise to meet current/short term obligations when they become due for payment can hardly be over-stressed. It is, therefore, essential to maintain an adequate degree of liquidity for smooth running of the business operation. The liquidity should be neither excessive nor inadequate.

Liquidity in general refers to the financial strength of an organization. The term financial relates to two major sources of finance. The liquidity of the select units has been analyzed by computing current ratio, quick ratio, liquid funds to current assets ratio, net working capital to current assets ratio and finally, comparative liquidity position among select units has been made by allotting ranks to them as per the Motaal's Ultimate Rank Test.

REVIEW OF LITERATURE

A brief review of the different researches in the field is attempted in the following paragraphs.

Venkateswarlu.P . & Krishna Reddy.B. (2015) in his comparative study on Liquidity Management examines and evaluates the liquidity management of select cement companies of Andhra Pradesh for a period of 10 years from 2003-04 to 2012-13. The liquidity of the select units has been analyzed by computing current ratio, quick ratio, liquid funds to current assets ratio, net working capital to current assets ratio and finally, comparative liquidity position among select units has been made by allotting ranks to them as per the Motaal's Ultimate Rank Test. He concludes that Deccan Cements Ltd. is awarded Rank-I, indicating the most liquid company among the six sample companies by applying the Motaal's Comprehensive Test. Panyam Cements & Mineral Industries Ltd. and Sagar Cements Ltd. have ranked second and third respectively. Among the remaining three, Anjani Portland Cements Ltd. got fourth rank and Bheema Cements Ltd. and NCL Industries Ltd. got 5th rank and 6th rank respectively, indicating the most unfavorable liquidity position.

Nandi Chandra Kartik (2012) in his paper on "Trends in Liquidity Management and Their Impact on Profitability: A Case Study" makes an attempt to assess the trends in liquidity management and their impact on profitability. An attempt has been made to establish the linear relationship between liquidity and profitability with the help of a multiple regression model. On the basis of overall analysis, it is therefore important to state that the selected company always tries to maintain adequate amount of net working capital in relation to current liabilities so as to keep a good amount of liquidity throughout the study period.

Dr.R.Saravanan (2011) conducted an Empirical Research on Relationship between Working capital and Profitability- A Case Study Of Pricot Meridian Ltd, The main objective of the study was to find the impact

of working capital on ROCE of the PRICOT MERIDIAN LTD. and he compare the liquidity position of the company from year to year by applying Motaal's comprehensive test. He also examine the linear relationship between liquidity and profitability with the help of simple and multiple regression equation fitted on the basis of least-squares principles and measures the extent of relationship between ROCE and risk associated with it. He conclude that there is significant relationship between uninsurable risk and profitability of the firm under this study

Sherin (2010) in her article on "Liquidity v/s profitability - Striking the right balance" writes about the implications of liquidity and profitability in a pharmaceutical company. A firm is required to maintain a balance between liquidity and profitability while conducting its day to day operations. Investments in current assets are inevitable to ensure delivery of goods or services to the ultimate customers. A proper management of the same could result in the desired impact on either profitability or liquidity.

Singh and Pandey (2008) suggested that, for the successful working of any business organization, fixed and current assets play a vital role, and that the management of working capital is essential as it has a direct impact on profitability and liquidity. They studied the working capital components and found a significant impact of working capital management on profitability for Hindalco Industries Limited.

Eljelly, (2004) elucidated that efficient liquidity management involves planning and controlling current assets and current liabilities in such a manner that eliminates the risk of inability to meet due short-term obligations and avoids excessive investment in these assets. The relation between profitability and liquidity was examined, as measured by current ratio and cash gap (cash conversion cycle) on a sample of joint stock companies in Saudi Arabia using correlation and regression analysis. The study found that the cash conversion cycle was of more importance as a measure of liquidity than the current ratio that affects profitability. The size variable was found to have significant effect on profitability at the industry level. The results were stable and had important implications for liquidity management in various Saudi companies. First, it was clear that there was a negative relationship between profitability and liquidity indicators such as current ratio and cash gap in the Saudi sample examined. Second, the study also revealed that there was great variation among industries with respect to the significant measure of liquidity.

OBJECTIVES OF THE STUDY

To study the liquidity position of the liquidity position of the company by applying Motaal's Comprehensive Test of Liquidity.

RESEARCH METHODOLOGY

Sample under Study

Top 5 pharmaceutical companies based on sales have been selected for the study. They are

1. Cipla Ltd. (CIPLA)
2. Dr.Reddy's Laboratories Ltd. (DRREDDY)
3. Lupin Ltd.(LUPIN)
4. Sun Pharmaceutical Industries Ltd. (SUNPHARMA)
5. Aurobindo Pharma Ltd. (AUOPHARMA)

Period of the Study

The study covers a period of 10 years from 2005-06 to 2014-15.

Data Collection

To achieve the aforesaid objectives data is gathered from secondary sources like annual reports of select pharmaceutical companies, journals, related other research papers, websites etc.

Tools of Analysis

To analyze the data, ratios and Motaal's Ultimate Rank Test are used for the present study.

LIMITATIONS OF THE STUDY

1. The study covers the period from 2005-06 to 2014-15. The changes that took place before and after this period were not taken into consideration,
2. The data are secondary in nature and any bias in them is reflected in the analysis and the conclusion of the study.

DATA ANALYSIS

In order to study the liquidity position of all the companies, the liquid ratios, amount invested in liquid assets, working capital and other related ratios were calculated and depicted in the following tables:

Table - 1, Cipla Ltd. (CIPLA)

Year	WC to CA Ratio (%)	Stock to CA Ratio (%)	QA to CA Ratio (%)
2006	60.21	41.63	58.37
2007	66.79	34.52	65.48
2008	65.41	29.84	70.16
2009	58.29	27.03	72.97
2010	57.03	27.17	72.83
2011	68.00	35.61	64.39
2012	65.16	34.99	65.01
2013	64.48	39.98	60.02
2014	56.47	37.01	62.99
2015	52.61	38.80	61.20
Mean	61.44	34.66	65.34
SD	5.21	5.14	5.14
CV	8.48	14.84	7.87
Growth	-7.60	-2.84	2.84
Growth Rate (%)	-1.49	-0.78	0.53

Table No.1 shows the overall liquidity position of Cipla Ltd. by applying the Motaal's Comprehensive Test of Liquidity and it was found that working capital to current assets ratio has shown a negative growth of -1.49%. This indicates that the growth rate of current liabilities was more as compared to the growth rate of current assets and hence the working capital is decreasing slowly and slowly. This aggressive approach in the working capital might be the policy of the firm to enhance the profitability but no doubt it endangers the liquidity position of the company. The negative growth in stock to current assets ratio (-0.78) can be treated as a positive action towards liquidity management assuming that the company was reducing its inventory level to the extent possible so as to free up the money tied up with the inventories. The quick asset to current ratio has also registered a positive growth of 0.53% during the study period, which is an indication of company's concern and steps to maintain liquidity. To conclude, the liquidity position of the company is not that much satisfactory as it ought to be. So, the Company should take enough steps to increase the level of liquidity position.

Table - 2, Dr.Reddy's Laboratories Ltd. (DRREDDY)

Year	WC to CA Ratio (%)	Stock to CA Ratio (%)	QA to CA Ratio (%)
2006	72.67	18.48	81.52
2007	74.04	12.16	87.84
2008	65.57	19.13	80.87
2009	60.54	16.70	83.30
2010	44.40	20.26	79.74
2011	51.70	19.18	80.82
2012	49.12	19.86	80.14
2013	56.04	17.87	82.13
2014	56.43	15.00	85.00
2015	54.49	14.93	85.07
Mean	58.50	17.36	82.64
SD	9.75	2.61	2.61
CV	16.67	15.06	3.16
Growth	-18.18	-3.55	3.55
Growth Rate (%)	-3.15	-2.34	0.47

Table No.2 gives the overall liquidity position of Dr.Reddy's Laboratories Ltd. It was found that working capital to current assets ratio has shown a negative growth of -3.15%. This indicates that the growth rate of current liabilities was more as compared to the growth rate of current assets and hence the working capital is decreasing slowly and slowly. This aggressive approach in the working capital might be the policy of the firm to enhance the profitability but no doubt it endangers the liquidity position of the company. The negative growth in stock to current assets ratio -2.34% can be treated as a positive action towards liquidity management assuming that the company was reducing its inventory level to the extent possible so as to free up the money tied up with the inventories. The quick asset to current ratio has also registered a positive growth of 0.47% during the study period, which is an indication of company's concern and steps to maintain liquidity. To conclude, the liquidity position of the company is not that much satisfactory as it ought to be. So, the Company should take enough steps to increase the level of liquidity position.

Table - 3 Lupin Ltd. (LUPIN)

Year	WC to CA Ratio (%)	Stock to CA Ratio (%)	QA to CA Ratio (%)
2006	74.10	23.58	76.42
2007	71.31	27.22	72.78
2008	68.25	36.16	63.84
2009	49.15	39.57	60.43
2010	61.13	28.34	71.66
2011	60.66	27.77	72.23
2012	66.55	32.91	67.09
2013	68.21	32.35	67.65
2014	71.98	26.26	73.74
2015	65.07	34.38	65.62
Mean	65.64	30.85	69.15
SD	7.27	5.01	5.01
CV	11.07	16.24	7.25
Growth	-9.03	10.80	-10.80
Growth Rate (%)	-1.43	4.28	-1.68

Table - 3 depicts the liquidity position of Lupin Ltd. It shows that working capital to current assets ratio has shown a negative growth of -1.43%. This indicates that the growth rate of current liabilities was more as compared to the growth rate of current assets and hence the working capital is decreasing slowly and slowly.

The positive growth in stock to current assets ratio which is 10.80% is a bad sign for the company because it indicates that investment in inventories are increasing gradually, which has to be stopped. The

quick asset to current ratio has registered a negative growth of -1.68 % during the study period, which shows that company's liquid assets position has also deteriorated subsequently during the period of study, though the current assets position is satisfactory. To conclude, the company should take serious steps to curtail the investment in inventories.

Table – 4 Sun Pharmaceutical Industries Ltd. (SUNPHARMA)

Year	WC to CA Ratio (%)	Stock to CA Ratio (%)	QA to CA Ratio (%)
2006	87.04	11.68	88.32
2007	77.51	14.39	85.61
2008	62.08	14.14	85.86
2009	63.93	17.63	82.37
2010	53.22	36.21	63.79
2011	76.72	19.08	80.92
2012	66.01	17.69	82.31
2013	59.06	23.37	76.63
2014	21.21	15.63	84.37
2015	-6.62	25.96	74.04
Mean	56.02	19.58	80.42
SD	28.29	7.25	7.25
CV	50.51	37.05	9.02
Growth	-93.67	14.28	-14.28
Growth Rate (%)	-175.11	9.28	-1.94

From the table – 4 it was found that liquidity position of sun Pharmaceutical Industries had a negative growth in working capital to current assets ratio i.e. -175.11%. This indicates that the growth rate of current liabilities was more as compared to the growth rate of current assets and hence the working capital is decreasing slowly and slowly. This aggressive approach in the working capital might be the policy of the firm to enhance the profitability but no doubt it endangers the liquidity position of the company.

The positive growth in stock to current assets ratio which is 9.28% is a bad sign for the company because it indicates that investment in inventories are increasing gradually, which has to be stopped. The quick asset to current ratio has registered a negative growth of -1.94 % during the study period, which shows that company's liquid assets position has also deteriorated subsequently during the period of study, though the current assets position is satisfactory. To conclude, the company should take serious steps to curtail the investment in inventories.

Table – 5 Aurobindo Pharma Ltd. (AUROPHARMA)

Year	WC to CA Ratio (%)	Stock to CA Ratio (%)	QA to CA Ratio (%)
2006	78.12	26.17	73.83
2007	83.28	24.33	75.67
2008	79.17	28.48	71.52
2009	77.35	27.26	72.74
2010	75.93	34.99	65.01
2011	75.32	36.35	63.65
2012	76.96	38.30	61.70
2013	73.04	36.10	63.90
2014	74.04	30.70	69.30
2015	79.62	31.51	68.49
Mean	77.28	31.42	68.58
SD	2.98	4.84	4.84
CV	3.86	15.40	7.05
Growth	1.50	5.34	-5.34
Growth Rate (%)	0.21%	2.08%	-0.83%

Mottal's comprehensive test of liquidity of Aurobindo Pharam Ltd. was found in the Table – 5 and it was observed that working capital to current assets ratio has shown a positive growth of 0.21. This indicates that the growth rate of current assets was more as compared to the growth rate of current liabilities and hence the working capital is increased.

The positive growth in stock to current assets ratio which is 2.08% is a bad sign for the company because it indicates that investment in inventories are increasing gradually, which has to be stopped. The quick asset to current ratio has registered a negative growth of -0.83 % during the study period, which shows that company's liquid assets position has also deteriorated subsequently during the period of study, though the current assets position is satisfactory. To conclude, the company should take serious steps to curtail the investment in inventories.

MOTAAL'S COMPREHENSIVE TEST OF LIQUIDITY

An attempt has been made to evaluate the overall liquidity position during the period under study more precisely by applying Motaal's comprehensive test. In this test, a method of ranking has been applied to reach at a more comprehensive assessment of liquidity in which four different ratios viz. net working capital to current assets ratio, inventory to current assets ratio and liquid assets to current assets ratio have been computed and combined in a points score. A high value of net working capital to current assets ratio or liquid assets to current assets ratio shows greater liquidity and accordingly ranking has been done in that order. On the other hand, a low inventory to current assets ratio or loans & advances to current assets ratio indicates more favourable liquidity position and therefore, ranking has been done accordingly in that order. Ultimate ranking has further been done on the basis that the lower the total of individual ranks, the more favourable is the liquidity position of the concern and vice versa.

Table – 6 Motaal's Comprehensive Test of Liquidity

Sl.No.	Company	WC to CA Ratio (%)	Rank	Stock to CA Ratio (%)	Rank	QA to CA Ratio (%)	Rank	Total Rank	Ultimate Rank
1	CIPLA	61.44	3	34.66	5	65.34	5	13	5
2	DRREDDY	58.50	4	17.36	1	82.64	1	6	1
3	LUPIN	65.64	2	30.85	3	69.15	3	8	2
4	SUN-PHARMA	56.02	5	19.58	2	80.42	2	9	3
5	AUROPHARMA	77.28	1	31.42	4	68.58	4	9	3

The table 6 presents Motaal's Comprehensive Test of Liquidity. This table reveals that Dr. Reddy's Laboratories Ltd. is awarded Rank-1, indicating the most liquid company among the five sample companies. Second position was occupied by Lupin Ltd. Sun pharmaceuticals Industries Ltd. and Aurobindo Pharma Ltd. have ranked third respectively. Cipla Ltd. got fifth rank indicating the most unfavorable liquidity position.

CONCLUSIONS

The current research indicates the liquidity position of the select pharmaceutical companies. It was found that the growth rate of current liabilities are much more than the growth rate of current assets, which in long run will affect the working capital position of the company adversely ultimately affecting the liquidity position of the companies. Hence, companies should ensure that the current assets and current liabilities grow at a similar rate.

In some cases we have come across with negative working capital. No doubt, in these days many companies are using negative working capital and getting a good amount of profits and good return on capital also. Negative working capital indicates lower cost of working capital (another way is higher profitability), but at the same time, it indicates poor liquidity (worried situation for the creditors, etc.) or we can say company is overburdened with current liabilities, which is not good for any situation (specially in a period of recession, etc).

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