Liquidity Analysis of Selected Pharmaceutical Companies: A Comparative Study

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Abstract

Liquidity plays an important role in the successful functioning of the business firm. A firm should ensure that it does not suffer from lack of or excess liquidity to meet its short- term compulsions. The critical part in managing working capital is maintaining its liquidity in day-to-day operation to ensure its smooth running and to meet its obligations. Hence, it is of utmost importance to keep a constant eye on liquidity position of the company as without it the company cannot survive. The present paper aims to analyze the liquidity position of the selected pharmaceutical companies by making use of liquidity ratios such as current ratio, quick ratio and absolute liquid ratio for the period 2012-2016. Short term creditors are mainly interested in the liquidity position of the firms to know the promptness of company to meet its current liabilities. The result shows that among the five selected pharmaceutical companies, i.e. Ajanta Pharma, Biocon Ltd, Torrent Pharma, Ipca labs and Lyka labs., the liquidity position of Ajanta Pharma is best as far as current ratio and quick ratio are concerned but when absolute liquid ratio is concerned, mixed results are found. The techniques of Motaal's ultimate rank test have been applied to analyze the data. For the purpose of investigation, purely secondary data is used. Moreover, low or negative working capital in some cases indicates the aggressive working capital management policy of the firms which implies minimal investment in current assets by the companies so as to derive a higher rate of return. But it has to be remembered that the risk of default and bankruptcy increases when a firm adopts more aggressive working capital polices. One should remember that a negative working capital is a sign of managerial efficiency in a business with low inventory in accounts receivable, while in other situation, it is a sign that a company may be facing bankruptcy or serious financial trouble. Our study reveals that Biocon is at rank - 1 indicating that it is most liquid company among the five companies.

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Keywords: **Pharmaceutical Companies, Current Ratio, Quick Ratio, Absolute Liquid Ratio, Working Capital, Motaal's Ultimate Rank, Liquidity**

Introduction

Holding liquidity position in a firm is essential for a firm. Liquidity ratio endeavors to explicate the short term financial position of the company. It helps to assess whether the company is competent to meet its current debt out of current assets. Therefore, liquidity ratios are also known as short term solvency ratios. But no indication of effectiveness of management of cash resources can be revealed from these ratios. The liquidity ratios are a result of dividing cash and other liquid assets by the short term borrowings and current liabilities. Liquidity ratios include two ratios; one is current ratio and second is quick ratio or acid test ratio. Short term creditors of the firm are primarily interested in the liquidity ratio of the firm as they want to know how promptly the firm can meet its current liabilities. Different analysts consider different assets to be relevant in calculating liquidity. A study of liquidity is of major importance to both the internal and the external analysts because of its close relationship with day-to-day operations of a business. Liquidity requirement depends on the nature of the firm. To measure the liquidity of a firm, the following ratios are commonly used:

1. Current ratio

Current ratio is the relationship between current assets and current liabilities. This ratio is used to assess the firm's ability to meet its short term liabilities on time. The ideal ratio is 2:1.It means the current assets of business should, at least be twice of its current liabilities. If the current ratio is less than 2:1,it indicates lack of liquidity and shortage of working capital.

Current Ratio=Current Assets/current liabilities

2. Quick ratio

Quick ratio or Acid test ratio or Liquid ratio: Liquid assets mean those ratios which will yield cash very shortly. Quick ratios are those in which the firm is in position to pay its current liabilities within a month or immediately. An ideal quick ratio is 1:1.

Quick Ratio=Liquid assets/ current liabilities

3. Absolute Liquidity ratio

This ratio helps to know the immediate liquidity position of the firm. It can be calculated as:

Absolute Liquidity ratio= cash & bank balance + short term investments/ current liabilities.

Even though firms traditionally are focused on long term capital budgeting and capital structure, the recent trend is that many companies across different industries focus on working capital management efficiency. When there is a poor management of working capital, funds may be unnecessarily tied up in idle assets. This will reduce liquidity of the company and also the company will not be in a position to invest in productive assets like plant and machinery. It will also affect profitability of the company. The existence of an adequate liquidity and its careful management can make substantial difference between the success and failure of an enterprise.

Normally, when we analyze working capital, it always refers to normal or positive working capital (excess of current assets over current liabilities). However, there are certain situations in which working capital is in negative form (excess of current liabilities over current assets). Now the question arises how can a company manage liquidity with the negative working capital? Earlier negative working capital was considered as a risk of insolvency of the organizations but at present, negative working capital is a sign of managerial efficiency in a business. Earlier it was considered that the companies should avoid under-investment in working capital if they wanted higher profits margins. In the present scenario some 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 that company is overburdened with current liabilities, which is not good for any situation (especially in a period of recession, etc.).

But negative Working capital doesn't always mean bad financial condition; it indicates that most of the day to day activities are funded by customers rather than company's own working capital. Some latest examples are movie theaters - customers are paying first and distributors are normally paid later on; Schools/ educational institutions- fees paid in advance by the students annually, whereas faculties are getting salary after one month. When an organization uses supplier's credit and customers' advance to fulfill their day to day needs, it leads to a situation of lower or negative working capital. Banks, financial institutions, distributors, retailers with cash business or advance payment contract have negative working capital

Review of Literature

Ghosh and Maji (2003) attempted to examine the efficiency of working capital management of Indian cement companies during 1993 to 2002. They calculated three index values-performance index, utilization index and overall efficiency index to measure the efficiency of working capital management, instead of using working capital management ratios. By using regression analysis and industry norms as a target efficiency level of individual firms, they tested the speed of achieving target level of efficiency by individual firms during the period of study and found that some of the sample firms successfully improved efficiency during these years.

Elijelly (2004) in the study on "Liquidity – profitability tradeoff: An empirical investigation in an emerging market" empirically examined the relation between profitability and liquidity, as measured by current ratio and cash gap (cash conversion cycle) on a sample of joint stock companies in Saudi Arabia. The study found significant negative relation between the firm's profitability and its liquidity level, as measured by current ratio."

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.

Chakraborty (2008), in the study on "Working Capital and Profitability: An Empirical Analysis of Their Relationship with Reference to Selected Companies in the Indian Pharmaceutical Industry" evaluated the relationship between working capital and profitability of Indian pharmaceutical companies. He pointed out that there were two distinct schools of thought on this issue: according to one school of thought, working capital is not a factor of improving profitability and there may be a negative relationship between them, while according to the other school of thought, investment in working capital plays a vital role to improve corporate profitability, and unless there is a minimum level of investment of working capital, output and sales cannot be maintained - in fact, the inadequacy of working capital would keep fixed asset inoperative.

Kevin and Young (2009) in their article "Need Cash? Look Inside Your Company" had taken a hard look at the way company manages its working capital. He identified that a lot of capital tied up in receivables and inventory could be turned into cash by challenging the working capital practices and policies of the company. He had explored six common mistakes that companies make in managing working capital. He says that the simple act of correcting them could free up enough cash to make the difference between failure and survival in the current recession.

Karamjeet and Firew (2011) conducted a study to assess the working capital adequacy and its impact on profitability of firms using a sample of 449 Indian manufacturing firms and found that there is significant difference in relative solvency level of firms and firms with adequate working capital.

Chandrabai et al. (2011) in their paper on "Working Capital Management of Indian Electrical Equipment Manufacturers-A Comparative study" found that the companies in the electrical equipment industry have performed fairly well for financial year 2010. The sales of most of the companies have increased. The management of working capital is one of the most important and challenging aspect of the overall performance of the organization. Merely more effective and efficient management of working capital can ensure survival of a business enterprise. Working capital management is concerned with the problems that arise in attempting to manage the current assets, current liabilities and the interrelation that exists between them. This study analyses the comparative study of working capital management in Indian Electrical Equipment Industry and it is limited to the companies BHEL and ABB Ltd represent public and private sector enterprises respectively. Relevant data has been extracted from the consecutive annual reports between financial years 2005-06 to 2009-10 of both the companies.

Brahma (2011) conducted a study to examine and evaluate the importance of liquidity management on profitability as a factor accountable for poor financial performance in the private sector steel Industry in India. Rohit and Vipin (2012) investigated on determinants of corporate liquidity in India for a sample of 100 firms in Indian market over the period 1999-2008. It was found that size of firm has no impact on liquidity.

Sandhar et.al (2013) examined the relationship between liquidity and profitability of selected Indian cement companies using regression analysis and revealed that current ratio and liquid ratio are negatively associated with return on assets (ROA), return on investment (ROI) and cash turnover ratio is negatively associated with ROI and ROA.

Neeraj and Devesh (2013) studied liquidity position and impact on profitability of Tata Steel and steel authority of India. The study found that liquidity position can be improved with the help of low average collection period and average collection can be reduce by proper coordination between sale, production and finance department, lastly conclude that study found positive impact of liquidity position on profitability with the help of various techniques.

Ashok Kumar (2013) studied liquidity position of five leading companies which cover period of 10 years from 2000-2010. It has been found that the liquidity position of small companies are better as compared to big ones .Lastly, it is concluded that companies should maintain an ideal current and liquid ratio.

Sarvanan and Abarna (2014) conducted study on liquidity analysis of selected automobile companies in India using ANOVA and found that there is significant difference among the absolute liquid ratios of the selected automobile companies.

Mohmad and Dr. Syed (2016) analyzed the liquidity and profitability of selected companies and more specifically it seeked the comparison between the liquidity and profitability performance of selected companies. There is significant difference between the performances of pharmaceutical companies on the basis of Quick Ratio. The performance of Cipla is better than that of Dr. Reddy's labs in terms of profitability.

Profile of Indian Pharmaceutical Industry

The Indian pharmaceuticals market is the third largest in terms of volume and thirteenth largest in terms of value, as per a report by Equity Master. India is the largest provider of generic drugs globally with the Indian generics accounting for 20 per cent of global exports in terms of volume. Of late, consolidation has become an important characteristic of the Indian pharmaceutical market as the industry is highly fragmented.

India enjoys an important position in the global pharmaceuticals sector. The country also has a large pool of scientists and engineers who have the potential to steer the industry ahead to an even higher level. Presently over 80 per cent of the antiretroviral drugs used globally to combat AIDS (Acquired Immuno Deficiency Syndrome) are supplied by Indian pharmaceutical firms. The UN-backed Medicines Patent Pool has signed six sub-licenses with Aurobindo, Cipla, Desano, Emcure, Hetero Labs and Laurus Labs, allowing them to make generic anti-AIDS medicine TenofovirAlafenamide (TAF) for 112 developing countries.

Market Size

The Indian pharma industry, which is expected to grow over 15 per cent per annum between 2015 and 2020, will outperform the global pharma industry, which is set to grow at an annual rate of 5 per cent between the same periods. The market is expected to grow to US$ 55 billion by 2020, thereby emerging as the sixth largest pharmaceutical market globally by absolute size, as stated by Mr. Arun Singh, Indian Ambassador to the US. Branded generics dominate the pharmaceuticals market, constituting nearly 80 per cent of the market share (in terms of revenues).

India has also maintained its lead over China in pharmaceutical exports with a year-on-year growth of 11.44 per cent to US$ 12.91 billion in FY 2015-16, according to data from the Ministry of Commerce and Industry. In addition, Indian pharmaceutical exports are poised to grow between 8-10 per cent in FY 2016-17. Imports of pharmaceutical products rose marginally by 0.80 per cent year-on-year to US$ 1,641.15 million.

Overall drug approvals given by the US Food and Drug Administration (USFDA) to Indian companies have nearly doubled to 201 in FY 2015-16 from 109 in FY 2014-15. The country accounts for around 30 per cent (by volume) and about 10 per cent (value) in the US$ 70-80 billion US generics market.

India's biotechnology industry comprising bio-pharmaceuticals, bio-services, bio-agriculture, bio-industry and bioinformatics is expected grow at an average growth rate of around 30 per cent a year and reach US$ 100 billion by 2025. Biopharma, comprising vaccines, therapeutics and diagnostics, is the largest sub-sector contributing nearly 62 per cent of the total revenues at Rs.12, 600 crore (US$ 1.89 billion).

Brief Description about the Pharma Companies that selected for the Study

1. **Ajanta Pharma**: Ajanta Pharma Limited is a holding company. The Company is a specialty pharmaceutical company engaged in developing, producing and marketing a range of branded and generic formulations. Its business includes branded generics in emerging markets of Asia and Africa, generics in the developed markets of the United States and Institutional sales. The branded generics business is spread in India and over 30 emerging countries across Africa, Commonwealth of Independent States (CIS), the Middle East and South East Asia. The company serves a range of therapeutic segments, such as anti-biotic, anti-malarial, anti-diabetic, cardiology, gynecology, orthopedics, pediatric, respiratory and general health products. It has approximately four existing manufacturing plants located in and around Aurangabad in Maharashtra, India. The Company's subsidiaries include Ajanta Pharma (Mauritius) Ltd., Ajanta Pharma USA Inc., Ajanta Pharma Philippines Inc. and Ajanta Pharma Nigeria Ltd.

2. **Biocon Ltd**: Biocon Limited is a biopharmaceutical company. The Company focuses to reduce therapy costs of chronic diseases like autoimmune, diabetes, and cancer. Through its products and research services, it is enabling access to affordable healthcare for patients, partners and healthcare systems across the globe. The Company has developed and taken a range of Novel Biologics, Biosimilars, differentiated Small Molecules and affordable Recombinant Human Insulin and Analogs from Lab to Market. The Company's brands include INSUGEN (rh-insulin), BASALOG (Glargine), CANMAb (Trastuzumab), BIOMAb-EGFR (Nimotuzumab) and ALZUMAb (Itolizumab), an anti-CD6 monoclonal antibody. It has a pipeline of Biosimilars and Novel Biologics at various stages of development, including Insulin Tregopil, an oral insulin analog.

3. **Torrent Pharma**: Torrent Pharmaceuticals Limited is engaged in the manufacture and sale of branded, as well as unbranded generic pharmaceutical products. The Company operates in the therapeutic areas of cardiovascular (CV), central nervous system (CNS), gastrointestinal, diabetology, anti-infective, anti-diabetics and pain management segments. The Company offers products in various categories, including tablets, capsule and parenteral. Its geographical segments include India and outside India. It manufactures various active pharmaceutical ingredients (APIs), such as Nicorandil, Risperidone, Venlafaxine Hydrochloride, Ropinarole Hydrochloride, Duloxetine Hydrochloride, Ormeloxifen Hydrochloride,

Nebivolol Hydrochloride, Lamotrigine and Sertraline Hydrochloride. The Company's subsidiaries include Heumann Pharma GmbH & Co., Torrent Pharma GmbH, Heunet Pharma GmbH, Norispharm GmbH, Torrent Pharma (Thailand) Co. Ltd., Torrent Pharma S.R.L., Aptil Pharma Limited and Laboratories Torrent Malaysia Sdn. Bhd.

4. **Ipca Labs**: Ipca Laboratories Limited is engaged in pharmaceuticals business. The Company is a manufacturer and supplier of over 10 active pharmaceutical ingredients (APIs). It offers APIs, such as atenolol, hydroxychloroquine sulfate, morantel citrate, pyrantel pamoate and zaltoprofen. It offers brands, such as Zerodol, Lariago, HCQS Perinorm, Rapither, Tenoric, Lumerax, Etova, Malirid and Folitrax. Its 3c division focuses on cardiovascular and anti-diabetic markets. Its 3d division is focused on cardio-diabetic market. The Company's activa division serves the rheumatology market. Its altus division caters to the needs of intensivists, both surgical and non-surgical. Its Bionova division's focus area is dermatology. Its dynamic division focuses on cardiovascular, gastro-intestinal, anti-bacterial, pain management and respiratory sectors. It hycare division caters to the needs of cardiologists and diabetologists. Its divisions also include innova, intima, pain management, and pharma and uro sciences.

5. **Lyka Labs**: Lyka Labs Limited is engaged in the business of pharmaceutical products and pharma-related activities, including research. The Company's principal business activity is formulation. It is engaged in the manufacturing of pharmaceutical formulations and active pharmaceutical ingredients (APIs) across various therapeutic segments. Its geographical segments include Domestic and Exports. The Company, through Cerabelle, offers skin and hair care solutions for skin lightening, skin hydration, anti-aging, protective, trichology, cleansers and anti-acne. Its products include Hyglow Tablet, Hyglow Skin Lightening Cream, Hyglow Foaming Face Wash, Gomoist Moisturizing Cream/Lotion, Oral Moisturizer Capsules, Agestop Collagen Boosting Cream, Rejuvenating Stem Cell Cream, Anacare Hair Revitalizing Serum & Shampoo, Sunsure Day Night Sunscreen, Anti Dandruff Shampoo, Hyglow Exfoliating Facial Scrub, Gomoist Daily Facial Cleanser, Anti Acne Foaming Face Wash and Phyto-Astringent Toner.

Objective of the Study

The study aims at evaluating the liquidity management of five leading Pharmaceutical companies over a period of 5 years (2012-16). More specifically the emphasis will be on the following issues:

1. To assess the management of working capital and its adequacy;
2. To study and compare the liquidity position of the companies under study

Data set and Sample: The study covers a period of 5 years covering a period from 2012 to 2016. The study is based mainly on secondary data relating to the study was obtained from the annual reports of the companies and from the online site named as www.moneycontol.com. In addition, magazines and journals were also referred for finalizing the methodology for the study. Keeping in view the scope of the study, it was decided to select five large companies on the basis of total assets and whose financial information is available for the entire study period so as to meet our requirements. Editing, classification and tabulation of the financial data collected from the above mentioned-sources have been done as per requirements of the study.

The researcher has selected only five companies irrespective of their size to see to what extent they are profitable financially strength and liquid position. The selected companies are: i) Biocon, ii) Ajanta Pharma, iii) Torrent Pharma, iv) Lyka Lab and v) Ipca Labs.

Limitations

We would like to make it clear that, mainly there are three limitations of this study, which are as under:

1. The study is confined to five years data only, i. e. from 2012–2016, therefore, a detailed analysis covering a lengthy period, which may give slightly different results has not been made.
2. The study is based on secondary data collected from the website www.moneycontrol.com and the websites of sample companies; therefore the quality of the study depends purely upon the accuracy, reliability and quality of the secondary data source.

Research Methodology

The samples selected for the study are the top five pharmaceutical companies of Indian Pharmaceutical Industry namely, Lyka Labs, Biocon, Torrent Pharma, Ipca labs, Ajanta Pharma. This study is based on secondary data. The data required for this study have been collected from the published annual reports of the selected companies and the website, moneycontrol.com. The study covered a period of ten years starting from 2012 to 2016. The techniques applied in the study are percentage method, mean, standard deviation, coefficient of variation, Ratio Analysis, Motaal's Ultimate Rank Test.

Data Analysis and Findings

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

Table-1: Current ratio of the Selected Pharma Companies

Year	Biocon	Torrent Pharma	Ajanta Pharma	Ipca laboratories	Lyka labs
2012	1.03	1.25	1.06	-	0.76
2013	1.32	1.33	1.40	1.70	0.71
2014	1.02	1.42	1.41	1.53	0.54
2015	1.31	1.16	2.17	1.32	0.52
2016	1.88	1.15	2.12	1.50	0.48

Table 1 shows the current ratio of the selected Pharma companies. It is clear from the table that the liquidity position of Ajanta is higher than the other 4 companies for the year 2015 to 2016. During year 2012 and 2013, the current ratio of Ajanta pharma was less, but in the next consecutive years, the current ratio has increased as compared to the standard current ratio.

Table-2: Quick Ratio of the Selected Pharma Companies

Year	Biocon	Torrent Pharma	Ajanta Pharma	Ipca laboratories	Lyka labs
2012	0.95	1.04	1.25	-	1.32
2013	1.15	0.93	1.38	1.15	1.34
2014	1.05	1.09	1.47	1.03	0.86
2015	1.25	1.01	1.85	1.03	0.77
2016	2.20	0.74	2.19	0.87	0.89

Table 3 depicts the debt equity ratio of the selected Pharma companies. Like current ratio, quick ratio also confirms that the liquidity position of Ajanta is far better than the other four companies over the study period except in 2012. An ideal ratio is 1:1.

Table-3: Debt equity ratio of the Selected Pharma Companies

Year	Biocon	Torrent Pharma	Ajanta Pharma	Ipca laboratories	Lyka labs
2012	0.11	0.39	0.57	0.42	2.13
2013	0.09	0.41	0.32	0.34	2.28
2014	0.28	0.50	0.19	0.22	3.14
2015	0.32	1.01	0.06	0.38	2.78
2016	0.61	0.55	0.06	0.26	2.31

Lower the ratio the higher will be the degree of protection. As a general rule, this should not exceed 2:1. If the debt equity ratio is more than that is shows a rather risky financial position from the long-term point of view. Ajanta pharma has high degree of protection. Whereas, Lyka labs have a risky financial position and other four companies have high degree of protection.

Table-4: Absolute Liquidity Ratio of the Selected Pharma Companies

Year	Biocon	Torrent Pharma	Ajanta Pharma	Ipca laboratories	Lyka labs
2012	0.07	0.44	0.02	0.02	0.01
2013	0.28	0.24	0.11	0.08	0.04
2014	0.58	0.18	0.11	0.08	0.04
2015	0.60	0.05	0.43	0.12	0.01
2016	1.18	0.05	0.13	0.19	0.01

The acceptable norm for this ratio is 0.5:1.In 2012, the absolute liquid ratio found to be higher in the case of Torrent pharma while in 2013 and 2014, Biocon and Ajanta Pharma are found to be highly liquid as well as in the year 2015 and 2016, and Biocon is proved to be performing well.

Table-5: Description of Liquidity Position of the Lyka Labs

Year	Current Assets	Current Liabilities	Working Capital (CA-CL)	Inventory	Quick Assets (CA-IN)	Current Ratio	Quick Ratio	Working Capital To Current Assets (%)	Stock/ Inventory to current Assets (%)	Quick Asset/ Liquid Resources to Current assets (%)
2012	98.82	110.38	-11.56	14.97	83.85	0.76	1.32	-11.69	15.14	84.85
2013	101.0	113.6	-12.57	14.56	86.47	0.71	1.34	-12.44	14.41	85.58
2014	66.98	141.71	-74.73	8.6	58.38	0.54	0.86	-111.57	12.83	87.16
2015	63.84	139.68	-75.84	12.56	51.28	0.52	0.77	-118.79	19.67	80.32
2016	58.73	134.04	-75.31	6.96	51.77	0.48	0.89	-128.23	11.85	88.14
Mean	77.88	127.88	-50.00	11.53	66.35	0.60	1.03	-76.54	14.78	85.21
Growth	-40.09	23.66	-63.75	-8.01	-32.08	-0.28	-0.43	-116.53	-3.29	3.29
Growth %	-40.56	21.43	551.4	-53.50	-38.25	-36.8	-32.57	996.1744	-21.77	3.88
S.D.	18.20	13.25	30.97	3.210	15.58	0.11	0.243	52.91	2.70	2.70
C.V.%	0.23	0.10	-0.61	0.27	0.23	0.18	0.23	-0.69	0.18	0.03

Lyka Labs: Table 5, It is evident from the above table that in the case of Lyka Labs, the current assets has shown a decrease in growth rate of around 40 percent and similarly current liabilities are grown around 21 percent in 5 years. The standard deviation of the current assets was Rs.18.20 and the coefficient of variation was 0.23%, which shows a steady and fast decline of current assets during the period of study. As evident from the table, the current liabilities, working capital and quick assets are also changed in the similar fashion as that of current assets. The growth rate of current liabilities was 21.43 percent with a standard deviation of Rs.13.25 crores and a CV of 0.10 percent. The growth rate of working capital was 551.4 percent with a SD of Rs.30.97 crores and a CV of -0.61 percent. A higher CV rate indicates a greater variation of working capital during the period. The quick assets have registered a decrease in growth rate of 38.25 percent with a SD of Rs. 15.58 crores and a CV of 0.23 percent. When the liquidity ratios of Lyka Labs were analysed, we found that both current ratio and quick ratio have registered a negative growth i.e. -36.8 and -32.57 percent respectively. The negative growth indicates that the liquidity position of the company has been degraded over the years. The average current ratio of the company was 0.60 which is far less than the ideal rule of thumb i.e. 2 and average quick ratio was 1.03 which is more than the ideal thumb rule i.e. 1, indicates a satisfactory liquidity position of the company during the years of study. When we tried to find out the overall liquidity position of the company by applying Motaal's Comprehensive Test of Liquidity, we found that working capital to current assets ratio has shown a negative growth of 76.54 percent. 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 quick asset to current ratio has also registered a positive growth of 3.88 percent during the study period, which is an indication of company's concern and steps to maintain liquidity. After analyzing all the aspects of liquidity, we can just say that the present liquidity position of the company is not that much satisfactory as it ought to be. Company should take enough steps to increase the level of working capital, to increase the current ratio and quick ratio. Current assets should be increased at a faster rate as compared to current liabilities. Company must ensure that it has enough liquid resources to meet the short term obligations as they fall due. If the company operates strictly or mostly on cash basis or it is able to pay its creditors after it collects from its debtors, then the situation is in favour of the company. Otherwise, any moment the present situation may create serious financial troubles for the company which may even lead the company.

Table 6: Description of Liquidity Position of the Biocon

Year	Current Assets	Current Liabilities	Working Capital (CA-CL)	Inventory	Quick Assets (CA-IN)	Current Ratio	Quick Ratio	Working Capital To Current Assets (%)	Stock/ Inventory to current assets (%)	Quick asset/ Liquid resources to Current assets (%)
2012	1352.1	563.6	788.5	340.4	1011.7	1.03	0.95	58.31	25.17	74.82
2013	1473.3	627.9	845.4	358.9	1114.4	1.32	1.15	57.38	24.36	75.63
2014	1467.3	603.8	863.5	357.6	1109.7	1.02	1.05	58.84	24.37	75.62
2015	1735.9	564	1171.9	406.3	1329.6	1.31	1.25	67.50	23.40	76.59
2016	2302.3	810.8	1491.5	467.5	1834.8	1.88	2.2	64.78	20.30	79.69
Mean	1666.18	634.02	1032.16	386.14	1280.0	1.312	1.32	61.36	23.52	76.47
Growth	950.2	247.2	703	127.1	823.1	0.85	1.25	6.466	-4.86	4.86
Growth %	70.27	43.86	89.15	37.33	81.35	82.52	131.5	11.08	-19.34	6.50
S.D.	342.02	91.72	265.78	46.20	296.20	0.312	0.451	4.02	1.70	1.70
C.V.%	0.20	0.14	0.25	0.11	0.23	0.23	0.34	0.06	0.07	0.02

Biocon: Table 6, gives a detailed description of liquidity position of Biocon. It is evident from the table that in the case of Biocon, the current assets has shown a growth rate of around 70 percent whereas the current liabilities are grown around 44 percent in last 5 years. The standard deviation of the current assets was Rs.342.02 and the coefficient of variation was 0.20%, which shows a steady and fast growth of current assets during the period of study. As evident from the table, the current liabilities, working capital and quick assets are also changed in the similar fashion as that of current assets. The growth rate of current liabilities was 43.86 percent with a standard deviation of Rs.91.70 crores and a CV of 0.14 percent. The growth rate of working capital was positive to the extent of 89.15 percent with a SD of Rs. 265.78 crores and a CV of 0.25 percent. A positive growth in working capital and a higher positive CV was observed during the period. The quick assets also have registered a positive growth rate of 81.35 percent with a SD of Rs. 296.20 crores and a CV of 0.23 percent. All these indicates the best liquidity in the company and the variability in working capital as well as quick assets leads to growth of the company, which indicates a constant stability in the liquidity position in the company. When the liquidity ratios of Biocon were analysed, we found that both current ratio and quick ratio have registered a positive growth i.e. 82.52 and 131.5 percent respectively. The positive growth in both the ratios indicates that the liquidity position of the company has been built over the years. The average current ratio of the company was 1.312 and average quick ratio was 1.32, which is far more, indicates satisfactory liquidity position of the company during the years of study. Moreover, a higher CV percentage i.e. in the case of current ratio 0.23 percent and in quick ratio 0.34 percent is also an indication of stability in the liquidity position of the company.

Table 7: Description of Liquidity Position of the Ipca Labs

Year	Current Assets	Current Liabilities	Working Capital (CA-CL)	Inventory	Quick Assets (CA-IN)	Current Ratio	Quick Ratio	Working Capital To Current Assets (%)	Stock/Inventory to Current Assets (%)	Quick Asset/ Liquid resources to Current Assets (%)
2012	1196.6	635.2	561.4	663.98	532.62	-	-	-	-	-
2013	1384.8	629.69	755.11	733.34	651.46	1.7	1.15	54.52	52.95	47.04
2014	1583.55	781.39	802.16	838.3	745.25	1.53	1.03	50.65	52.93	47.061
2015	1593.06	893.91	699.15	916.98	676.08	1.32	1.03	43.88	57.56	42.43
2016	1521.68	837.62	684.06	831.94	689.74	1.5	0.87	44.95	54.67	45.32
Mean	1520.77	755.56	700.37	796.90	659.03	1.51	1.02	48.50	54.53	45.46
Growth	325.08	202.42	122.66	167.96	157.12	1.5	0.87	44.95	54.67	45.32
Growth %	27.16	31.86	21.84	25.29	29.49					
S.D.	83.15	106.65	81.16	88.39	70.29	0.13	0.09	4.32	1.88	1.88
C.V.%	0.05	0.14	0.11	0.11	0.106	0.08	0.08	0.08	0.03	0.04

Ipca Labs: Table 7, it is evident from the above table that in the case of Ipca Labs, the current assets has shown a growth rate of around 27.16 percent and similarly current liabilities are also grown around 31.86 percent in 5 years. The standard deviation of the current assets was Rs.83.15 and the coefficient of variation was 0.05%, which shows a steady and fast growth of current assets during the period of study. As evident from the table, the current liabilities, working capital and quick assets are also changed in the similar fashion as that of current assets. The growth rate of current liabilities was 31.86 percent with a standard deviation of Rs.106.65 crores and a CV of 0.14 percent. The growth rate of working capital was 21.84 percent with a SD of Rs. 81.16 crores and a CV of 0.11 percent. A higher CV rate indicates a greater variation of working capital during the period. The quick assets have registered a growth rate of 29.49 percent with a SD of Rs. 70.29 crores and a CV of 0.106 percent. When we tried to find out the overall liquidity position of the company by applying Motaal's Comprehensive Test of Liquidity, we found that working capital to current assets ratio has shown a positive growth of 44.95 percent. 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 increasing slowly and slowly. This aggressive approach in the working capital might be the policy of the firm to enhance the profitability. The positive growth in stock to current assets ratio can be treated as negative action towards liquidity management. The quick asset to current ratio has also registered a positive growth of 45.3 percent during the study period, which is an indication of company's concern and steps to maintain liquidity. After analyzing all the aspects of liquidity, we can just say that the present liquidity position of the company is not that much satisfactory as it ought to be. Company should take enough steps to increase the level of working capital, to increase the current ratio and quick ratio. Current assets should be increased at a faster rate as compared to current liabilities. Company must ensure that it has enough liquid resources to meet the short term obligations as they fall due. If the company operates strictly or mostly on cash basis or it is able to pay its creditors after it collects from its debtors, then the situation is in favour of the company. Otherwise, any moment the present situation may create serious financial troubles for the company which may even lead the company towards bankruptcy.

Table 8: Description of Liquidity Position of the Torrent Pharma

Year	Current Assets	Current Liabilities	Working Capital (CA-CL)	Inventory	Quick Assets (CA-IN)	Current Ratio	Quick Ratio	Working Capital To Current Assets (%)	Stock/Inventory to Current Assets (%)	Quick Asset/Liquid resources to Current Assets (%)
2012	1423.99	828.57	595.42	393.12	1030.87	1.25	1.04	41.81	27.60	72.39
2013	2062.86	1112.02	950.84	697.09	1365.77	1.33	0.93	46.09	33.79	66.20
2014	2672.33	1166.94	1505.39	694.51	1977.82	1.42	1.09	56.33	25.98	74.01
2015	2731.63	1325.88	1405.75	781.15	1950.48	1.16	1.01	51.46	28.59	71.40
2016	3111.42	1501.94	1609.48	970.13	2141.29	1.15	0.74	51.72	31.17	68.82
Mean	2400.44	1187.07	1213.37	707.2	1693.24	1.26	0.96	49.48	29.43	70.56
Growth	1687.43	673.37	1014.06	577.01	1110.42	-0.1	-0.3	9.91	3.57	-3.57
Growth %	118.50	81.26	170.31	146.77	107.716	-8	-28.8	23.71161	12.94138	-4.93
S.D.	592.70	224.93	382.09	186.28	422.81	0.10	0.12	5.02	2.75	2.75
C.V.%	0.24	0.18	0.31	0.26	0.24	0.08	0.12	0.10	0.09	0.03

Torrent Pharma: Table 8, it is evident from the table 8 that, the current assets has shown a growth rate of 118.50 percent whereas the current liabilities are grown to the extent of 81.26 percent in last 5 years. The standard deviation of the current assets was Rs. 592.70 and the coefficient of variation was 0.24 percent, which shows steady and fast growth of current assets during the period of study. The working capital has also registered a positive growth of 170.31 percent indicates that the company has always tried to maintain the required amount of working capital. The quick assets have registered a positive growth rate of 107.716 percent with a SD of Rs. 422.81 crores and a CV of 0.24 percent indicates that during the period company has invested enough money in liquid resources. When the liquidity ratios of Torrent Pharma were analysed, we found that both current ratio and quick ratio have registered a negative growth i.e. -8 and -28.8 percent respectively. The negative growth in both the ratios indicates that the liquidity position of the company has been degraded over the years. The average current ratio of the company was 1.26 and average quick ratio was 0.96, which indicates that though the company maintains sufficient liquid resources, yet the current assets position is not up to the expectation. But, the overall position is satisfactory as compared to other companies under study. When we tried to find out the overall liquidity position of the company by applying Motaal's Comprehensive Test of Liquidity, we found that working capital to current assets ratio has shown a positive growth of 23.71 percent. 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 was increasing slowly and slowly. This aggressive approach in the working capital might be the policy of the firm to enhance the profitability. The positive growth in stock to current assets ratio which is 12.94 percent is though a good sign for the company. The quick asset to current ratio has also registered a negative growth of 4.93 percent during the study period, which shows that company's liquid assets position as a part of current assets has also deteriorated subsequently during the period of study. But it is very low. After analyzing all the aspects of liquidity, we can say that the overall liquidity position of the company is good. As a part of suggestion, we can only say that company should try to increase its current liabilities level at par with increase in current assets.

Table 9: Description of Liquidity Position of the Ajanta Pharma

Year	Current Assets	Current Liabilities	Working Capital (CA-CL)	Inventory	Quick Assets (CA-IN)	Current Ratio	Quick Ratio	Working Capital To Current Assets (%)	Stock/Inventory to Current Assets (%)	Quick Asset/ Liquid resources to Current Assets (%)
2012	309.19	245.46	63.73	162.35	146.84	1.06	1.25	20.61	52.50	47.49
2013	325.8	217.77	108.03	143.51	182.29	1.4	1.38	33.15	44.04	55.95
2014	453.65	263.96	189.69	148.77	304.88	1.41	1.47	41.81	32.79	67.20
2015	573.03	244.83	328.2	153.05	419.98	2.17	1.85	57.27	26.70	73.29
2016	699.64	253.13	446.51	189.78	509.86	2.12	2.19	63.81	27.12	72.87
Mean	472.26	245.03	227.23	159.49	312.77	1.63	1.628	43.33	36.63	63.36
Growth	390.45	7.67	382.78	27.43	363.02	1.06	0.94	43.20	-25.38	25.38
Growth %	126.28	3.12	600.62	16.89	247.22	100	75.2	209.62	-48.34	53.44
S.D.	148.48	15.27	141.86	16.35	137.81	0.43	0.34	15.72	10.10	10.10
C.V.%	0.31	0.06	0.62	0.10	0.44	0.26	0.20	0.36	0.27	0.15

Ajanta Pharma: Table 9 provides a detailed description of liquidity position of Ajanta pharma. It is evident from the table that, in the case of Ajanta Pharma, the current assets has shown a growth rate of around 126.28 percent whereas the current liabilities are grown around 3.12 percent which is less than double of the growth rate of current assets in last 5 years. The standard deviation of the current assets was Rs.148.48 and the coefficient of variation was 0.31 percent, which shows a steady and fast growth of current assets during the period of study. As evident from the table, the current liabilities, working capital and quick assets are also changed in the similar fashion as that of current assets. The growth rate of current liabilities was 3.12 percent with a standard deviation of Rs.15.27 crores and a CV of 0.06 percent. The growth rate of working capital was positive to the extent of 600.60 percent with a SD of Rs.141.86 crores and a CV of 0.62 percent. A positive growth in working capital and a higher positive CV rate indicates a faster growth of current assets as compared to current liabilities with a greater variation during the period. The quick assets also have registered a positive growth rate of 247.22percent with a SD of Rs. 137.81 crores and a CV of 0.44 percent. All these indicates a very worse liquidity crunch in the company and the variability in working capital as well as quick assets are much more than the expected, which indicates a constant instability in the liquidity position in the company. When the liquidity ratios of Ajanta Pharma were analysed, we found that both current ratio and quick ratio have registered a positive growth i.e. 100 and 75.2 percent respectively. The positive growth in both the ratios indicates that the liquidity position of the company has been built over the years. The average current ratio of the company was 1.63 and average quick ratio was 1.62 indicates an unsatisfactory liquidity position of the company during the years of study. Moreover, a higher CV percentage i.e. in the case of current ratio 0.26 percent and in quick ratio 0.20 percent is also an indication of instability in the liquidity position of the company. When we tried to find out the overall liquidity position of the company by applying Motaal's Comprehensive Test of Liquidity, we found that working capital to current assets ratio has shown a positive growth of 209.62 percent. 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 increasing slowly and slowly. The negative growth in stock to current assets ratio 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 53.44 percent during the study period, which shows that company's liquid assets position has also deteriorated subsequently during the period of study. After analyzing all the aspects of liquidity, we can just say that the present liquidity position of the company is very much worse. Company should take serious steps to increase the level of working capital, to increase the current ratio and quick ratio. Current liabilities should be increased at a faster rate as compared to current assets. Company must ensure that it has enough liquid resources to meet the short term obligations as they fall due. If the company operates strictly or mostly on cash basis or it is able to pay its creditors after it collects from its debtors, then the situation is in favour of the company. Otherwise, any moment the present situation may create serious financial troubles for the company which may even lead the company towards bankruptcy.

Motaal's Comprehensive Test of Liquidity

Motaal prescribes a comprehensive test for determining the soundness of a firm as regards to the liquidity position. According to him, a process of ranking is used to arrive at a more comprehensive measure of liquidity in which the following three ratios are combined in a point score:

(i) Working Capital (WC) to Current Asset Ratio = Working Capital/ Current Assets x 100

(ii) Stock to Current Asset Ratio = Inventory or Stock/Current Assets x 100

(iii) Liquid Resources (LR) to Current Asset Ratio = Liquid Resources or Quick Assets/Current Assets x 100

The higher the value of both working capitals to current asset ratio and liquid resources to current asset ratio, relatively the more favorable will be the liquidity position of a firm and vice-versa. On the other hand, lower the value of stock to current assets ratio, relatively the more favorable will be the liquidity position of the firm. The ranking of the above three ratios of a firm over a period of time is done in their order of preferences. Finally, the ultimate ranking is done on the basis of the principle that the lower the points scored, the more favorable will be the liquidity position and vice-versa.

Table 10: Motaal's Comprehensive Test of Liquidity

Sr. No.	Company	Capital to Current Assets Ratio (%)	Rank	Stock to Current Assets Ratio (%)	Rank	Liquid Resources to Current Assets Ratio (%)	Rank	Total Rank	Ultimate Rank
1	Lyka labs	-76.54	5	14.78	5	85.21	1	11	5
2	Biocon	61.36	1	23.52	4	76.47	2	7	1
3	Ipca labs	44.95	3	54.67	1	45.32	5	9	3
4	Torrent pharma	49.48	2	29.43	3	70.56	3	8	2
5	Ajanta pharma	43.33	4	36.63	2	63.36	4	10	4

The above table shows that Motaal's comprehensive test of liquidity reveals that on the basis of Motaal's ultimate rank test of liquidity, Biocon is awarded rank-1, indicating that it is most liquid company among the other five. Torrent pharma, Ipca Lab and Ajanta pharma are awarded by the ranks- 2, 3 and 4 respectively. Lyka labs- 5 indicate the most unfavorable liquidity position.

Conclusion

The present paper aims to analyze the liquidity position of the selected pharmaceutical companies by making use of liquidity ratios such as current ratio, quick ratio and absolute liquid ratio over the period 2012-2016. Short term creditors are mainly interested in the liquidity position of the firms to know the promptness of company to meet its current liabilities. The present study concludes that the liquidity ratio of Ajanta Pharma is better as compared to others. The other selected Pharma companies need to improve their liquidity position for better performance. Companies should always maintain the ideal current and liquid ratio which is not sufficient in the case of the selected companies we have studied. The low or negative working capital in some cases implies that, no doubt, in recent days many companies are using negative working capital and getting a good amount of profits and good return on capital as well. 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) or we can say that the company is over burdened with current liabilities which are not good for any situation (especially in a period of recession).

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