

Liquidity and Profitability Relationship and Financial Fallacy

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Abstract

Theoretically a company needs to maintain a liquidity level that is not detrimental to its profitability. Empirical evidences show a negative correlation between liquidity and profitability but a company cannot operate with zero liquidity in order to maximize its profits. Normally firms try to maximize their profitability by maintaining the desired liquidity, but increasing profitability will definitely lead to reduce firms' liquidity and increased stress on liquidity would tend to affect the profitability adversely. In general, low or no working capital and large payables of a firm are considered as a sign of serious financial trouble and negative working capital is often viewed by rating agencies as an alarm of default risk, which may lead to the firm incurring higher interest cost on its loans. In this paper the researcher has conducted a comparative study of the liquidity and profitability position of two Indian pharmaceutical companies i.e. Ajanta Pharma and Primal Pharma. The analysis shows that in case of Ajanta Pharma, there is a significant positive relationship between liquidity and profitability measures. In other words, CR and QR are positively correlated with ROA, ROE and NP, and the relationship is significant, whereas in case of Piramal Pharma, the relationship between liquidity and profitability measures are very weak and insignificant. Although the risk and return theories of finance indicates that the relationship between liquidity and profitability should be negative; there have been studies that produced

different results. These findings seem to be really interesting because they indicate that there are different kind of relationship between liquidity and profitability in different industries, and these relationships in different industries might be different in different countries as well. This difference in relationship of liquidity and profitability could lead to a difference in management of the liquidity. Hence the author feels that there is a fallacy in the established rule of finance that liquidity and profitability has always an inverse relationship, i.e, both are negatively related to each other. As proved in the case of Ajanta Pharma, an organization can increase its profitability even after keeping its liquidity intact.

Key Words: *Liquidity, Profitability, Bankruptcy, Trade-off, Working Capital.*

JEL Classification: *G30, G32.*

Introduction

The relationship between working capital and the profitability has been an interesting debate in financial management as the working capital decision affects both liquidity and profitability. Excess of Investment in working capital may result in low profitability and lower investment may result in poor liquidity. Management need to trade-off between liquidity and profitability to maximize shareholder's wealth. Every organization whether, profit oriented or not, irrespective of size and nature of business, requires necessary amount of working capital. Working capital is the most crucial factor for maintaining liquidity, survival, solvency and profitability of business (Mukhopadhyay, 2004). It is observed that, if firm wants to take a bigger risk for bumper profits and losses, it minimizes the dimension of its working capital in relation to the revenues it generates. If it is willing to improve its liquidity, that in turn raises the level of its working capital. Nevertheless, this technique might tend to reduce the sales volume and consequently, it would affect the profitability. Thus, a company needs to have a striking balance between the liquidity and the profitability. In order to maintain high profitability levels companies might need to forfeit its solvency for maintaining relatively low levels of CA. As soon as the companies start doing so, its profitability would improve as less amount of money would be fastened up to the idle CA and their solvency would be in danger.

Working capital meets the short-term financial requirements of a business enterprise; it is required to run the day-to-day operations of a business. It is the result of the time lag between the expenditure incurred for the purchase of raw materials and the receipt of funds from sales of finished products. The components of working capital are inventories, accounts to be paid to suppliers and payments to be received from customers after sales. Financing is needed for receivables and inventories, net of payables. The proportions of these components in the working capital change from time to time during the trade cycle. Working capital requirements impact the liquidity and profitability of a firm and hence, affect financing and investing decisions. Lower requirement of working capital leads to lower need for funds and lower cost of capital and hence, availability of more cash for shareholders. However, lower working capital may lead to lost sales and thus, may affect profitability. Hence, it is imperative for every organization to strike a balance between liquidity and profitability.

Review of Literature

The important part of working capital management is maintaining liquidity for day-to-day operations to ensure the smooth running of a firm and meeting its obligations, and simultaneously striving for maximizing the profit. This is not a simple task and managers need to ensure that business operations are both efficient and profitable. There are chances of mismatch in current assets and current liabilities during this process, which could affect the growth and profitability of the business. A number of research studies have revealed the following:

Ghosh and Maji (2003) attempted to examine the efficiency of working capital management of Indian cement companies during 1993 to 2002. Instead of using working capital management ratios, they calculated three index values – performance index, utilization index and overall efficiency index - to measure the efficiency of working capital management. 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 relationship 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 correlation between the firm's profitability and its liquidity levels, as measured by current ratio.

Singh and Pandey (2008) suggested that for successful operations of any business organization, fixed and current assets play a vital role, and 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 assets inoperative.

Kevin and Young (2009) in their article, “Need Cash? Look Inside Your Company” took a hard look at the way a company manages its working capital. They observed that a lot of capital was tied up in receivables and inventory could be turned into cash by challenging the

working capital practices and policies of the company. They listed six common mistakes that companies make in managing working capital; the simple act of correcting them could free up enough cash to make the difference between failure and survival in a recession.

Karamjeet and Firew (2011) conducted a study to assess working capital adequacy and its impact on profitability of firms using a sample of 449 Indian manufacturing firms and found that there is a significant difference in relative solvency levels of firms depending on efficient management of 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. Most firms recorded an increase in sales. The management of working capital is one of the most important and challenging aspects of the overall performance of the organization. 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 the Indian Electrical Equipment Industry and it is limited to two companies - BHEL and ABB Ltd representing public and private sector enterprises respectively. Relevant data has been extracted from the consecutive annual reports between financial years 2005-06 and 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 the determinants of corporate liquidity in India for a sample of 100 firms in the Indian market over the period 1999-2008. It was found that size of the 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, liquid ratio and cash turnover ratio are negatively associated with return on assets (ROA) and return on investment (ROI).

Neeraj and Devesh (2013) studied the liquidity position and impact on profitability of Tata Steel and Steel Authority of India. The study found that the liquidity position can be improved with the help of a low average collection period and average collection can be reduced by proper coordination between sales, production and finance departments. The study found a positive impact of the liquidity position on profitability with the help of various techniques.

Panigrahi, A.K. (2013) studied the liquidity position of five leading companies over a period of 10 years from 2000-2010. It has been found that the liquidity position of small companies is better as compared to large ones. Lastly, it was concluded that companies should maintain an ideal current and liquid ratio.

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

Mohmad and Dr. Syed (2016) analysed the liquidity and profitability of selected companies and more specifically sought to compare liquidity and profitability performance of selected companies. They discovered a 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.

Panigrahi et al.; (2018) has done a research study on the liquidity and profitability of the top five Indian pharmaceutical companies. The study's intent was to provide empirical evidence about the effects of working capital management on profitability for this sample of five listed pharmaceutical companies for the period 2011-12 to 2015-16.

Although liquidity and profitability are inversely related in all cases, which coincide with the theory of finance, it was found that highly liquid companies were profitable. The assumption that all profitable companies suffered from lack of liquidity and all liquid companies suffered losses was not evident. In other words, a company need not forego liquidity to earn profit. The key aspect is to draw a balance in terms of the extent to which a company can forego liquidity to earn the desired profit, which is the ultimate trade-off between liquidity and profitability. While this is essential, there is no universally acceptable solution or rule to work out this trade-off. On the other hand, operating with negative working capital for the sake of greater profits is gaining popularity in today's corporate world; this is also a key parameter used to judge managerial efficiency. However, the author would caution financial managers to ensure that this method of functioning does not lead to financial bankruptcy of the organisation.

Research Problem

The key aspect of managing working capital is to maintain liquidity on a day-to-day basis to ensure the smooth functioning of the organization and to meet its obligations. Hence, it is very important to keep a close watch on the liquidity position of the company as without it the company cannot survive. But efforts to increase the profitability would tend to reduce firms' liquidity and too much attention on liquidity would tend to affect the profitability. No doubt, every firm tries to maximize profitability while maintaining liquidity. However, increasing profits at the cost of liquidity might cause serious problems for the firm and this problem might lead to financial insolvency as well. Thus, effective working capital management would be needed to strike a balance between the two core objectives of the firm. It is essential that the firm's liquidity should be properly balanced because excessive liquidity on one hand indicates the accumulation of idle funds that don't fetch any profits for the firm and on the other hand, insufficient liquidity might damage the firm's goodwill, deteriorate its credit standings, which may lead to forced liquidation of the firm's assets. Hence, a trade-off needs to be maintained between liquidity and profitability.

Scope of the Study

This study covers a period of 5 years from 2012-13 to 2016-17. The investigation has been carried out using secondary information acquired from yearly reports of the organizations and from the website named www.moneycontrol.com. Moreover, journals and magazines were studied for setting out the procedure for examination. For the purpose of the study, two pharmaceutical companies were randomly selected, whose financial information was available in the public domain. Altering, grouping and arrangement of the information gathered was done according to the prerequisites of the study. The study attempts to determine the efficiency and effectiveness of management in each segment of working capital. Since the net concept of working capital has been widely taken in the present study, the management of both liquidity and profitability were also critically reviewed in due course. The difference between profitability and liquidity is simply the availability of profits versus availability of cash. Profit is the principle measure to assess the stability of a company and is of priority interest to shareholders. While profit is the most important, this does not necessarily mean that the business operations are sustainable. Further, a profitable company may not have sufficient liquidity because most of the funds in the company are invested into projects; on the other hand, a company which has a lot of cash or liquidity may not be profitable because it has not utilized excess funds effectively. Thus, the success depends on better management of both profitability and liquidity.

Need and Importance of the Study

A firm's financial stability and profitability are largely dependent upon sound working capital management. If there is a shortage of working capital, it affects the day-to-day operations of the firm. Similarly, if there is an excess of working capital, the funds remain idle, which, in turn, affects the financial soundness of the firm. In this perspective, there is a need to manage the working capital of a business effectively. The literature has been reviewed to find out how pharmaceutical companies manage their working capital. This study has been undertaken to answer this question. This study brings out the fact that the manner of administration of current assets and current liabilities determines the success or failure of any business. The efficient and effective management of working capital is of crucial importance for the success of a business. The business concern has to optimize the use of available resources through efficient and effective management of current assets and current liabilities. This helps increase the profitability of the concern and facilitates the firm meeting its current obligations in time. Liquidity is just as important as profitability, sometimes even more important in the short term. This is because the company needs cash to run day-to-day business operations. This includes manufacturing and selling costs, payment of salaries to employees and payments to creditors, tax authorities and interest on borrowed funds. Without successfully meeting its liabilities and expenses, companies cannot survive to make a profit. Additional funding sources such as acquiring more debt can be considered; however, that comes with higher risks and more costs. Thus, it is important to be vigilant regarding cash flow situation and manage the trade-off between liquidity and profitability effectively.

Objectives of the Study

The major objectives of this study are specified as follows:

- To measure and evaluate the liquidity and profitability position of Ajanta and Piramal.
- To assess the correlation between liquidity and profitability of both the companies
- To offer suggestions based on the above study.

Hypothesis of the study:

The above stated objectives are to be achieved by testing the following hypothesis:

H1: The relationship between liquidity and profitability of Ajanta Pharma is not significant. In other words, the relationship between CR and QR with ROA, ROE and NP of Ajanta Pharma is insignificant.

H2: The relationship between liquidity and profitability of Piramal Pharma is not significant. In other words, the relationship between CR and QR with ROA, ROE and NP of Piramal Pharma is insignificant.

Methodology of the Study

Working capital has played an important role in the analysis of economic and operating performance of a company. The firm's policies for managing working capital should be designed to achieve three goals, which are – adequate liquidity, minimizing risk, and maximizing profit. The term “liquidity” has been subjected to alternative definition of various natures. It is an attribute that signifies the capacity to meet financial obligations as and when required. The study was based on the financial statements data of two Indian pharmaceutical companies namely, Ajanta Pharma and Piramal for the period (2012-2013 to 2016- 2017) covering various aspects of operating performance. In view of the above objectives, exploratory research design has been chosen. Exploratory research is one, which largely interprets the already available information, and it lays particular emphasis on analysis and interpretation of the existing and available information and it makes use of secondary data. This report is based on mainly secondary data collected from annual reports of the company as well as from the website www.moneycontrol.com.

Data Analysis & Findings

The following tables shows the data collected and analyzed by using SPSS for both the companies.

Table - 1

Ajanta Pharma					
Year	Current Ratio (CR)	Quick Ratio(QR)	Return on Assets(ROA)	Return on Equity (ROE)	Net Profit Margin (NP)
2012-13	1.26	0.6	10.77	24.45	11
2013-14	1.5	0.84	14.97	28.38	12.04
2014-15	1.72	1.16	25.1	41.18	19.89
2015-16	2.34	1.72	28.21	38.96	22.59
2016-17	2.76	2.01	29.29	36.84	26.71

Table - 2

Descriptive Statistics - Ajanta Pharma							
	N	Minimum	Maximum	Mean		Std. Deviation	Variance
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic
CR	5	1.26	2.76	1.9160	.27694	.61926	.383
QR	5	.60	2.01	1.2660	.26419	.59075	.349
ROA	5	10.77	29.29	21.6680	3.71686	8.31115	69.075
ROE	5	24.45	41.18	33.9620	3.21714	7.19373	51.750
NP	5	11.00	26.71	18.4460	3.03341	6.78291	46.008

Table – 3

Correlations - Ajanta Pharma						
		CR	QR	ROA	ROE	NP
CR	Pearson Correlation	1	.995**	.897*	.656	.952*
	Sig. (2-tailed)		.000	.039	.229	.012
	N	5	5	5	5	5
QR	Pearson Correlation	.995**	1	.936*	.727	.971**
	Sig. (2-tailed)	.000		.019	.164	.006
	N	5	5	5	5	5
ROA	Pearson Correlation	.897*	.936*	1	.922*	.972**
	Sig. (2-tailed)	.039	.019		.026	.006
	N	5	5	5	5	5
ROE	Pearson Correlation	.656	.727	.922*	1	.827
	Sig. (2-tailed)	.229	.164	.026		.084
	N	5	5	5	5	5
NP	Pearson Correlation	.952*	.971**	.972**	.827	1
	Sig. (2-tailed)	.012	.006	.006	.084	
	N	5	5	5	5	5

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Table – 1 shows the liquidity and profitability measures and Table – 2 shows the descriptive statistics of Ajanta Pharma. It shows the profitability and liquidity for the company for the entire study period. Liquidity is measured by current ratio and quick ratio these mean average is 1.91, 1.26 respectively. The profitability is measured by ROA and ROE and NP the mean values of which are 21.66, 33.96 and 18.44 respectively. Values of profitability measures were found to be higher than those of liquidity measures. The norms of the current ratio is 2:1 to 3:1 and quick ratio is 1:1 to 1.5:1, here the liquidity position shows not enough fund to cover the short term liability of the company. It can be concluded that the company is following an aggressive working capital policy, where by maintaining sufficient liquidity is undermined in order to maximize the profitability.

Table-3 shows that the correlation matrix, the Pearson's correlation coefficient, p- value for two tailed test of significance and the sample size of dependent variable and independent variable for Ajanta Pharma. The table shows that the correlation coefficient between CR and NP is .952 and the P value for two tailed test is (.012) which is less than 0.05. It indicates a significant positive correlation between Current Ratio and Net Profit margin, which is against the established theory of finance and it signifies that company is able to increase the profitability even when the liquidity ratios are increased.

The correlation coefficient between CR and ROA is .897 and the P value for two tailed test is (.039) which is less than 0.05. It indicates a significant positive correlation between Current Ratio and Return on Assets, which is also a rare phenomenon in corporate world. The correlation coefficient between CR and ROE is .656 and the P value for two tailed test is (.229) greater than 0.05, indicates a moderate positive correlation between the two.

The correlation coefficient between QR and NP is .971 and the P value for two tailed test is (.006) which is less than 0.05, indicates a strong positive correlation between Quick Ratio and Net Profit margin and that this correlation is significant at the significance level of 0.01. The correlation coefficient between QR and ROA is .936 and the P value for two tailed test is (.019) is also less than 0.05, indicates a strong positive correlation between Quick Ratio and Return on Assets and that this correlation is insignificant at the significance level of 0.05. The correlation coefficient between QR and ROE is .727 and the P value for two tailed test is (.164) greater than 0.05, indicates a moderate positive correlation between Quick Ratio and Return on Equity and that this correlation is insignificant at the significant level of 0.05.

Table - 4

Piramal Pharma					
Year	Current Ratio (CR)	Quick Ratio (QR)	Return on Assets (ROA)	Return on Equity (ROE)	Net Profit Margin (NP)
2012-13	0.85	0.72	0.95	1.17	11.33
2013-14	0.8	0.75	-1.41	-2.19	-16.5
2014-15	0.53	0.49	-2.18	-4.05	-20.07
2015-16	1.38	1.29	2.26	3.25	15.52
2016-17	0.41	0.36	3.97	8.71	30.17

Table - 5

Descriptive Statistics - Piramal Pharma							
	N	Minimum	Maximum	Mean		Std. Deviation	Variance
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic
CR	5	.41	1.38	.7940	.16789	.37541	.141
QR	5	.36	1.29	.7220	.15942	.35647	.127
ROA	5	-2.18	3.97	.7180	1.13872	2.54627	6.483
ROE	5	-4.05	8.71	1.3780	2.23047	4.98748	24.875
NP	5	-20.07	30.17	4.0900	9.67182	21.62685	467.721

Table -6

Correlations - Piramal Pharma						
		CR	QR	ROA	ROE	NP
CR	Pearson Correlation	1	.996**	.110	-.043	.103
	Sig. (2-tailed)		.000	.860	.946	.869
	N	5	5	5	5	5
QR	Pearson Correlation	.996**	1	.086	-.061	.067
	Sig. (2-tailed)	.000		.891	.923	.915
	N	5	5	5	5	5
ROA	Pearson Correlation	.110	.086	1	.984**	.989**
	Sig. (2-tailed)	.860	.891		.002	.001
	N	5	5	5	5	5
ROE	Pearson Correlation	-.043	-.061	.984**	1	.964**
	Sig. (2-tailed)	.946	.923	.002		.008
	N	5	5	5	5	5
NP	Pearson Correlation	.103	.067	.989**	.964**	1
	Sig. (2-tailed)	.869	.915	.001	.008	
	N	5	5	5	5	5

**, Correlation is significant at the 0.01 level (2-tailed).
 *, Correlation is significant at the 0.05 level (2-tailed).

Table – 4 shows the liquidity and profitability measures and Table – 5 shows the descriptive statistics of Piramal Pharma. It shows the profitability and liquidity for the company for the entire study period. Liquidity is measured by current ratio and quick ratio the mean average of which is .79, and .72 respectively. The profitability is measured by ROA and ROE and NP the mean values of which are .71, 1.37 and 4.09 respectively. Values of profitability measures were found to be higher than those of liquidity measures. The norms of the current ratio is 2:1 to 3:1 and quick ratio is 1:1 to 1.5:1, here the liquidity position shows not enough fund to cover the short term liability of the company. It can be concluded that the company is following an aggressive working capital policy, where by maintaining sufficient liquidity is undermined in order to maximize the profitability.

Table-6 shows that the correlation matrix, the Pearson's correlation coefficient, p- value for two tailed test of significance and the sample size of dependent variable and independent variable for Piramal Pharma. From the output, the correlation coefficient between CR and NP is .103 and the P value for two tailed test is (.869) greater than 0.05. Therefore, there is a weak positive correlation between Current Ratio and Net Profit margin and that this correlation is insignificant at the significant level of 0.05. The correlation coefficient between CR and ROA is .110 and the P value for two tailed test is (.860) greater than 0.05, also signifies a weak positive correlation between the two. The correlation coefficient between CR and ROE is -.043 and the P value for two tailed test is (.946) greater than 0.05, indicates a weak negative correlation between the two.

The correlation coefficient between QR and NP is .067 and the P value for two tailed test is (.915) greater than 0.05. There is a weak positive correlation between Quick Ratio and Net Profit margin and that this correlation is insignificant at the significant level of 0.05. The correlation coefficient between QR and ROA is .086 and the P value for two tailed test is (.891) greater than 0.05. Therefore, here also there is a weak positive correlation between Quick Ratio and Return on Assets and that this correlation is insignificant at the significant level of 0.05. The correlation coefficient between QR and ROE is -.061 and the P value for two tailed test is (.923) greater than 0.05, indicates a weak negative correlation between Quick Ratio and Return on Equity and that this correlation is insignificant at the significant level of 0.05.

Hypothesis Testing

H1: From the above analysis about Ajanta Pharma, we found that there is a significant positive relationship between liquidity and profitability measures. In other words, CR and QR are positively correlated with ROA, ROE and NP, and the relationship is significant. Hence we **Reject** this hypothesis.

H2: Our analysis shows that in case of Piramal Pharma, the relationship between liquidity and profitability measures are very weak and insignificant. In other words, CR and QR are not always positively correlated with ROA, ROE and NP, as in the case of Ajanta Pharma and the relationship is insignificant. Hence we **Accept** this hypothesis.

Managerial Implications of the Study

The study was done to provide empirical evidence about the effects of working capital management on profitability for a sample of two BSE listed pharmaceutical companies for the period 2012-13 to 2016-17. In case of Primal, liquidity and profitability are inversely related or not significantly related in all the cases, which coincide with the theory of finance, but in case of Ajanta Pharma, it is found that liquidity and profitability is positively related which implies that highly liquid companies do earn profit. It is not true that all profitable companies suffer from lack of liquidity or all liquid companies suffer losses. In other words, a company need not forego liquidity in order to earn profit. The only thing required is to draw a balance between the extents a company can lose liquidity to earn the desired profit, which is the ultimate trade-off between liquidity and profitability. While this is essential, there is no universally acceptable solution or rule on the method of working out this trade-off. On the

other hand, the fashion of managing the show with negative working capital is gaining popularity in today's corporate world for the sake of earning more profit, which is regarded as managerial efficiency. But here is a word of caution to all finance managers - they need to ensure that 'managerial efficiency' must not lead to financial bankruptcy of the organization. In India, negative working capital is as popular as it is with global companies such as McDonalds, Amazon.com, etc. Negative working capital indicates non-liquidity or less liquidity within the firm, which is unfavorable at each and every stage of business. Many companies operating in India are able to manage with negative working capital efficiently, creating shareholder value by way of higher EPS and higher market capitalization. At the same time, companies with higher working capital have sufficient liquidity, are more successful because of liquidity and can expand business optimally. However, a company with higher working capital needs higher revenue to maintain a healthy operating ratio. A better credit management system will help these companies generate higher ROCE in the long run. However, in each and every situation, lower level of liquidity is not preferable; a proper tradeoff between liquidity and working capital is needed in the long run.

Limitations of the Study

This study has the following limitations:

1. The study is restricted to just TWO companies and only with five years' data (2012-13 to 2016-17). Expanding the period of study may lead to variations in the outcome.
2. Data for the study was obtained from the website www.moneycontrol.com; quality of the results obtained from the study depends upon the reliability, quality and accuracy of the data.
3. The result of analysis is subject to the same constraints as are applicable to statistical tools.
4. Since the report is exclusively made from data from secondary sources, direct observation is not possible; limitations of secondary data are applicable.
5. The data collected for the study was historic in nature and hence, the suggestions might be irrelevant in certain situations.

Scope for Further Study / Potential for Future Work

This study covers only two companies for a limited time period of five years (2012-13 to 2016-17). There is scope to not only expand the number of companies, but also the time period of study to arrive at more accurate conclusions. Additionally, the study can be expanded to companies in other sectors (other than pharma). Every segment in the manufacturing sector should be studied at the micro level for efficient working capital management in order to assess which factors of working capital management influence profitability more and how working capital management can increase productivity and profitability in different sectors of our country. The influence of interest rate risk, foreign exchange risk, business risk, political risk and competitor risk on working capital management could be analyzed in future research. A further possibility for research is the development of a risk-adjusted working capital rating. The conventional working capital ratio can be promoted to a risk adjusted working capital ratio. The scope for further research may be extended to working capital management components including cash, marketable securities, receivables and inventory management. Hence, the key aim of a company should be to strike a balance between Liquidity and Profitability to achieve optimal efficiency.

Conclusion and Recommendations

Finally, we conclude that, every firm need to maintain a balance between liquidity and profitability while conducting its day-to-day operations. Liquidity is a prerequisite condition to ensure that a firm is able to meet its short-term obligations and its continued flow can also be guaranteed from a profitable venture and the twin objectives of profitability and liquidity must be well-synchronized. Investments in current assets are inevitable to ensure delivery of goods or services to the ultimate customers, and proper management of the same fulfills the desired impact on either profitability or liquidity. If resources are blocked at different stages of the supply chain, this will prolong the cash operating cycle. Although this might increase profitability (due to increase in sales), it may also adversely affect profitability if the costs tied up in working capital exceed the benefits of holding more inventory and/or granting more trade credit to customers. We also recommend that firms in the pharmaceutical sector should forecast their sales and hold sufficient cash according to their projected sales level, so that they are able to take advantage of the bargaining position while making cash purchases, and thus cut their costs. It is very clear that efficient management of working capital and liquidity has a positive effect on the firm's profitability.

References

- Abuzar, M. A., &Elijelly (2004). Liquidity – profitability tradeoff: An empirical investigation in an emerging market, *International Journal of Commerce and Management*, 14(2), 48-61.
- Chakraborty, K. (2008). Working Capital and Profitability: An Empirical Analysis of Their Relationship with Reference to Selected Companies in the Indian Pharmaceutical Industry, *The IUP Journal of Management Research*, 34(3), 12-19.
- Chandrabai T. &Rao, V. J. (2011). Working capital management of Indian Electrical Equipment Manufacturers – A comparative study. *Zenith International Journal of Multidisciplinary Research*, 1(8), 460-469.
- Ganesan, V. (2007). An analysis of working capital management efficiency in telecommunication equipment industry, *Reviver Academic Journal*, 3(2), 45-52.
- Garcia-Teruel, P.J. & Martinez-Solano, P. (2007). Effects of working capital management on SME profitability, *International Journal of Managerial Finance*, 3(2), 51-64.
- Kaiser, K. & Young, D. S. (2009). Need Cash? Look Inside Your Company, *Harvard Business Review*, 44-51.
- Kartik, N.C. (2012). Trends in liquidity management and their impact on profitability- a case study., *Great Lakes Herald*, 6(1),
- Mahesh M. (2010). A Study of Liquidity Management of Indian Steel Industry. PhD thesis, Saurashtra University.
- Malik, H. (2011). Determinants of Insurance Companies' Profitability: An Analysis of Insurance Sector of Pakistan. *Academic Research International* 1(3), 315-321.
- Mandal, N., Suvarun, G., (2010). Impact of Working Capital Management on Liquidity, Profitability and Non-Insurable Risk and Uncertainty Bearing: A Case Study Of Oil and Natural Gas Commission (ONGC), *Great Lakes Herald*, 4(2), 18-29.

- Mathuva D, (2009). The influence of working capital management components on corporate profitability: a survey on Kenyan listed firms, *Research Journal of Business Management*, 3, 1-11.
- Mohmad M. K., & Syed, K. S. (2016). Liquidity and profitability performance analysis of select pharmaceutical companies. Paper presented at the 3 International Conference on Science, Technology and Management, India International Centre, rd New Delhi.
- Nishanthini, A. & Meerajancy, J “Trade-Off between Liquidity and Profitability: A Comparative Study between State Banks and Private Banks in Sri Lanka”, *Research on Humanities and Social Sciences*, Vol.5, No.7, 2015, 78-85.
- Panigrahi A.K., “Impact of Working Capital Management on Profitability: A Case Study of ACC Ltd.”, *Asian Journal of Management*, published by A and V Publications, Issue – 4, Volume – III, Oct. - Dec. 2012, Page 210 – 218. Available at SSRN: <http://ssrn.com/abstract=2342485>.
- Panigrahi A.K., “Liquidity – Profitability Trade-off: A Game of Survival and Growth”, *NMIMS Management Review*, Vol. – XXXVI, Issue – I, April -2018, Page 77-79.
- Panigrahi A.K., “Relationship between Inventory Management and Profitability – An Empirical Analysis of Indian Cement Companies”, *Asia Pacific Journal of Marketing and Management Review*, published by Indian Research Journals, Issue – 7, Volume – II, July-2013, Page 107 – 120. Available at SSRN: <http://ssrn.com/abstract=2342455>.
- Panigrahi A.K., “Working Capital Management Efficiency of Indian Cement Industry”, *NMIMS Journal of Economics and Public Policy*, Vol.-II, Jan. - 2017, Page 8-28.
- Panigrahi A.K., Raul N, Gijare C., “Liquidity and Profitability Trade-off: A Study of Indian Pharmaceutical Companies”, *NMIMS Journal of Economics and Public Policy*, Vol.-III, Issue-I, April – 2018, Page 42-56.
- Parasuraman, N.R (2004). Working capital practices in leading pharmaceutical companies - A view of the credit policy & profitability, *The Management Accountant*, 39(12), 998-1005.pp 16-30.
- Rafuse, M.E. (1996). Working capital management: an urgent need to refocus, *Management Decision*, 34(2), 12-19.
- Sandhar, Kaur, S., Janglani, & Silky. (2013). A Study on Liquidity and Profitability of Selected Indian Cement Companies: A Regression Modeling Approach. *International Journal of Economics, Commerce and Management*, 1(1), 1-24.
- Sathyamoorthi, C.R., (2002). Management of working capital in selected co-operatives in Botswana. *Finance India*, 16(13), 105-125.
- Singh, J.P. & Pandey, S. (2008). Impact of Working Capital Management in the Profitability of Hindalco Industries Limited, *The IUP Journal of Financial Economics*, 36, 34-45.
- Singh, K., & Asres, F. C. (2011). Determining Working Capital Solvency Level and its effect on Profitability in Selected Indian Manufacturing Firms. *International Journal of Economics, Commerce and Management*, 1(2), 52-57.
- Vishnani, S. & Shah, K. B. (2007). Impact of working capital management policies on corporate performance - An empirical study, *Global Business Review*, 8(2), 267-281.

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