

A Study on Impact of Components of Working Capital on Profitability: A Case Study of Ambuja Cements Limited

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Abstract: Working capital is required for managing the day to day expenses of the company and it shows company's ability in managing its current liabilities by using its current assets. Working capital is the difference between current assets and current liabilities. Positive working capital helps the company to manage its short term financing requirements. Working capital comprises current assets like Inventory, Debtors, Short term investments and cash balance; and current assets like payables etc. A study on working capital management throws light on how company's profitability gets affected, as to run the company successfully, not only fixed assets, even current assets play commendable role. Therefore working capital management can be considered as one of the very important concept to be studied and analyzed. In the present scenario time value of money concept plays an important role i.e., a rupee received today is more valuable than a rupee received tomorrow; keeping in view the companies should plan about their investment on fixed assets as return on investment on fixed assets takes long time and also company should have adequate funds to maintain its day to day requirements otherwise it has to raise funds to meet its day to day requirements. Therefore company should always need to have a tradeoff between investment on fixed assets and working capital. The purpose of this study is to know how working capital affects company's profitability and a relationship between working capital management and firm profitability and to identify the variables that most affect profitability. The results of this study show that only inventory turnover ratio and Average payment period have strong correlation with profit which indicates that only these components of working capital affect firm's profitability. And also study has been made to analyze the liquidity position of the company using liquidity ratios and the results show that overall liquidity position of Ambuja cements is good and also company has maintained positive working capital i.e. excess of current assets over current liabilities year on year (except during 2009-10).

Keywords: Working Capital, Profitability, Components of working Capital, Liquidity, Return on Assets, Correlation.

1. INTRODUCTION

Working capital management is inevitable for any kind of company as it indicates the company's liquidity position. In order to survive or sustain a company has to manage its working capital effectively and efficiently as company's profitability is relied on effective working capital management. Long term decisions are irreversible in nature i.e., capital budgeting decisions as large amount of funds are involved. But if company fails in maintaining adequate working capital to manage its day to day expenses it will end up in non attainment of its goals. Therefore, working capital is very important and is one of the important indicators of the company's financial position. The working capital ratio or net working capital shows the amount of current assets company owns over current liabilities which is an important indicator of the financial position of the company. Therefore in order to manage the short term financial position effectively, study on working capital management and understanding the fundamental concepts of working capital is essential.

Types of Working Capital:

Gross Working Capital (GWC): Current assets in the balance sheet of a company are known as gross working capital. Current assets are those short term assets which can be converted into cash within a period of one year.

Net Working Capital (NWC): it is simply the difference between current assets and the current liabilities on the balance sheet of a business.

Permanent working capital is the minimum investment required in working capital irrespective of any fluctuation in business activity. Also known as fixed working capital, it is that level of net working capital below which it has never gone on any day in the financial year.

Temporary working capital (TWC) is the temporary fluctuation of net working capital over and above the permanent working capital. It is the additional working capital requirement arising out of seasonal demand of the product or any special event which otherwise are not predictable

Concepts / Elements / components of Working Capital Management:

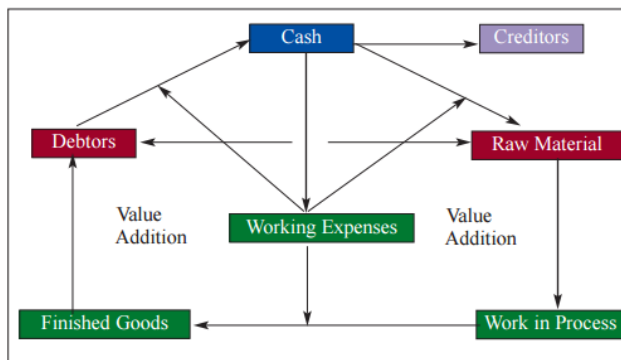
Working Capital Ratio: The working capital ratio, calculated as current assets divided by current liabilities. Working capital ratio below 1.0 is generally indicative of a company having trouble meeting short-term obligations, usually due to insufficient cash flow. Working capital ratios of 1.2 to 2.0 are considered desirable, but a ratio higher than 2.0 may indicate a company is not making the most effective use of its assets to increase revenues.

The collection ratio, also known as the average collection period ratio, is a principal measure of how efficiently a company manages its accounts receivables. The collection ratio is calculated as the number of days in an accounting period, such as one month, multiplied by the average amount of outstanding accounts receivables, with that total then divided by the total amount of net credit sales during the accounting period. The collection ratio calculation provides the average number of days it takes a company to receive payment, in other words, to convert sales into cash. The lower a company's collection ratio, the more efficient its cash flow.

Inventory management: To manage with maximum efficiency and maintain a comfortably high level of working capital, a company has to carefully balance sufficient inventory on hand to meet customers' needs while avoiding unnecessary inventory that ties up working capital for a long period of time before it is converted into cash. Companies typically measure how efficiently that balance is maintained by monitoring the inventory turnover ratio. The inventory turnover ratio, calculated as revenues divided by inventory cost, reveals how rapidly a company's inventory is being sold and replenished. A relatively low ratio compared to industry peers indicates inventory levels are excessively high, while a relatively high ratio indicates the efficiency of inventory ordering can be improved.

Working capital Management helps the company to maintain optimal level of working capital wherein company can maintain proper cash balance, Minimum Inventory (adequate inventory as per requirement) and framing effective account receivable and account payable policies.

Working capital management helps the company in managing its inventories, accounts receivable and payable, and cash effectively which in turn an efficient management of working capital is essential for the profitability and overall financial health of any company.



Components of Working Capital:

2. REVIEW OF LITERATURE

For the purpose of literature review, few scholarly books, articles, journals and research papers have been reviewed which are relevant to the current study on relationship between the Working Capital Management and Profitability.

Ardekanian (2009) studies the relation between working capital management and profitability. The author applied different financial ratios such as Account Collection Period (ACP), average inventory period, Average Payment Period (APP) and Cash Conversion Cycle (CCC) to analyze working capital management. To measure profitability, one of profitability ratios was used. 110 companies in 17 industries were selected using screening method and were studied in 6 years. The data required for research were gathered from Tehran Stock Exchange and Pearson correlation coefficient and regression analysis were applied to analyze data. The results indicated that there was a negative relation between working capital management and profitability. Negative relation means that assertive policies in working capital management increase profitability while conservative strategies will lead to cut down of profitability.

Azhar & Noriza (2010) have randomly selected 172 Malaysian firms to evaluate the effect of Working Capital Management on the firm profitability and market value. Results show a strong negative association in working capital variables and firms performance. By analyzing the oil and gas sector of Pakistan, Shah and Sana (2006) concluded that there exists a negative relationship between Gross Profit and working capital ratios except average payment period which is positively related to gross profit.

Sayeda Tahmina Quayyum (2011) made an attempt to investigate the effects of working capital management efficiency as well as maintaining liquidity on the profitability of corporations. For this purpose, corporations enlisted with the cement industry of Dhaka Stock Exchange had been selected and the analysis covered the time period from 2005 to 2009. The purpose of this article was to establish a relationship which was statistically significant. The other purpose was to explain the necessity of firms optimizing their level of working capital management and maintaining enough liquidity as it affected profitability. The result of this study clearly showed significant level of relationship between the profitability indices and various liquidity indices as well as working capital components.

Alipour (2011) took a sample of 1063 top firms listed in Tehran stock exchange and found a negative significant relationship between number of day's accounts receivable, Inventory Turnover and cash conversion cycle where as positive significant relation with no of days accounts payables with profitability and hence concluded that working capital management significantly affects the profitability of the firms.

Ching et al. (2011) conducted a study to find out the relationship between working capital management and profitability in Brazilian-listed companies. The objectives of their study were to investigate if there was any difference between corporate profitability and working capital management in two separate groups of companies: working capital intensive and fixed capital intensive; and to identify the variables that most affect profitability. They have measured profitability in three different ways: Return on Sales (ROS), Return on Assets (ROA) and ROE. The independent variables used are cash conversion efficiency, debt ratio, days of working capital, day receivable and days of inventory. Multiple linear regression used in their study identified that, there exists negative relationship between CCC (equal to days of working capital), debt ratio and profitability.

Ashraf Mohammad (2012) made an attempt to investigate the working capital management in cement units in Rajasthan on a sample of four companies, for a period of 5 years from 2006 – 2010. 1) It was noticed that selected cement companies have huge cash amount in their accounts which could be used for further expansions, 2) The working capital of these companies increased drastically which indicated that proper working capital management should be improved in time, 3) The current ratio of the companies indicated more than twice can be borne by the current assets and so the company can confidently expand their operations,

OBJECTIVES OF THE STUDY:

1. To measure and evaluate the liquidity and profitability position of Ambuja Cements Limited.
2. To find out the impact of different components of Working capital on profitability.

About the Company: Ambuja Cements Limited:

Ambuja Cements Ltd, a part of the global conglomerate LafargeHolcim, is one of the leading cement companies in the Indian cement industry. Operating for over 25 years, Ambuja has proved to be the best cement for construction and the best cement manufacturing company in India with its uniquely sustainable development projects. Its environment friendly

initiatives have played a key role in India's efforts to become a green state. The sustainable constructions and renewable energy projects undertaken by it have a lion's share in creating a blueprint for sustainable development in India's bright future.

By virtue of its hassle-free customer support & home building solutions and its unique cement sustainability initiatives such as True Value and Water Positive, Ambuja's business has seen a rapid growth in the past decade. The company has a significant presence across western, eastern and northern markets of India as a brand for Ordinary Portland Cement (OPC) and Pozzolana Portland Cement (PPC).

Currently, Ambuja has a cement capacity of 29.65 million tonnes with five integrated cement manufacturing plants and eight cement grinding units across the country. It is the first Indian cement manufacturer to build a captive port with four terminals along the country's western coastline to facilitate timely, cost effective and environmentally cleaner shipments of bulk cement to its customers.

Ambuja Cement created another benchmark among cement companies in India, by obtaining a whopping 4 times water positive factor in 2014. The assessment was carried by the leading global certification body, DNV GL.

15.9% of our total water was recycled and reused in dust suppression, gardening and other purposes, after treatment in water plants.

The Rabriyawas Plant received the honour of 'Excellent Water Efficient Unit' at the National Award for Excellence in Water Management, 2012.

Our team has built over 300 check-dams and small barriers across the country, to avoid water runoff from streams and rivers.

3. RESEARCH METHODOLOGY

Collection of data: The data of Ambuja Cements Ltd for the period 2006-07 to 2015-16 used in this study has been collected from secondary sources i.e. Annual reports of the company as well as from the website moneycontrol.com.

Variables: The dependent variable considered for the study was Return on Asset (ROA) as a measure of Profitability. In this study six independent variables were taken to measure the Working Capital. These variables include: Average collection period, Cash conversion cycle, Inventory Turnover Ratio, Current Ratio and quick ratio.

Hypotheses of the Study:

H1: There is a relationship between components of working capital and profitability of Ambuja Cements during the period of study.

Ho: There is no relationship between components of working capital and profitability of Ambuja Cements during the period of study.

Statistical Tools used in the Study:

The mean and standard deviation and coefficient of variation are used to analyze the liquidity position of the company. And to examine the relationship between Working capital and Profitability a statistical Correlation analysis technique and T – test have been used.

Need and Background of the Study:

The main purpose of this study is to investigate the relationship between working capital management and profitability. This study is mainly focused on analyzing the company's short term liquidity position and also considered some variables like Return on Assets, Average Collection period, Cash conversion cycle, Average Payment Period, Inventory turnover ratio to study the relationship between working capital and profitability. Working capital management is important to every company whether it's a profit oriented or service oriented as if the company that does not manage working capital effectively is less profitable and could get exposed to face financial insolvency. Efficient working capital management helps a company to have a tradeoff between liquidity and profitability. Inadequate employment of funds to manage the day to day expenses may lead the firm to get exposed to many financial problems like nonpayment of wages / salaries, payment to creditors etc. And in the same way excess amount of funds employed by the company to manage its day to day expenses may lead to decreased profitability due to higher investment in idle or unproductive current assets. Therefore, company has to judiciously invest in current assets and fixed assets.

Table 1 showing the liquidity position of Ambuja Cements Limited

| Year | Current Assets | Current Liabilities | Working Capital | Inventory | QA | Current Ratio | Quick Ratio | Working capital to current assets (%) | Stock to current assets (%) | Quick assets to current assets (%) |
|-----------------|----------------|---------------------|-----------------|-----------|----------|---------------|-------------|---------------------------------------|-----------------------------|------------------------------------|
| 2006 | 1177.61 | 701.59 | 476.02 | 408.82 | 768.79 | 1.68 | 1.10 | 40.42 | 34.72 | 65.28 |
| 2007 | 1583.72 | 1168.29 | 415.43 | 586.27 | 997.45 | 1.36 | 0.85 | 26.23 | 37.02 | 62.98 |
| 2008 | 2339.45 | 1473.8 | 865.65 | 939.75 | 1399.7 | 1.59 | 0.95 | 37.00 | 40.17 | 59.83 |
| 2009 | 1979.34 | 1741.09 | 238.25 | 683.24 | 1296.1 | 1.14 | 0.74 | 12.04 | 34.52 | 65.48 |
| 2010 | 3135.33 | 2394.18 | 741.15 | 901.86 | 2233.47 | 1.31 | 0.93 | 23.64 | 28.76 | 71.24 |
| 2011 | 4264.28 | 2764.27 | 1500.01 | 924.97 | 3339.31 | 1.54 | 1.21 | 35.18 | 21.69 | 78.31 |
| 2012 | 5274.85 | 3010.94 | 2263.91 | 983.93 | 4290.92 | 1.75 | 1.43 | 42.92 | 18.65 | 81.35 |
| 2013 | 5537.04 | 2843.2 | 2693.84 | 933.94 | 4603.10 | 1.95 | 1.62 | 48.65 | 16.87 | 83.13 |
| 2014 | 5995.21 | 3147.6 | 2847.61 | 888.39 | 5106.82 | 1.90 | 1.62 | 47.50 | 14.82 | 85.18 |
| 2015 | 6548.6 | 3226.09 | 3322.51 | 895.45 | 5653.15 | 2.03 | 1.75 | 50.74 | 13.67 | 86.33 |
| Mean | 37835.43 | 22471.05 | 15364.38 | 8146.62 | 29688.81 | 16.24 | 12.20 | 364.31 | 260.89 | 673.83 |
| Mean | 3783.54 | 2247.11 | 1536.44 | 814.66 | 2968.88 | 1.62 | 1.22 | 36.43 | 26.09 | 67.38 |
| Growth | 5370.99 | 2524.50 | 2846.49 | 486.63 | 4884.36 | 0.35 | 0.66 | 10.31 | -21.04 | 21.04 |
| Growth Rate (%) | 321.29 | 320.29 | 322.77 | 199.27 | 386.18 | 96.78 | 111.37 | 90.13 | 75.15 | 103.21 |
| S.D | 1984.88 | 906.99 | 1151.24 | 189.85 | 1851.73 | 0.30 | 0.36 | 12.47 | 10.06 | 10.06 |
| C.V (%) | 52.46 | 40.36 | 74.93 | 23.30 | 62.37 | 18.17 | 29.65 | 34.22 | 38.57 | 14.93 |

Interpretation:

Table -1 gives a detailed description of liquidity position of Ambuja Cements. It is evident from the table that in case of Ambuja Cements, the current assets has shown a growth rate of around 321.29 percent whereas the current liabilities are grown around 320.29 percent which is almost as same as current assets growth rate with only difference of 1% in last 10 years. The standard deviation of the current assets was 1984.88 and the coefficient of variation was 52.46 %, 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 320.29 percent with a standard deviation of Rs.906.99 crores and a CV of 40.36 percent.

The growth rate of working capital was amounted to 322.77 percent with a SD of Rs.1151.24 crores and a CV of 74.93 percent. Growth in working capital with a CV of 74.93% indicates a faster growth of current assets as compared to current liabilities during the period. The quick assets also have registered a growth rate of 386.18 percent with a SD of Rs. 1851.73 crores and a CV of 62.37 percent. All these indicate a sound liquidity position of the company.

Current Ratio: An increase in the current ratio represents improvement in the liquidity position of a firm. It exhibits a fluctuating trend of this ratio, which varies from 2.3 in the year 2015 to 1.14 in the year 2009 during the period under study. On an average, the ratio is 1.62 during the period with S.D. 0.30 and coefficient of variation 18.17%. Thus, we observe from the current ratio that on average Ambuja cements has 1.62 paisa of current assets to pay off every rupee of its current liabilities. This further signifies that the short-term solvency of Ambuja Cements is very sound. The creditors stand at a safer zone as the company's liquidity position to meet its current obligations is very strong.

Quick Ratio: The Quick ratio of Ambuja cements has increased year on year. During 2011-15 company's quick ratio is above the standard ratio of 1:1 which indicates that higher the ratio, the greater the company's liquidity (i.e., the better able to meet current obligations using liquid assets). Overall short term liquidity position of the company is satisfactory as

the company's mean is 1.22 times which is above the standard ratio of 1:1 which indicates strong liquidity position of the company i.e., company will be able to pay off its current liabilities with its current assets with SD of 0.36 and C.V of 29.65 %.

Working Capital to Current Assets: working capital i.e. excess of current assets over current liabilities was increased year on year except during 2009-10 where it was decreased to 12.04 from 37 in 2008-09. Increase in working capital indicates sound liquidity position of the company i.e., company can pay its current liabilities out of its current assets.

Stock to Current Assets: the company has reduced its inventory level to the extent possible so as to reduce the amount of money tied up with the inventories, except during 2007 and 08.

Quick Assets to Current Assets: The percentage of quick assets in total current assets indicates that proportion of quick assets has increased year on year, during 2006-07 it was 62.98% and in 2015-16 it has increased to 86.33%. This has contributed to the strong liquidity position of the company.

CORRELATION MATRIX:

The correlation analysis is done to analyze the relationship between the working capital management components and profitability. To examine the relationship among these variables, Pearson correlation coefficients are calculated.

CORRELATION MATRIX:

| | <i>ROA (Dependent Variable)</i> | <i>ACP</i> | <i>CCC</i> | <i>APP</i> | <i>ITR</i> | <i>CR</i> | <i>QR</i> |
|---|---|------------|------------|------------|------------|-----------|-----------|
| <i>ROA (Dependent Variable)</i> | 1 | | | | | | |
| <i>ACP</i> | -0.467 | 1 | | | | | |
| <i>CCC</i> | -0.447 | 0.061 | 1 | | | | |
| <i>APP</i> | 0.114 | -0.018 | -0.369 | 1 | | | |
| <i>ITR</i> | 0.717 | -0.431 | -0.749 | 0.028 | 1 | | |
| <i>CR</i> | -0.409 | 0.277 | 0.498 | -0.078 | -0.721 | 1 | |
| <i>QR</i> | -0.605 | 0.233 | 0.579 | -0.146 | -0.810 | 0.946 | 1 |

Analysis & Interpretation of Data:

In the above tables, an attempt has been made to examine the impact of working capital on profitability by computing Karl Pearson's correlation coefficients between ROA (Return on Asset) and the selected ratios relating to working capital management.

4. RESULTS OF CORRELATION ANALYSIS

The results of the above tables show that, four of the ten independent variables under study show a negative relationship with the dependent variable Return on Asset.

ROA is very weak positively correlated with the average payment period (APP). It means when payment period increases profitability will also increase. This relation between APP and Return on Asset (ROA) suggests that less profitable firms should wait longer to pay their accounts payables and take full benefit allowed to them from their suppliers. Its correlation coefficient accordingly is 0.114.

We found that the return on asset (ROA) is negatively correlated with the current ratio (CR) and quick ratio (QR). Current ratio and quick ratio affect the ROA as negative correlation indicates that one variable increases leads to other variable decreases. Therefore it can be concluded that liquidity ratios affect return on assets.

The cash conversion cycle (CCC) that is used as a comprehensive measure of working capital management has a negative correlation with the Return on Asset (ROA) with coefficient -0.447. It implies that if a firm is able to reduce the CCC, it can enhance the profitability for the firm and will ultimately create value for the shareholders.

From our analysis of correlation results between the Inventory Turnover Ratio (ITR) and the ROA indicate a positive relationship. The correlation coefficient is 0.717. It explains as inventory turnover increases the ROA of the firm will also increase. Less profitable firms can increase their profitability by increasing the inventory turnover.

From the analysis of correlation results between the Average collection Period (ACP) and the ROA indicate a negative relationship. The correlation coefficient is -0.467. It explains when the firm takes less time to collect its debtors will positively affect its profitability of the firm.

Testing of Hypothesis using T-Statistic test:

| Year | ROA | ACP | CCC | APP | ITR | CR | QR |
|------------------------------------|--------------|-------------|---------------|--------------|-------------|-------------|-------------|
| 2006 | 32.17 | 4.72 | -4.74 | 74.6 | 5.60 | 1.68 | 1.10 |
| 2007 | 30.95 | 8.53 | -10.57 | 110.63 | 3.99 | 1.36 | 0.85 |
| 2008 | 17.24 | 13.09 | 5.26 | 131.21 | 2.96 | 1.59 | 0.95 |
| 2009 | 14.88 | 7.85 | -7.57 | 107.1 | 3.98 | 1.14 | 0.74 |
| 2010 | 13.36 | 6.33 | -30.03 | 123.28 | 4.20 | 1.31 | 0.93 |
| 2011 | 10.42 | 10.60 | 105.87 | 0 | 3.83 | 1.54 | 1.21 |
| 2012 | 10.59 | 8.26 | 1315.00 | 0 | 0.28 | 1.75 | 1.43 |
| 2013 | 9.50 | 9.34 | 267.77 | 313.43 | 0.64 | 1.95 | 1.62 |
| 2014 | 11.00 | 8.46 | 407.54 | 0.44 | 0.91 | 1.90 | 1.62 |
| 2015 | 5.60 | 11.18 | 428.11 | 0.24 | 0.87 | 2.03 | 1.75 |
| Mean | 15.57 | 8.84 | 247.66 | 86.09 | 2.73 | 1.62 | 1.22 |
| Standard Deviation | 9.00 | 2.40 | 414.90 | 97.64 | 1.88 | 0.30 | 0.36 |
| Correlation Coefficient "r" | | -0.467 | -0.447 | 0.114 | 0.717 | -0.409 | -0.605 |
| "t" value of "r" | | -1.49 | -1.41 | 0.32 | 2.91 | -1.27 | -2.15 |

t- Distribution is a small test used for testing of hypotheses of sample size less than 30. If the calculated value of t is less than the table value. The null hypotheses will be accepted and vice-verse; for a given significance level. It can be calculated as follow:

$$t = \frac{r}{\sqrt{1-r^2}} \times \sqrt{n-2}$$

Where r = Spearman’s Rank Coefficient of Correlation n = No. Observation

1. The table value of ‘t’ at 5 percent level of significance for 9 = (n-1) degree of freedom is 2.262, whereas, the calculated value is -1.49. Since the computed value is less than the table value, the null hypothesis H0 is accepted and concludes that there is no relationship between ACP and ROA.
2. The table value of ‘t’ at 5 percent level of significance for 9 = (n-1) degree of freedom is 2.262, whereas, the calculated value is -1.41. Since the computed value is less than the table value, the null hypothesis H0 is rejected and concludes that there is no relationship between CCC and ROA.
3. The table value of ‘t’ at 5 percent level of significance for 9 = (n-1) degree of freedom is 2.262, whereas, the calculated value is 0.32. Since the computed value is less than the table value, the null hypothesis H0 is accepted and concludes that there is no relationship between APP and ROA.
4. The table value of ‘t’ at 5 percent level of significance for 9 = (n-1) degree of freedom is 2.262, whereas, the calculated value is 2.91. Since the computed value is more than the table value, the null hypothesis H0 is rejected and concludes that there is a relationship between ITR and ROA.
5. The computed value of ‘t’ has been compared with the tabulated value of ‘t’. In the above table value of t = -1.27. The table value of ‘t’ at 5% level of significance for 9 = (n-1) degree of freedom is 2.262 Since the computed value is less than the table value, the null hypothesis H0 is accepted and concludes that there is no relationship between CR and ROA.
6. The computed value of ‘t’ has been compared with the tabulated value of ‘t’. In the above table value of t = -2.15. The table value of ‘t’ at 5% level of significance for 9 = (n-1) degree of freedom is 2.262 Since the computed value is less than the table value, the null hypothesis H0 is accepted and concludes that there is no relationship between QR and ROA.

5. CONCLUSION & SCOPE FOR FURTHER RESEARCH

Any company's success is largely depended on efficient management of receivables, inventories, and payables. If company maintains a proper balance in investing in current assets and fixed assets it can earn good amount of profits due to an effective cash management i.e., company can avoid excess deployment of funds in idle current assets which in turn reduces the financing cost of an investment and effective utilization of resources.

This paper examines the influence of components of working capital on firm's profitability of Ambuja Cements Ltd. The main purpose of the study was to find whether the components of working capital affect the performance of the firms in the special context of Ambuja cements Ltd. Few variables like Inventory turnover ratio and Average payment period show a strong and positive correlation with the profit whereas other variables like cash conversion cycle, Average collection period, current ratio and quick ratio do not have a strong and positive correlation. Hence, the results finding show that only some components of working capital affect firm's profitability. To conclude, components of working capital affect profitability of the firm but again it depends on the company's nature and size of business, company's account receivables or credit policies. In this study only inventory turnover ratio and Average payment period have strong correlation with profit which indicates that few variables of components of working capital affect firm's profitability. In bird's eye view of the study show that the relationship is not statistically significant.

Scope for further research: In this study an attempt has been made to examine the relationship between working capital management and profitability. In order to examine the relationship 6 (as mentioned above in the calculations) components of working capital have been selected and only one dependent variable i.e., Return on Asset (profitability indicator) has been considered for the study. In this study still there is a scope for further research; researcher can take some other components of working capital like debtors turnover ratio, Aggressiveness of Financing Policy, Debt ratio and size of firm etc and other profitability indicators like Return on Capital employed, Return on Equity, Gross operating profitability etc can be considered for the study. Statistical tools like regression analysis, ALTMAN'S Z score, Granger-causality tests can also be used to study the relationship between working capital management and profitability.

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