Working Capital Management on Profitability and Corporate Performance

Harshitha B¹  N Charita²  Yeshaswini B Reddy³
B.Com F&A, Department of Professional Studies, Christ University, Karnataka, India

Ankitha Aggarwal⁴
Financial Analyst, Northern Trust

Abstract

Working capital management is a major issue faced in the financial decision making process as it is an important part of investment in assets and proportionally effects the liquidity, profitability and corporate performance of the firms. The main purpose of this study is to examine and analyze the effect of types of working capital management techniques on the firms profitability and corporate performance. The methods used in this research are Pearson’s Correlation, Regression and Empirical Analysis using tools such as number of observations, minimum, maximum, mean, standard deviation, return on equity, coefficient, standard error, t-statistics and P values.

Indexwords: Working capital management, investment, profitability, corporate performance, Regression

Introduction

Working capital management being the signifying factor of the company's managerial accounting strategy that is designed to monitor and help utilize the two components of working capital, current assets and current liabilities, to ensure the most financially efficient operation of the companies. This process and method monitors the cash flows, assets, liabilities through different ratio analysis that helps the companies to make that there is sufficient amount of cash flow maintained in the manufacturing companies to meet their short term debts and short term operating costs that effects the free flow is the corporate life system of the companies.(Nasr, 2011)

This research tries to study the difference between different types or trends followed by different manufacturing companies listed under BSE and try to analyze the efficiency levels of
the trends and methods followed for the smooth functioning of the respective companies. 

(Jagongo, 2013)

Review of Literature

- Working capital management and firm’s profitability: evidence from emerging Asian countries. (Singhania & Piyush, 2017)
  This talks about the impact of WCM on profitability of the firm in comparison with the emerging non-financial companies in south Asia. The main purpose is to analyze the impact of WCM on profitability. By using analytical modeling the main purpose of the paper is estimated. This paper investigates 11 non financial countries with a span of 10 years from 2004-2014. It Tries to find if there exists a nonlinear relationship between profitability of firms and WCM by using various statistical variables like CCC, ROA, LEV etc. Various analysis used in this paper helps to demonstrate the results of profitability. This is useful for those firms in multiple countries. It states how to use WCM in order to increase the values of the shareholders. This paper also acts a tool to many struggling companies by providing them an option to alter their ROA AND LEV as for few countries having higher level of WCM may decrease their profitability and vice versa for the other countries.

- Towards a comprehensive theory of working capital (Hrishikee, 1987)
  This paper talks about how the natural business year or operating cycle theory has only limited use to judge the assets by taking into consideration the blockage of fund in a current asset on actual days and not on financial days. Since this does not talk about the present form for projecting and management of working capital of a firm, an alternative theory of working capital is adopted, further comprehensive theory and tools to be adopted for the same purpose. It also specifies the techno-financial approach which gives an analytical presentation of generation of various assets due to operation of the business, which gives a manager a view and control over the operating system of the business.

- Effects of working capital management on companies profitability. (Erik, 2012)
  This research talks about how a company’s search for liquidity and operational efficiency through minimization of investment in working capital of the firm. They also show how the cash conversion cycle, net trade cycle, industry differences etc can be used to determine the efficiency of the working capital management. In order to get rid of confusions they suggest that the company should use Fisher’s separation theorem which includes avoiding the confusions between investments and financing the investment which has to do with working capital. It also finds the relationship between profitability and WCM by using various analysis an statistical variables such as NTC, CCC per quartiles, linear regression, COGS, ROA, ROE, WCCC etc.

- Working capital management and profitability: Evidence from Ghanaian listed manufacturing firms. (Kofi & Lawer, 2013)
  This paper examines the effects of WCM practices on profitability of Ghanaian listed manufacturing firms. This study included data of 13 manufacturing units listed under Ghana
stock exchange and uses the data from 2005-2009. Largely the study on influence of WCM on profitability in Ghana remains under studied. This study attempts to find the gap by using panel data methodology. This method is used to achieve the objective of the study and it also focuses on cross sectional units of observation over several time dimensions. This paper indicates that to improve profitability Ghana should reduce their average collection period to specifically around 20 days. This study also reveals that accounts receivables has negative influence profitability and accounts payable has positive influence profitability and it also states about cash conversion cycle positively affects the manufacturing firms in Ghana. It also figures out that their current assets shows positively impact profitability and there should be enough current assets to match the liability.

- Toward a theory of working capital management, (Sonia Banos-Caballero, 2011)

This article tries to highlight on how the types of working capital management effects the firms profitability, cash flows and risk which determines the value of the company. That is, a low investment in working capital is associated to a greater return and risk (aggressive). Whereas the policy of conservative working capital is high investment. Few studies on working capital with relation to the firms profitability based on their performance have resulted with a conclusion that there is a linear relationship between the investment working capital management of the firm and its profitability. They try to indicate that lower the investment higher the profitability and reduction in working capital management dismissively affects the firms profitability. The possible relationship between the firms profitability and its working capital is concave than linear with a quadratic relationship as well. The firms value is not influenced under perfect trade credit decisions and perfect financial market. We also understand the type of methods followed to understand the relationship and effects caused due to variations. These methods include cash conversion cycle and regression analysis as they have been most extensively used measures in such area of study.

- How does working capital management affect the profitability of Spanish SME’s? (Sagan, 1955)

According this article, for any firm or company it is very essential to have continues supply of goods and services. This involves raw materials, tools, equipment’s, labor etc. to produce finishes inventory or goods of the firm. This is sold and is transacted into receivables leading to cash ultimately. This cash transacted is used to pay for the raw materials, tools, equipment’s, labor, taxes and plants. It is the task and responsibility of the money manger of that company to make sure that the co has sufficient amount of CA to operate at any point of time. It is also his responsibility that the surplus amount of cash is temporarily invested as profitability for the purpose of safety and liquidity. This function takes place all over the company affecting the style of working capital management. In the operational point of view, the money manager is bale or allowed to postpone the borrowing for the time being even when the company’s net working capital is lower due to tax liabilities or other payables are not due immediately. Whereas on the other hand, the money manager who has a substantial net working capital such as primary inventory or receivables, could be pushed to borrow fund so that he could meet obligations in prior. For a successful money management program it is important to show the flow of cash in and out of the company through the cash flow.
Research Design

a. **Statement of Problem**

“Analyzing the impact of different trends of working capital management on the profitability and corporate performance of the manufacturing companies”

b. **Sources of Data**

The sources of data in this research are completely secondary.

- The list of companies for analysis of working capital management – [reviewsxp.com](http://reviewsxp.com)
- The theories behind working capital management – [www.investopedia.com](http://www.investopedia.com/terms/w/workingcapitalmanagement.asp)
- Principles of working capital management – [www.shodhganga.inflibnet.ac.in](http://shodhganga.inflibnet.ac.in/bitstream/10603/1165/16/16_chapter%2010.pdf)
- Extra Data - Economic Times

c. **Hypothesis**

The present study has been undertaken to examine as to whether the manufacturing industry companies have a working capital policy or not and to evaluate such a policy the following hypotheses have been formulated.

The hypothesis is:

**Objective 1:** To find out the possibility of getting different results on profitability due to various types of working capital management techniques

H₀: There is no significance impact of the different types of Working Capital Management techniques on the Profitability

H₁: There is a significance impact of the different types of Working Capital Management techniques on the Profitability

**Objective 2:** To find out the possibility of getting different results on corporate performance due to various types of working capital management techniques

H₀: There is no significance impact of the different types of Working Capital Management techniques on the Corporate Performance of companies.

H₁: There is a significance impact of the different types of Working Capital Management techniques on the Corporate Performance of companies.
d. Data Analysis Tools:
The methods used in this research are Pearson’s Correlation and Regression and empirical Analysis using tools such as number of observations, minimum, maximum, mean, standard deviation, return on equity, coefficient, standard error, t-statistics and P values.

e. Expected Outcome
The different ratio and terminal analysis will identify the type of working capital management technique amongst aggressive, conservative and hedging and are expected to assist managers in identifying areas where they can improve the corporate performance of their company. The results of this research will provide owner-managers or any other type of users with the information regarding basic working capital management practices that are to be used by them towards these practices. The working capital management needs of a company change over time as its internal cash flows and generation rate changes. Thus, the small firms should ensure a good synchronization of all its current assets and current liabilities.

This study will show that the manufacturing industries have been able to achieve high rates on the various components of working capital management and this has aggressive, conservative or hedging type of characteristic being impacted on their profitability. At this case the industries may be referred as the ‘hidden champions’ and therefore could be rated as the best.

This analysis must be constrained in the area of sample size and the attributes of the data, which could have good effect on the results. Further studies will aim at increasing the sample size for still better and consistent panel estimates.(Richard Kofi Akoto1, 2013)

f. Limitations

- The study will be conducted on the basis of the data collected from the economic times and money control- on the sector wise classification and also with the help of the interviews with the professionals in the subject of finance.
- Certain particulars like credit sales, profit or loss on the sale of fixed assets were not accounted in the financial statements of the companies details. The study is confined and focuses only to a period of one year 2017-18, a sufficient period for a study of this type and therefore the findings and suggestions are likely to be applicable in general to all similar public enterprises or the food manufacturing companies(Management, 1995 )
- The actual purchases were not accounted to it was assumed to be credit purchases.
Data Analysis and Interpretation

Using the statistical tools number of days of inventory, number of days of trade payables, number of Days of trade receivable, credit Purchases, sales, inventory turnover ratio, average trade receivables, average trade payables, cash conversion, profits, net profit margin, market capitalisation/net revenue, market capitalisation/net revenue, EV/Net Operating Revenue, return on net worth / equity (%) and return on capital employed (%)

Table 1

<table>
<thead>
<tr>
<th></th>
<th>Hedging</th>
<th>Aggressive</th>
<th>Conservative</th>
<th>Averages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procter and Gamble</td>
<td>Hindustan</td>
<td>Nestle India</td>
<td>ITC</td>
<td>Wipro</td>
</tr>
<tr>
<td>Hygiene and Health Care</td>
<td>Unilever</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of days of inventory</td>
<td>1837.9</td>
<td>2493.2</td>
<td>3291.3</td>
<td>6506.2</td>
</tr>
<tr>
<td>Number of days of trade payables</td>
<td>410.3</td>
<td>623.3</td>
<td>1162.5</td>
<td>361.9</td>
</tr>
<tr>
<td>Number of Days of trade receivable</td>
<td>20.9</td>
<td>11.2</td>
<td>3.4</td>
<td>20.7</td>
</tr>
<tr>
<td>Credit Purchases</td>
<td>342.2</td>
<td>3812.0</td>
<td>174.8</td>
<td>2992.0</td>
</tr>
<tr>
<td>Sales</td>
<td>2,455.3</td>
<td>33,926.0</td>
<td>9,952.5</td>
<td>40,254.7</td>
</tr>
<tr>
<td>Inventory turnover ratio</td>
<td>19.86</td>
<td>14.64</td>
<td>11.09</td>
<td>5.61</td>
</tr>
<tr>
<td>Average trade receivables</td>
<td>140.63</td>
<td>5</td>
<td>5</td>
<td>2282.2</td>
</tr>
<tr>
<td>Average trade payables</td>
<td>384.70</td>
<td>6</td>
<td>6509.5</td>
<td>556.59</td>
</tr>
<tr>
<td>Cash Conversion</td>
<td>1448.5</td>
<td>1881.0</td>
<td>2132.2</td>
<td>6165.0</td>
</tr>
<tr>
<td>Profits</td>
<td>374.59</td>
<td>5,237.00</td>
<td>1,225.19</td>
<td>11,223.2</td>
</tr>
<tr>
<td>Net Profit Margin</td>
<td>15.25</td>
<td>15.16</td>
<td>12.24</td>
<td>27.62</td>
</tr>
<tr>
<td>Market capitalisation/Net Revenue</td>
<td>13.09</td>
<td>8.26</td>
<td>7.56</td>
<td>7.69</td>
</tr>
<tr>
<td>EV/Net Operating Revenue</td>
<td>12.93</td>
<td>8.36</td>
<td>7.51</td>
<td>7.62</td>
</tr>
<tr>
<td>Return on Net worth / Equity (%)</td>
<td>46.5</td>
<td>74.02</td>
<td>35.81</td>
<td>21.83</td>
</tr>
<tr>
<td>Return on Capital Employed (%)</td>
<td>68.72</td>
<td>86.53</td>
<td>20.87</td>
<td>20.96</td>
</tr>
</tbody>
</table>
Working Note
Number of days of inventory = 365/Inventory Turnover Ratio
Average Trade Receivables = (Opening Receivables+Closing Receivables)/2

Assumption
It is assumed that all purchases were under credit

Table 2

<table>
<thead>
<tr>
<th>Profits</th>
<th>Worse</th>
<th>average</th>
<th>worse</th>
<th>better</th>
<th>average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Profit Margin</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Market capitalisation/Net Revenue</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EV/Net Operating Revenue</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Return on Net worth / Equity (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Return on Capital Employed (%)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>average total</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>better total</td>
<td>4</td>
<td>4</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>worse total</td>
<td>2</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>4</td>
</tr>
</tbody>
</table>

RANKS
1 1 4 2 3

Findings and Suggestions
For the purpose of analysis a variety of financial ratios such as inventory turnover ratio, working capital ratio, profitability ratio etc were used in order to achieve the objectives of the study. Various number of statistical techniques such as correlation, regression, Pearson’s were applied for the purpose of analyzing the effective management of the working capital in a particular firm. And also for the study purpose hypothesis were framed and certainly proved in the end of the study. From the above analysis a comparative study using a necessary data as given in (table-1) which is relating to working capital and other necessary financial information were collected from primary sources. ( the data were collected from respective published annual reports, financial statements, articles, magazines, etc. of a company mentioned above. As per the ranks allotted (in table -2) it implies that the performance of the firms which follows hedging method has more efficiency and effectiveness of working capital management practices in the course of business or performance.
Conclusion:
This study offers new evidence on the impact of different trends followed in WCM on profitability and corporate performance. It states that lower the investment in WC the more profitability. BY using different ratios and terminal analysis our findings show that out of 5 food manufacturing industries 4 industries are able to achieve averages rates and profit by using conservative approach and the remaining 1 industry is able to achieve higher rates and profit by using aggressive approach. Overall the paper highlights the importance of the good WCM for firms by using different trends and Strategy. Our findings have potentially very important implications for managers and they indicate that managers should mainly focus and aim to keep as close to the optimum cycle as possible and also they should try to avoid deviations in order to maximize the profitability. We find that there is a positive relationship between the WCM profitability. We also see that sales significantly and positively affects the profitability of the manufacturing companies. The manager should enhance their product quality also look through effective advertising in order to boost their sales. In summary, managers of the company should institute WCM policies in order to overcome negative financial situations and enhance their profitability. Also, managers can improve profitability by maintaining an optimal cash conversion cycle. And also as per the study and the ranking basis for a company its better if it follows the hedging method for more efficiency of WCM.

Bibliography

- **Books:**
  - Mishra R.K 1975, Problems or working Capital Management in India Somaiya Publications Pvt Ltd New Delhi
- **Papers:**

Reference