A Study on Short Term Asset Management With Reference to Computer Hardware Industry in India

P.G. Thirumagal  
Asst. Professor, Department of MBA Vels University, Chennai

Dr. S. Vasantha  
Professor, Department of MBA Vels University, Chennai

ABSTRACT:

The study focused on the management of short term assets in Computer Hardware industry in India. A sample of 12 companies was considered for the study. The major objectives were to analyze the Short term assets of the companies, to identify the Working Capital Leverage of the companies, to find out the relationship between Working Capital with Sales, Current Assets, Current Liabilities and Net Profit, to find out the bankruptcy position of companies and to predict the future Working Capital requirement of companies. The companies SMART LINK, MOSERBEAR is in the danger zone of bankruptcy. According to Time series analysis, the future predicted value of Working Capital for CMC, REDINGTON, SPICE MOBILITY, SMART LINK, COMPUGE, CEREBRA and MRO shows an increasing trend which implies that for these companies Sales & Net profit too will increase in future. So the investors who want to invest in these companies can opt these companies’ shares.

INTRODUCTION

Working Capital Management is otherwise called as Short Term Asset Management. The project en titled as “A study on Short Term Asset Management in Computer Hardware industry. Working Capital plays a vital role in meeting the day to day activities of the business enterprise. Working Capital is that part of a firm’s capital which is required to hold current assets of the firm.

In the present competitive world, every firm, whether big, medium or small needs Working Capital to carry on its operations and to achieve its targets. Proper management of Working Capital is an important role of firm’s life.

Working Capital is essential to maintain the smooth running of business. No business can run successfully without an adequate amount of Working Capital. Inadequacy of Working Capital may lead the firm to insolvency and excessive Working Capital implies idle funds, which earns no profit for business.

The goal of Working Capital management is to manage company’s current assets and current liabilities. Working Capital is also known as circulating capital or current capital or revolving capital. Capital required for a business can be classified under two main categories via:

- Fixed Capital
- Working Capital

Every business needs funds for two purposes for its establishment and carries out its day to day operations.

Long term funds are required to create production facilities such as purchase of plant, machinery and building, furniture’s etc. Investments in these assets represent that part of the firm’s capital which is permanently blocked and it is called Fixed Capital.

Funds are also needed for short term purpose for the purchase of raw materials, payment of wages and other day to day expenses. These funds are known as Working Capital.

There is an operating cycle. Cash is used to buy raw material. Various manufacturing expenses are incurred to convert raw material into semi-finished goods and then into finished goods. On sale of finished goods on credit, trade debtors or bills receivable results. On receipt of payment, trade debtors or bills receivable are converted into cash. The cash is once again used to raw material to start another cycle.
Working Capital management policies of a firm have a great effect on its profitability, liquidity and structural health of the firm. A well designed and implemented Working Capital management is expected to contribute positively to creation of firm’s value and profitability. A firm is required to maintain a balance between liquidity and profitability while conducting its day to day operations.

**Net Working Capital:**

Working Capital is the excess of current assets over current liabilities. If current assets are equal to current liabilities then Net Working Capital will be zero and in case current liabilities are more than current assets, the Working Capital will be called negative Working Capital.

The Net Working Capital emphasis on how much current assets have been financed out of long term funds.

\[
\text{Net Working Capital} = \text{Current Assets} - \text{Current Liabilities}
\]

**NEED FOR THE STUDY**

The goal of Working Capital management is to manage company’s current assets and current liabilities. No business can run successfully without an adequate amount of Working Capital. In the present competitive world, every firm, whether big, medium or small needs Working Capital to carry on its operations and to achieve its targets. Proper management of Working Capital is an important role of firm’s life. The Working Capital management which helps to judge the soundness of the firm.

**HARDWARE INDUSTRY:**

One of the largest and most important sectors in the global market, hardware industry has grown by leaps and bounds in the recent few years. Fueling the economic boom and subsequent growth and development in the several industrialized nations of the world, hardware parts and components have become an integral part of business in nearly every major industry. From construction to IT and textiles; and from furniture to banking and biotech, we can feel the presence of hardware products everywhere.

The hardware industry can be broadly defined as the sector of the economy providing the means for the growth, development and smooth functioning of the different spheres of our life and society. In practice, the industry can be hard to define, in part as some products in the industry are crucial for the multiple segments of the industry as well as to other industries.

**Recent Trends**

Green computing is one of the recent trends followed by most computer hardware manufacturers. It aims to reduce electronic waste, which effectively and efficiently reduces the threat on the environment.

Green computing promotes computer recycling through the reuse of computers. Computer components are made of various substances, which, if not used rightly, would release harmful toxins. Hence, the reuse of such components to rebuild a new system can reduce the cost of building new computer systems and also protect the environment.

**Value Chain**

In-depth research and design is conducted to manufacture various computer components. These components are further assembled, configured, and delivered to end-users.

The companies which are considered for study are CMC, REDINGTON, HCL INFO, SPICE MOBILITY, SMART LINK NET, MOSERBEAR, COMPAGE INFO, TVS ELECTRONIC, CEREBRA INT, MRO-TEK, ZENITH COMPUTER AND EUROMULT.

The major objectives are to Study the Short Term Asset Management of Computer Hardware Companies, to analyze the Short term assets of the companies, to identify the Working Capital Leverage of the companies, to find out the relationship between Working Capital with Sales, Current...
Assets, Current Liabilities and Net Profit, to find out the bankruptcy position of companies, to predict the future Working Capital requirement of companies, to find out the significant difference between Working Capital and Net profit and to provide suitable suggestions if any.

**REVIEW OF LITERATURE**

Dr Manoj Anand, Dr C P Gupta(2001), “Working Capital Performance of Corporate India” The present study is in continuation of our earlier attempt of developing quantitative benchmarks at the firm as well as at the industry level to evaluate Working Capital Management Performance of Corporate India from time to time. The previous attempt was based on the methodology designed by CFO Europe Magazine and REL Consultancy Group in their first Working Capital Survey of 1997. This time we experimented with a number of new parameters and different weights in the overall score to have better picture of Working Capital management performance of Corporate India. Finally, we selected three financial parameters for this purpose - CCE, DOC and DWC. The present study provides their estimates by using data of 427 companies over the period 1998-99 to 2000-01 for each company and for each industry. It is believed that the presence of these three in the overall Working Capital performance criterion not only helps in performance evaluation but also will capture the dynamics of risk-return trade off.

Enyi Patrick Enyi, “APPLYING RELATIVE SOLVENCY TO WORKING CAPITAL MANAGEMENT” - - The Break-Even Approach. This paper looks at Working Capital management from the perspective of net investment, having observed that present approaches do not take the question of operational size and relative liquidity of the firm into account when dealing with the issue of Working Capital adequacy. To aid analysis, the research studied financial reports of 25 selected listed companies together with opinion surveys on (existing) practical applications on Working Capital management in some of them. The results from data analysis were validated using a students' t distribution test. The findings revealed that firms that considered relative liquidity performs better and have better growth prospect than others, while the study recommends the use of relative liquidity (relative solvency) for a more accurate estimation of Working Capital adequacy by organizations.

Pedro Juan García-Teruel, Pedro Martínez-Solan, “EFFECTS OF WORKING CAPITAL MANAGEMENT ON SME PROFITABILITY”. The objective of the research presented here is to provide empirical evidence about the effects of Working Capital management on the profitability of a sample of small and medium-sized Spanish firms. With this in mind, we collected a panel of 8,872 SMEs covering the period 1996-2002. The results, which are robust to the presence of endogeneity, demonstrate that managers can create value by reducing their firm’s number of days accounts receivable and inventories. Equally, shortening the cash conversion cycle also improves the firm's profitability.

MIHIR DASH, RANI HANUMAN, “A LIQUIDITY-PROFITABILITY TRADE-OFF MODEL FOR WORKING CAPITAL MANAGEMENT” “This paper proposes a goal programming model for Working Capital management. Goal programming is necessary to model the Working Capital decision, as a balance has to be achieved between the conflicting objectives of liquidity and profitability. The model determines, for given Working Capital turnover and fixed assets turnover ratios, how funds should be maintained between Working Capital/current assets and fixed assets to achieve targeted levels of liquidity and profitability, whilst minimizing the opportunity cost/loss of excess liquidity.

Robert Kieschnick, Rabih Moussawi, “Working Capital Management and Shareholder Wealth” We provide the first empirical study of the relationship between corporate Working Capital management and shareholder wealth. Examining U.S. corporations from 1990 through 2006, we find evidence that the incremental dollar invested in net operating capital is worth less than the incremental dollar held in cash for the average firm, and so establish why efficient Working Capital management is of concern to managers. Second, the valuation of the incremental dollar invested in net operating working is significantly influenced by a firm’s future sales expectations, its debt load, its financial constraints, and its bankruptcy risk. Third, we find that the value of the incremental dollar extended in credit to one’s
customers has a greater effect on shareholder wealth than the incremental dollar invested in inventories for the average firm. Altogether, our evidence demonstrates the importance of Working Capital management to shareholders, and how financing subtly influences these effects.

Richard Frankel, Hagit Levy, Ron Shalev (April 2014) "What Triggers the Year-End Temporary Drop in Working Capital?" Working Capital serves as an important indicator of firm's operational efficiency. As such, reported levels of Working Capital may affect firm value and be subject to window dressing when incentives to do so exist. This study analyzes inter-temporal changes in Working Capital components that do not affect firm’s earnings and provides evidence that Working Capital levels drop in fourth fiscal quarter significantly more than expected from seasonal changes in operating activity levels. The drop is subsequently reversed in the following first fiscal quarter. Analyzing the causes of the temporary drop, we provide evidence that specific managerial incentives in compensation contracts and capital markets incentives to increase year-end operating cash flow are partly responsible for the observed drop.

Julius Enqvist, Michael Graham, Jussi Nikkinen (30 August 2013) "THE IMPACT OF WORKING CAPITAL MANAGEMENT ON FIRM PROFITABILITY IN DIFFERENT BUSINESS" The recent economic downturn of 2007-2008 has brought renewed focus on Working Capital policies. In this paper we examine the role of business cycles on the Working Capital-profitability relationship using a sample of Finnish listed companies over an 18 year period. We find the impact of business cycle on the Working Capital-profitability relationship is more pronounced in economic downturns relative to economic booms. We further show that the significance of efficient inventory management and accounts receivables conversion periods increase during periods of economic downturns. Our results demonstrate that active Working Capital management matters and, thus, should be included in firms’ financial planning.

Faris Nasif AL Shubiri, (2011) "THE EFFECT OF WORKING CAPITAL PRACTICES ON RISK MANAGEMENT: EVIDENCE FROM JORDAN" Working Capital does not receive a great deal of attention in financial decision making. Perhaps this is because it involves investment and financing for the short term. Nevertheless, it is an important component of firm financial management. This study investigates the relationship between aggressive/conservative Working Capital practices and profitability as well as risk. The sample includes 59 industrial firms and 14 banks listed on the Amman Stock Exchange for the period of 2004-2008. The results indicate a negative relationship between profitability measures and Working Capital aggressiveness, investment and financing policy. Firms have negative returns if they follow an aggressive Working Capital policy. In general, there is no statistically significant relationship between the level of current assets and current liabilities on operating and financial risk in industrial firms. There is some statistically significant evidence to indicate a relationship between standard deviation of return on investments and Working Capital practices in banks.

Nahid MalekiNia, Hosein Asgari Alouj, Azam Gezelbash, "The Effect of Working Capital Development on Financial Performance of Organization " In today's challenging economy, with increasing environmental pressures and limited External resources, the current assets and liabilities as Working Capital have great importance and Optimal management of Working Capital of firms can be considered as a Competitive advantage for them. The main axis of this research is how development of Working Capital management influences on profitability and liquidity as two important factors of financial performance. This paper is an analytical - descriptive research that reviews the existing literature in this field and classifies them into two groups including the impact of Working Capital strategies on the performance and the other one is the impact of Working Capital indicators on the performance. This survey investigates the relationship between Working Capital strategies and Working Capital indicators with the performance of organization. The survey result shows that the
impact of Working Capital strategies and indicators on profitability and liquidity should be considered simultaneously in development of Working Capital management.

Saswata Chatterjee (February 2012) “THE IMPACT OF WORKING CAPITAL ON THE PROFITABILITY: EVIDENCE FROM THE INDIAN FIRMS” In order to run the company successfully, the fixed and the current assets play a commendable role. Managing the Working Capital is mandatory because, it has a major significance on profitability and liquidity of the business concern. Usually, it was 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. This research has analysed the impact of Working Capital on the profitability for a sample of 100 Indian companies listed in the Bombay Stock Exchange for a period of 2 years from 2010-2011. The various components for measuring the Working Capital management include the Receivable days, Inventory turnover days, Payable days, Cash conversion cycle, Current ratio and Quick ratio on the Net operating profitability of the Indian companies. The controlled variables like; fixed assets on total assets, the Debt ratio and the size of the firm (measured in terms of natural logarithm of sales) have also been used for measuring of the Working Capital management. Descriptive Statistics, Pearson’s Correlation, Regression Analysis are used for analyzing this research. All these tests are used so as to correlate the theories contributed by the literature by several authors with the statistical results.

The results depict that, there is a strong negative association between the components of the Working Capital management and the profitability ratios of the Indian firms which indicates that, as the cash conversion cycle increases it would tend to reduce the profitability of the company, and the managers might increase the shareholder’s value by shortening this cash conversion cycle to a minimum level. It is also observed that the negative association also persists between the liquidity and the profitability of the Indian firms.

Ashwin Madhou “Does Working Capital affect Corporate Profitability?” We examine the determinants of corporate profitability for publicly listed Australian firms by using three measures of corporate profitability, namely, net profit, economic value added and return on assets. Through dynamic panel estimation, we test the determinants of corporate profitability. Using panel least squares and median regression, we control for sectoral effects and conclude that the determinants of corporate profitability varies across Australian sectors. By controlling firm’s fundamentals (Working Capital, corporate governance ratings and performance), we find evidence supporting that the determinants of corporate profitability of firms in extreme portfolios are heterogeneous. We report that firms with the worst Working Capital deficit and poor corporate governance ratings exhibit negative debt ratio. We document that profitable firms hold positive cash holdings, whereas non-profitable firms hold negative cash holdings.

Nihat Aktas a, Ettore Croci b, Dimitris Petmezas c, “Is Working Capital Management Value-Enhancing? Evidence from Firm Performance and Investments“We examine the value effect of Working Capital management (WCM) for a large sample of US firms between 1982-2011. Our results indicate (i) the existence of an optimal level of Working Capital policy; and (ii) firms that converge to that optimal level (either by increasing or decreasing their investment in Working Capital) improve their stock and operating performance. We also document that corporate investment is the channel through which efficient WCM translates into superior firm performance. In particular, efficient WCM allows firms to redeploy underutilized corporate resources to higher-valued use, such as the funding of cash acquisitions.

RESEARCH METHODOLOGY
The study is based on Analytical research design. This study used top 12 companies in computer
hardware industry based on market capitalization. The study used five years data (2010-2014). The major tools used are Ratio Analysis, Working Capital Leverage, Multiple Discriminant Analysis, Correlation, Time Series Analysis and One Way Anova.

DATA ANALYSIS AND INTERPRETATION
ONE WAY ANOVA:

Analysis of variance is an extremely useful technique concerning researches in the fields of economies, business, industries and several other disciplines. This technique is used when multiple sample are involved. The ANOVA technique is important in the context of all those situations where we want to compare more than two populations such as in comparing the yield of crop from several varieties of seeds.

ANOVA FOR WORKING CAPITAL:

NULL HYPOTHESIS (H0): There is no significant difference in Working Capital between the years and between the companies.

Table 1: ANOVA (WORKING CAPITAL)

<table>
<thead>
<tr>
<th></th>
<th>SUM OF SQUARES</th>
<th>df</th>
<th>MEAN SQUARE</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>2.734E7</td>
<td>11</td>
<td>2485505.536</td>
<td>16.043</td>
<td>.000</td>
</tr>
<tr>
<td>Within Groups</td>
<td>7436751.989</td>
<td>48</td>
<td>154932.333</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>3.478E7</td>
<td>59</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ALTERNATE HYPOTHESIS (H1): There is significant difference in Working Capital between the years and between the companies. Since p value is less than 0.05 (at 5% significant level), Null hypothesis is rejected and Alternate is accepted. There is significant difference in Working Capital between the years and between the companies.

TABLE 5.6.2 ANOVA FOR NET PROFIT:

NULL HYPOTHESIS (H0): There is no significant difference in Working Capital between the years and between the companies.

ALTERNATE HYPOTHESIS (H1): There is significant difference in Working Capital between the years and between the companies.

Since p value is less than 0.05 (at 5% significant level), Null hypothesis is rejected and Alternate is accepted. There is significant difference in Working Capital between the years and between the companies.
FINDINGS AND SUGGESTIONS:

Since the Working Capital level of SMARTLINK and ZENITH COMPUTERS shows a decreasing trend, it shows their production is coming down and they need to restructure their current assets and current liabilities. Even though HCL and MOSERBEAR have good reputation they need to take care of the level of Working Capital as it was negative in 2014. The ratio of Inventory to Current asset is high for MOSERBEAR and EUROMULT is high when compared to other companies. This shows these companies accumulate huge amount of money in inventory itself rather than other current assets which they are not managing properly. So these companies need to manage their Current assets properly. Even though the Working Capital level of REDINGTON is high when compared to other companies, they to focus on turnover of Working Capital. Otherwise they could not compete with TVS ELECTRONICS, SPICE MOBILITY and CMC who have high Working Capital turnover ratio than REDINGTON. If REDINGTON could not turnover the Working Capital properly that may lead to increase in bad debt of the company. The Current ratio of MRO – TEK was very good in 2010 to 2012 shows a declining trend in 2014. The company needs to analyze their short term liabilities and assets. SMART LINK has high Current ratio which may not be a good idea as they have invested huge money in Current assets which may affect the profitability of the company. CMC, REDINGTON, HCL and SPICE MOBILITY need to take care of Current ratio in order to maintain it to 2:1.

MOSEARBEAR has to take care of the Debt Equity ratio of 57.52 which is not a good sign for the company. If they could not manage their debt properly, this may lead to closure of the company. Also COMPUAGE INFO should analyze their debt position to avoid losses. The Inventory turnover of REDINGTON was low when compared to CMC, HCL, SPICE MOBILITY and TVS ELECTRONICS. Even though the REDINGTON maintains a high Working Capital, they could not turn around their inventory on par with other players which the company should focus on. REDINGTON should manage their cash balance properly because they were in negative till 2012 and started to move positive from 2013 onwards. CMC, MOSERBEAR and HCL should focus on their cash balance which is negative in 2014. Working Capital Leverage has good effect on COMPUAGE INFO and poor effect on EUROMULT and SMART LINK. It has moderate effect on REDINGTON.

According to MDA, the Z score for CMC in all years was less than 2.675 which is not good for the company and this may lead to bankruptcy. For REDINGTON the Z score is more than 2.675 for all the years which is a good indication of its financial position. The companies SMART LINK, MOSERBEAR is in the danger zone of bankruptcy. According to Correlation analysis, for companies like REDINGTON, SMART LINK and TVS ELECTRONICS, there was a negative correlation between Working Capital and Sales which implies that these companies spend more on Working Capital but sales not increased to that level. These companies should take care of this aspect. Similarly for companies SPICE MOBILITY, TVS ELECTRONICS and MRO-TEK there was a negative correlation between Working Capital and Net profit. The increases in Working Capital have not increased the Net profit of the company. This result in unnecessary investment in current assets. According to Time series analysis, the future predicted value of Working Capital for CMC, REDINGTON, SPICE MOBILITY, SMART LINK, COMPUGE, CEREBRA and MRO shows an increasing trend which implies that for these companies Sales & Net profit too will increase in future. So the investors who want to invest in these companies can opt these companies’ shares. On the other hand for companies like HCL, MOSBEAR, TVS, ZENITH and EUROMULT, the prediction of Working Capital shows a decreasing trend which implies that these companies Working Capital cycle will be changed and that ultimately reduce the Sales and Net profit of these companies. These companies already in loss should restructure immediately to get into the mode of profit.

CONCLUSION

The study titled “A STUDY ON SHORT TERM ASSET MANAGEMENT WITH REFERENCE TO COMPUTER HARDWARE INDUSTRY has objectives likes to analyze the short term assets of the companies. It helps to identify the Working Capital leverage of the companies, relationship between Working Capital with sales, current assets, current liabilities and net profit, the bankruptcy position of companies, predict the future Working Capital requirement of companies, significant
difference between Working Capital and Net profit. The study was carried out for 4 month and used 5 years data in computer hardware industry. The study used major tools like Ratios, Correlation, Times series, Multiple Discriminant Analysis, Working Capital Leverage, Anova. The Major findings and suggestions of the study states, Multiple Discriminant Analysis the Z score for CMC in all years was less than 2.675 which is not good for the company and this may lead to bankruptcy. For REDINGTON the Z score is more than 2.675 for all the years which is a good indication of its financial position. The companies SMART LINK, MOSERBEAR is in the danger zone of bankruptcy. According to Time series analysis, the future predicted value of Working Capital for CMC, REDINGTON, SPICE MOBILITY, SMART LINK, COMPUGE, CEREBRA and MRO shows an increasing trend which implies that for these companies Sales & Net profit too will increase in future. So the investors who want to invest in these companies can opt these companies’ shares. Working Capital Leverage has good effect on COMPPUAGIE INFO and poor effect on EUROMULT and SMART LINK. It has moderate effect on REDINGTON.

REFERENCES: