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"Effect of Working Capital Management on Profitability of Zenith Computers Limited"

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Abstract – Working capital management is an important aspect in firm's financial management decision. An optimal working capital management is expected to contribute positively to the creation of the firm value. To reach optimal working capital management firm manager should control the trade off between profitability and liquidity judiciously. Main purpose of this study is to measure the liquidity position of the major computers company and relationship between working capital and bank credit to know managerial efficiency of working capital. For analyzing the data, ratio analysis and various statistical tools and techniques were used. The data for analysis covering the period (2008-2012) is collected from the financial statements published in the annual reports. It was found that the position of working capital management of the company is very sound. It is also found that there is insignificant positive relationship between working capital and bank credit.

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INTRODUCTION

Working capital, in general practice, refers to the excess of current assets over current liabilities Working Capital Management therefore, is concerned with the problems that arises in attempting to manage the current assets, the liabilities and inter-relationship that exists between them. The term current assets refers to those assets which is in the ordinary course of business can be, or will be, converted into cash within one year without undergoing a diminution in value and without disrupting the operation of the firm. The major current assets includes cash, marketable securities, accounts receivable and inventory, current liabilities are those liabilities which are intended at their inception, to be paid in the ordinary course of business, within a year, out of current assets or earnings of the concern. The basic current liabilities are accounts /bills payables, bank overdraft and outstanding expenses. Thus, it may be concluded that working capital management is the process of planning and controlling the level of mix of the current assets of the firm as well as financing there assets.

2. REVIEW OF LITERATURE

Several studies were available in analyzing working capital management and profitability, but in India it was comparatively low. Some of the studies both in India and foreign are presented are below:-

Kesseven Padachi (2006) in his study found that high investment in inventory and receivables was associated with low profitability. It was also found that a strong significant relationship existed between working capital management and profitability of Mauritian small manufacturing firms. Vishnani and Shah (2007) from their study on Indian consumer electronic industry discovered that profitability for the overall industry had no recognized relationship with liquidity, but majority of the companies belonging to this industry showed a positive association for profitability and liquidity. F. Samiloglu and K. Demirgunes (2008) in their study analyzed the effect of working capital management on firm profitability. In accordance with this aim, to consider statistically significant relationship between firm profitability and the components of cash conversion cycle at length, a sample consisting of Istanbul Stock Exchange (ISE) listed manufacturing firms for the periods of 1998-2007 has been analyzed under a multiple regression model empirical findings of the study show that the accounts receivables periods, inventory period and leverage affect firm profitability negatively while growth (in sales) affects firms profitability positively. Uyar (2009) analyzed a sample of 166 Turkish companies to predict the nature of relationship of profitability and size of the firms with Cash Conversion cycle. The result demonstrated that profitability and size of the firms both are negatively related with Cash Conversion Cycle. Hasan Agan Karadumam et.al. (2010) in the study found that the return on asset was increased by the efficient management of receivable. It also found positive effect of companies' size on profitability and negative effect of debt ratio on profitability of select companies in Istanbul Stock Exchange. Melita Stephnou Charitou et al. (2010) found that the cash conversion cycle and all its major components of working capital of firms listed in Cyprus Stock Exchange were positively associated with profitability. Amalendu Bhunia and Islam Uddin khan (2011) found lower degree of association between working capital management and profitability of Indian steel industry.

3. RESEARCH METHODOLOGY

The present study analyzed the major aspects of working capital, current assets and current liabilities of Zenith computers limited. There are two binary concepts relating to working capital: 'gross' and 'net' used in measuring profitability and liquidity respectively. In the present study net concept of working capital is used to study the working capital aspect of the company. The study is confined to a period of 5 financial years ranging from (2008-2012).

OBJECTIVES OF THE STUDY

1. To measure the liquidity position of the each company under consideration.

2. To find the current assets portion those have been financed out of long-term funds.

3. To know the fixed assets productivity through the adequate utilization of working capital.

4. To measure the relationship between bank credit and working capital to know managerial efficiency of working capital.

HYPOTHESIS

Ho1: Working Capital reduces the bank credit requirement of the firm

DATA COLLECTION

The present study is based on secondary data. For the secondary data, published annual reports of the selected company for the relevant periods have been used extensively. The annual reports contain the results of past performances and are considered the most reliable sources of financial data of business enterprise. The basic data for the study has also been collected from different news papers like Business Standard, Economic Times and Business sources such as www.indiainfoline.com, www. bseindia.com.

TOOLS OF ANALYSIS

In the course of analysis, the study used various accounting and statistical techniques. Accounting tools include Current Ratio, Quick Ratio Analysis, Assets Turnover while among statistical techniques the average $\left(\overline{X}\right)$, standard deviation (σ), Pearson's correlation (r) and test of significance $(t-test)$ have been applied. The use of all these techniques at different places has been made in the light of nature and suitability of data available and requirements of analysis. All these tools are described in brief in the following paragraphs

(A) Accounting Tools

1. Current Ratio: - The current ratio is computed by dividing current assets by current liabilities. A standard current ratio of 2:1 is considered by financial analysis to be satisfactory. It is indicator of over or under investment in current assets at a particular point of time.

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

Current Assets = Cash balance + Inventories + Sundry Debtors + Short term investments + prepaid Expenses

Current Liabilities= Sundry creditors + Outstanding Expenses + Bills payable + Bank overdraft

2. Quick Ratio:- Quick ratio provides a more sound measure of liquidity. It is sometimes designated as liquidity ratio or acid test ratio also. Those current assets which are readily convertible into cash are known as liquid assets, Quick ratio of 1:1 is considered to be a satisfactory ratio. It represents the real liquid position. Thus, these ratios are created more reliable.

$$\text{Quick ratio} = \frac{\text{Quick Assets}}{\text{Current Liabilities}}$$

Liquid Quick Assets= Current Assets–Stock–Prepaid Expenses

Or

Liquid Assets = Cash +Bank Balance+ Bills Receivable + Short term Marketable Securities + Sundry Debtors(Excluding bad and doubtful debts)

3. Net Working Capital: - Net working capital is commonly defined as the difference between current assets and current liabilities. Efficient working capital management of firm requires that firm should operate with adequate amount of net working capital to carry out its operation efficiently, effectively and smoothly.

4. Assets Turnover Ratio (ATO):- It measures the efficient use of fixed assets. It is based on relationship of net sales and fixed assets.
Net fixed assets = Total fixed assets – Depreciation.

It measures the profit earning capacity of the business. Higher the ratio indicates full utilization of fixed assets and a lower ratio shows underutilization of fixed assets.

$$\text{Assets Turnover} = \frac{\text{Net Sales}}{\text{Fixed Assets}}$$

(B) STATISITICAL TOOLS

1. Average (Arithmetic Mean):- Average or arithmetic mean gives a single value to describe the whole data. Simple arithmetic mean of each data series of different tables have been obtained by adding the values of all observation and dividing it by the number of observations, symbolically:

$$\bar{X} = \frac{\sum_{j=1}^{n} X_i}{N} = \frac{X_1 + X_2 + X_3 + \ldots + X_n}{N}$$

Where $\sum X_j$ is used to denote the sum of all the X_j's from $j = 1$ to $j = n$, and N is the number of observation.

2. Standard Deviation: - Standard Deviation is the most satisfactory scientific method of dispersion used in statistical analysis. The standard deviation measures the absolute variability. The greater the amount of variability the greater will be the standard deviation. A small standard deviation means a high degree of uniformity of the observation as well as homogeneity of a series.

$$\text{S.D. or} \quad \sigma = \sqrt{\frac{\sum x^2}{N}} \quad \text{or} \quad \sigma = \sqrt{\frac{\sum (X - \bar{X})^2}{N}}$$

Here σ = Standard deviation, $\sum x^2 =$ sum total of the square of deviation, $\bar{X}$ = mean value, $(X - \bar{X})$ = deviations from mean value N = number of items

3. Correlation: - The correlation analysis refers to the techniques used in measuring the closeness of the relationship between the variables. For example, there exists some relationship between bank credit and net working capital of HCL Info systems.

$$r = \frac{N\sum XY - (\sum X)(\sum Y)}{\sqrt{N\sum X^2 - (\sum X)^2} \times \sqrt{N\sum Y^2 - (\sum Y)^2}}$$

4. 't' test:- The t-test is used when sample size is 30 or less. To test the hypothesis that the correlation coefficient of the population is zero i.e. the variables in the population are uncorrelated we have to apply the following formula:-

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

Here t is based on ($n - 2$) degree of freedom. If the calculated value of t exceeds t0.05 for ($n - 2$), df, we say that the value of r is significant at 5% level.

4. WORKING CAPITAL MANAGEMENT IN ZENITH COMPUTERS LTD. ABOUT ZENITH COMPUTERS LTD.

Zenith Computers Ltd. started in 1980, Public owned listed on NCE and BSE. With constant focus on innovation Zenith releases the largest technology products to the Indian market, thereby creating a market in India for computing in offices, Banks, Households, Education and every sector that benefited from technological advancement, Zenith launched Laptops in India for the first time, and also introduced networking in India for the first time, many others such as Unix CPM, Touch Screen, India's first education PC/Education Laptops, first sub-25k Pentium laptops in India and other innovations are noteworthy achievements

Table – 4.1 Liquidity Position (C.R.) of Zenith Computers Ltd. (Rs. in Crore)

Year (ended on 31st March)	Current Assets (C.A.)	Current Liabilities (C.L.)	Current Ratio (C.R.)
2008	110.86	31.46	3.52
2009	150.97	40.89	3.69
2010	94.77	38	2.49
2011	12.78	55.34	2.2
2012	93.63	21.05	4.45
Average	114.402	37.348	3.27
S.D.	23.56422	12.61919	0.919864

Source: Compiled from published annual accounts of Zenith Computers.

Above table shows the current ratio (C.R) of Zenith Computers. The position of Current Assets (C.A.) revealed fluctuating trend. Though the C.R .has shown declining trend from 2009 to 2011, but the position of Current Ratio (CR) is much betters the specified standard which is 2:1. During all the period C.R. is more than the norms. Hence, the company has ability to meet its liquid obligation in time. The current ratio is much more than the standard ratio, it also indicates the company is not in a position to use its funds effectively. It must use its surplus funds in long term investments, so as to earn on investment with greater safety.

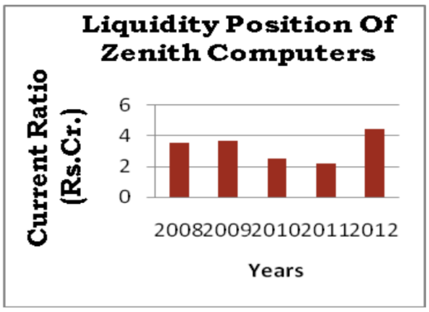

Table – 4.2 Quick Ratio (Q.R.) of Zenith Computers Ltd. (Rs. in crore)

Year (ended on 30th March)	Quick Assets (Q.A.)	Current Liabilities (C.L.)	Quick Ratio (Q.R.)
2008	71.43	31.46	2.27
2009	89.72	40.89	2.19
2010	44.31	38	1.17
2011	72.98	55.34	1.32
2012	53.12	21.05	2.52
Average	66.312	37.348	1.894
S.D.	17.86552	12.61919	0.607149

Source: Compiled from published annual accounts of Zenith Computers.

The above table shows the quick ratio of Zenith computers from 1st April 2008 to 31st March 2012. The table has shown the fluctuating trend of quick ratio (Q.R) from 1st April 2008 to 31st March 2012.The highest quick ratio was observed in 2012 whereas the lowest quick ratio was registered in 2010.Hence on the whole, it was observed that liquidity position of the company is sound as compared to the specified standard 1:1. .It may be concluded that Q.R. is more than the standard presented though it shows the company ability to pay short term obligation, but it also reflects improper financial planning of the company as it is adversely affecting profitability.

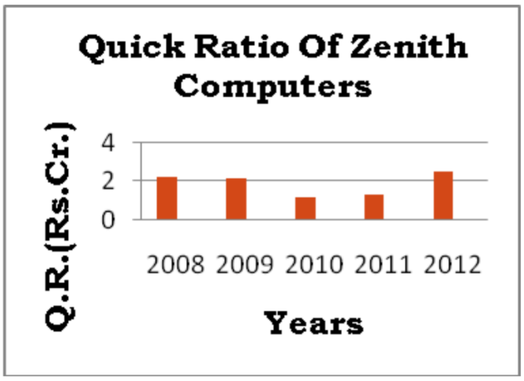

Table – 4.3 Net Working Capital (NWC) Of Zenith Computers Ltd. (Rs. in crore)

Year (ended on 30th March)	Current Assets (C.A.)	Current Liabilities (C.L.)	Net Working Capital (NWC)
2008	110.865	31.46	79.4
2009	150.97	40.89	110.08
2010	94.77	38	56.77
2011	121.78	55.34	66.44
2012	93.63	21.05	72.58
Average	114.403	37.348	77.054
STDEV	23.56404	12.61919	20.25052

Source: Compiled from published annual accounts of Zenith Computers.

From the above table the current assets and the current liabilities of the Zenith Computers Ltd. is showing fluctuating trend from 1st April 2008 to 31 March 2012.But during the period of study the current assets are excess of current liabilities. Therefore, the short term financial position of the company was considered sound. The short term obligations of the said company could be paid from current assets.

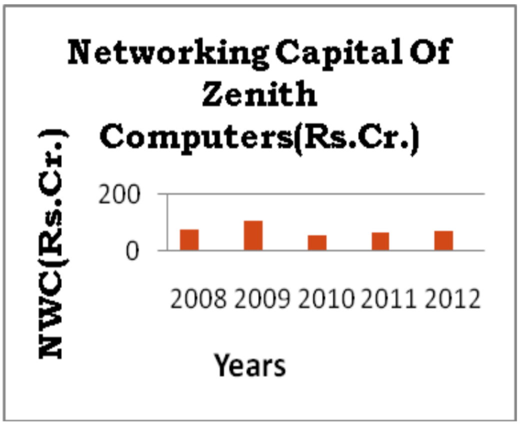

Table – 4.4Productivity Performance (ATO) of Zenith Computers Ltd. (Rs. in Crore)

Year (ended on 31st March)	Net Sales	Fixed Assets	Assets Turnover Ratio (ATO)
2008	295.89	45.72	6.47
2009	285.43	29.15	9.79
2010	260.99	45.67	5.71
2011	192.32	62.49	3.08
2012	180.44	68.75	2.62
Average	243.014	50.356	6.47
STDEV	53.39361	15.64224	9.79

Source: Compiled from published annual accounts of Zenith Computers.

Above table shows the productivity performance (ATO) of Zenith Computers from 1st April 2008 to 31st March 2012. However, the fixed assets of the company observed in fluctuating trend from 2008 to 2012. The Assets Turnover Ratio (ATO) shows the sharp fluctuations during the period of study. Hence, it can be concluded that there is underutilization of the working capital in fixed assets with declining sales.

Table: 4.5 Correlation Analysis between (NWC) & (BC) of Zenith Computers Ltd. (Rs. in Crore)

Year (ended on 31st March)	Net Working Capital (NWC)	Bank Credit (B.C)
	X	Y
2008	79.4	73.8
2009	110.08	93.78
2010	56.77	60.09
2011	66.44	72.49
2012	72.58	97.24
Average	77.054	158.96
STDEV	20.25052	15.62852
Correlation	Rxy=0.669	

Hypothesis Testing

1. Rxy= 0.38 at 0.05 level of significance

H0= Null Hypothesis:

Working capital reduces the bank credit requirement of the firm.

Ha= Alternative Hypothesis:

Working capital does not reduce the bank credit requirement of the firm.

1. Student t-distribution:

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

$$t = \frac{0.669}{\sqrt{1-(0.669)^2}} \times \sqrt{5-2} = 1.557$$

t=1.557 at 0.05 level of significance

Table value= 3.182

CONCLUSION:-

The Computed Value Of T (1.557) Is More Than The Critical Value Of T (3.182). Hence, The Null Hypothesis Is Accepted.

The relationship between working capital and bank credit is shown by the above table. The relationship between two variables is represented as the correlation coefficient being 0.669 and a positive correlation. The t-test proves that the correlation coefficient between net working capital and bank credit is statistically insignificant because critical value is more than the actual calculated value i.e., 1.557<3.182. It is therefore concluded that the working capital and bank credit of the company move in the same direction but does not influence one another to a greater degree.

5. FINDINGS AND SUGGESTIONS

After analyzing the data It has arrived at these results and findings area under:

1. The current ratio of Zenith Computers was much better than the norms. Hence, it has been considered favorable and revealed that the company has ability to pay liquid obligation in time, as well as the quick ratio of Zenith Computers also observed much higher than the norms. Thus situation is very satisfactory and sound. But it is an indicator of the idle funds in Zenith Computers. It shows poor short term financial planning.

2. The Net working capital analysis of Zenith Computers revealed that the short term financial positions of the company were considered sound from 2008 to 2012. The short term obligations of the company could be pay from current assets and no need to pay the current liabilities out of long-term

fund maintained by the companies to meet the long – term obligations.

3. Productivity performance analysis of Zenith Computers Ltd. was observed in downward trend. Hence, it is concluded that assets utilized in said company is in fluctuating trend. It is considered underutilization of fixed assets to increase the sales of said company.

4. The correlation analysis of Zenith Computers Ltd. revealed that correlation coefficient between NWC and BC was found positive degree association and statistically insignificant at 5% level of risk. It is therefore, concluded that the NWC and BC of the Zenith Computers Ltd. move in the same direction, but does not influence one another to a greater degree.

SUGGESTIONS

All these findings state that overall working capital management is good in Zenith Computers Ltd, but there is some weakness also and there is scope for improvement in working capital positive of the company to bring it at more effective path of progress. The present study is humble attempt to focus on the current practices of working capital management being followed in the company i.e. Zenith Computers. Hence some suggestions have been given as under

1. The study reveals that the Zenith computers have more liquidity because the current ratio and quick ratio are much better than the standard ratio. This situation is very satisfactory for the creditors but it indicates that the company is not in a position to use its funds effectively. It must use its surplus funds in long-term investments so as to earn interest with greater safety margin. Researcher’s investigation has made it clear that the excess of current assets over current liabilities is mainly because of unnecessary piling of receivable / sundry debtors and inventories. This is a serious problem and needs immediate attention of the concerned management.

2. The difference between current ratio and quick ratio of Zenith Computers reveals that the value of inventory in hand. The slow movement of stock may be due to absolute or damaged goods. Hence it should be examined by the concerned management.

The above observations lead to the conclusion that there is definite scope for improvement in working capital management of the computer company in India. The surplus investment in the different components of working capital must be divested to ensure optimal use of available resources. This will enhance both profitability and liquidity of the companies.

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