



**IGNITED MINDS**  
Journals

*Journal of Advances in  
Science and Technology*

*Vol. V, Issue No. IX, May-  
2013, ISSN 2230-9659*

**EFFECT OF WORKING CAPITAL MANAGEMENT  
ON PROFITABILITY OF HCL INFOSYSTEMS  
LIMITED**

AN  
INTERNATIONALLY  
INDEXED PEER  
REVIEWED &  
REFEREED JOURNAL

# Effect of Working Capital Management on Profitability of HCL Infosystems 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 significant positive relationship between working capital and bank credit.**

## 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 HCL Infosystems. 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

H<sub>0</sub>1: 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 companies 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.indiaonline.com, www.bseindia.com.

#### TOOLS OF ANALYSIS

In the course of analysis, the study used various accounting and statistical techniques. Accounting tools include Assets Turnover, Current Ratio, Quick Ratio Analysis and while among statistical techniques the average  $(\bar{X})$ , standard deviation  $(\sigma)$ , 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.

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

$$\text{Current Assets} = \text{Cash balance} + \text{Inventories} + \text{Sundry Debtors} + \text{Short term investments} + \text{prepaid Expenses}$$

$$\text{Current Liabilities} = \text{Sundry creditors} + \text{Outstanding Expenses} + \text{Bills payable} + \text{Bank overdraft}$$

**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.

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

$$\text{Liquid Quick Assets} = \text{Current Assets} - \text{Stock} - \text{Prepaid Expenses}$$

Or

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

**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) STATISTICAL 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:

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

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.

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

Here  $\sigma$  = 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  $t_{0.05}$  for  $(n - 2)$ , df, we say that the value of r is significant at 5% level of significance.

**4. WORKING CAPITAL MANAGEMENT IN HCL INFOSYSTEMS LIMITED**

**An Overview about the Hindustan Computers Limited**

Hindustan Computers Limited, also known as HCL Enterprise, is one of India's largest electronics, computing and information Technology Company. Based in Noida, near Delhi, the company comprises two public listed Indian companies, HCL Technologies and HCL Infosystems. HCL was founded in 1976 by Shiv Nadar, Ajay Chowdhry and four other members. HCL focuses on addressing the IT hardware market in India for the first two decades of its existence with some sporadic activity in the global market. HCL Infosystems specializes in IT hardware (PC's and servers, as well as networking, imaging and communications products), and system integration services serving the domestic Indian market. In addition to its consumer products, the company provides commercial IT products, facilities management, network services, and IT security services for clients in such industries as government, financial services, and education. HCL Corporation owns significant stakes in HCL Infosystems (about 44%) and sister company HCL Technologies.

**ANALYSIS AND PRESENTATION OF DATA**

The study under consideration judges the working capital management of HCL Infosystems for achieving the above said objectives of the study, the published data has been employed. Data collected from various secondary sources have been presented in the form of one or more tables. Each table is accompanied by appropriate analyses and explanation. Besides, adequate use has been made of bar diagrams to illustrate and highlights the data presented in the tabular form.

**Table 4.1 Liquidity Position (C.R.) of HCL Info systems Ltd (Rs. in Crore)**

Year (ended on 31st March)	Current Assets (C.A.)	Current Liabilities (C.L.)	Current Ratio (C.R.)
2008	2701.67	1710.23	1.57
2009	2904.68	1981.7	1.47
2010	3640.24	2316.15	1.57
2011	3620.19	2052.67	1.76
2012	4019.39	2349.48	1.71
Average	3377.23	2082.04	1.616
S.D.	552.326	262.442	0.11738

Source: Compiled from published annual reports.

The current ratio of HCL Info systems Ltd as shown by table-1 shows increasing trend from 2009to2011. However, it started declining after 2011.In HCL Info system Ltd. the trend of current ratio shows lower than the standard ratio i.e.2:1.But it is sufficient to meet out company financial needs. So the company is having good financial position from liquidity point of view.

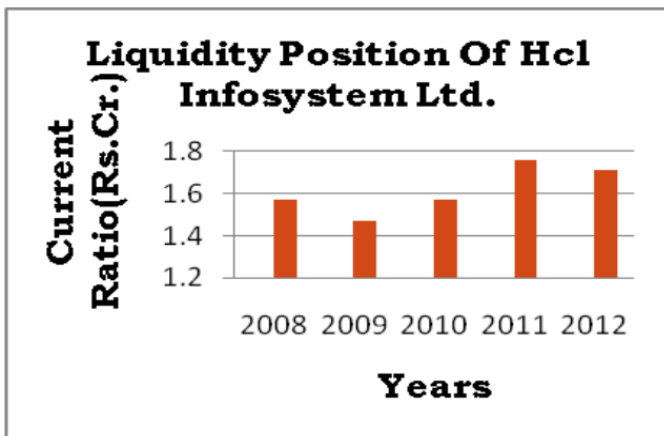


Table-4.2 Quick Ratio (Q.R.) of HCL Info system Ltd. (Rs. In crore)

Year (ended on 30th June)	Liquid Assets	Current Liabilities	Quick Ratio (Q.R.)
2008	1806.3	1710.23	1.05
2009	2016.42	1981.7	1.02
2010	2804.84	2316.15	1.21
2011	3033.94	2052.67	1.48
2012	3360.44	2349.48	1.43
Average	2604.388	2082.046	1.238
S.D.	666.8886	262.4429	0.211589

Source: Compiled from published annual accounts of HCL Info system Ltd.

The table-2 shows that the quick ratio reflects the financial stability of the enterprise to meet immediate obligations. By analyzing the five years data of HCL it is clear the company is improving liquid assets and it is reducing its assets into its investments on stock year by year. So the company's short term financial position is sound to meet its short term obligations.

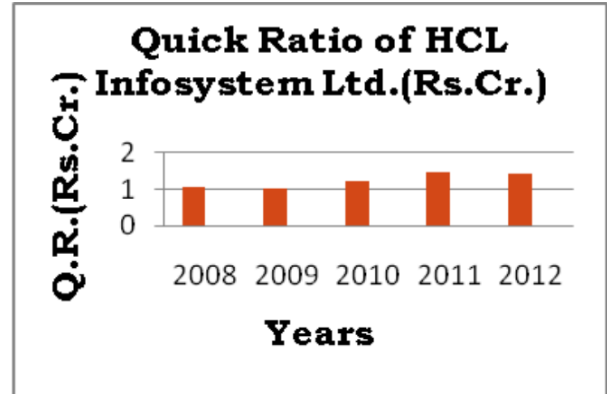


Table - 4.3 Net Working Capital of HCL Info systems Ltd (Rs. Crore)

Year (ended on 30th June)	Current Assets (Rs.)	Current Liabilities (Rs)	Net working Capital (NWC)
2008	2701.67	1710.23	991.44
2009	2904.68	1981.70	922.98
2010	3640.24	2316.15	1324.09
2011	3620.19	2052.67	1567.52
2012	4019.39	2349.48	1669.91
Average	3377.234	2082.05	1295.19
S.D.	552.33	262.44	333.99

Source: Compiled from published annual accounts of HCL Info systems Ltd.

From the above table it is observed that the current assets and current liabilities of five years (2008-2012) are showing improving trend. During the period of study the current assets are excess of current liabilities. Therefore, the short-term financial position of the company is considered sound and the short-term obligations of the said company could be paid from current assets.



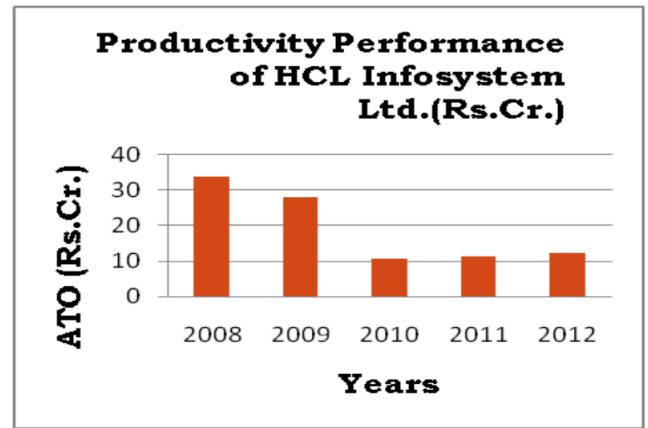
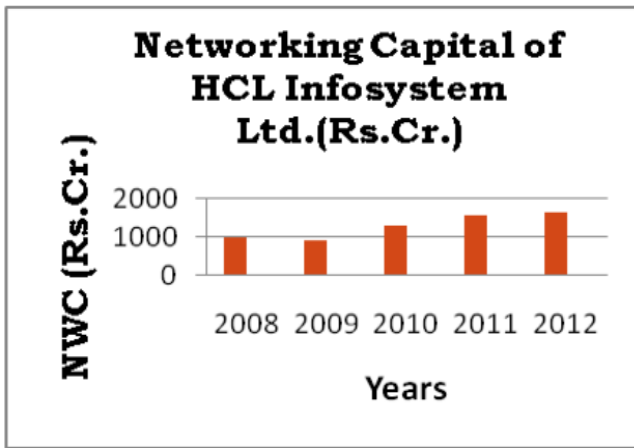


Table 4.4 Productivity Performance (ATO) of HCL Info systems Ltd. (Rs in crore)

Year (ended on 30th June)	Net Sales	Fixed Assets	Assets Turnover Ratio (ATO)
2008	12411.44	367.48	33.77
2009	12210.73	436.23	27.99
2010	11953.01	1108.1	10.79
2011	10936.95	957.06	11.43
2012	10294.61	847.81	12.14
Average	11561.35	743.336	19.224
S.D.	907.228	326.0473	10.8454

Source: Compiled from published annual accounts

Above table shows the productivity performance (ATO) of HCL Info systems Ltd from 1<sup>st</sup> July 2008 to 30<sup>th</sup> June 2012. The highest net sale was registered □ 12411.44 crores during 2008 whereas the lowest amount for the same variable was observed □ 10294.61 crore for 2012. The fixed assets of the company revealed fluctuating trend from 2008 to 2012. The assets turnover ratio as shown by the table, declining trend observed except 2012. Hence, it can be concluded that the assets utilization in the HCL info systems Ltd is continuously declining in relation of sales form 1<sup>st</sup> June 2008 to 31<sup>st</sup> May 2012. Declining ratio indicates that there is underutilization of fixed assets in relation of sales.

Table 4.5 Correlation Analysis in NWC and BC of HCL Info systems (Rs. Crore)

Year (ended on 30th June)	Net working Capital (NWC) (Rs. in crore)	Bank Credit (BC) (Rs. in crore)
	X	Y
2008	991.44	352.66
2009	922.98	226.85
2010	1324.09	509.93
2011	1567.52	577.55
2012	1669.91	600.56
Average	1295.19	453.51
S.D.	333.99	159.48
Correlation	Rxy=0.96*	

\* Significant at 0.05 level of significance

Table – 5 shows the correlation analysis among Net Working Capital (NWC) and Bank Credit (BC). NWC, BC denoted by X, Y respectively for finding the coefficient of correlation among the variable. The coefficient correlation between NWC & BC is 0.965 and is significant at 0.05 level of significance. The positive coefficient of correlation means that both NWC & BC increase continuously in the period under consideration.

### Hypothesis Testing

As design by the study that the working capital management reduces the bank credit of the company is testing by t-statistics here.

Rxy= 0.63 at 0.05 level of significance

H<sub>0</sub>= Null Hypothesis: Working capital reduces the bank credit requirement of the firm.

H<sub>a</sub>= Alternative Hypothesis: Working capital does not reduce the bank credit requirement of the firm.

Student t-distribution:

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

$$t = \frac{0.96}{\sqrt{1-(0.96)^2}} \times \sqrt{5-2} = 5.938$$

t=5.93 at 0.05 level of significance

Table value= 3.182

### CONCLUSION:-

The computed value of t (5.938) is more than the critical value of t (3.182). Hence, the null hypothesis is rejected.

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 0.96 and a positive high degree correlation. The t-test proves that the correlation coefficient between net working capital and bank credit is statistically significant because critical value is less than the actual calculated value i.e., 5.938>3.182. It is therefore, concluded that the working capital and bank credit of the company move in the same direction and 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. In general the current ratio 2:1 indicate the sound liquidity position of the company. In the HCL infosystem Ltd. it is less than the standard but it is showing increasing trend and the company is financially sound. The standard ratio of the liquid ratio is 1:1 whereas the liquid ratio of this company is increasing gradually especially it is higher in the year 2011 as compared to the previous year.

2. The net working capital of this company is in a healthy trend in the study of periods from 2008-12 and especially in the year 2012 it is high. Here in all the years the working capital required was keep on increasing. In other sense showing increasing trend. Therefore, the firm was financially sound in its position.

Current assets are in the good position to meet out its current liabilities.

3. Productivity performance analysis of the company was observed in downward trend. The assets utilized in said company was found in fluctuating trend. Hence, it is considered underutilization of fixed assets to increase the sales of the company.

4. The correlation analysis of HCL Info systems Ltd. indicated that the Net working capital and Bank credit were associated with high degree positive correlation. The coefficient of correlation found significant at 5% level of risk. It means the HCL Info systems Ltd. took bank credit from the market for raising the NWC.

### SUGGESTIONS

All these findings state that overall working capital management is good in HCL Info systems 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 selected company i.e. HCL Info systems Ltd. Hence some suggestions have been given as under

The liquidity position of HCL Info systems Ltd. was showed the downward liquidity position of the company because the actual current ratio is less than the standard ratio. In such a situation the company may be forced to forego the possible profit because of non-availability of current assets. Hence the company should examine its liquidity position.

The above observations lead to the conclusion that there is definite scope for improvement in working capital management of computer companies in India. This is particularly true about HCL Infosystems Ltd which was failed to keep the liquidity position as compared to the norms.

This will enhance both profitability and liquidity of the company.

### REFERENCES

- Amalendu Bhunia & Islam Uddin khan (2011), Liquidity Management efficiency of India Steel Companies (a case study) The East journal of Psychology and Business, 3.3, 3-13
- F. Samiloglu and K. Demiring (2008), "The Effect of Working Capital Management on Firm Profitability Evidence from Turkey". The International Journal of Applied Economics and Finance 2(1); pp 44-50.

- Hasan Agan Karadumam et.al. (2010). Effect of Working Capital Management on profitability: The case for selected companies in the Istanbul Stock Exchange. *International journal of Economics and fiancé studies*, 2, 47-54.
- Kesseven Padachi (2006). Trends in Working Capital Management and its Impact on Firms' Performance an analysis of Maurtian Small Manufacturing Firms, *International review of business research papers*, 2.2, 45-58.
- Melita Stephnou Charitou et.al (2010). The effect of working capital management firm's profitability: Empirical Evidence from an emerging market. *Journal of business and economics research*, 8.12, 63-68. |
- Uyar, A. (2009). The Relationship of cash conversion cycle with firm size and profitability: An empirical investigation in Turkey. *International Research Journal of Finance and Economics*, 24(2), 186-193.
- Vishnani, S., & Shah, B. K. (2007). Impact of Working Capital Management Policies on Corporate Performance—an Empirical Study. *Global Business Review*, 8(2), 267-281. 6.

#### **Books**

1. Pandey, I.M (2001) "Financial Management", Ninth Edition, Vikas Publishing House Pvt.Ltd, NewDelhi, 2001.
2. Khan.M.Y., P.K. Jain, (2001) "Financial Management, Text and Problems" Tata Mc Graw Hill Publishing Company Ltd., New Delhi, 2001.
3. S.C.Gupta, "Fundamentals of Statistics", sixth revised & enlarged edition, Himalaya publishing house, 2004.
4. C.R.Kothari, "Research Methodology methods & techniques", second edition, New age international publishers, 2008
5. S.C.Gupta, "Fundamentals of Statistics", sixth revised & enlarged edition, Himalaya publishing house, 2004.

#### **News Paper**

The Economic Times, New Delhi.

Financial Express

The Business Times

#### **Web-Site**

[www.money.rediff.com](http://www.money.rediff.com)

[www.moneycontrol.com](http://www.moneycontrol.com)

[www.bseindi.com](http://www.bseindi.com)

[www.statisticsindia.com](http://www.statisticsindia.com)

[www.sebi.com](http://www.sebi.com)

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