Research Paper
Impact Factor: 3.996
Peer Reviewed & Indexed Journal

IJMSRR
E- ISSN - 2349-6746
ISSN -2349-6738

A COMPARATIVE ANALYSIS ON WORKING CAPITAL MANAGEMENT OF SELECTED IT-SOFTWARE INDUSTRIES

Padma
Research Scholar, Department of Accounting, Jai Narain Vyas University, Jodhpur.

Abstract
Working capital is an important in the firms like as blood in a human life. It is very essential to maintain the smooth running of a business. Adequate working capital provides inherent strength to the business and ability to face crisis. Proper management of working capital is necessary to maintain both liquidity and profitability and also important to the financial health of business of all sizes. No firms can survive if it has no liquidity. A firm having no profit may be treated as sick but not having liquidity may die over a period of time. It has becomes an important tool to judge the performance of a business. There are many software industries but in this paper only two industries of IT-sector are considered which are Mastek Ltd (management and software technologies) and Infosys Ltd. The core aim of this study to compare liquidity and uniformity between these two industries by using statistical technique such as T-test and graphical representation is also plotted. This study is purely based on published secondary data through websites.

Key Words: Liquidity, Profitability, Performance, Strength and Working Capital Management.

Introduction

Working capital plays the same role in a business concern as the role of the heart in a human body. Proper management of working capital is very essential for the smooth functioning of the business. Working capital management which deals with management of current assets and current liabilities, directly affect profitability and market valuation of the firms. The adequacy of working capital determines the survival or the death of an organization. In financial literature, there exist two concepts of working capital: gross and net. According to gross concept, working capital refers to current assets viz. cash and cash equivalents, marketable securities, inventories of raw material, work-in process, finished, receivables and prepaid expenses. According to net concept, working capital refers to the difference between current assets and current liabilities. An organization is required to maintain a balance between liquidity and organization's performance while conducting its day to day operations. Liquidity is a precondition to ensure that organizations are able to meet its short-term obligations and its continued flow can be guaranteed from a profitable venture. The firms with high liquidity of working capital may have low beta and low profitability. Conversely, a firm that has low liquidity of working capital faces high beta which results to high profitability. Efficient management of working capital is thus a fundamental part of the overall corporate strategy of the firm in creating the shareholder's value, keeping in mind that an optimal level of working capital will maximize the firm's value. It is regarded as the result of the time lag between the expenditure for the purchase of raw material and the collection for the sale of the finished goods.

Literature Survey

In this section we summarize recent researches with study designs and research methods similar to ours or relevance to Working capital management**.**

Oghloo and Jence (2008) did a research about the effect working capital management on corporate profitability in Torky for a period of 1998-2007. They use regression method and some accounting variables for evaluating working capital management .Results show that receivable collection period, inventory turnover and leverage have negative effect on corporate profitability but corporate size affects positively on profitability.

Sing and Penny (2008) carried out a research about the effect working capital management on corporate profitability during the years 1990-2008. They find that current ratio, acid test ratio and receivable turnover have sizable effect on working capital.

Sharma and Kumar (2011) examined the effect of working capital on profitability of Indian firms. They collected data about a sample of 263 non-financial BSE 500 firms listed at the Bombay Stock (BSE) from 2000 to 2008 and evaluated the data using OLS multiple regression. The results revealed that working capital management and profitability is positively correlated in Indian companies. The study further reveals that inventory of number of days and numbers of day's accounts payable are negatively correlated with a firm's profitability, whereas number of days accounts receivables and cash conversion period exhibit a positive relationship with corporate profitability.

Gakure, Cheluget, Onyango and Keraro (2012) analyzed the relationship between working capital management and performance of 15 manufacturing firms listed at the Nairobi NSE from 2006 to 2010 and for a total 75 firms year

observations. They used secondary data from a sample of 18 companies at the NSE. A regression model was used to establish the relationship between the dependent variable and the independent variables. Pearson's correlation and regression analysis were used for the analysis. The results indicated that there is a strong negative relationship between firm's performance and liquidity of the firm. The study found that there is a negative coefficient relationship between accounts collection period, average payment period, inventory holding period and profitability while the cash conversion cycle was found to be positively correlated with profitability. However, the effects of the independent variables except the average payment period were no statistically significant though the overall model was statistically significant.

About the Information Technology (IT) in India

Today, Information Technology is playing a vital role in India and IT has transformed India's image from a slow moving bureaucratic economy to a land of innovative entrepreneurs. It is an industry consisting of two major components: IT Services and Business process outsourcing (BPO). The sector has increased its contribution to India's GDP from 1.2% in 1998 to 7.5% in 2012. It is generating 2.5 million direct employments in India. It is now one of the biggest IT capitals of the modern world. In ongoing market, India is the largest exporter of IT.

Objective of the Study

- To analysis the working capital position of both company.
- To check uniformity in both company.

Research Methodology

This study aims to extracting working capital position in selected IT-software sector industries. Published secondary data are used for this study which is obtained through websites. For the analysis of the data few ratios are to be used such as current ratio, quick ratio and debtor turnover ratio which cover five financial years from 2011 to 2015. In present study data has been converted into relative measures such as ratios, percentage rather than the absolute data. While analysis & interpreting the results, statistical tool such as T-test is used and the graphical representations are also to be shown. The selected industries are as follow:

- Mastek Ltd
- Infosys Ltd

Tool Used

A T-test is a statistical hypothesis testing of two population means. A two sample T-test examines whether two samples are significantly different and is commonly used when the variances of two normal distributions are unknown and when an experiment uses a small sample size. In this study, testing the significance difference between two small sample means. The process of "T" test is as follows:

Step: 1 Hypothesis
H_0 = There is no significance difference.
H_a =There is significance difference.
Step: 2 Level of Significance: 0.05
Step: 3 Degree of freedom: $n_1 + n_2 - 2$
Step: 3 Calculate mean of both samples

- $X_1 = \Sigma x_1/n_1$
- $X_2 = \Sigma x_2/n_2$

Step: 4 Calculate standard deviation of both samples

$$S = \sqrt{\Sigma d^2_1 + \Sigma d^2_2 / n_1 + n_2 - 2}$$

Step: 5 Calculate value of "T"

$$t = x_1 - x_2 / s * \sqrt{n_1 * n_2 / n_1 + n_2}$$

Analysis of Working Position

It is decided to make an attempt to study the working capital position of the both companies. In order to highlight the relative strength of the companies in meeting their current obligations to maintain sound working capital position. For analysis using the following ratios:

- Current Ratio
- Quick Ratio
- Debtor Turnover Ratio

- **Current Ratio**

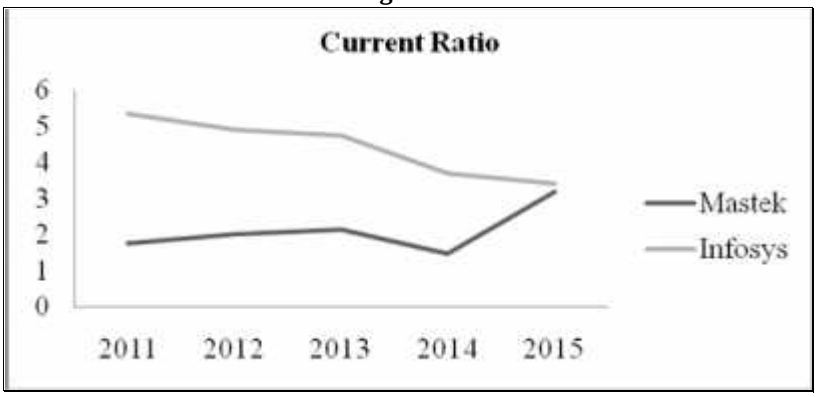
This ratio indicates whether an enterprise possesses sufficient current assets to pay off its current liabilities. Higher current ratio show greater ability to meet current obligation and more safety of funds of the short term creditors. The ideal ratio is 2:1.

Table1: Current Ratio

Mastek Ltd		Infosys	
Years	**Ratio**	**Years**	**Ratio**
2011	1.74	2011	5.34
2012	2.00	2012	4.91
2013	2.12	2013	4.75
2014	1.47	2014	3.70
2015	3.18	2015	3.41

The above table reveals that in Mastek Ltd has highest current ratio in 2015 and lowest in 2014. In case of Infosys, it has highest current ratio is in 2011 and lowest in 2015.

Figure: 1



Hypothesis: 1 there is no uniformity between Mastek Ltd and Infosys Ltd (in case of current ratio).

Table 2: Result of "T" in Current Ratio

Level of Significance	0.05
Critical Value	2.306
Observed Value	4.925
Decision	No Significant
Conclusion	Accepted

The aforesaid table reveals that calculate value of "T" is 4.925 which is greater than its table value 2.306.So above hypothesis is accepted at the given level of significance for two-tailed test and the samples come from normal populations with the same mean. In other words, there is no uniformity between both companies.

- **Quick Ratio**

This ratio indicates whether an enterprise possesses sufficient liquid assets to pay off its liquid liabilities. This ratio is an indicator of the liquidity position of an enterprise. The conventional standard and ideal ratio is 1:1.

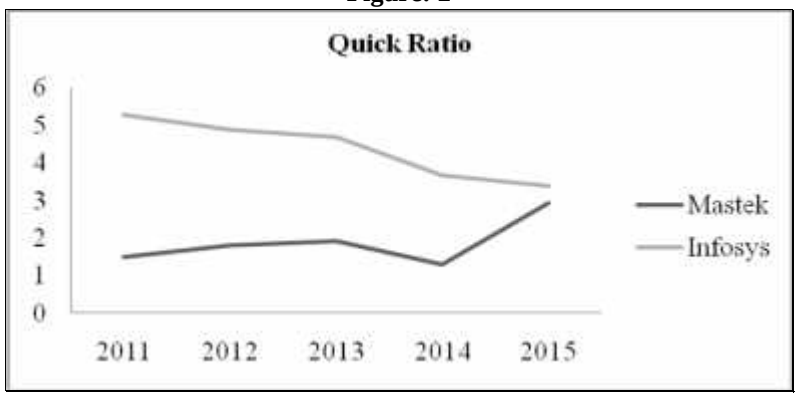
Table: 3: Quick Ratio

Mastek Ltd			Infosys	
Years	**Ratio**		**Years**	**Ratio**
2011	1.50		2011	5.28
2012	1.81		2012	4.88

2013	1.90		2013	4.69
2014	1.29		2014	3.65
2015	2.93		2015	3.38

The above table reveals that in Mastek Ltd, it has highest ratio in 2015 and lowest in 2014. On the other hands, Infosys Ltd has highest this ratio in 2011 and lowest in 2015.

Figure: 2



Hypothesis: 2 there is no uniformity between Mastek Ltd and Infosys Ltd (in case of Quick Ratio).

Table 4: Result of "T" in Quick Ratio

Level of Significance	0.05
Critical Value	2.306
Observed Value	5.371
Decision	Not Significant
Conclusion	Accepted

The aforesaid table reveals that calculate value of "T" is 5.371 which is greater than its table value 2.306.So above hypothesis is accepted at the given level of significance for two-tailed test and the samples come from normal populations with the same mean. In other words, there is no uniformity between both companies.

- **Debtor Turnover Ratio**

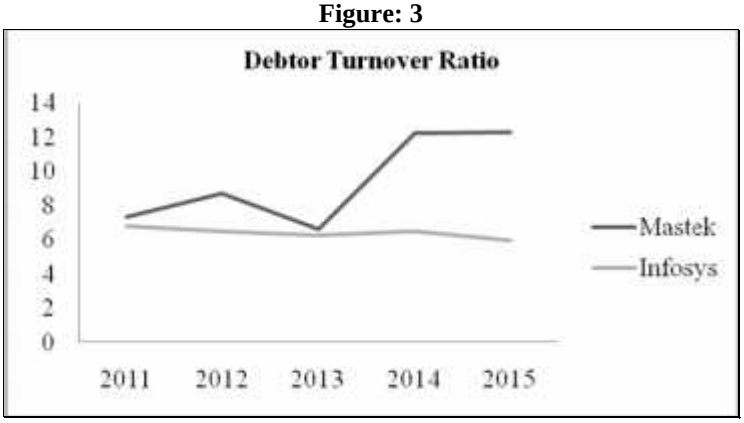
This ratio is a supplementary measure of liquidity of business which indicates the rate at which cash is generated by credit sale of account receivable. It shows how quickly account receivables are converted into cash. The objective of computing this ratio is to determine the efficiency with which the trade debtors are managed. In general, a high ratio indicates the shorter collection period which implies prompt payment by debtor otherwise vice versa.

Table: 5: Debtor Turnover Ratio

Mastek Ltd		**Infosys**	
Years	**Ratio**	**Years**	**Ratio**
2011	7.34	2011	6.81
2012	8.73	2012	6.50
2013	6.62	2013	6.25
2014	12.20	2014	6.47
2015	12.28	2015	5.93

The above table reveals that in Mastek Ltd, it has highest the debtor turnover ratio in 2015 and lowest in 2013. On the other hands, Infosys Ltd has highest this ratio in 2011 and lowest in 2015.

Figure: 3



Hypothesis: 3 there is no uniformity between Mastek Ltd and Infosys Ltd (in case of Debtor Turnover Ratio).

Table 6: Result of "T" In Debtor Turnover Ratio

Level of Significance	0.05
Critical Value	2.306
Observed Value	1.955
Decision	Significant
Conclusion	Rejected

The aforesaid table reveals that calculate value of "T" is 1.955 which is less than its table value 2.306.So above hypothesis is rejected at the given level of significance for two-tailed test and the samples come from normal populations with the no same mean. In other words, there is uniformity between both companies.

Summary of Findings

1. The Current Ratio of Infosys Ltd is higher than Mastek Ltd. Hence the performance of Infosys Ltd in the term of Current Ratio is satisfactory during the study period.
2. The Quick Ratio of Infosys Ltd is higher than Mastek Ltd. Hence the performance of Infosys Ltd in the term of Current Ratio is satisfactory during the study period.
3. The Debtor Turnover Ratio of Mastek Ltd is higher than Infosys Ltd which indicates a satisfactory debtor's management of the company.
4. T-test has suggested that there is no uniformity in both companies.

References

1. I M Pandey, "Financial Management", taxmann's, 2004-05.
2. Mohan, Reddy P. (1991): "Management of Working Capital", Print well Publishers.
3. Mukhopadhyay, D. (2004). "Working Capital Management in Heavy Engineering Firms- A Case Study", The Management Accountant, I.C.W.A.I.
4. Jafar, Amir and Sur, Debasish (2006). "Efficiency of Working Capital Management in Indian Public Enterprise during the Post Liberalization Era: A Case Study of NTPC", The Icfaian.
5. Kannadhasan, M.(2007). "Working Capital Management in a Public Ltd. Co.-A Case Study", The Icfaian Journal of Management Research, Vol.6, No.5, May Issue. Pp.20-33.
6. Janakiramudu P and Durga, Rao S. (2008), "Working Capital management, A Review of Research", Finance India, Indian Institute of Finance, Vol. Xxii, No1, March Issue.
7. Dong, H.P. and Su, J. (2010), "The Relationship between Working capital management and profitability: A Vietnam Case" International Research Journal of Finance and Economics, 49(1), 59-67.
8. Sarawat, B. P. And Agarwal, R.S. (2004): "Working Capital Trends of Cement Industry in Nepal", Indian Journal of Accounting, Vol. XXXV (1), December Issue, pp.26- 35.