A STUDY ON EFFICIENCY OF WORKING CAPITAL MANAGEMENT OF SELECTED IT COMPANIES

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Abstract: Technological advances have changed the world radically. Advancement in computer technology has contributed to the overall development of people across the world. Now, everybody talks about the revolution of computer technology, the role it is playing and also it is going to play in the future. Technology is important today because we have become dependent on the ease and efficiency of new methods. It provides faster and more efficient methods of getting a job done. Many companies carried for consultancy services and providing jobs to young generation. The task is only to bring together the service provider, in some other cases the producer or his agent and the end user. Such applications also promote self-employment for youth whose investment is only initiative, competency and effective communication. This paper examines the utilization of working capital management and the way improved and operational efficiency, optimized.

Keywords: Working Capital, PI, UI and EI.

INTRODUCTION

Technology plays a vital role in the development of the generation that going through all departments. Information technology related to computer and it is a huge field to be developed every day. Technology is important today because we have become dependent on the ease and efficiency of new methods. It provides faster and more efficient methods of getting a job done. Many companies carried for consultancy services and providing jobs for young generations. The IT industry in India is a key part of the country's economy. In 2013, information technology and its various sub-sectors represented 8 percent of the nation's overall GDP, making it the fifth largest industry in India. In the 2014/15 financial year alone, the IT industry in India generated an annual revenue of around 120 billion U.S. dollars, a significant increase from around 60 billion U.S. dollars in 2008/09. Of this revenue in 2015, the majority, 98.1 billion U.S. dollars, was generated in exports while domestic revenue totaled more than 20 billion U.S. dollars. Some of the largest IT service suppliers in Asian country embody IBM and HP, in addition as Indian-based corporations, Wipro and Tata practice Services (TCS). Overall, in 2013, the IT trade in Asian country provided direct employment to three million individuals and indirect employment to almost 10 million. Of these employees, over 275,000 worked for TCS and a further 156,700 worked at Infosys, based in Bangalore. In India TCS is the biggest giant in the field of IT services and having turnover of 979 billion Indian rupees in 2015. In terms of revenue we may conclude that TCS is the biggest concern and it ranks at topmost among all the other enterprises.

IMPORTANCE OF THE STUDY

Working capital is the vital factor to consider the performance of every business. Working capital management is a financial tool which is used to determine the liquidity of any corporate and also determine the quantum of fund required to maintain day-to-day expenditure on the operational activities of a business enterprise. No business can run effectively without a sufficient quantity of working capital. It can be utilized for the payment of the lease, employee's payroll, and pretty much any other operating costs that are involved in the everyday life of business. Every successful business owners may need working capital funds when the unexpected circumstances arise. The overall performance of the company depends upon its working capital position. So, it should be handled very properly, because it shows the efficiency and financial strength of the company. Efficient management of working capital means management of various components of working capital in such a way that an adequate amount of working capital is maintained for smooth running of a firm and for fulfillment of the objectives of Liquidity and Profitability.

METHODOLOGY

The present study is purely based on the secondary data. Data are collected and compiled from the Annual reports of selected IT Companies in India. The purpose of this study is to examine the efficiency of working capital management of selected IT companies.

PERIOD OF THE STUDY

Researcher has conducted this study for the period of five years, taking from March 2013-2014 to March 2017-2018.

SAMPLE DESIGN OF THE STUDY

The researcher should take the selected IT companies on the basis of convenient sampling methods. A sample of these two IT companies has been selected on the basis of availability of data from the annual reports. In these two IT companies are the main largest Information technology companies in India. The selected companies are:

1.　　　　Tata consultancy services (TCS)
2.　　　　Infosys

In analyzing the efficiency of working capital management three indices were used in this current study, namely, Performance Index of working capital management (PI), Utilization Index of working capital management (UI), and Efficiency Index of working capital management (EI)

Performance Index (PI)

Performance Index denotes average performance index of the various components current assets. The working capital management may be said efficient if the proportionate rise in sales is more than the proportionate rise in current assets during a particular period. Overall performance index more than one indicates efficient management of working capital. The formula for calculating performance index is:

PI ʍᴡᴄ= [∑Mi (t-1) / ʍi t/N× It..................................... (1)

Where, IT = turnover index or sales index defines as S1/S (t-1)

Mi = Individual, group of current assets.

N = No of current assets in the group

Simply

$$PI_{\text{мwc}} = \frac{\text{Current Assets}}{\text{No. of current Assets} \times \text{Turnover Index}}$$

Utilization Index

Utilization Index indicates the ability of the firm in utilising its current assets as a whole for the purpose of generating sales. This ultimately reflects the operating cycle of the firm, which can be shortened by means of increasing the degree of utilization. A value of Utilization Index greater than one is always desirable from the management of a company. This Index calculated by using the model

UI ʍᴡᴄ= R (t-1) / Rt.................... (2)

Where, R = Current Assets / Sales

Efficiency Index

The Efficiency Index measures the ultimate efficiency in working capital management of a concern. It has been derived by multiplying the PI and UI, a value more than one will obviously indicate a good sign regarding the working capital management. The efficiency index has been calculated as:

EI ʍᴡᴄ = PI ʍᴡᴄ × UIʍᴡᴄ......................... (3)

Return on Capital Employed (ROCE)

A financial ratio that measures a company's profitability and the efficiency with which its capital is employed. Return on capital employed is to establish the relationship between profits and the capital employed. It also called Return on Investment. Return on capital employed is calculated by using the following formula:

ROCE = Earnings before Interest and Tax / Capital Employed

Return on investment is used to measure the operational and managerial efficiency. A comparison of ROCE with that of similar firms, with that of industry and with past ratio will be helpful in determining how efficiently the long-term fund of owners and creditors being put into use. Higher the ratio, the more efficient is the use of the capital employed.

Working Capital Structure	
Current Assets	**Current Liabilities**
Cash and bank balances	Creditors
Inventories	Proposed Dividend
Short-term Investment	Bank Overdrafts
Accounts Receivables	Outstanding Expenses
Bill Receivables Accrued Income	Bills Payable
Prepaid Expenses	Short-term loan

Table 1

Tata Consultancy Services for the year from 2013-14 to 2017-18

(Rs.In.Crores)

Items of Current Assets	2013-14	2014-15	2015-16	2016-17	2017-18
Current Investment	733.87	747.47	21,930	40,729	35,073
Trade Receivables	1,4471.89	17,036.76	19,058	16,582	18,882
Cash And Cash Equivalents	12,566.26	16,502.50	4,806	1,316	3,487
Short Term Loans And Advances	3,688.12	3,352.18	2,523	2,704	2,793
Total Index	31460.14	37638.91	48317	61331	60235
Average Index	4608.86	9409.73	12079.25	15332.75	15058.75
Investment Turnover Index	1.47	1.62	1.32	1.18	1.28
PI	5350	5808	9150	12994	11764
UI	0.486	0.512	0.563	0.662	0.619
EI	2600	2974	5151	8602	7282
ROCE	0.519	1.952	0.444	0.380	0.415

Source: Computed

From the above table the data presented the performance Index, Utilization Index, Efficiency Index of the Tata Consultancy Services Ltd in the year from 2013-2014 to 2017-2018.In the study, the performance Index for Tata consultancy services Ltd is more than one. The Performance Index highest in the year 2016-2017 was 12,994 and the lowest in the year of 2013-2014 was 5350. So, overall performance of TCS Ltd reflects a satisfactory position over the study period so far as the Performance Index is concerned.

In the present study, Utilization Index of Tata consultancy services Ltd in the year from 2013-2014 to 2017-2018 of five accounting periods out of five years: in the initial 2013-2014 the Utilization Index of TCS was 0.486. After that the next four years 2015 to 2018 the Utilization Index increased to 0.619.

In this study Efficiency Index of Tata consulting services Ltd in the year 2013-2014 to 2017-2018 of five years accounting periods. The Efficiency Index of TCS in the year 2013-2014 was 2600. The highest efficiency in the year 2016-2017 was 8602.The overall performance of Tata consultancy services Ltd is satisfactory position during the study periods.

Computation of PI, UI, and EI of the Infosys Ltd

  The following table highlights the performance Index, Utilization Index, and Efficiency Index of Infosys Ltd during the period 2013-2014 to 2017-2018.

Table 2
Infosys Ltd for the year of from 2013-14 to 2017-18

(Rs.In.Crores)

Items of Current Assets	2013-14	2014-15	2015-16	2016-17	2017-18
Current Investment	2,749	749	2	9,643	5,906
Trade Receivables	7,336	8,627	9,798	10,960	12,151
Cash And Cash Equivalents	24,100	27,722	29,176	19,153	16,770
Short Term Loans And Advances	2,660	3,231	355	310	393
Total Index	36846	40329	39331	40066	35220
Average Index	9211.25	10082.25	9832.75	10016.5	8805
Investment Turnover Index	1.053	0.984	0.884	0.872	0.975
PI	8747.6	10246.2	11123	11486.8	9030.7
UI	0.831	0.853	0.729	0.676	0.569
EI	7269	8740	8109	7765	5138
ROCE	0.329	0.341	0.288	0.278	0.310

Source: Computed

  From the above table the data presented the performance Index, Utilization Index, Efficiency Index of the Infosys Ltd in the year from 2013-2014 to 2017-2018.In the study, the performance Index for Infosys Ltd is more than one. The Performance Index highest in the year 2016-2017 was 11486.812 and the lowest in the year of 2013-2014 was 8747.6. So, overall performance of Infosys Ltd reflects a satisfactory position over the study period so far as the Performance Index is concerned.

  In the present study, Utilization Index of Infosys Ltd in the year from 2013-2014 to 2017-2018 of five accounting periods out of five years: in the initial 2013-2014 the Utilization Index of TCS was 0.831. After that, the next years 2015-2016 to2017-2018 the Utilization Index decreased to 0.569. In the second year the Utilization Index was increased 0.853.

  In this study Efficiency Index of Infosys Ltd in the year 2013-2014 to 2017-2018 of five years accounting periods. The Efficiency Index of Infosys Ltd in the year 2013-2014 was 7269.The highest efficiency in the year 2014-2015 was 87402.The overall performance of Infosys Ltd is satisfactory position during the study periods.

Table 3 The overall performance of PI, UI and EI selected IT Companies in India

Year		2013-14	2014-15	2015-16	2016-17	2017-18
Tata Consultancy Service Ltd	PI	5350	5808	9150	12994	11764
	UI	0.486	0.512	0.563	0.662	0.619
	EI	2600	2974	5151	8602	7282
Infosys Ltd	PI	8747.6	10246.2	11123	11486.8	9030.7
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	EI	7269	8740	8109	7765	5138

Sources: Computed

SIMPLE CORRELATION ANALYSIS BETWEEN THE EFFICIENCY IN WORKING CAPITAL MANAGEMENT AND THE PROFITABILITY OF THE SELECTESD IT CONPANIES IN INDIA

Correlation Analysis of the Tata consultancy services Ltd

The following table highlights the correlation Analysis and value of 't' test of the Tata consultancy services Ltd during the period 2013-2014 to 2017-2018.

Table 4

Correlation Analysis

Year	2013-14	2014-15	2015-16	2016-17	2017-18	r	Calculate value of 't'
PI	5350	5808	9150	12994	11764	.901	5.872
UI	0.486	0.512	0.563	0.662	0.619	.991**	17.409
EI	2600	2974	5151	8602	7282	.997**	4.534
ROCE	0.519	1.952	0.444	0.380	0.415	-	-

Sources: Computed [**. Correlation is significant at the 0.01 level (2-tailed)]

The above table 4 presented that there is one positive association and another two is a negative association between ROCE and PI, UI and EI for the Tata consulting Service Company during the study period .Out of three indicators of measuring the efficiency of working capital management.

Correlation Analysis of the Infosys Ltd

The following table highlights the correlation Analysis and value of 't' test of the Infosys Ltd during the period 2013-2014 to 2017-2018.

Table 5

Correlation Analysis

Year	2013-14	2014-15	2015-16	2016-17	2017-18	r	Calculate value of 't'
PI	8747.6	10246.2	11123	11486.8	9030.7	.101	18.551
UI	0.831	0.853	0.729	0.676	0.569	-.040	14.059
EI	7269	8740	8109	7765	5138	.599	12.039
ROCE	0.329	0.341	0.288	0.278	0.310	-	-

Source: computed

The data given the table 5 represented that there are two positive and one negative association between ROCE and PI, UI and EI for the Infosys Ltd during the study period. Out of three indicators of measuring the efficiency of working capital management.

Note:
1. The Formula used for calculating $[t] = \dfrac{r \times \sqrt{(n-2)}}{\sqrt{(1-r^2)}}$ .... With (n-2) d.f.

2. The Tabulated value of 't' with (n-2) d.f .i.e., the level of 1 % and 5% significance for both tailed tests are 2.57 and 4.03 respectively.

3. Since the calculated value of correlation between PI and ROCE for the selected companies is higher than the tabulated value of 't' at the 1 % level. So the value of correlation the coefficient between these companies are significant, except those in all other cases, the calculated value of \ t\ are less than the tabulated values of 't' with d.f., so the correlation coefficient are insignificant.

CONCLUSION

In today's environments, human depends on technology in all their activities and needs. Without technology, our lives wouldn't be just the usual walk in the park daily routine. Technology is a huge contributor to the well being of humankind. So information technology is more helpful to all employees to have a better job in his life. The present study attempted to analyze the efficiency of working capital management in the selected IT Companies in India from 2013 to 2018. The efficiency represented by the total efficiency index of the working capital management based on the performance index, and utilization index, efficiency index and return on capital employed. The selected companies' working capital management was a satisfactory position over a study period. In future, both companies are increased our investment level in working capital management.

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