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Research Paper

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Evaluation of Working Capital Management of Indian Oil Corporation Limited

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ABSTRACT

The term working refers to current assets which may be defined as those assets which is either in form of cash or which can be easily convertible in form of cash or equivalents within a period of one year and which is used to meet the day to day operations of the business. The optimum working capital ensures the success of the business where as its inefficient management will lead to the downfall of the organization. The requirement of working capital is very important for the organization. Generally a question arises that if all the establishment expenses of business are borne by the fixed capital then why we require adequate or sufficient working capital. The reason for having working capital arises due to the time gap between production & realization of cash from sales. The need of working capital varies from firm to firm and it depends upon the nature and objective of the business. Keeping this in view we have tried to evaluate the working capital position of IOCL for the years 2008-09 to 2014-15. The working capital position of this corporation has been analyzed on the basis of current ratio, quick ratio and absolute liquid ratio.

KEYWORDS Working capital, Current Assets, Current liabilities

Introduction
Capital is considered as life of a business. As a human being requires food and air to live similarly a business cannot survive without money which is termed as capital. Every business organization needs money basically for two main purpose firstly for the establishment of the organization and secondly to carry out its day to day functioning. Thus capital can be grouped under two main categories i.e. Fixed Capital and Working Capital.

Generally in the business there is an operating cycle involved in the sale & realization of cash. This operating cycle is having a time gap in the purchase of raw materials & converting it into finished goods, then the finished good are sold and there is also a time gap between selling the finished goods and converting it in form of cash. Some of the main purposes for having the working capital is for the procurement of raw materials, to meet out the day to day expenses , to pay the indirect expenses like Administrative expenses, selling & distribution expenses etc, for providing the credit facilities for credit sales , to have the stock of raw materials, work in progress, stores & spares and finished goods, to pay the sales promotional expenses & advertisement expenses , to pay the financial expenses like bank charges, interest on capital, interest on loan etc, to pay all the direct expenses which are involved in production etc. This paper i.e. working capital analysis of IOCL is aimed at assessing the working capital position of this corporation as well as this paper enables us to examine the factors responsible for significant changes in working capital during the study period from the year 2008-09 to 2014-15.

JUSTIFICATION OF THE TOPIC
Working capital analysis covers a vast area and is of great practical importance. Keeping in view the importance of working capital analysis we have carried out the present research work titled "Working capital analysis of IOCL helps in identifying the strengths and weaknesses of working capital position of this corporation as well as it helps in judging the short term solvency position as well as the potential growth of the corporation. This paper helps in finding out whether this corporation has sufficient funds for the procurement of raw materials, whether the corporation could easily meet out the day to day expenses or other indirect expenses like administrative expenses, selling & distribution expenses etc, or the corporation could provide the credit facilities for credit sales etc. This topic helps us in measuring the short term liquidity position of this corporation as well as it would indicate the utilization of the current assets ,utilization of the working capital as well as the utilization of the inventories of this corporation.

REVIEW OF LITERATURE
Jain (1993) conducted a study among seven paper companies in India to analyze the basic components of working capital. The study revealed that the current ratios in the public sector undertaking during the study period was found to be highly erratic, while the same in private sector undertakings registered continuous decrease. As far as the inventory was concerned the study revealed that it was highly unplanned in public sector undertakings as compared private sector undertakings. The study contributed much in terms of realizing the importance of effective management of working capital.

Salmi and Martikainen (1994) "the research areas are reviewed are the functional form of the financial ratios, distributional characteristics of financial ratios, classification of financial ratios and the estimation of the internal rate of return from financial statements. It is observed that it is typical of financial ratio analysis research that there are several unexpectedly distinct lines with research tradition of their own. A common feature of all the areas of financial ratio analysis seems to be that while significant regularities can be observed, they are not necessarily be stable across the different ratios, industries and time periods. This leaves much space for the development of a more robust theoretical basis and for further empirical research."

Reddy and Rao (1996) conducted a study on Hindustan Cable Ltd for the period 1989-90 to 1993-94. Having studied current ratio, quick ratio, working capital turnover ratio, etc they concluded that the liquidity position of the company was unsatisfactory. However the study revealed that there was a sign of improvement in the management of inventory and ineffectiveness in the management of debtors. The study recommended for effective utilization and control of current assets.

N.K. Sharma (1998) he wrote in his book about the practical techniques used in working capital management for measuring the liquidity of the firm and analyzing its sources of financing. According to him working capital management requires financial managers to decide what quantities of cash, other liquid assets, accounts receivables and inventories should be maintained for the firm. According to him the management of working capital plays an important role in maintaining the financial health of the firm during the normal course of business. It aims at protecting the purchasing power of assets and maximizing return on investment.

Eljelly, Abuzar M.A (2004) empirically examined the relationship between the profitability and liquidity on a sample of joint stock companies which are operated in Saudi Arabia. They found significant negative relationship between the profitability and liquidity position of the firms. At the industry level, the cash conversion cycle was more important than current ratio as a measure of liquidity.

OBJECTIVES OF STUDY
The study fulfils the following objectives:
(1) To analyze the concept of current assets, current liabilities and liquid assets of the working capital analysis of Indian Oil Corporation Limited.
To identify the items responsible for changes in working capital position of Working capital analysis of Indian Oil Corporation Limited.

HYPOTHESIS
In order to achieve these objectives, the following null hypothesis is framed for testing:
Ho: There is no significant difference in the Working capital position of Indian Oil Corporation Limited during the period of study.

LIMITATIONS
Limitations are always a part of any kind of research work, as the report is mainly based on secondary data; proper care must be taken in knowing the limitations of the required study.
(i) The working capital position of the corporation is shown just for the last ten years, ending 2010. Hence, any uneven trend before or beyond the set period will be the limitations of the study.
(ii) This analysis is based on only monetary information the non monetary factors are ignored
(iii) As per the requirement of the study some data have been grouped and sub grouped
(iv) There is non-availability of sufficient data & literature of the study.
(v)The research study is based on secondary data only.

METHODOLOGY
For this study, figures are taken from the organization's annual report which contains Annual Balance Sheet, Profit & Loss Account and other published documents. The collected data has been processed by constructing tables, with the required information for the calculation of ratio. It has also been carefully examined to avoid personal bias while interpreting the ratios. For the significance of the study we have taken various statistical tools such as mean, standard deviations, coefficient of variations & t-test so that the calculated information is in accordance with predefined standard of accuracy.

WORKING CAPITAL ANALYSIS OF INDIAN OIL CORPORATION LIMITED
For analyzing Working capital analysis of IOCL from the year 2008-09 to 2014-15 the liquidity ratios had been used. In order to measure the working capital position we have used the current ratio, quick ratio, as well as the absolute liquid ratio.

1 Current Ratio
The Current ratio measures the firm's short term solvency and it indicates the availability of current assets in rupees for every one rupee of current liability. A greater ratio indicates that the firm has more current assets than current claims & the ideal ratio is considered as 2:1. On the other hand if this ratio is low then it represents the liquidity position of the firm is not good.

Table No. 1: Statement Showing Current Ratio (Rs. In Crores)

YEAR	Current Assets	Current Liabilities	Ratio
2008 - 09	44535	35358	1.25
2009- 10	59388	44751	1.32
2010 - 11	83321	59313	1.4
2011-12	121726	129323	0.94
2012-13	128298	124133	1.03
2013-14	134577	135320	0.99
2014-15	95931	96801	0.99
Mean	95396.57	89285.57	1.131429
SD	34977.30	42392.72	0.19
CV	36.66	47.48	16.48
Growth %	115.41	173.77	-20.8
Average Annual Growth	16.49	24.82	-2.97

Source: Compiled from Annual report of the Indian Oil Corporation Limited

Interpretation
As per the above table no.1, it is found that the current ratio is not satisfactory during the study period as in all years the current ratio is less than 2:1. The current ratio is showing a decreasing trend as it was 1.32 times in the year 2009-10 and it got reduced to .94 by 2011-12. However there was a slight increase in the year 2012 -13 but it got reduced to .99 in the year 2014-15. The coefficient of variance is 16.48 and the growth percentage is at – 20.8%. The average annual growth was at -2.97%.

Liquid Ratio
The liquid ratio or Quick ratio refers to the ability of the firm to pay its short term obligation as and when they become due. The liquid assets should not include stock & prepaid expenses which cannot be converted into cash within a short period. The ideal ratio is considered as 1:1. It measures the firm's capacity to pay off current obligations immediately and it is a more rigorous test of liquidity than current ratio. It is used as complementary ratio to the current ratio.

Liquid assets = Current assets – (Stock + Prepaid expense)
Table No. 2: Statement Showing Quick Ratio (Rs. In Crores)

YEAR	Quick Assets	Current Liabilities	Ratio
2008 - 09	19386	35358	0.54
2009- 10	22894	44751	0.51
2010 - 11	34037	59313	0.57
2011-12	64897	129323	0.5
2012-13	68984	124133	0.55
2013-14	69880	135320	0.51
2014-15	50388	96801	0.52
Mean	47209.43	89285.57	0.528571
SD	21794.25	42392.72	0.025448
CV	46.17	47.48	4.81
Growth	159.92	173.77	-3.70
Average Annual Growth	22.85	24.82	-0.53

Source: Compiled from Annual report of the Indian Oil Corporation Limited

Interpretation
As per the above table no.2 from, it is found that the quick ratio is not satisfactory during the study period as in all years the quick ratio is less than 1:1. The quick ratio is showing a balanced trend as it was .51 times in the year 2009-10 and it remained almost same by 2011-12. However there was a

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slight increase in the year 2012 -13 but it got reduced to .52 in the year 2014-15.The coefficient of variance is at 4.81 and the growth percentage is at – 3.70%. The average annual growth was at -0.53%.

Absolute Liquid Ratio or Cash Ratio

The absolute liquid ratio is more rigorous than current ratio and quick ratio. This ratio is calculated to find out the firms capacity to pay current obligations very immediately. The absolute liquid ratio is calculated by dividing absolute liquid asset by liquid liabilities. The absolute liquid asset includes cash in hand, cash at bank and marketable securities. The acceptable norm for this ratio is .5:1.

Absolute liquid assets = Cash in hand+ Bank balance+ Marketable securities

Table No. 3: Statement Showing Absolute Liquid Ratio (Rs. In Crores)

YEAR	Absolute Liquid Assets	Current Liabilities	Absolute Liquid Ratio
2008 - 09	12396	35358	0.35
2009- 10	16043	44751	0.35
2010 - 11	13960	59313	0.23
2011-12	14067	129323	0.1
2012-13	14141	124133	0.11
2013-14	9890	135320	0.07
2014-15	7381	96801	0.07
Mean	12554	89285.57	0.182857
SD	2967.59	42392.72	0.13
CV	23.64	47.48	69.08
Growth	-40.46	173.77	-80.00
Average Annual Growth	-5.78	24.82	-11.43

Source: Compiled from Annual report of Indian Oil Corporation Limited

Interpretation

As per the above table no. 3, it is found that the absolute liquid ratio is not satisfactory during the study period as in all years the absolute liquid ratio is less than 0.5:1. The absolute liquid ratio is showing a decreasing trend as it was 0.35 times in the year 2009-10 and it got reduced to 0.1 by 2011-12. However there was a slight increase in the year 2012 -13 but it got reduced to .07 in the year 2014-15. The coefficient of variance is at 69.08 and the growth percentage is at – 80%. The average annual growth was at -11.43%.

TESTING OF HYPOTHESIS

In this study the hypothesis has been analyzed by t-test as the significance of data can be analyzed by means of statistical tools. Hence correlation & t- test have been applied in this study.

Null hypothesis H_{01} There is no significant difference in the working capital position of Indian Oil Corporation Limited during 2008-09 to 2014-15.

Interpretation of t-test

Table No. 4 One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Current Ratio	7	1.13	.19	.07

Table No. 5 One-Sample Test

	Test Value = 0					
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Current Ratio	16.05	6	.000	1.13143	.96	1.30

$t = 16.05$, $t_{0.05} = 2.44$ $t > t_{0.05}$

Interpretation

Since the calculated value is more than the table value hence we reject the null hypothesis which means that there is a significant difference in the working capital position of Indian Oil Corporation Limited during 2008-09 to 2014-15.

SUGGESTIONS

Steps should be taken by the Indian Oil Corporation Limited to maintain the current ratio at an ideal standard of 2:1 as the working capital position was not satisfactory due to increase in current liabilities.

For the betterment of short term solvency the Indian Oil Corporation Limited should try to reduce its current liabilities.

The Indian Oil Corporation Limited should try to improve their cash position by taking short term loans or through bank overdraft for making the payments of day to day expenses and other current obligations.

The current assets of the corporation were not properly utilized as the current assets was low during the study period hence Indian Oil Corporation Limited should try to utilize its current assets efficiently .

The Indian Oil Corporation Limited should try to effectively utilize its stock hence the corporation should have better policies to reduce its stock.

The working capital of the Indian Oil Corporation Limited was not properly utilized hence the corporation should try to utilize its working capital efficiently by reducing the cost of goods sold.

The Indian Oil Corporation Limited should improve the composition of the current assets like inventories, debtors, loans & advances, other current assets & cash and bank balances.

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