

***IMPACT OF LIQUIDITY ON PROFITABILITY OF INDIAN OIL  
CORPORATION LIMITED (IOCL)***

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**ABSTRACT**

Liquidity plays a vital role in a modern organization. It provides financial flexibility to an organization. Liquidity takes care of the capacity of firm to fulfill its fleeting compulsions while profitability manages the capacity of firm to obtain benefit. An efficient liquidity management center is essential for optimizing benefits of liquidity and profitability. Indian Oil Corporation Limited (IOCL), a major manufacturer of raw petroleum and flammable Oil in India, has a Maharatna status, the important Public Sector Venture Unit (PSU) with Rs.5.3 trillion market capitalization. It has a fifth place in Asia. The complete Oil production of IOCL has been 63.41 MMT during 2022-2023. Data from sample company's annual reports for the years 2013 - 2014 to 2022 -2023 was used in the study. The liquidity position of IOCL is estimated through liquidity proportions [CR, LR, WCTR, ITR, DTR and NWCTA] while profitability position of IOCL is estimated through profitability proportions [NPR, OPR, ROTA, ROCE, Return for money invested and EPS]. This paper is an endeavor to concentrate on the effect of liquidity on IOCL profitability. To measure such effect correlation and various regression analysis has been utilized. Keywords: Liquidity, Profitability, Working Capital Management, Petroleum Industry.

## **INTRODUCTION**

In today's competitive business, every Institution is supposed to take a couple of choice to make the ideal usage of the open resources. Liquidity Management is one of them. Liquidity management revolves around the best usage of transient cash. It may be portrayed as the most well-known approach to orchestrating, planning, organizing and limiting the liquidity of the company with the objective which the Institution could accomplish its preordained target. The management of inflowing and outflowing of cash is concerned about, what is otherwise known as the management of resources and liabilities available at hand now. A strong liquidity management is based on utilizing Liquidity to maximize productivity which a firm is expected to maintain that is a specific level of liquidity at which the financial advantage would be the maximum..

Either the overflow or lack of liquidity (Fund) lessens the corporate productivity. In liquidity management, liquidity has two strategies i.e., Quantitative and Abstract. The quantitative strategy deals with the quantum, development and usage of liquid resources while the emotional philosophy deals with the ability to meet the present and conceivable future need of funds in an ideal manner i.e., enhance the value of firm basically.

The notion of liquidity management is of course, working capital management because

most of the problems in the liquidity management are similar to that of working capital management. Working capital can be conceived as funds utilized to optimize profitability. In liquidity management there are two concepts namely Funds and Cash. Every Cash Chief faces a problem of Liquidity Versus Profitability. It becomes one of the objectives to them. Overall, there is an inverse relationship between liquidity and profitability. Higher the liquidity, lower will be the profitability and the opposite is also true. Higher liquidity can be a savior from insolvency, but would result in lower profitability due to managerial inefficacy resulting in extra expenses, idle cash etc. Though lower liquidity might reflect higher profitability. It reflects the higher risk taking ability of the manager, but a shortage in liquidity might have some serious ramifications like, for instance, inability to utilize business opportunities etc. Thus, an Institution should maintain a proper balance among liquidity and profitability which means there is neither an excess nor the lack of liquidity. The current survey revolves around the IOCL's liquidity management and the consequent impact on profitability.

## **REVIEW OF LITERATURE**

**Das P (2008)** in his paper entitled "A Study on Liquidity Management in Ranbaxy Laboratories Ltd." published in Journal of Accounting and Finance, revealed that there

was a positive correlation between liquidity and profitability during the studied period (1996-1997 to 2004 - 2005). The article also found that company made high investments in current assets as compared to fixed assets. The management of debt and inventory was pretty satisfactory. The liquidity position of Ranbaxy Laboratories Ltd was high throughout the study period.

**Mandal and Goswami (2010)** in their paper entitled “Impact of Working Capital Management on Liquidity, Profitability and Non-Insurable Risk and Uncertainty Bearing: A Case Study of Oil and Natural Gas Commission (ONGC)” published in Great Lakes Herald declared that working capital management is useful to guarantee better productive capacity, good profitability and sound liquidity of an enterprise. It covered the period from 1998-1999 to 2006-2007. The study inferred that there is a positive correlation between liquidity and profitability. For determining the liquidity position of ONGC, Metal’s Comprehensive Test of Liquidity was used. The test point-outs that the liquidity position of ONGC was good in 2006 - 2007 and was concluded to be improving over the year. The multiple regression analysis showed that the profitability of the firm is highly influenced by different liquidity ratios.

**Chukwunweike V (2014)** in his paper entitled “The Impact of Liquidity on

Profitability of some Selected Companies: The Financial Statement Analysis (FSA) Approach” published in Research Journal of Finance and Accounting, considered the relationship between Liquidity and Profitability using correlation analysis. The study exposed that the relationship between current ratio and profitability is optimistic and significant while Acid-test ratio and return on capital employed have irrelevant positive relationship with profitability. Further he recommends that there ought to be a legitimate tradeoff between two performance indicators i.e., liquidity and profitability.

**Alshatti A S (2015)** in his paper entitled “The Effect of the Liquidity Management on Profitability in the Jordanian Commercial Banks” published in International Journal of Business and Management, premeditated the effect of the liquidity management on profitability in Jordanian commercial banks by selecting 13 banks. The study discloses that the quick ratio and investment ratio have positive effect while capital ratio and liquid assets ratio have negative effect on profitability of Jordanian commercial banks.

In the paper published, “Impact of Solvency and liquidity on profitability of petroleum and energy sector in Pakistan”, it was endeavored by **Yasir Ali, Abd Us Salam and Kaint Anwar (2021)**. The researcher resolved in

view of following boundary applied hypothetical commitment for the assemblage of information. The populace has been looked over the oil and energy area of Pakistan and from 15 organizations we have chosen ten recorded oil and energy area in the time of most recent 10 years information of these organizations from 2001 to 2011. The consequences of this study propose that the negative connection among dissolvability and profitability reliable with the view that less beneficial firms stand by longer to pay everyday costs. Comparing with the utilization of varied proportions such as current proportion, speedy proportion, obligation proportion, obligation value proportion and premium inclusion proportion, it is assumed that our ongoing proportion and fast proportion are high. It means that the organization is in great position and stable in light of the fact that extra money is accessible to deal with the issues of an organization.

The study, "Liquidity management and financial performance of listed oil and gas companies in Nigeria," was attempted by **Ismail Alhassan and K.M.Anwarul Islam (2021)**. They have concentrated ten recorded organizations with a greater piece of the pie in the oil and gas area of the Nigerian organizations, optional information was accumulated for quite a long time from 2011 to 2020 from distributed yearly reports. Profit After Tax (PAT), Return on Asset (RoA) and

Return on Equity (RoE) were utilized to decide profitability. He reasoned that oil and gas firms ought to support their equity capital, work on their incomes, increment their hold profit and pay off past commitments funding to empower them to create more abundance for investors.

**Sumeet D. Kateshiya and Dr. Dilipsinh R. Thakor (2022)** examined in their article entitled "An empirical study on the liquidity position of selected petroleum refineries". The liquidity status of BPCL, HPCL and IOCL a couple of picked oil organizations between 2016-2017 and 2021-2022 utilizing liquidity proportions. At a 5% degree of importance, the investigation of change and t-test is utilized to make sense of the meaning of the contrast among genuine and assessed. It was presumed that the three organizations for this examination, IOCL's liquidity position was to some degree better. To upgrade their liquidity positions it is prompted that treatment facilities support their interest in current assets, working capital and so forth.

#### **OBJECTIVE OF THE STUDY**

The present study has the following objectives:

- To compute the liquidity and profitability conditions of IOCL.
- To study the impact of liquidity on IOCL profitability

## SCOPE OF THE STUDY

The intention of the present study was to analyze the impact of liquidity on profitability performance of Indian Oil Corporation limited (IOCL) petroleum businesses.

## PERIOD OF STUDY

Ten years were covered by this study. A liquidity and profitability analysis of IOCL petroleum companies has been done for the

periods from 2013- 2014 to 2022- 2023. The study's scope is limited to companies with petroleum business liquidity on profitability performance over the study period.

## LIMITATIONS OF THE STUDY

The review was done exclusively to survey the effect of liquidity on profitability of the chosen organizations. The overview did not cover non-financial aspects including efficiency, showcasing, employing and innovative work.

## DATA ANALYSIS AND INTERPRETATION

### Analysis of Profitability and Liquidity of IOCL

Table - 1  
Descriptive Statistics

Year	NPR	ROCE	ROE	OPR	ROTA	EPS	CR	LR	WCT R	ITR	DTR	NWCT A
2013-14	27.80	44.00	28.03	39.56	18.62	15.18	2.62	2.39	2.19	18.18	12.53	30.45
2014-15	29.94	40.33	26.93	41.32	17.53	16.87	3.08	2.79	1.81	15.86	13.01	32.17
2015-16	27.49	39.11	25.47	37.16	15.88	18.29	2.77	2.55	1.87	18.76	20.62	30.82
2016-17	27.91	35.85	23.88	36.23	15.51	19.52	2.47	2.27	1.86	17.19	13.73	29.82
2017-18	25.36	31.04	20.65	31.26	13.14	18.85	2.26	2.07	1.90	15.66	15.57	27.08
2018-19	27.95	31.03	19.40	38.18	12.74	19.60	2.38	2.14	1.75	12.82	19.61	25.94
2019-20	28.74	34.68	19.57	41.98	12.74	22.12	1.34	1.13	10.07	15.99	16.48	4.40
2020-21	33.00	36.90	22.47	44.05	14.65	29.36	1.41	1.18	7.79	14.74	12.29	5.69
2021-22	25.34	30.04	17.02	37.02	11.76	24.46	1.72	1.39	6.62	14.48	12.03	7.00
2022-23	26.47	29.63	16.29	38.86	11.09	25.83	1.55	1.24	8.02	14.19	10.22	5.22
<b>Mean</b>	<b>28</b>	<b>35.26</b>	<b>21.97</b>	<b>38.56</b>	<b>14.36</b>	<b>21.00</b>	<b>2.16</b>	<b>1.92</b>	<b>4.39</b>	<b>15.78</b>	<b>14.60</b>	<b>19.85</b>
<b>CAGR (%)</b>	<b>-0.49</b>	<b>-3.88</b>	<b>-5.28</b>	<b>-0.18</b>	<b>-5.05</b>	<b>5.46</b>	<b>-5.11</b>	<b>-6.35</b>	<b>13.86</b>	<b>-2.45</b>	<b>-2.02</b>	<b>-16.17</b>
<b>SD</b>	<b>2.26</b>	<b>4.89</b>	<b>4.06</b>	<b>3.55</b>	<b>2.47</b>	<b>4.39</b>	<b>0.61</b>	<b>0.62</b>	<b>3.32</b>	<b>1.85</b>	<b>3.407</b>	<b>12.43</b>

<b>CV</b>	<b>8.07</b>	<b>13.86</b>	<b>18.48</b>	<b>9.22</b>	<b>17.38</b>	<b>20.90</b>	<b>28.39</b>	<b>32.48</b>	<b>75.73</b>	<b>11.71</b>	<b>23.33</b>	<b>62.62</b>
<b>Skewness</b>	<b>1.10</b>	<b>0.46</b>	<b>0.12</b>	<b>-0.56</b>	<b>0.45</b>	<b>0.71</b>	<b>-0.08</b>	<b>-0.13</b>	<b>0.71</b>	<b>0.20</b>	<b>0.78</b>	<b>-0.42</b>
<b>Kurtosis</b>	<b>1.87</b>	<b>-0.85</b>	<b>-1.25</b>	<b>1.11</b>	<b>-0.90</b>	<b>-0.18</b>	<b>-1.47</b>	<b>-1.75</b>	<b>-1.45</b>	<b>-0.54</b>	<b>-0.43</b>	<b>-2.19</b>

Source: Compiled and Computed from Annual Reports.

## **Interpretations**

Table 1 reveals the descriptive statistics of various profitability and liquidity ratios of IOCL. The Compounded Annual Growth Rate (CAGR) of the Net Profit Ratio (NPR) which is calculated as Net Profit to sales is -0.49% and an average are 28%. The value of NPR seems to be satisfactory under the study period. So, it may be said that the activities of IOCL is managed properly. The standard deviation is 2.26% and value of CV is 8.07% which indicates that the profitability on sale is consistent and stable.

The return on capital employed of IOCL shows a fluctuating trend over the study period. In 2013- 2014, the ROCE was 44 which decline up to 29.63 in 2022- 2023 with an average of 35.26. The CAGR of this ratio is - 3.88%. Other than the decline in the value of ROCE, it is by all accounts good. It suggests that IOCL effectively used the drawn out reserve provided by the investor and banks in creating the profit. The value of standard deviation is 4.89 and the value of CV is 13.86% which shows that Return on investment has declined at a steady rate.

The ROE shows a declining trend throughout the years except in 2020 - 2021. It diminishes from 28.03 in 2013- 2014 to 16.29 in 2022- 2023 at a compounded rate of- 5.28% and an average ROE of 21.97.

The CV is 18.48%. The diminishing ratio suggests that there is an issue in using the investor's funds.

The operating profit ratio of IOCL shows a high variance over the years. The compounded growth rate is - 0.18% and a mean of 38.56 shows that there is an overall reduction in the operating profits. The operating ratio of IOCL is fairly good suggesting that IOCL deals with its business operations in a proficient way. The value of CV is 9.22% which demonstrates that the operating ratio is fairly stable.

The Return on Total Asset (ROTA) of IOCL diminishes continually from 18.62 in 2013-2014 to 11.09 in 2022– 2023 except for an increase in 2020 - 2021. The ratio has a negative CAGR of - 5.05% and a mean of 14.36. The ratio shows that IOCL has failed in dealing with the resources. The CV is 17.38% which shows the insufficiency of the ratio.

The Earning Per Share (EPS) increased from 15.18 in 2013- 2014 to 25.83 in 2022- 2023. The CAGR of this ratio is 5.46% with a mean of 21. The rising value of EPS clearly shows that IOCL performed fairly well with regard of return on investors' funds on a per share basis. The value of CV is 20.90% which demonstrates that variation along the mean during period has not been very high.

The descriptive statistics of different liquidity ratio of IOCL is also shown in Table 1. The current ratio of IOCL diminishes at a Compounded Annual Growth Rate (CAGR) of - 5.11% from 2.62 in 2013- 2014 to 1.55 in 2022- 2023. The average current ratio is 2.16 with a coefficient of variation of 28.39%. The CV shows that the variation in current ratio is a bit high. During the last four years the study period the ratios are well below the standard of 2:1 which reflects a reason for concern. Of course the current ratio should be supplemented with other related ratios to assess which component of the current asset has caused the inefficiency.

The Liquid ratio is likewise diminishing at a compounded rate of - 6.35% from 2.39 in 2013- 2014 to 1.24 in 2022- 2023. During the review time frame liquid ratio is much above the standard of 1:1 with an average of 1.92. It demonstrates that the stock in trade might not have been the reason for the inefficient CR. The value of CV is 32.48% which reflects a high level of variation amongst to mean.

The working Capital Turnover Ratio shows the efficiency with which working capital has been used in generating turnover. This ratio of IOCL develops at a CAGR of 13.86%. The ratio had varied from 2.19 in 2013- 2014 to 1.8 in 2018– 2019 but has shown phenomenal increase

thereafter with 10.02 in 2017 – 2018 and 8.02 in 2022 –2023.

The WCTR shows the efficiency of the use of working capital in generating sales. The mean of WCTR is 4.39 which might be said as acceptable. The ratio demonstrates the productive use of working capital by IOCL. The value of CV shows that there is a high variation (75.73%) in using working capital under the study period. May be 2018 - 2019 was an abnormal year.

Table 1 also shows Inventory Turnover Ratio of the IOCL. It shows a reduction from 18.18 in 2013- 2014 to 14.19 in 2022- 2023 with a CAGR of - 2.45% and an average of 15.78. The declining value of ITR point-outs some inadequacy in contribution of inventory to sales activity. Even though there is a fall in the value of ITR, the value can be said as acceptable considering the profit earned by IOCL. The value of CV is 11.71% which indicates that the inventory management policy of IOCL is steady and reliable over the study period.

The Debtor turnover ratio of IOCL had declined at a compounded rate of - 2.02% from 12.53 in 2013- 2014 to 10.22 in 2022- 2023 with an average DTR of 14.60. The declining value of DTR points out some deficiencies in credit management. But the value of average DTR looks to be satisfactory which involves that IOCL has

an appropriate credit management system. The value of CV is 23.33% which indicates that the receivable management policy of IOCL is stable.

The net working capital to total assets ratio of IOCL shows a high variation in 2019– 2020. The NWCTA ratio declines from 30.45 in 2013- 2014 to 25.94 in 2018 -2019 but thereafter fell to 4.4 in 2019 – 2020 and 5.22 in 2022- 2023. The CAGR of this ratio is - 16.17% and an average are

19.85. The ratio tells us about the amount of working capital as proportion to total assets and its utilization. Comparing with WCTR, this ratio indicates that the amount of working capital has been decreasing while the utilization has been increasing. The value of CV is 62.62% which indicates the high variation in working capital and its utilization under the study period.

**Table - 2**  
**Correlation Coefficient between Profitability and Liquidity Parameters**

PARAMETERS	NPR	ROCE	ROE	OPR	ROTA	EPS	CR	LR	WCTR	ITR	DTR	NWCTA
NPR	1											
ROCE	.480	1										
ROE	.395	.947**	1									
OPR	.815*	.395	.165	1								
ROTA	.392	.958**	.990*	.210	1							
EPS	.296	-.519	-.653*	.371	-.639*	1						
CR	-.094	.550	.741*	-.297	.721*	-.857**	1					
LR	-.079	.564	.760*	-.309	.733*	-.869**	.997**	1				
WCTR	.198	-.353	-.604	.518	-.574	.785**	-.924**	-.933**	1			
ITR	-.018	.746*	.744*	-.107	.710*	-.557	.482	.510	-.352	1		
DTR	-.073	.029	.135	-.233	.030	-.392	.329	.364	-.380	.172	1	
NWCTA	-.118	.516	.736*	-.413	.701*	-.879**	.960**	.976**	-.967**	.511	.404	1

**Sources:** Based on Calculation (Using SPSS)

\*\*Correlation is significant at the 0.01 level (2-tailed).

\*Correlation is significant at the 0.05 level (2-tailed).

### **Interpretations:**

Table 2 shows the Correlation coefficient between Profitability and Liquidity, Net Profit Ratio, Return on Capital

Employed, Return on Equity, Operating Profit Ratio, Return on Total Assets, Earnings Per Share, Current ratio, Liquidity ratio, Working capital Turnover Ratio, Inventory Turnover Ratio, Debtors Turnover Ratio and Net working Capital to Total Assets Ratios were analyzed with the assistance of correlations-efficient. The NPR was positively correlated to Operating profit ratio at 1% level of significance (i.e.,0.815). There is a significant positive relationship between ROCE, both ROE and ROTA their correlation co-efficient were 0.947 and 0.958 respectively at 1% level of significance and positive relationship between inventory turnover ratios 0.746 at 5% level of significance. The ROE ratio is extensively positive correlated with ROTA ratio where the correlation co-efficient were 0.990 at 1% level of significance. The ROE ratio is significantly negatively correlated with Earnings per share where the correlation co-efficient were -0.653 at 5% level of significant and the same ROE ratio is significantly positively correlated with Current ratio, Liquidity ratio, Inventory turnover ratio and Net working capital to

total assets ratio where the correlation co-efficient were 0.741, 0.760, 0.744 and 0.736 respectively at 5% level of significant. There is a significant negative relationship between Return on Total Assets, Earnings Per Share their correlation co-efficient were -0.639 at 5% level of significance and positively relationship between Current ratio, Liquidity ratio, Inventory turnover ratio and Net working capital to total assets ratio were 0.721, 0.733, 0.710 and 0.701 respectively at 5% level of significance. The Earnings per share ratio is significantly negative correlated with both Current ratio, Liquidity ratio and Networking capital and total assets ratio where the correlation co-efficient were -0.857, -0.869 and -0.879 respectively at 1% level of significance. And positively correlated with working capital turnover ratio where the correlation co-efficient were 0.785 at 1% level of significance. The Current ratio is significantly positively correlated with both liquidity ratio and Net working capital to total assets ratio where the correlation co-efficient were 0.997 and 0.960 respectively at 1% level of significant and negatively correlated with working capital turnover ratio where the correlation co-efficient were -0.924 at 1% level of significance. The liquidity ratio is

significantly negatively correlated with working capital turnover ratio where the correlation co-efficient were -0.933 at 1% level of significant and positively correlated with net working capital to total assets ratio where the correlation co-efficient were 0.960 at 1% level of significance.

The Working capital turnover ratio is significantly negative correlated with net working capital to total assets ratio where the correlation co-efficient were -0.967 at 1% level of significance. Hence the impact of selected variables on profitability viewed positive associations.

### **Regression Analysis**

The present study is an attempt to weigh up the impact of liquidity management on profitability of IOCL. From the simple correlation analysis, we revealed that there survives an assorted type of association between liquidity and profitability. To evaluate the over-all impact of liquidity management on profitability, we need to study the combined manipulate of the selected liquidity management ratio on profitability by applying the linear multiple regression analysis through SPSS. A regression model represents the functional relationship between dependent and independent variables. Here liquidity ratio [CR, LR,

WCTR, ITR, DTR, and NWCTA] is taken as independent variable while profitability [ROTA, ROCE and ROE] is dependent variable. The result of first regression model is exemplified in Table - 3.

The value of multiple correlation coefficients (R) is 0.920 which reveals a high amount of optimistic relationship between ROTA and liquidity ratio. In R square value is 0.847 which means that the liner regression elucidates 8.47% of the variance amongst the independent variables. The adjusted R square value is 0.540. This model F test gives F value of 2.761 with significance of F value is 0.217, the result of F-test is highly significant, which establish healthy in the indiscriminate effect model of selected envisaging variables.

The analysis shows that there is a positive association between ROTA and liquidity ratio. But when we talk regarding the significance of that relationship and suitability of model, the result points out that association and model is statistically irrelevant as epitomized in the F-test value of 2.761 and p-value of 0.271 at 5% significance level. It also shows that the combined influence of the selected liquidity

management ratio on profitability has been insufficient. We can state that the

model is not applicable to envisage ROTA value based on liquidity ratio.

**Table - 3**

**Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	F	Sig.
1	.920a	.847	.540	1.69329	2.761	.217a

Sources: Based on Calculation (Using SPSS)

Predictors: (Constant), NWCTA, DTR, ITR, CR, WCTR, LR

Dependent Variable: ROTA

**Table - 4**  
**Coefficients**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	13.408	14.555		.921	.425
CR	-41.841	38.393	-10.278	-1.090	.356
LR	55.133	48.706	13.737	1.132	.340
WCTR	-.162	1.223	-.215	-.132	.903
ITR	.236	.488	.175	.484	.662
DTR	-.384	.246	-.523	-1.562	.216
NWCTA	-.587	.827	-2.925	-.710	.529

Sources: Based on Calculation (Using SPSS), a. Dependent Variable: ROTA

**Interpretation:**

Table 4 shows the calculated Coefficients of the dependent variable (ROTA) and the Independent variables. The standardized coefficient of firm's current ratio is (38.393) which indicates an inverse positive relationship with Return on Total Assets but the result ( $t = -1.090$ , sig value = 0.356) is statistically not significant. The standardized coefficient of Liquidity ratio is 48.706 which shows that positive relationship with Return on Total Assets and the test result ( $t = 1.132$ , sig value 0.340) is statistically not significant. The working capital turnover ratio's standardized coefficient is -0.162 which predicts that a negative relationship with Return on Total Assets and the test result ( $t = -0.132$ , sig value 0.903) proved that statistically not significant. The standardized coefficient of Inventory Turnover ratio 0.236 which indicates an inverse positive relationship with Return on Total Assets and the result ( $t = 0.484$ , sig value 0.662) proved that statistically not significant. The Debtors Turnover ratio standardized coefficient value is - 384 exhibited a significant and negative relationship with the Return on Total Assets position but the result ( $t = -1.562$ , sig value 0.216) proved that statistically not significant.

Finally, the Net working capital to Total Assets standardized coefficient is - 0.587 which predicts a negative relationship

with Return on Total Assets but the test result ( $t = -0.710$ , sig value = 0.529) is statistically not significant.

**FINDINGS**

The current study is an endeavor to study the impact of liquidity on profitability of IOCL. To estimate such impact, a hypothesis has been devised which states that liquidity has no impact on IOCL profitability. The weight of hypothesis is tested through correlation coefficient, multiple and partial correlation coefficient, regression analysis and t- test. The simple correlation coefficient states that CR, LR and NWCTA has a positive significant relationship with ROE and ROTA while with NPR, ROCE and OPR, the relationship is not significant.

The ITR has significant association with ROCE, ROE and ROTA while insignificant association with NPR, OPR and EPS. DTR has no significant association with any profitability indicators.

WCTR also has insignificant association with profitability indicators except EPS. The above relationships indicate that liquidity impacted the profitability of IOCL to some extent. To examine the relationship more accurately, multiple and partial correlation

coefficients has been used (a part of regression analysis). It considered the joint influences of independent variables (liquidity ratios) on dependent variables (selected profitability ratio). The result shows that none of the liquidity indicators have a significant association with selected profitability indicators.

The regression analysis also pointed out the unsuitability of regression models for predicting the IOCL profitability. A general principle of statistics state that multiple and partial correlation coefficient is superior to simple correlation coefficient.

## **SUGGESTIONS**

The researcher had chosen for this study actually a challenging Oil refineries company. The economy was facing despair on not only at National level but also at International level. In this challenging time it was very difficult for all businesses to achieve efficiency.

The study was taken with the target to analyze liquidity position of the Indian Oil Corporation Limited (IOCL). The ten years' time period from 2013-2014 to 2022 -2023 had been chosen. It's a difficult time during this study period. Down trend officially stated in 2019-2020. Further, it was a year marked by International economic shockwaves. The recession was caused by Coronavirus and it spread all over the world.

It was enormously problematic for all businesses to operate efficiently during these challenging times.

Therefore, it is finally suggested that IOCL should expand their liquidity positions by providing cushions to creditors, satisfactory margin of safety to creditors. Optimum utilization of resources, reduction the cost of productions by fair means, upsurge in short term investments.

All these steps should be taken with great care especially in case of IOCL because it has the lowermost ratios which conclude that the company productive to utilize current assets efficiently.

The IOCL effectively used the drawn out reserve provided by the investor and banks in creating the profit.

## **CONCLUSION**

In today competitive era, an organization need to take several crucial decisions, liquidity management is one of them. Liquidity management is the process of development, arranging, expressing and calculating the liquidity of the organization, so that profitability of the concern should be exploited. Liquidity can be characterized as the capacity of worry to meet its current commitments as and when they become due while profitability is the capacity of worry to acquire profit. For the most part, there is an inverse relation among liquidity and profitability i.e., higher the liquidity, lower

will be the profitability as well as the other way around. Thus, a successful liquidity the executives is expected to keep a legitimate compromise among liquidity and profitability. Liquidity situation of IOCL is calculated through liquidity ratio such as CR, LR, WCTR, ITR, DTR and NWCTA while profitability is measured through profitability ratio such as NPR, OPR, ROTA, ROCE, ROI and EPS. The study shows that liquidity and profitability situation of IOCL as acceptable to some extent. The CAGR of all indicators except EPS and WCTR have recorded a negative growth rate. The correlation analysis breaks our theoretical concept of liquidity and profitability i.e., liquidity and profitability are inversely related. The study reveals that liquidity has no impact on IOCL profitability. The profitability of IOCL is affected by some other factors not by the liquidity indicators.

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