Research Paper Commerce

Analysis Of Efficiency And Profitability of The Indian Oil Corporation Limited

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ABSTRACT *The purpose of this paper is to investigate the Indian Oil Corporation's profitability and to identify the variables that most affects its profitability. In this study, we have analyzed the profitability position covering a period of 8 years from 2007-08 to 2014-15. In this study, we have used ratio analysis techniques to study the profitability position of IOCL. Ratio analysis is considered as an important tool for financial analysis. It is a tool which helps in the analysis and interpretation of the financial strength of the firm. By scrutinizing the result of various ratios it can be stated whether the profitability position of the firm is strong, good, questionable or poor. This analysis helps us to know whether the organization is growing or deteriorating. Profitability has been measured in terms of operating profit ratio, net profit ratio, return on gross capital employed ratio, return on net capital employed ratio, etc. Pearson's correlation and analysis are used in the study.*

KEYWORDS : Profitability position, Gross capital employed, Net Capital Employed

INTRODUCTION

Profitability is the main base for liquidity and solvency. A business that is not profitable cannot survive. On the other hand, a business that is highly profitable has the ability to reward its owners with a large return on their investment. Profitability is the margin of safety for creditors. Profitability is the primary goal of all business ventures. Without profitability the business will not survive in the long run. So measuring current and past profitability and projecting future profitability is very important. As Weston and Brigham rightly notes "to the financial management profit is the test of efficiency and a measure of control, to the owners a measure of the worth of their investment, to the creditors the margin of safety, to the government a measure of taxable capacity and a basis of legislative action and to the country profit is an index of economic progress, national income generated and the rise in the standard of living", while profitability is an outcome of profit.

JUSTIFICATION OF THE TOPIC

Profitability analysis a method through which the analysis and interpretation of profit and sales as well as between profit and investment could be done. It is a technique, which helps in the process of decision-making, and this can be done by establishing and interpreting various profitability ratios. In order to assess or judge the profitability and performance of Indian Oil Corporation the profitability, performance profitability ratios are used. This paper helps us to analyze the relationship of profitability with the turnover of IOCL during the study period as well as it also helps us to analyze the relationship of profitability with the Investments of IOCL during the study period.

REVIEW OF LITERATURES

Kennedy and Muller (1989) says that the analysis and interpretation of the financial statements are an attempt to determine the significance and meaning of financial statement data so that the forecast may be made of the prospects for future earnings, ability to pay interest and debt maturities (both current and long term) and profitability and sound dividend policy.

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."

Rej, Debasis & Sur, Debasis (2001) conclude that profitability of Cadbury India Ltd in terms of gross profit ratio, net profit ratio, return on investment ratio was not stable during the study period. Some variability was observed in respect of these three profitability ratios which were supported by high coefficient of variation.

Eljelly, Abuzar M.A (2004) empirically examined the profitability 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 profitability ratios were used to measure profitability position.

OBJECTIVES OF STUDY

The study fulfils the following objectives:

1. To analyze the relationship of profitability with the turnover of IOCL during the study period.
2. To analyze the relationship of profitability with the Investments of IOCL during the study period
3. To examine profitability position of IOCL during the study period.
4. To give suggestions on the basis of the findings of the study.

HYPOTHESES

In order to achieve these objectives, the following null hypotheses are framed for testing:

$\mathbf{H_{01:}}$ There is no significant difference of profitability position of IOCL from the year 2007-08 to 2014-15

$\mathbf{H_{02:}}$ There is no significant difference in return on net capital employed of IOCL from the year 2007-08 to 2014-15

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 profitability position of the IOCL is shown just for the last eight years, ending 2015. 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) There is non-availability of sufficient data & literature of the study.

(iv) The research study is based on secondary data only.

METHODOLOGY

For this study, figures are taken from the organization's annual report which contains Profit & Loss Account and other published documents.

The collected data has been processed by constructing tables, with the required information for the calculation of profitability ratios. For the significance of the study we have taken various statistical tools such as mean, correlation & t-test so that the calculated information is in accordance with predefined standard of accuracy.

ANALYSIS OF THE PROFITABILITY POSITION OF IOCL

For analyzing the profitability position of IOCL from the year 2007-08 to 2014-15 the profitability ratios had been used. In order to measure the profitability position of IOCL the operating profit ratio, net profit ratio, return on gross capital employed ratio & return on net capital employed ratio have been used.

Operating Profit Ratio Operating profit ratio helps in identifying operational efficiency of the organization by establishing relationship between operating profit and net sales of the organization. A higher ratio indicates good operational efficiency of the organization and a lower ratio indicates inefficiency of the organization.

The formula for calculating the operating profit ratio is

$$\text{Operating Profit Ratio} = \frac{\text{Operating Profit}}{\text{Net Sales}} * 100$$

TABLE NO 1 (in Crores)
Statement showing OPERATING PROFIT RATIO

YEAR	OPERATING PROFIT	NET SALES	PERCENTAGE
2007 - 08	11326	247259	4.57
2008 - 09	13582	307123	4.42
2009- 10	15291	269438	5.67
2010 - 11	12954	328092	3.94
2011-12	18443	438829	4.2
2012-13	13736	447096	3.07
2013-14	15702	437210	3.59
2014-15	10154	437526	2.32
Mean	13898.50	364071.63	3.97
SD	2436.75	79344.87	0.95
COV	17.53	21.79	23.85
Growth	-10.35	76.95	-49.23
Average Annual Growth	-1.29	9.62	-6.15

Source: Compiled from Annual report of the IOCL (from 2007-08 TO 2014-15)

Interpretation: The Operating Profit ratio of IOCL is representing a lower trend. It was at 4.57% in the year 2007-08 and it got decreased to 3.94% in the year 2010-11. In the year 2011-12 there was an increase upto 4.2% but again it got reduced to 2.32% by 2014-15. The Coefficient of variation was at 23.85% and the average growth rate is – 6.15.

Net Profit Ratio

The Net Profit ratio establishes a relationship between net profit and sales. It indicates the efficiency the management has in manufacturing, administration and selling of the products. A high net profit ratio would reveal an advantageous position in the face of falling sale price, rising cost of production and declining demand for the products.

The formula for calculating the net profit ratio is:

$$\text{Net Profit Ratio} = \frac{\text{Net Profit}}{\text{Net Sales}} * 100$$

Table No 2 (in Crores) STATEMENT SHOWING NET PROFIT RATIO

YEAR	NET PROFIT (Rs)	NET SALES	PERCENTAGE
2007 - 08	6962	247259	2.81
2008 - 09	2949	307123	0.96
2009- 10	10220	269438	3.79
2010 - 11	7445	328092	2.26
2011-12	3954	438829	0.9
2012-13	5005	447096	1.11
2013-14	7019	437210	1.6
2014-15	5273	437526	1.2
Mean	6103.38	364071.63	1.83
SD	2144.41	79344.87	0.97
COV	35.13	21.79	53.22
Growth	-24.26	76.95	-57.30
Average Annual Growth	-3.03	9.62	-7.16

Source: Compiled from Annual report of the IOCL (from 2007-08 TO 2014-15)

Interpretation: The Net Profit Ratio of IOCL from 2007-08 to 2014-15 is representing a lower trend. It was at 2. 82% in the year 2007 -08 and it go decreased to 0.9% in the year 2011-12. However during the year 2013 -13 there was a slight increase upto 1.11% but by 2014-15 it got reduced to 1.2%. The Coefficient of variation was at 55.22% and the average growth rate is – 7.16.

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Return on Gross Capital Employed

Return on capital employed ratio helps in measuring the overall profitability and efficiency of the organization by establishing relationship between profits and capital employed. It is a primary ratio and is most widely used to measure the overall profitability and efficiency of the business and the formula is.:

$$\text{Return on Gross Capital Employed} = \frac{\text{Net profit before Interest and Tax}}{\text{Total Assets}} * 100$$

Total Assets = Gross Capital employed
TABLE NO. 3 (in Crores)
STATEMENT SHOWING RETURN ON GROSS CAPITAL EMPLOYED

YEAR	NET PROFIT BEFORE INT & TAX (Rs)	TOTAL ASSETS (Rs)	PERCENTAGE
2007 - 08	14454	81994	17.62
2008 - 09	10676	94449	11.3
2009- 10	18481	99875	18.5
2010 - 11	16388	114403	14.32
2011-12	13933	138566	10.05
2012-13	17251	147531	11.69
2013-14	20866	157871	13.21
2014-15	15966	129938	12.28
Mean	16001.88	120578.38	13.62
SD	2884.39	25413.10	2.83
C.O.V	18.03	21.08	20.78
Growth	10.46	58.47	-30.31
Average Annual Growth	1.31	7.31	-3.79

Source: Compiled from Annual report of the IOCL(from 2007-08 TO 2014-15)

Interpretation: The return on Gross Capital Employed of IOCL is representing a mixed trend. It was at 17.62% in the year 2007-08 and it got increased to 18.5% in the year 2009-10. In the year 2011-12 there was a decrease up to 10.5% but again it increased upto13.21% in the year 2013-14. The Coefficient of variation was at 20.78% and the average growth rate is – 3.79.

Return on Net Capital Employed

Return net capital employed establishes the relationship between profits and the net capital employed. A higher percentage of on net capital employed will satisfy the owners that their money is profitably used as well as it helps the management in devising future policies for expansion or diversification etc.

$$\text{Return on Net Capital Employed} = \frac{\text{Net profit before Interest and Tax}}{\text{Net Capital Employed}} * 100$$

Net Capital Employed = Total assets – Current liabilities
TABLE NO.4 (in Crores)
STATEMENT SHOWING RETURN ON NET CAPITAL EMPLOYED

YEAR	NET PROFIT BEFORE INT & TAX (Rs)	Net Capital(Rs)	PERCENTAGE
2007 - 08	14454	47414	30.48
2008 - 09	10676	59091	18.06
2009- 10	18481	55124	33.52
2010 - 11	16388	19180	85.44
2011-12	13933	18741	74.34
2012-13	17251	23398	73.72
2013-14	20866	23410	89.13
2014-15	15966	33137	48
Mean	16001.88	34936.88	56.59
SD	2884.39	15517.97	25.67
COV	18.03	44.42	45.37
Growth	10.46	-30.11	57.48
Average Annual Growth	1.31	-3.76	7.19

Source: Compiled from Annual report of the IOCL (from 2007-08 TO 2014-15)

Interpretation: The return on Net Capital Employed of IOCL is representing a mixed trend. It was at 30.48% in the year 2007-08 and it got increased to 85.44% in the year 2010-11. However in the next two years there was a decrease in this ratio but by 2014-15 it got increased to 89.13%. The Coefficient of variation was at 45.37% and the average growth rate was at 7.19.

TESTING OF HYPOTHESES

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. For the calculating of t-test the following formula has been used and the reliability of data has been tested at 5% level of significance.

Null hypothesis H_{01} There is no significant difference of profitability position of IOCL from the year 2007-08 to 2014-15

Interpretation of t-test

$r = 0.260$, $t = 0.659$, $t_{0.05} = 2.447$ & $t_{0.05} > t$

When the degree of freedom is 6 & the level of significance is 5%, the critical value is **2.447**. Since the calculated value of t is 0.6590 which is less than the critical value we conclude that the null hypothesis is accepted & there is no significant difference of profitability position of IOCL from the year 2007-08 to 2014-15

Null hypothesis H_{02} There is no significant difference in return on net capital employed of IOCL from the year 2007-08 to 2014-15
Interpretation of t-test

$r = -0.393$, $t = -1.04$, $t_{0.05} = 2.447$ & $t_{0.05} > t$

When the degree of freedom is 6 & the level of significance is 5% the critical value is **2.447**. Since the calculated value of t is -1.04 which is less than the critical value we conclude that the null hypothesis is accepted & there is no significant difference in return on net capital employed of IOCL from the year 2007-08 to 2014-15

Suggestions:

On the basis of the findings and observation of the study the following suggestion have been recommended:

It was found that the cost of production of IOCL was very high hence the corporation should cut down its cost of production to have better profitability position.

The operating cost of this corporation is high due to which it consumes more of sales and there is less portion left for the retention of profit hence the corporation should try to reduce the operating cost.

The corporation should try to effectively utilize its fixed assets and the investments in the fixed assets, current assets & total assets should be as per the need of the corporation.

The net profit ratio is showing a decreasing trend hence the management should try to reduce manufacturing, administration and selling expenses to have an advantageous position to face future uncertainties.

Return on capital employed ratio establishes the relationship between profits and capital employed. The corporation should try to improve net profit and maintain the capital employed appropriately.

The corporation should try to avoid huge investments in fixed assets hence such investment should be reduced so that the fixed assets could be properly utilized and the rate of return of the corporation improves.

The corporation should try to earn profits in such a way that the rate of return should show an increasing trend.

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