

## COMPARATIVE FINANCIAL ANALYSIS OF SELECTED PUBLIC AND PRIVATE SECTOR PETROLEUM INDUSTRY IN INDIA

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Abhishek Sharma\*  
Dr. Ashok Agarwal\*\*

### ABSTRACT

*A financial analysis is the foundation of the company's economic performance analysis and usually proceeds down to primary fields and results as affectivity, efficiency, production capacity utilization and supplement management. The objective of this article is to assess comparative ascertain of financial analysis of selected public and private sector petroleum industries in India subsequently to evaluate the business subject progress in an area of activity, liquidity profitability and indebtedness, to reveal strengths and opportunities that the business subject should rely on. Furthermore, it also aims to determine weaknesses and threats that could lead them to difficult situations and based on the results to provide measures to improve the system of financial economic analysis of the business subject. So, an attempt is made by the researcher to study the financial performance of the selected public and private company i.e. Public Sector {Indian Oil Corporation (IOC) and Gas Authority of India limited (GAIL)} and Private Sector { Reliance Oil & Gas Industries limited and Cairn India } companies were selected for financial ratio analysis of study period 2011-12 to 2015-16. While analyzing the financial performance of the company it is concluded that the expenses ratios and profitability are given more importance. It was analyzed from the study that public and private sector financial performance of GAIL and CAIRN had the significantly good ratio throughout five years whereas IOC and Reliance were having a comparatively less ratio from GAIL and CAIRN. Statistical analysis obtained from the t value are significant at 5 % significance level and finally it can be postulated that based on the financial performance of selected private and public sector companies under study **Null Hypothesis:  $H_0 =$  There is no significant difference in financial performance of selected public and private sector petroleum companies under study is rejected** and **Alternate Hypothesis  $H_1 =$  There is a significant difference in financial performance of selected public and private sector petroleum companies under study is proved and accepted.***

**KEYWORDS:** Accounting, Financial Ratio, Liquidity Ratio, Comparative Study, Petroleum Industry.

### Introduction

In the arena of commerce financial analysis is of utmost importance as financial statement usually comprises of common size analysis, financial ratio analysis (like liquidity, turnover, profitability, gross profit ratio, return to net worth ratio, capita gain ratio, etc.), trend analysis and industry comparative analysis. Thus the financial analysis helps to postulate the comparative ascertain of financial situation of companies of similar industry for similar period of time which indirectly helps to discover trends affecting the company and/or the industry over time. This certainly helps the valuation expert or even shareholders to view growth or decline in revenues or expenses, changes in capital structure, or other financial trends. Selected companies financial ascertain also analysis and compares situation to other players in the industry which help in analyzing the risk assessment and ultimately help to determine the discount rate and the selection of market multiples.

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\* Research Scholar, Department of Accountancy and Business Statistics, University of Rajasthan, Jaipur, Rajasthan, India.

\*\* Associate Professor, Department of Accountancy and Business Statistics, University of Rajasthan, Jaipur, Rajasthan, India.

Financial analysis refers to the process of determining financial strength and weakness of the firm by establishing strategic relationship between the items of the Balance Sheet, Profit and Loss account and other operative data. The purpose of financial analysis is to diagnose the information contained in financial statements so as to judge the profitability and financial soundness of the firm. Financial statements are prepared and presented for the external users of accounting information. As these statements are used by investors and financial analysts to examine the firm's performance in order to make investment decisions, they should be prepared very carefully and contain as much investment decisions, they should be prepared very carefully and contain as much information as possible. Preparation Comparative study of financial statement is the comparison of the financial statement of the business with the previous year's financial statements and with the performance of other competitive enterprises, so that weaknesses may be identified and remedial measures applied. The objective of this article is to assess comparative ascertain of financial analysis of selected public and private sector petroleum industries in India subsequently to evaluate the business subject progress in an area of activity, liquidity profitability and indebtedness, to reveal strengths and opportunities that the business subject should rely on. Furthermore, it also aims to determine weaknesses and threats that could lead them to difficult situations and based on the results to provide measures to improve the system of financial economic analysis of the business subject. So, an attempt is made by the researcher to study the financial performance of the selected public and private company i.e. Public Sector {Indian Oil Corporation (IOC) and Gas Authority of India limited (GAIL)} and Private Sector { Reliance Oil & Gas Industries limited and Cairn India } companies were selected for financial ratio analysis of study period 2011-12 to 2015-16.

#### Objectives of the Study

Current research endeavor is focused to ascertain following research objectives:

- To comparatively access the financial statement of selected public and private sector petroleum industries in India
- To elucidate the financial strength and weakness of selected public and private sector petroleum industries in India.

#### Hypothesis of Research Study

##### Null Hypothesis

$H_0 =$  There is no significant difference in financial performance of selected public and private sector petroleum companies under study.

##### Alternate Hypothesis

$H_1 =$  There is a significant difference in financial performance of selected public and private sector petroleum companies under study.

#### Research Methodology

The current research study elucidates the comparative assessment of financial performance of selected public and private sector petroleum industries in India with help of the financial analysis like ratio analysis. Hence, it is essentially fact finding study.

- **Collection of Data:** In present study data was collected from secondary sources which was published companies selected annuals reports and accounts as well as published literature. The financial statement will be redrafted as per the requirement of companies' act 2013.
- **Tools & Techniques:** The ratio analysis acted as a financial tool for the purpose of analysis & interpretation. Statistical tools such as mean, standard deviation, coefficient of variation were also calculated. Inter firm and intra-firm comparison was made to interpret the data.
- **Period of Research Study:** 2011 -12 to 2015-16 ( Five Years)
- **Selected Petroleum Companies under Study:**
  - **Public Sector** {Indian Oil Corporation (IOC) and Gas Authority of India limited (GAIL)}
  - **Private Sector** { Reliance Oil & Gas Industries limited and Cairn India }

#### Results and Discussion

Accounting resembles a language where some rules are definite and some are not. There are many areas in which difference of opinions exists about the manner of recording a particular transaction. But it is expected that a shrewd accountant should be able to differentiate between a 'good' accounting practice and a 'bad' accounting practice. Just as languages evolve and change in response to the changing needs of the times, so do the accounting rules. Some rules which are currently in parlance may

have to be modified to suit the changing business environment. In current research study accounting and financial analysis of selected petroleum industry were comparatively analyzed with the help of following ratio analysis as depicted below:

- **Liquidity Ratios**

Two main liquidity ratios are:

- Current ratio
- Quick ratio

### Current Ratio

The current ratio is calculated by dividing current assets by current liabilities. This ratio is stated in numeric format rather than in decimal format.

### The formula for Current Ratio is – Current Assets/ Current Liabilities

The current ratio helps investors and creditors understand the liquidity of a company and how easily that company will be able to pay off its current liabilities. This ratio expresses a firm's current debt in terms of current assets. So a current ratio of 4 would mean that the company has 4 times more current assets than current liabilities.

**Table 1: Current Ratio of Public and Private Sector Oil and Gas Companies**

Type of Company	Year Company	11-12	12-13	13-14	14-15	15-16	AVE.	S.D.	C.V.	Min	Max
Public Sector Companies	IOC	0.94	1.34	0.99	0.99	0.90	1.03	0.17	0.17	0.94	1.34
	GAIL	0.24	1.00	1.17	1.06	0.98	0.89	0.37	0.41	0.24	1.17
Private Sector Companies	Reliance Oil and Gas Industries Ltd.	1.92	1.72	1.41	1.27	3.25	1.91	0.78	0.41	1.27	3.25
	CAIRN India	1.74	4.85	4.92	4.00	6.16	4.33	1.64	0.37	1.74	6.16

Source: Annual Reports & Accounts of Selected Companies under Study

### Analysis

The above table 1 evaluated the current ratio of four public and private oil and gas companies of India. A higher current ratio is always more favorable than a lower current ratio because it shows the company can more easily make current debt payments. If a company has to sell of fixed assets to pay for its current liabilities, this usually means the company isn't making enough from operations to support activities. In other words, the company is losing money. Sometimes this is the result of poor collections of accounts receivable. The current ratio also sheds light on the overall debt burden of the company. If a company is weighted down with a current debt, its cash flow will suffer. In the first company i.e. Indian oil Corporation had 0.94 as its minimum current ratio in the year 2011-12 whereas the maximum ratio was noted as 1.34 in the year 2012-13 respectively. The mean value of Indian oil was 1.03. The next company was GAIL with mean value and standard deviation of 0.89 and 0.37. The coefficient of variance was noted to be 0.41. The minimum and maximum current ratio of GAIL was 0.24 and 1.17. The current ratio of GAIL was good as it was around 1 for three consequent years. The third company was Reliance Oil and Gas industries with coefficient of variance of 0.41 and a mean value of 1.91 respectively. Also, in 2015-16 the current ratio was 3.25 which was noted to be the maximum current ratio for reliance whereas in the year 2014-15 the current ratio was 1.27 which was noted to be the minimum current ratio of reliance. The last company listed in the table was CAIRN India with mean value and standard deviation of 4.33 and 1.64. The maximum and minimum current ratio was 6.16 and 1.74 in the year 2015-16 and 2011-12. The coefficient of variance was 0.37. It can be concluded that CAIRN India had an excellent current ratio throughout five years. Thus, it can be concluded from the above table both public sector and private sector oil and gas companies performed better and equally in respect of the current ratio. Noticeably GAIL from public and CAIRN from private were the better performer throughout five years span.

### Quick Ratio

The quick ratio is often called the acid test ratio in reference to the historical use of acid to test metals for gold by the early miners. If the metal passed the acid test, it was pure gold. If metal failed the acid test by corroding from the acid, it was a base metal and of no value. The quick ratio is calculated by adding cash, cash equivalents, short-term investments, and current receivables together then dividing them by current liabilities.

**Quick ratio = Cash+ cash equivalents + Short term investments+ Current receivables / Current Liabilities**

**Quick ratio = Total current assets- Inventory- prepaid expenses/ Current liabilities**

**Table 2: Quick Ratio of Public and Private Sector Oil and Gas Companies**

Type of Company	Year Company	11-12	12-13	13-14	14-15	15-16	AVE.	S.D.	C.V.	Min	Max
Public Sector Companies	IOC	0.20	0.26	0.15	0.14	0.15	0.18	0.05	0.28	0.14	0.26
	GAIL	0.27	0.55	0.56	0.42	0.41	0.44	0.11	0.26	0.27	0.56
Private Sector Companies	RELIANCE Oil and Gas Industries Ltd.	1.23	1.07	0.84	0.73	2.77	1.32	0.82	0.62	0.73	2.77
	CAIRN India	1.69	4.40	4.59	3.50	3.70	3.57	1.14	0.32	1.69	4.59

Source: Annual Reports & Accounts of Selected Companies under Study

### Analysis

The above table 2 analyses the quick ratio of four public and private oil and gas companies of India. Higher quick ratios are more favorable for companies because it shows there are more quick assets than current liabilities. A company with a quick ratio of 1 indicates that quick assets equal current assets. This also shows that the company could pay off its current liabilities without selling any long-term assets. An acid ratio of 2 shows that the company has twice as many quick assets than current liabilities. Obviously, as the ratio increases so does the liquidity of the company. More assets will be easily converted into cash if need be. This is a good sign for investors, but an even better sign to creditors because creditors want to know they will be paid back on time. Indian oil was the first company with mean value and standard deviation of 0.18 and 0.05.

The minimum quick ratio was noted as 0.14 in the year 2014-15 and the maximum quick ratio was 0.26 in the year 2012-13. In the next company that is Gas authority of India limited (GAIL) the minimum and maximum ratio was noted to be 0.27 and 0.56 respectively. Also, the standard deviation was 0.11 and coefficient of variance was 0.26. GAIL had better quick ratio as compared to Indian oil. The third company was Reliance oil and gas industries with mean value of 1.32 and standard deviation of 0.82. The minimum and maximum quick ratio was noted to be 0.73 and 2.77 in the year 2011-12 and 2012-13 respectively. In the last company that is CAIRN India the minimum quick ratio was 1.69 in the year 2011-12 whereas the maximum quick ratio was noted to be 4.59 in the year 2013-14. The coefficient of variance was 0.32 whereas the mean value was 3.57 respectively. Both Reliance and Cairn had a better quick ratio as compared to the two public sector companies IOC and GAIL.

Thus, it can be concluded that private sector oil and gas companies performed better in term of quick ratio which mean it must be having more quick assets than current liabilities than public sector companies. Both Reliance and Cairn India had good quick ratio throughout five years.

### Leverages Ratios

Financial leverage ratios, sometimes called equity or debt ratios, measure the value of equity in a company by analyzing its overall debt picture. The Debt to Equity Ratio has been analyzed from leverages ratio:

**Table 3: Debt to Equity Ratio of Public and Private Sector Oil and Gas Companies**

Type of Company	Year Company	11-12	12-13	13-14	14-15	15-16	AVE.	S.D.	C.V.	Min	Max
Public Sector Companies	IOC	2.62	2.66	2.82	2.23	2.06	2.47	0.31	0.12	2.06	2.82
	GAIL	0.80	0.84	1.06	0.81	0.73	0.84	0.12	0.14	0.80	1.06
Private Sector Companies	RELIANCE Oil and Gas Industries Ltd.	0.77	0.76	0.86	0.84	0.21	0.68	0.27	0.39	0.21	0.86
	CAIRN India	0.04	0.12	0.13	0.14	0.15	0.11	0.04	0.37	0.04	0.15

Source: Annual Reports & Accounts of Selected Companies under Study

### Analysis

In the above table 3 the debt to equity ratio of public and private sector oil and gas companies of India. A ratio of 1 (or 1:1) means that creditors and stockholders equally contribute to the assets of the business. A less than 1 ratio indicates that the portion of assets provided by stockholders is greater than the portion of assets provided by creditors and a greater than 1 ratio indicates that the portion of assets provided by creditors is greater than the portion of assets provided by stockholders. Creditors usually like

a low debt to equity ratio because a low ratio (less than 1) is the indication of greater protection to their money. But stockholders like to get benefit from the funds provided by the creditors therefore they would like a high debt to equity ratio. Debt equity ratios vary from industry to industry. Different norms have been developed for different industries. A ratio that is ideal for one industry may be worrisome for another industry. A ratio of 1 : 1 is normally considered satisfactory for most of the companies.

The first company was Indian Oil corporation which had a mean value and standard deviation of 2.47 and 0.31 respectively. In the year 2015-16 the company noted its minimum debt to equity ratio which was 2.06 and the maximum debt to equity ratio was 2.82 in the year 2013-14. The coefficient of variance was 0.12. The second company in public sector was Gas authority of India Limited (GAIL) with mean value and standard deviation of 0.84 and 0.12. The minimum and maximum debt to equity ratio of GAIL was 0.80 and 1.06 in the year 2011-12 and 2013-14. The coefficient of variance was noted to be 0.14. The third company was Reliance oil and gas industries with mean and standard deviation of 0.68 and 0.27 respectively. Its maximum and minimum debt to equity ratio was noted to be 0.86 and 0.21 in the year 2013-14 and 2015-16 respectively. The last company under the table was CAIRN where mean value and standard deviation of the company was 0.11 & 0.04 respectively. The maximum and minimum ratio was noted to be 0.15 & 0.04 in the year 2015-16 and 2011-12. The coefficient of variance of the company was 0.37.

Thus, it can be concluded that in respect of debt to equity ratio, public sector companies had a better ratio than private sector companies. IOC had almost 1 debt to equity ratio throughout five years which was better from the rest of companies. GAIL showed less but better ratio as compared to Reliance Company whereas CAIRN had low debt equity ratio throughout five years.

#### Profitability Ratios

Mainly three types of profitability ratios are used in a firm i.e.:

- Gross Profit Ratio
- Operating Profit Ratio
- Net Profit Ratio

#### Gross Profit Ratio

The formula is:

$$(\text{Sales} - (\text{Direct materials} + \text{Direct Labor} + \text{Overhead})) \div \text{Sales}$$

However, this first method includes a number of fixed costs. A more restrictive version of the formula is to only include direct materials, which may be the only truly variable element of the cost of goods sold. The formula then becomes:

$$(\text{Sales} - \text{Direct materials}) \div \text{Sales}$$

**Table 4: Gross Profit Ratio of Public and Private Sector Companies**

Type of Company	Year Company	11-12	12-13	13-14	14-15	15-16	AVE.	S.D.	C.V.	Min	Max
Public Sector Companies	IOC	2.57	1.26	1.74	1.44	4.52	2.30	1.33	0.57	1.26	4.52
	GAIL	13.21	12.74	2.18	7.43	6.11	8.33	4.65	0.55	2.18	13.21
Private Sector Companies	Reliance oil and Gas industries ltd.	7.80	7.27	6.93	8.95	22.89	10.76	6.81	0.63	6.93	22.89
	Cairn india	54.02	73.30	78.32	49.32	25.96	15.38	217.14	1.41	25.96	540.02

Source: Annual Reports & Accounts of Selected Companies under Study

#### Analysis

The above table 4 shows the Gross Profit Ratio of four selected public and private sector oil and gas companies in India. Gross profit is very important for any business. It should be sufficient to cover all expenses and provide for profit. There is no norm or standard to interpret gross profit ratio (GP ratio). Generally, a higher ratio is considered better. High gross profit margin indicates that the company can make a reasonable profit, as long as it keeps the overhead cost in control. Low gross profit margin indicates that the business is unable to control its production cost.

The first company i.e. IOC (Indian Oil Corporation) had 1.26 in 2012-13 as its minimum ratio and 4.52 in 2015-16 as its maximum ratio. The mean value of this organization was 2.30 and standard deviation was 1.33. In table 4 the second company was GAIL (Gas Authority of India Limited) with a mean value and standard deviation of 8.33 and 4.65 respectively. The company's maximum and minimum ratio was 13.21 in 2011-12 and 2.18 in 2013-14.

The third company in the table was Reliance Oil and Gas Industries Ltd. with highest ratio of 22.89 in the year 2015-16 and lowest ratio of 6.93 in the year 2013-14. The company's ratios had much fluctuation throughout these five years as it kept on going up. The mean value of Reliance was 10.76 and standard deviation was 6.81. In table 4, the fourth company was Cairn India with the highest ratio of 540.02 in the year 2011-12 and the lowest ratio of 25.96 in the year 2015-16. The mean value and standard deviation of Cairn India was 153.38 and 217.14 respectively.

### Operating Profit Ratio

The operating margin formula is calculated by dividing the operating income by the net sales during a period.

**Operating profit ratio= Operating income/ net sales**

**Table 5: Operating Profit Ratio of Public and Private Sector Companies**

Type of Company	Year	11-12	12-13	13-14	14-15	15-16	AVE.	S.D.	C.V.	Min	Max
Public Sector Companies	IOC	2.63	1.26	1.72	1.22	4.53	2.27	1.38	0.60	1.22	4.53
	GAIL	13.21	12.74	2.18	7.55	6.11	8.35	4.65	0.55	2.18	13.21
Private Sector Companies	RELIANCE Oil and Gas Industries Ltd.	7.80	7.29	5.61	8.95	22.89	10.50	7.02	0.66	5.61	22.89
	CAIRN India	40.21	70.43	75.08	49.32	25.95	124.19	155.51	1.25	25.95	400.21

Source: Annual Reports & Accounts of Selected Companies under Study

### Analysis

In the above table 5 the operating profit ratio of four public and private sector gas and oil companies has been analyzed. The operating profit margin ratio is a key indicator for investors and creditors to see how businesses are supporting their operations. If companies can make enough money from their operations to support the business, the company is usually considered more stable. On the other hand, if a company requires both operating and non-operating income to cover the operation expenses, it shows that the business' operating activities are not sustainable. A higher operating margin is more favorable compared with a lower ratio because this shows that the company is making enough money from its ongoing operations to pay for its variable costs as well as its fixed costs. For instance, a company with an operating margin ratio of 20 percent means that for every dollar of income, only 20 cents remains after the operating expenses have been paid. This also means that only 20 cents is left over to cover the non-operating expenses.

Here, the first company that is Indian oil Corporation was marked with a mean value and standard deviation of 2.27 and 1.38 whereas the coefficient of variance was noted to be 0.60 respectively. The minimum and maximum operating profit ratio of IOC was 1.22 and 4.53 in the year 2014-15 and 2015-16. The second company under public sector was Gas authority of India limited with minimum and maximum operating profit ratio of 2.18 and 13.21 in the year 2013-14 and 2011-12 respectively. The mean value and standard deviation was noted to be 8.35 and 4.65. Now, coming under the private sector, the third company was Reliance which had a coefficient of variance of 0.66 and mean value of 10.50. The minimum and maximum operating profit ratio of reliance was 5.61 and 22.89 in the year 2013-14 and 2015-16. Lastly, the fourth company was CAIRN India with standard deviation and coefficient of variance of 155.51 and 1.25 and the maximum operating ratio of CAIRN as 400.21 in the year 2011-12 and the minimum ratio was 25.95 in the year 2015-16.

Thus, it can be concluded from the above table that in respect of operating profit ratio the private sector were more effective as compared to the public sector. It can be noted that the IOC had a increased ratio with every year ending whereas GAIL had a fluctuating ratio graph with increased then

decreased then again increased curve. Coming towards the private sector, Reliance had a tremendous growth in its operating ratio graph as in the year 2011-12 it had a operating profit ratio of 7.80 but after five years span it became 22.89 which is far above than the previous. In respect of CAIRN India the data shows that it had a high ratio in the year 2011-12 but it reduced with coming years. So, eventually private sector was ahead of public sector in operating profit ratio.

### Net Profit Ratio

The formula for the net profit ratio is to divide net profit by net sales, and then multiply by 100. The formula is:

$$(\text{Net profit} \div \text{Net sales}) \times 100$$

**Table 6: Net Profit Ratio of Selected Public and Private Sector Companies**

Type of Company	Year Company	11-12	12-13	13-14	14-15	15-16	AVE.	S.D.	C.V.	Min	Max
Public Sector Companies	IOC	0.91	1.11	1.48	1.20	2.96	1.53	0.82	0.53	0.91	2.96
	GAIL	9.04	8.46	1.15	5.35	4.42	5.68	3.21	0.56	1.15	9.04
Private Sector Companies	RELIANCE Oil and Gas Industries Ltd.	6.07	5.82	5.47	7.16	17.12	8.32	4.95	0.59	5.47	17.12
	CAIRN India	49.78	16.27	75.08	16.90	10.34	128.53	229.52	1.78	109.34	499.78

Source: Annual Reports & Accounts of Selected Companies under Study

### Analysis

The above table 6 interprets Net Profit Ratio of four selected public and private oil and gas companies in India. Net profit (NP) ratio is a useful tool to measure the overall profitability of the business. A high ratio indicates the efficient management of the affairs of business. There is no norm to interpret this ratio. To see whether the business is constantly improving its profitability or not, current year's profit must be compared with the previous year's ratio, the industry's average and the budgeted net profit ratio. Net profit margin is an indicator of how efficient a company is and how well it controls its costs. The higher the margin is, the more effective the company is in converting revenue into actual profit.

In the above table 6 showed the net profit ratio of Indian oil organization which had a mean value of 1.53 and standard deviation of 0.82. The lowest value of Indian oil was 0.91 in the year 2011-12 and the highest value was 2.96 in the year 2015-16. The second company was GAIL which showed a good ratio in the period of five years. The highest value was noted to be 9.04 in the year 2011-12 and the lowest value was 1.15 in the year 2013-14. The coefficient of variance was 0.56 and mean value was 5.68 which was really a good ratio. The third company was Reliance oil and gas industries with an good net profit ratio during the given five years. The mean value was found to be 8.32 and standard deviation was 4.95. The highest and lowest ratio was 17.12 and 5.47 in the years 2015-16 and 2013-14. In table 6 it illustrated the net profit ratio of Cairn India whose highest value was noted to be 499.78 in the year 2011-12 and lowest value was 16.90 in the year 2014-15. The standard deviation and coefficient of variance was 229.52 and 1.78.

### Statistical Analysis

In current research study, on various financial ratios calculated above of public and private sector companies, hypothesis was statistically analyzed:

**Table 7: Statistical Examination of Selected Companies**

Subtests		Public Sector Companies	Private Sector Companies
		t value	t value
Current Ratio	Mean 2011 to 2013 And Mean 2013 to 2016	2.96*	2.62*
Quick Ratio	Mean 2011 to 2013 And Mean 2013 to 2016	2.67*	1.29

Debt to Equity Ratio	Mean 2011 to 2013 And Mean 2013 to 2016	0.22	2.72*
Gross Profit Ratio	Mean 2011 to 2013 And Mean 2013 to 2016	4.32**	0.55
Operating Profit Ratio	Mean 2011 to 2013 And Mean 2013 to 2016	1.15*	0.45
Net Profit Ratio	Mean 2011 to 2013 And Mean 2013 to 2016	1.99*	0.67

Significant, \*\* Highly Significant at 5% Significance.

As the values of t value obtained above are significant at 5 % significance level it can be postulated that based on the financial performance of selected private and public sector companies under study Null Hypothesis:  $H_0$  = There is no significant difference in financial performance of selected public and private sector petroleum companies under study is REJECTED and Alternate Hypothesis  $H_1$ =There is a significant difference in financial performance of selected public and private sector petroleum companies under study is PROVED AND ACCEPTED.

### Conclusion

- It can be concluded from the above study that both public sector and private sector oil and gas companies performed better and equally in respect of the current ratio. Noticeably GAIL from public and CAIRN from private were the better performer throughout five years span.
- It can be concluded that private sector oil and gas companies performed better in term of quick ratio which mean it must be having more quick assets than current liabilities than public sector companies. Both Reliance and Cairn India had good quick ratio throughout five years.
- It can be concluded that in respect of debt to equity ratio, public sector companies had a better ratio than private sector companies. IOC had almost 1 debt to equity ratio throughout five years which was better from the rest of companies. GAIL showed less but better ratio as compared to Reliance Company whereas CAIRN had no information related to its debt to equity ratio.
- It can be concluded from the results that in respect of operating profit ratio the private sector were more effective as compared to the public sector. It can be noted that the IOC had a increased ratio with every year ending whereas GAIL had a fluctuating ratio graph with increased then decreased then again increased curve. Coming towards the private sector, Reliance had a tremendous growth in its operating ratio graph as in the year 2011-12 it had a operating profit ratio of 8.13 but after five years span it became 17.97 which is far above than the previous. In respect of CAIRN India the data shows that it had a negative ratio in the year 2011-12 but it worked upon and changed it into positive. It can be examined that after 2011-12 the ratio of CAIRN was increased then decreased gradually. So, eventually private sector were ahead of public sector in operating profit ratio.
- It can be concluded that both the sector performed almost equally and efficiently as all companies had a good return on capital employed. Only Indian Oil Corporation is the only company which had a increased return on capital employed. Other than that all the company's return on capital employed reduced with the coming years.
- It can be concluded that all the company had a positive return on investment other than CAIRN as it had a -11.23and -17.48 ratio in the year 2014-15 and 2015-16 and public sector performed better as compared to the private sector. IOC and GAIL had an excellent return on investment whereas Reliance although had a good return but it was less compared to the public sector companies.

It can be concluded from the above study that public and private sector performance was somewhat equal. As it can be noted that GAIL and CAIRN had the maximum ratios throughout five years whereas IOC and Reliance were having a good ratio but comparatively less ratio from GAIL and CAIRN



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