JETIR.ORG ISSN: 2349-5162 | ESTD Year : 2014 | Monthly Issue
JOURNAL OF EMERGING TECHNOLOGIES AND INNOVATIVE RESEARCH (JETIR)
An International Scholarly Open Access, Peer-reviewed, Refereed Journal

FINANCIAL PERFORMANCE ANALYSIS OF SELECTED INDIAN OIL COMPANIES: A COMPARATIVE STUDY

Rekha Pal
Assistant Professor,
Monark University
Ahmedabad

Mr. Sarvesh Soni
Assistant Professor,
Monark University
Ahmedabad

Abstract

In today's globe, the oil sector is regarded as one of the most essential areas of concern. The majority of financial statement evaluations concentrate on companies that are either large contributors to economic figures or operate in a highly competitive business environment. The main objective of this paper is to analyze comparative financial performance of the top five Indian oil companies like Reliance Oil, Oil and Natural gas corporation, Indian oil corporation, Bharat petroleum Corporation, Hindustan petroleum Corporation ltd during 2017-18 to 2020-21. Variousratios like liquidity ratios, solvency ratio, efficiency, and profitability ratios have been used to measure financial performance of selected oil companies. As a result of the study of analysis of financial performance of Indian oil companiesfrom period 2017-2021,difference in the profitability of the Oil Companies. The financial performance of ONGC is very satisfactory in terms of liquid ratio, net profit ratio, Interest coverage ratio, and debt equity ratio but its fixed asset turnover ratio and capital turnover ratio are not so sound.

Keywords:Current Ratio, Liquid Ratio, Net Profit , Return on Assets (ROA), Return on Capital Employed Interest Coverage ratio.

Introduction

The oil and gas sector is one of India's eight essential industries, and it has a significant impact on how other critical sectors of the economy make decisions.

Because India's economic growth is strongly linked to its energy demand, the demand for oil and gas is expected to increase, making the industry attractive for investment.To meet the rising demand, the government has implemented a number of initiatives. It has authorised 100 percent FDI in numerous sectors, including natural gas, petroleum products, and refineries, to name a few. As evidenced by the presence of Reliance Industries Ltd (RIL) and Cairn India, it now attracts both domestic and global investment.Primary energy consumption is predicted to nearly double to 1,123 million tonnes of oil equivalent by 2040. According to the IEA's India Energy Outlook 2021, as the country's gross domestic product (GDP) rises to USD 8.6 trillion.

Between April 2000 and December 2020, the petroleum and natural gas sector attracted US$ 7.91 billion in FDI, according to data supplied by the Department for Promotion of Industry and Internal Trade Policy (DPIIT).

Literature Review

Gupta & Goyal (2013) studied on Financial performance of Bharat Petroleum Corporation Limited for the period from 2005-06 to 2011-12. They used Ratio analysis and found that profitability position of the company not satisfactory because gross profit and net profit fluctuated during the study period. They mentioned that Return on Investment ratio varies from 3.73% to 15.64% with average of 10.15%. the short term solvency seen not good because thew company never completed the ideal current ratio and quick ratio so it may creat problem to the short term liquidity of the company.

Yadav ,kapoor and Dhaigude(2016) examined Financial Performance of oil and gas companies in India for the period from 2011 to 2015. They used Ratio analysis and TOPSIS (Technique for Order of Preference by Similarity to Ideal Solution) method. The study shows that Hindustan Corporation had the first rank in the year 2011 and Bharat Petroleum Corporation had secured second rank while in 2015 Petronet had the highest rank and BPCL secured second rank and Gail had last rank. They mentioned that Indian Oil had consistent sixth rank from the year 2011 to 2013.

Bansal, kar& Mishra (2016) studied on Financial performance analysis of Indian and Global Oil Companies for the period from 2010 to 2014. They used Ratio Anaysis and found that Carin India had higher current ratio and acid test ratio which indicated that it had better liquidity position during the study period. The study shows that Carin India improved its ROE and EPS constantly increased which indicated that profitability positionof Carin India was good in compared to all other selected oil companies. They mentioned that Indian companies were in more profit and earning while BP and RDS were more liquid and stable company. They suggested that Indian oil companies should try and boost the asset turnover by using different promotional strategies.

Kanna & Pasupati (2020) tried to measure the Financial performance of Oil Industries in TamilNadu for the period from 2011-12 to 2015-16. They used Ratio analysis, Trend analysis and correlation. They concluded that performance of Oil companies with regard to profitability and solvency was up to satisfactory level and their growth was fluctuated. They also suggested that Oil companies should reduce its dependency towards the outsiders by tightening the policies as to maintain adequate debt equity ratio.

Research Methodology

Objectives of the study

-To analyze the financial performance of the Selected Indian Oil Companies
-To measure the profitability position of the Selected Indian Oil Companies
-To check efficiency of the Selected Indian Oil Companies
-To measure the solvency of the Selected Indian Oil Companies

Sample Design

The study will attempt to understand the financial performance of selected Indian Oil Companies. For this purpose, the sample plan will be as follows.

(1) Sample Unit Oil Companies
(2) Sample Size 5 Oil companies.

Oil companies are selected on the basis of their market capital as per BSE.

Time period of the study

The study is conducted based on the financial statement of Oil Companies for a period of 5 years. (March 2017 to 2021)

Sources of Data

This study is based on secondary data. The secondary data consists of the annual reports of five Oil Companies for last five years. Various other reports like journals and websites were also referred to the present study.

Tools used for Analysis

Financial Tools

The financial tool that is used for the purpose of analysis are Current ratio, Quick ratio, Fixed Asset Turnover ratio, Capital turnover ratio, net profit ratio, Return on capital employed, Return on net worth, Debt Equity ratio, Interest coverage ratio.

Statistical Tools:

The statistical tool that is used for testing hypothesis is One- way Analysis of Variance (ANOVA)

Hypothesis :

H_0 : There is no significance difference among liquidity ratios of the selected Oil companies

H_0 : There is no significance difference among solvency ratios of the selected Oil companies

H_0 : There is no significance difference among Profitability ratios of the selected Oil companies

H_0 : There is no significance difference among efficiency ratios of the selected Oil companies

Data Analysis:

1. **Current Ratio**

Table 1 Current Ratio of selected Oil Companies

company	2017	2018	2019	2020	2021	Average
Reliance	0.70	0.65	0.76	0.50	1.04	3.65
ONGC	1.55	0.44	0.61	0.67	0.86	4.13
IOCL	0.72	0.76	0.81	0.69	0.73	3.71
BPCL	0.79	0.83	0.99	0.70	0.93	4.23
HPCL	0.72	0.78	0.76	0.65	0.70	3.61

Above table indicates that current ratio of BPCL is the highest among the other selected Indian Companies Followed by ONGC, IOCL, Reliance and HPCL. It shows that liquidity position of BPCL is higher compared to the other selected Oil Companies.

Testing of Hypothesis :

H_0 : There is no significant difference in current ratio of selected Oil Companies.

Table 2 One way ANOVA for Current Ratio

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	0.228236	4	0.057059	1.381698	0.275883	2.866081
Within Groups	0.825926	20	0.041296			
Total	1.054162	24				

Level of significance = 5%

Table 2 shows that value of F is less than the table value of 2.86, the null hypothesis is accepted. Therefore, it can be said that there is no difference in the current ratio of selected Oil Companies.

2. Liquid Ratio

Table 3 Liquid Ratio of selected Oil Companies

company	2017	2018	2019	2020	2021	Average
Reliance	0.47	0.44	0.54	0.39	0.86	2.70
ONGC	1.23	0.30	0.44	0.45	0.63	3.06
IOCL	0.24	0.28	0.35	0.28	0.21	1.35
BPCL	0.33	0.36	0.53	0.35	0.44	2.02
HPCL	0.31	0.39	0.40	0.32	0.24	1.67

Above table indicates that Quick ratio of ONGC is the highest among the other selected Indian Companies Followed by Reliance,BPCL,HPCL and IOCL. It shows that liquidity position of ONGC is higher compared to the other selected Oil Companies.

Testing of Hypothesis :

H_0 : There is no significant difference in liquid ratio of selected Oil Companies.

Table 4 One way ANOVA for Liquid Ratio

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	0.107378	4	0.026844	0.520283	0.721849	2.866081
Within Groups	1.031919	20	0.051596			
Total	1.139297	24				

Level of significance = 5%

Table 4 shows that value of F is less than the table value of 2.86, the null hypothesis is accepted. Therefore, it can be said that there is no difference in the liquid ratio of selected Oil Companies.

3. Fixed Asset Turnover

Table 5 Fixed Asset Turnover Ratio of selected Oil Companies

company	2017	2018	2019	2020	2021	Average
Reliance	0.84	0.97	1.18	1.01	0.72	4.72
ONGC	0.56	0.55	0.69	0.59	0.40	2.77
IOCL	3.03	3.31	3.71	2.98	2.14	15.17
BPCL	4.70	4.98	5.55	4.28	3.26	22.77
HPCL	4.93	5.23	5.45	4.11	3.14	22.86

Above table indicates that Fixed Asset Turnover ratio of HPCL is the highest among the other selected Indian Companies Followed by BPCL,IOCL,Relianceand ONGC. It shows that solvency position of HPCL is higher compared to the other selected Oil Companies.

Testing of Hypothesis :

H_0 : There is no significant difference in Fixed Asset Turnover ratio of selected Oil Companies.

Table 6 One way ANOVA for Fixed Asset Turnover Ratio

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	5.406417	4	1.351604	0.354317	0.837958	2.866081
Within Groups	76.29344	20	3.814672			
Total	81.69986	24				

Level of significance = 5%

Table 6 shows that value of F is less than the table value of 2.86, the null hypothesis is accepted. Therefore, it can be said that there is no difference in the Fixed Asset Turnover ratio of selected Oil Companies.

4. Capital Turnover Ratio

Table 7 Capital Turnover Ratio of selected Oil Companies

company	2017	2018	2019	2020	2021	Average
Reliance	74.45	45.78	58.62	53.16	38.12	270.13
ONGC	12.10	13.24	17.43	15.29	10.83	68.89
IOCL	75.95	44.74	57.48	52.96	41.18	272.30
BPCL	154.21	120.20	151.14	144.59	111.11	681.25
HPCL	184.10	143.90	180.56	176.33	160.42	845.31

Above table indicates that Capital Turnover ratio of IOCL is the highest among the other selected Indian Companies Followed by HPCL,BPCL,Reliance and ONGC. It shows that solvency position of IOCL is higher compared to the other selected Oil Companies.

Testing of Hypothesis :

H_0 : There is no significant difference in Capital Turnover ratio of selected Oil Companies.

Table 8 One way ANOVA for Capital Turnover Ratio

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	2981.842	4	745.4605	0.176537	0.947864	2.866081
Within Groups	84453.65	20	4222.683			
Total	87435.49	24				

Level of significance = 5%

Table 8 shows that value of F is less than the table value of 2.86, the null hypothesis is accepted. Therefore, it can be said that there is no difference in the Fixed Asset Turnover ratio of selected Oil Companies.

5. Net Profit Ratio

Table 9 Net Profit Ratio of selected Oil Companies

company	2017	2018	2019	2020	2021	Average
Reliance	12.98	11.59	9.46	9.17	13.00	56.21
ONGC	23.05	23.48	24.37	13.98	16.50	101.39
IOCL	5.31	5.03	3.20	0.27	5.78	19.59
BPCL	3.98	3.37	2.40	0.94	8.19	18.88
HPCL	3.32	2.90	2.19	0.98	4.58	13.97

Above table 9 indicates that Net Profit ratio of ONGC is the highest among the other selected Indian Companies Followed by Reliance,IOCL,BPCL and HPCL. It shows that profitability position of ONGC is higher compared to the other selected Oil Companies.

Testing of Hypothesis :

H_0 : There is no significant difference in Net Profit ratio of selected Oil Companies.

Table 10 One way ANOVA for Net Profit Ratio

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	75.44636	4	18.86159	0.315841	0.863992	2.866081
Within Groups	1194.374	20	59.71872			
Total	1269.821	24				

Level of significance = 5%

Table 10 shows that value of F is less than the table value of 2.86, the null hypothesis is accepted. Therefore, it can be said that there is no difference in the Net Profit ratio of selected Oil Companies.

6. Return on Capital Employed

Table 11 Return on Capital Employed Ratio of selected Oil Companies

company	2017	2018	2019	2020	2021	Average
Reliance	10.35	10.71	8.26	6.95	3.41	39.68
ONGC	11.06	11.95	15.64	9.87	5.34	53.84
IOCL	20.11	22.48	15.49	4.81	16.22	79.10
BPCL	22.77	20.37	15.27	5.56	18.83	82.79
HPCL	27.58	23.34	19.94	4.52	20.59	95.96

Above table 11 indicates that Return on Capital Employed ratio of HPCL is the highest among the other selected Indian Companies Followed by BPCL,IOCL,ONGC and Reliance. It shows that profitability position of HPCL is higher compared to the other selected Oil Companies.

Testing of Hypothesis :

H_0 : There is no significant difference in Return on capital employed ratio of selected Oil Companies.

Table 12 One way ANOVA for Return on Capital Employed

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	470.2885	4	117.5721	3.308208	0.031047	2.866081
Within Groups	710.7903	20	35.53951			
Total	1181.079	24				

Level of significance = 5%

Table 12 shows that value of F is greater than the table value of 2.86, the null hypothesis is rejected. Therefore, it can be said that there is difference in the Return on capital employed ratio of selected Oil Companies.

7. Return on Net Worth

Table 13 Return on Net Worth Ratio of selected Oil Companies

company	2017	2018	2019	2020	2021	Average
Reliance	10.90	10.68	8.68	7.90	6.73	44.89
ONGC	9.65	10.31	13.16	6.92	5.50	45.54
IOCL	19.16	19.38	15.55	1.40	19.76	75.24
BPCL	27.10	23.37	19.41	8.08	34.91	112.87
HPCL	30.51	26.55	21.40	9.11	29.47	117.03

Above table 13 indicates that Return on Net worth ratio of HPCL is the highest among the other selected Indian Companies Followed by BPCL,IOCL,ONGC and Reliance. It shows that profitability position of HPCL is higher compared to the other selected Oil Companies.

Testing of Hypothesis :

H_0 : There is no significant difference in Return On Net worth ratio of selected Oil Companies.

Table 14 One way ANOVA for Return on Net worth

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	568.8814	4	142.2203	2.029451	0.128857	2.866081
Within Groups	1401.565	20	70.07825			
Total	1970.446	24				

Level of significance = 5%

Table 12 shows that value of F is less than the table value of 2.86, the null hypothesis is accepted. Therefore, it can be said that there is no difference in the Return on net worth ratio of selected Oil Companies.

8. Debt Equity Ratio

Table 15Debt Equity Ratio of selected Oil Companies

company	2017	2018	2019	2020	2021	Average
Reliance	79.49	47.81	58.44	91.57	61.94	339.25
ONGC	9.62	15.25	15.78	16.27	18.11	75.02
IOCL	33.65	17.99	22.55	23.67	24.35	122.22
BPCL	47.53	33.56	40.11	47.41	41.12	209.72
HPCL	57.19	41.24	49.58	55.80	65.45	269.26

Above table 15 indicates that Interest ratio of ONGC is the least among the other selected Indian Companies. Hence it is most efficient company among all other sample companies followed by IOCL, BPCL, HPCL and Reliance.

Testing of Hypothesis :

H_0 : There is no significant difference in Return On Debt equity ratio of selected Oil Companies.

Table 16 One way ANOVA for Debt equity Ratio

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	833.1961	4	208.299	0.408239	0.800535	2.866081
Within Groups	10204.75	20	510.2375			
Total	11037.95	24				

Level of significance = 5%

Table 16 shows that value of F is less than the table value of 2.86, the null hypothesis is accepted. Therefore, it can be said that there is no difference in the Debt Equity ratio of selected Oil Companies.

9. Interest Coverage Ratio

Table 17 Interest Coverage Ratio of selected Oil Companies

company	2017	2018	2019	2020	2021	Average
Reliance	14.98	9.82	4.86	3.68	1.41	34.75
ONGC	20.64	19.15	16.03	8.95	6.79	71.56
IOCL	7.64	9.44	5.83	1.27	9.60	33.79
BPCL	22.27	13.54	7.92	1.72	12.17	57.62
HPCL	16.84	16.24	12.86	2.38	15.57	63.90

Above table 17 indicates that Interest Coverage ratio of ONGC is the highest among the other selected Indian Companies Followed by HPCL,BPCL,Reliance and IOCL. It shows that efficiency position of ONGC is higher compared to the other selected Oil Companies.

Testing of Hypothesis :

H_0 : There is no significant difference in Interest Coverage ratio of selected Oil Companies.

Table 18 One way ANOVA for Interest Coverage Ratio

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit*
Between Groups	480.3064	4	120.0766	5.368251	0.004202	2.866081
Within Groups	447.3583	20	22.36792			
Total	927.6647	24				

Level of significance = 5%

Table 18 shows that value of F is greater than the table value of 2.86, the null hypothesis is rejected. Therefore, it can be said that there is difference in the Interest coverage of selected Oil Companies.

Conclusion

As a result of the study of analysis of financial performance of Indian oil companies from period 2017-2021,difference in the profitability of the Oil Companies. The financial performance of ONGC is very satisfactory in terms of liquid ratio, net profit ratio, Interest coverage ratio, and debt equity ratio but its fixed asset turnover ratio and capital turnover ratio are not so sound. If we analyze Net ratio and and Return on capital employed ratio of selected Oil companies it is cleared that HPCL highest among the other companies but it is lower in Reliance company. The liquidity ratio not good in all selected Oil companies so they should maintain at least ideal Ratio (2:1).

References :

1. Annual reports of selected oil companies
2. V.K Gupta, Anil kumar Goyal, Pawan kumar (2013) Financial performance analysis of BPCL. International journal of research in computer application & management vol.3 issue 7
3. Santosh kumar Yadav, Rohoitkapoor and Amol Dhaigude (2016) Financial performance ranking of oil & gas companies in India using TOPSIS method. IJBER vol.14 issue 6 (4463-4473)
4. R.Bansal S.K kar and S.Mishra (2016) Acomparative financial performance analysis: a study of India and global oil companies. Oil , gas & Energy law Intelligence
5. R. Mukesh kannaa, N.Pasupati (2020) A study on Financial performance of oil Industries in TamilNadu. Journal of Xi'an university of architecture & technology. Vpl. XII issue. 3