



# FINANCIAL PERFORMANCE ANALYSIS OF SELECTED OIL AND NATURAL GAS COMPANIES IN INDIA

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## ABSTRACT

*Financial Performance Analysis of selected Oil and Natural Gas Companies in India(Oil and Natural Gas Corporation, Indian Oil Corporation Limited, Bharat Petroleum Corporation Limited) helps to evaluate their capital structure, credit strength, value of assets used for earning current profit, etc... This study is done based on five previous financial year (2017-18 to 2021-22) data collected from the secondary data only. For the purpose of financial performance analysing different statistical tools were used namely Ratio Analysis(Debt Equity Ration, Capital Gearing Ration, Fixed assets turnover ratio, etc...), Anova. At last suggestion is also provided based on the findings from the analysis.*

**KEY WORD:** *Financial Performance Analysis, Ratio Analysis, Anova.*

## INTRODUCTION

The oil and gas industry are one of the largest sectors in the world in terms of dollar value, generating an estimated \$5 trillion in global revenue as of 2022. Oil is crucial to the global economic framework, impacting everything from transportation to heating and electricity to industrial production and manufacturing. Investors looking to enter the oil and gas industry can quickly be overwhelmed by the complex jargon and unique metrics used throughout the sector. This introduction is designed to help anyone understand the fundamentals of companies involved in the oil and gas sector by explaining key concepts and the standards of measurement.

## STATEMENT OF THE PROBLEM

Financial statement analysis is an important work done by all the companies to systematically analysis the financial performance of the companies. This helps the high-level management to analysis and take decisions for the future effective and efficient performance of the companies. Crude oil and natural gas products are highly sensitive in the market. Due to this the change in demand, supply and price of the product are highly unpredicted in nature. This study is done for the purpose of analysing the financial statement of the selected Crude oil and natural gas companies that are operating in India.

## SCOPE OF THE STUDY

This study is done based on the data that are collected from secondary data that are collected from different source such as newspaper, journal, financial statement of the companies and other online websites. This study is done for the period of five years by analysing and interpreting the information's that are provided in profit and loss a/c and balancesheet of the companies. The interest of the study is to find the profitability, financial performance, and performance in share market of different companies operating in same industries. In this study different tools are used for analysing and interpreting the data such as different types of ratio analysis and anova.

## OBJECTIVES OF THE STUDY

1. Financial analysis of selected companies
2. Evaluation of capital structure of the selected companies
3. To find out the credit strength of the companies
4. To analysis the value of assets used for earning profit in the companies
5. To analysis the financial performance relationship of selected companies



## RESEARCH METHODOLOGY

### SOURCE OF THE DATA

This study is to analysis the financial performance of selected companies for the study. So, all the information for the study is collected from secondary data only. Secondary data such as published annual reports of the companies, various books, journals, online websites, etc...

### PERIOD OF THE STUDY

This study is done to analyse the financial performance of selected companies for past five financial years. Thus, this study is done from the period of 2017-2018 to 2021-2022.

### TOOLS USED FOR THE STUDY

For analysing the financial performance of selected Crude oil and natural gas companies' different statistical tools are used. Tools that are used for analysing the data are as follows.

1. Ratio Analysis:
  - i. Debt Equity Ratio
  - ii. Capital Gearing Ratio
  - iii. Proprietary Ratio
  - iv. Fixed Assets Turnover Ratio
  - v. Total Assets Turnover Ratio
  - vi. Capital Employed to Fixed assets Ratio
  - vii. Current Ratio
  - viii. Quick Ratio
  - ix. Net profit Margin Ratio
  - x. Return on Capital Employed Ratio
2. Anova

### LIMITATION OF THE STUDY

1. This study is done based on the data that are collected from secondary data.
2. The time for doing this study is limited
3. The historical data that are used in the study can be used for analysing the current financial performance of the companies.
4. Market working is highly dynamic. So, prediction for future performance with these historical data cannot be the same.

### REVIEW OF LITERATURE

1. **Mahesh. R. and Thangaraj. N. (2016)** in their study on "Profitability and liquidity management of selected companies of Indian petroleum industry" have made an attempt to analyze three major petroleum companies' profitability and liquidity management. This study has observed and has concluded that operating efficiency of the companies was comparatively better than their liquidity position. Net profit margin of all the three companies is not sufficient, so they should restructure their expenditure pattern to minimize the cost of production. Liquidity position of the companies are not satisfactory, so they take necessary steps to increase their 64 working capital by means of quick recovery of debts with suitable credit policies, proper inventory management, adequate cash maintenance etc.

2. **Jay Desai and Nisarg A Joshi (2015)** in "A study on mergers and acquisition in oil and gas sector in India and their Impact on the operating performance and share holders' wealth" pre and post financial performance has been studied and the researcher has found out that in the Indian context mergers and acquisitions haven't been able to create enough shareholder wealth post acquisition for the combined entity. In this study financial performance and acquiring company's shareholders wealth gets deteriorated in post acquisition. The researcher has examined that the factors beyond financial analysis which shows that there is a lot of energy in the form of geographical spread, increased customer space, growth in size and scale, access to new markets, cutting costs in operational terms and reduction in areas where there was overlap. The study has concluded mergers and acquisitions do not create immediate shareholders wealth and margins for the acquiring firm in the immediate short term. However from a longer perspective a consolidated company would be able to cope with competition, increased pressure to cut costs and grow in the changing business environment.



## REFERENCE

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## COMPANY PROFILE

### OIL AND NATURAL GAS CORPORATION (ONGC):

The Oil and Natural Gas Corporation (ONGC) is an Indian central public sector undertaking under the ownership of Ministry of Petroleum and Natural Gas, Government of India. It is headquartered in Dehradun. ONGC was founded on 14 August 1956 by the Government of India. It is the largest government-owned-oil and gas explorer and producer in the country, and produces around 70% of India's crude oil (equivalent to around 57% of the country's total demand) and around 84% of its natural gas. In November 2010, the Government of India conferred the Maharatna status to ONGC. In a survey by the Government of India for fiscal year 2019–20, it was ranked as the largest profit making Central Public Sector Undertaking (PSU) in India. It is ranked 25th among the Top 250 Global Energy Companies by Platts.

### INDIAN OIL CORPORATION LIMITED

Indian Oil Corporation Limited is a Government of India undertaking formed in 1964 by the merger of Indian Oil Company Limited with Indian Refineries Limited. The Corporation has five divisions including the Refineries Division. The Indian oil group has refining capacity of 80.2 MMTPA as on 1.4.2020 and accounts for ~32% of total national refining capacity of 248.9 MMTPA - the largest share among refining companies in India. Indian Oil group owns and operates 11 of India's 23 refineries - ranging from the oldest one in the country at Digboi (capacity - 0.65 MMTPA) which commenced operations in 1901, to the latest at Paradip (capacity - 15 MMTPA) which was dedicated to the nation in 2016. The strength of Indian Oil springs from its experience of operating the largest number of refineries in India and adapting a variety of refining processes coupled with state-of-the-art refining technology.

### BHARAT PETROLEUM CORPORATION LIMITED (BPCL)

BPCL, a Maharatna PSU, aims to efficiently meet the energy needs of our nation with a combined refining capacity of over 40 MMT through refineries in Mumbai, Kochi, Numaligarh and Bina, which are strategically located. One of the best in class & digitally enabled refineries with state-of-the-art technology, efficient operations and high standards of quality, safety, occupational health, environment protection and security.

## ANALYSIS AND INTERPRETATION

### DEBT EQUITY RATIO

$$DEBT\ EQUITY\ RATIO = \frac{TOTAL\ LONG\ TERM\ DEBT}{SHAREHOLDERS\ FUND}$$

DEBT EQUITY RATIO			
YEAR	ONGC	INDIAN OIL	BHARAT PETROLEUM
2022	0.673	0.624	1.013
2021	0.803	0.715	0.943
2020	0.787	0.754	1.425
2019	0.598	0.534	1.109
2018	0.606	0.349	0.984
MEAN	0.693	0.595	1.095
CV	0.009	0.026	0.038



**ANOVA TABLE**

SOURCE OF VARIANCE	SUM OF SQUARES	DF	MEAN SQUARE	F	P	Sig.
BETWEEN GROUPS	0.701	2.000	0.350	14.301	0.001	0.00
WITH IN GROUPS	0.294	12.000	0.024			
TOTAL	0.995	14.000				

**ANOVA**

**H<sub>0</sub>** : There is no significance difference between the Debt Equity Ratio of selected Oil and Natural Gas Companies during the period of the study.

**H<sub>1</sub>** : There is a significance difference between the Debt Equity Ratio of selected Oil and Natural Gas Companies during the period of the study.

**CAPITAL GEARING RATIO**

$$CAPITALGEARINGRATIO = \frac{LONGTERMDEBT}{SHAREHOLDERSFUND}$$

CAPITAL GEARING RATIO			
YEAR	ONGC	INDIAN OIL	BHARAT PETROLEUM
2022	0.339	0.419	0.700
2021	0.358	0.545	0.667
2020	0.356	0.588	1.041
2019	0.244	0.348	0.885
2018	0.270	0.203	0.789
MEAN	0.313	0.421	0.816
CV	0.003	0.024	0.023

**ANOVA TABLE**

SOURCE OF VARIANCE	SUM OF SQUARES	DF	MEAN SQUARE	F	P	Sig.
BETWEEN GROUPS	0.702	2.000	0.351	21.158	0.000	
WITH IN GROUPS	0.199	12.000	0.017			
TOTAL	0.901	14.000				

**ANOVA**

**H<sub>0</sub>** : There is no significance difference between the Capital Gearing Ratio of selected Oil and Natural Gas Companies during the period of the study.

**H<sub>1</sub>** : There is a significance difference between the Capital Gearing Ratio of selected Oil and Natural Gas Companies during the period of the study.

**PROPRIETARY RATIO**

$$PROPRITETORYRATIO = \frac{SHAREHOLDERSFUND}{TOTALASSETS}$$

PROPRIETARY RATIO			
YEAR	ONGC	INDIAN OIL	BHARAT PETROLEUM
2022	0.443	0.325	0.277
2021	0.407	0.315	0.333
2020	0.402	0.289	0.242
2019	0.440	0.336	0.283
2018	0.443	0.385	0.304
MEAN	0.427	0.330	0.288
CV	0.000	0.001	0.001



**ANOVA TABLE**

SOURCE OF VARIANCE	SUM OF SQUARES	DF	MEAN SQUARE	F	P	Sig.
BETWEEN GROUPS	0.051	2.000	0.025	27.192	0.000	
WITH IN GROUPS	0.011	12.000	0.001			
TOTAL	0.062	14.000				

**ANOVA**

**H<sub>0</sub>** : There is no significance difference between the Proprietary Ratio of selected Oil and Natural Gas Companies during the period of the study.

**H<sub>1</sub>** : There is a significance difference between the Proprietary Ratio of selected Oil and Natural Gas Companies during the period of the study.

**FIXED ASSET TURNOVER RATIO**

FIXED ASSETS TURNOVER RATIO = NET SALES / AVERAGE FIXED ASSETS

FIXED ASSETS TURNOVER RATIO			
YEAR	ONGC	INDIAN OIL	BHARAT PETROLEUM
2022	1.438	2.918	3.854
2021	0.939	1.933	2.879
2020	1.312	2.816	4.022
2019	1.495	3.442	5.017
2018	1.213	3.014	4.437
MEAN	1.279	2.825	4.042
CV	0.048	0.305	0.624

**ANOVA TABLE**

SOURCE OF VARIANCE	SUM OF SQUARES	DF	MEAN SQUARE	F	P	Sig.
BETWEEN GROUPS	19.167	2.000	9.583	29.421	0.000	
WITH IN GROUPS	3.909	12.000	0.326			
TOTAL	23.076	14.000				

**ANOVA**

**H<sub>0</sub>** : There is no significance difference between the Fixed Assets Turnover Ratio of selected Oil and Natural Gas Companies during the period of the study.

**H<sub>1</sub>** : There is a significance difference between the Fixed Assets Turnover Ratio of selected Oil and Natural Gas Companies during the period of the study.

**TOTAL ASSETS TURNOVER RATIO**

$TOTALASSETSTURNOVERRATIO = \frac{NETSALES}{AVERAGETOTALASSETS}$

TOTAL ASSETS TURNOVER RATIO			
YEAR	ONGC	INDIAN OIL	BHARAT PETROLEUM
2022	0.867	1.530	1.983
2021	0.574	1.054	1.469
2020	0.785	1.442	1.969
2019	0.878	1.659	2.309
2018	0.709	1.461	2.049
MEAN	0.763	1.429	1.956
CV	0.016	0.051	0.093



**ANOVA TABLE**

SOURCE OF VARIANCE	SUM OF SQUARES	DF	MEAN SQUARE	F	P	Sig.
BETWEEN GROUPS	3.576	2.000	1.788	33.553	0.000	
WITH IN GROUPS	0.639	12.000	0.053			
TOTAL	4.215	14.000				

**ANOVA**

**H<sub>0</sub>** : There is no significance difference between the Total Assets Turnover Ratio of selected Oil and Natural Gas Companies during the period of the study.

**H<sub>1</sub>** : There is a significance difference between the Total Assets Turnover Ratio of selected Oil and Natural Gas Companies during the period of the study.

**FINDINGS, SUGGESTION, CONCLUSION**

**FINDINGS**

- Debt Equity Ratio (DER) of ONGC decreased to 0.673 times in the year 2022, Indian Oil DER decreased to 0.624 times, but Bharat Petroleum DER increased to 1.013 times.
- Capital gearing Ratio (CGR) of ONGC decreased to 0.339 times in the year 2022, Indian Oil CGR decreased to 0.419, but Bharat Petroleum CGR increased to 0.700 times in 2022.
- Proprietary Ratio (PR) of ONGC increased to 0.443% in the year 2022, Indian Oil PR increased to 0.325%, but Bharat Petroleum PR decreased to 0.277% in the year 2022.
- Fixed Assets Turnover Ratio (FATR) of ONGC increased to 1.438 times, Indian Oil FATR increased to 2.918 times, and Bharat Petroleum FATR increased to 3.854 times.
- Total Assets Turnover Ratio (TATR) of ONGC increased to 0.867 times in 2022, Indian Oil TATR increased to 1.530 times and Bharat Petroleum TATR also increased to 1.983 times.
- Capital Employed to Fixed Assets Ratio (CEFAR) of ONGC increased to 1.309 times in the year 2022, Indian Oil CEFAR increased to 1.050 times, but Bharat Petroleum CEFAR decreased to 1.065 times.
- Current Ratio (CR) of ONGC increased to 0.832 times in the year 2022, Indian Oil CR also increased to 0.764 times, but Bharat Petroleum CR decreased to 0.746 times.
- Quick Ratio (QR) of ONGC increased to 0.407 times in the year 2022, But Indian Oil QR decreased to 0.183 times, and Bharat Petroleum QR decreased to 0.239 times.
- Net Profit Margin Ratio (NPMR) of ONGC increased to 9.776% in the year 2022, but Indian Oil NPMR decreased to 4.183% and Bharat Petroleum NPMR also decreased to 2.935%.
- Return on Capital Employed Ratio (RCER) of ONGC increased to 0.115 times in the year 2022, but Indian Oil RCER decreased to 0.151 times and Bharat Petroleum RCER also decreased to 0.139 times.

**SUGGESTION**

- Both ONGC and Indian Oil Debt equity ratio has reduced in the last financial year 2022. But the Debt Equity ratio of Bharat Petroleum has increased. Thus, Bharat Petroleum has to work toward reducing its usage of Debt.
- With the results obtained from Capital gearing ratio of all three companies, ONGC and Indian Oil are doing well. Bharat Petroleum Capital gearing ratio has increased in the last year. This may create bad opinion among the investors. Thus the company has to find other way of rising funds for their operation
- All three companies has utilized their assets which resulted in getting good return at the end of the financial year. This should be maintained and improved in the future financial years.
- The current ratio and quick ratio of the ONGC and Indian Oil has done well. But this is not sufficient. Both the companies need to maintain little more funds for the current expenses.
- Bharat Petroleum has to improve its current and quick ratio. This will help them to face the funds required for their operation in the short run.
- Except ONGC other companies like Indian Oil and Bharat Petroleum has to find a way to improve their profit margin.





- All the three companies are doing well after the COVID-19 Lockdown. But still all three companies need to utilize the possible ways to improve their financial performance.
- With high competition in the market and unpredictable market condition of oil and gas industries all three companies ONGC, Indian Oil and Bharat Petroleum has strong financial position. This need to maintained and improved with most diplomatic approaches.

### CONCLUSION

Oil and Natural Gas are one of the most important resources for any countries in the world. Because they are used in different fields like in the field of agriculture, transportation, manufacturing industries, production of fertilizers, etc... Each and every day the demand for the Oil and Natural Gas are increasing in tremendous way. Thus the role of Oil and Natural Gas companies plays a huge role in managing the working of the world. For developing countries like India will need more amount of this black gold product. But our country has less reservoirs of Oil and Natural Gas. Due to these the Indian petroleum industries import maximum of the raw material from gulf countries. This result in high cost of production and transportation. With all the struggles ONGC, Indian Oil and Bharat petroleum are able to manage their financial performance and able to earn expected return in the last financial year 2022. Which means all the companies are able to utilize all the possible resources. With efficient and effective management all the companies are able to recover from the losses that they incurred during past financial year and they are also able to produce for the huge demand of petroleum products in the country. Recently some companies are also exporting the petroleum products to other countries which shows the huge development in these petroleum industries. With this study conducted on analysing the financial performance of selected oil and gas industries (ONGC, Indian Oil, Bharat Petroleum) we can conclude that all the companies are doing well and utilizing all the resources that they got.

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#### SOURCE LINK:

*BALANCE SHEET OF OIL AND NATURAL GAS CORPORATION:*

<https://www.moneycontrol.com/financials/oilandnaturalgascorporation/consolidated-balance-sheetVI/ONG#ONG>

*BALANCE SHEET OF INDIAN OIL:*

<https://www.moneycontrol.com/financials/indianoilcorporation/consolidated-balance-sheetVI/IOC>

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