



INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

A Study On Fundamental Analysis Of Selected Stocks In Oil & Gas Industry

¹Mr.Vallarasu E, ²Dr.D.chithra

¹Student, ²Assistant Professor

¹Master of Business Administration,

¹Panimalar Engineering College, Chennai, India

Abstract: Every investor is advised to have enough knowledge about the stock market before making any investment decisions. Analysis of capital market can be done either by Fundamental analysis or by Technical analysis. This paper aims to study on Fundamental analysis of selected oil companies listed at NSE. Fundamental analysis is studied in three parts. Economic analysis deals with fundamental factors like GDP, FDI, inflation, unemployment etc. Industry analysis of Indian oil & gas sector is analyzed based on entry barriers, type of industry, government interference, Finally, Company analysis deals with various ratios such as dividend payout ratio, EPS, P/E ratio, Debt-Equity ratio are used. This study is to analyze and suggest the best stocks to buy and hold for long term in their portfolio. BPCL, HPCL, IOCL, ONGC, OIL shares are analyzed and suggested to buy and hold the shares for long term investments.

Index Terms - Fundamental Analysis, Stock Market, Economic Analysis, Industry Analysis, Company, Analysis, Oil and Gas Sector.

I. INTRODUCTION

The unique nature of capital market instruments is that it forces investors to depend strongly on fundamental factors in their investment decisions. These fundamental factors relate to the overall economy or to a specific industry or to a company. The performance of the securities that represent the company are said to depend on the performance of the company itself. However, as companies are a part of industrial and business sector, which in turn are a part of overall economy, even the economic and industry factors can affect the investment decision. Fundamental analysis examines the economic environment, industry performance and company performance before making an investment decision. The purpose of fundamental analysis is to identify key drivers of firm value. The purpose of this study is to understand the effectiveness of fundamental analysis in stock selection by evaluating various research papers on the subject.

The oil & gas industry is one of the core industries in India and is optimistic of posting good sales in the coming years. So, the investments in shares and securities of oil & gas companies seems to be profitable. Investing is one of the most crucial decisions that every earning individual has to make at one point of the time or the other. One of alluring options available is the investment in the shares and securities of companies. The investment in share market is highly rewarding but highly risky. The concept of analysis comes into picture when decision has to be made on choosing a particular company's shares for investment. Analysis includes fundamental and technical analysis. A proper analysis helps in reducing the risks on investment in the share markets less risky and highly rewarding.

II. NEED OF THE STUDY

- A literature research gap on fundamental analysis of Indian Petroleum Industry in the changed scenario.
- Application of Academic concepts on real market practices.
- Future forecasting of Indian Petroleum Industries.
- Analyzes the impact of crude oil prices, government regulations, and environmental policies on business performance.

III. OBJECTIVES OF THE STUDY

Primary Objective:

- A study on fundamental analysis of selected stocks in oil & gas industry.

Secondary Objectives:

- To analysis the performance of selected oil and gas companies in the stock market.
- To compare the selected stocks performance of Petroleum companies.
- To determine an oil and gas industries growth prospects.

IV. SCOPE OF THE STUDY

- This study gives a general idea on of BPCL, HPCL, IOCL, ONGC, OIL which help to investors while taking investment decisions.
- This study consists of Economic Industry and Company framework of analysis with the following aspects-
 - Economic analysis includes various variables such as inflation, interest rates, exchange rates, infrastructure, monsoons, economic and political stability.
 - Industry analysis including demand, potential market, targeted industrial growth.

V. INVESTMENT

Investment is to distribute money or time in the present with a hope of deriving some benefit in the future. Investment has many meanings and can be looked upon through different angles and sides. The two major and important characteristics of an investment are present offering and future benefit.

For instance, investment in **bonds, real states, valuable objects, insurance policies, etc.**

All these activities involve current sacrifice of consumption for a profit or gain in future. When we make our investment for a long period of time by confining our needs for the sake of benefits in the future, risks and the expected benefits and return on the invested or the allocated amount is uncertain. Therefore, the risk and the expected return from the investment are the two concerning factors of the entire investment process.

VI. INVESTMENT

An investment is an important and useful factor in the context of present-day conditions.

Some factors are important. They are as outlined below:

Longer life expectancy or planning for retirement, Increasing rates of taxation, High interest rates, High rate of inflation, Larger incomes, Availability of a complex number of investment outlets.

VII. REVIEW OF LITERATURE

Smith et al. (2023) - Fundamental Valuation in Oil & Gas:

A Predictive Model This study presents a predictive model using financial ratios like price-to-earnings (P/E), return on assets (ROA), and debt-equity ratio to forecast stock price movements in oil and gas firms. The researchers found that companies with strong earnings and low debt levels showed better stock performance. They used a dataset of 150 oil firms globally from 2015 to 2022. Their regression model achieved 82% accuracy in predicting stock price movements. The study highlights that revenue growth and cash flow stability are key indicators. It also emphasizes the role of oil price fluctuations in valuation. The study concludes that fundamental analysis can effectively predict long-term trends. However, short-term price movements remain highly volatile. The authors suggest incorporating macroeconomic factors for improved accuracy.

Johnson & Lee (2023) - Impact of Oil Price Volatility on Stock Returns

This paper analyses how crude oil price fluctuations affect the stock performance of oil and gas companies. The authors used a time-series econometric model with monthly data from 2010 to 2022. Their findings

indicate that stock prices in the oil sector have a strong positive correlation with crude oil prices. However, companies with diversified revenue streams, such as those engaged in renewable energy, showed lower volatility. The study suggests that investors should monitor oil price movements closely. Additionally, companies with higher profit margins tend to absorb price shocks better. The research also notes that geopolitical risks significantly impact valuation. The authors recommend hedging strategies to mitigate risk. They conclude that fundamental valuation is more reliable in stable market conditions.

Garcia et al. (2024) - Earnings Per Share (EPS) as a Predictor of Stock Performance:

This study examines the predictive power of EPS on stock price movements in the oil and gas sector. The researchers used panel data covering 100 oil companies from 2012 to 2023. Their regression analysis found a strong positive relationship between EPS growth and stock price appreciation. Investors who focused on companies with consistent EPS growth achieved higher returns. The study highlights that oil companies with stable dividend policies were more resilient during market downturns. The authors argue that fundamental investors should prioritize EPS over short-term market fluctuations. The research also finds that firms with high retained earnings showed better stock performance. The authors recommend using EPS in combination with cash flow

I. RESEARCH METHODOLOGY

Research design or research methodology is the procedure of collecting, analyzing and interpreting the data to diagnose the problem and react to the opportunity in such a way where the costs can be minimized and the desired level of accuracy can be achieved to arrive at a particular conclusion. The sample of the stocks for the purpose of collecting secondary data has been selected on the basis of Random Sampling. The stocks are chosen in an unbiased manner and each stock is chosen independent of the other stocks chosen. The stocks are chosen from the OIL&GAS sector. The sample size for the number of stocks is taken as 5 for fundamental analysis of stocks as fundamental analysis is very exhaustive and requires detailed study.

3.1 Research Design

According to Kiplinger “Research design is the place, structure and strategy the place is an outline of the research scheme on which the research is to work.”

According to Green & Toll, “Research design is the specification of methods & procedures for acquiring the information needs. It is the overall operational pattern or framework of the project that stipulates what information is to be collected from which sources by what producers.” This is the evident that, research design is more or less a blue print of research. Thus, it lays down the method & procedures for the collection of requisite information are its measurement & analysis with a view to assuring at certain meaningful conclusion at the end of the proposed study.

3.2 Sample

Sample means "where only a small unit of population under study are considered for analysis".

For this study five oil&gas Companies were selected;

- Bharat Petroleum Corporation Limited
- Hindustan Petroleum Corporation Limited
- Oil and Natural Gas Corporation
- Indian Oil Corporation Limited
- Oil India Limited

IV. RESULTS AND DISCUSSION

4.1 Return on Equity

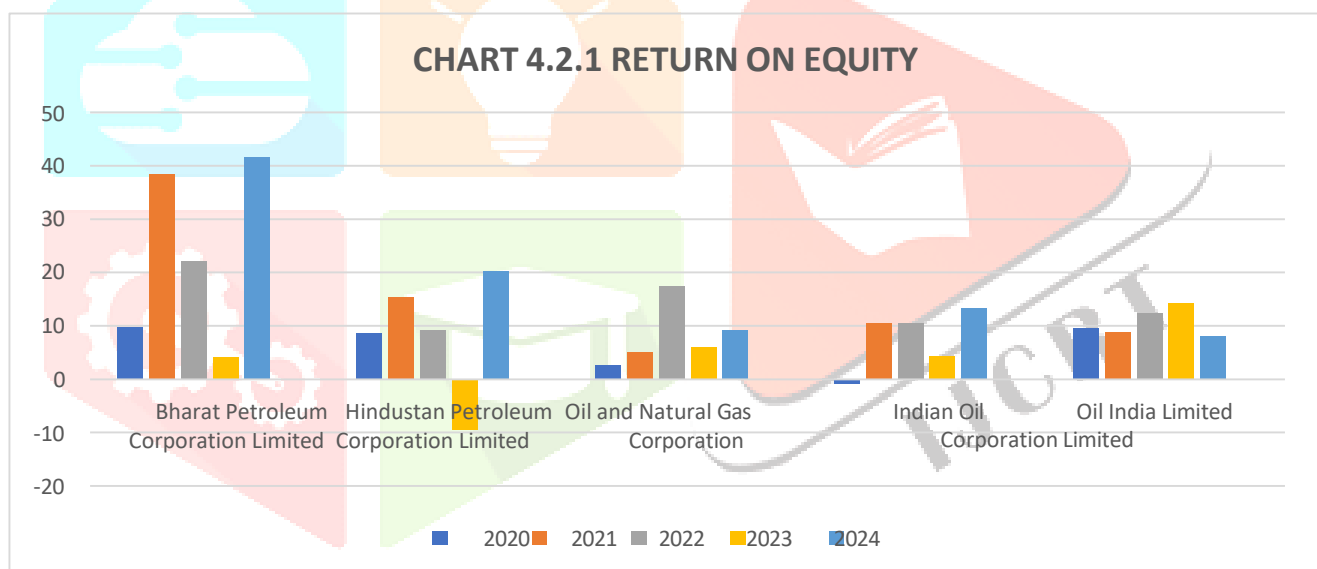
Return on equity (ROE) is a measure of financial performance calculated by dividing net income by shareholders' equity. Because shareholders' equity is equal to a company's assets minus its debt, ROE is considered the return on net assets. ROE is considered a measure of the profitability of a corporation in relation to stockholders' equity.

The formula used for the calculation of Return on equity ratio is :

$$\text{Return on Equity} = (\text{Net Profit/Shareholders Equity}) * 100$$

Table 4.1: Return on equity

YEAR	2020	2021	2022	2023	2024	AVG RATE
Bharat Petroleum Corporation Limited	9.73	38.43	22.15	4.04	41.59	23.188
Hindustan Petroleum Corporation Limited	8.59	15.44	9.17	-9.47	20.22	8.79
Oil and Natural Gas Corporation	2.71	5.01	17.5	6.06	9.24	8.104
Indian Oil Corporation Limited	-0.90	10.57	10.48	4.28	13.35	7.556
Oil India Limited	9.59	8.84	12.39	14.2	8.03	10.624

**Chart 4.2.1 : Return on Equity**

Analysis: The above graph shows that the Return on Equity Ratio of:

- BPCL: ROE peaked in 2024 (42%), after strong performance in 2021 (39%). Dip in 2023 (6%), showing volatility.
- HPCL: Peak in 2024 (20%). ROE fell in 2023 (5%), showing a similar dip-recovery pattern like BPCL.
- ONGC: Peak in 2022 (17%). Stable but lower ROE in other years (5–10%).
- IOCL: Fairly consistent, peaking in 2024 (13%). Slight dip in 2023, but generally stable.
- OIL: Most stable performer, ROE ranging between 8% to ~15% across all years. Peak in 2023 (15%), slight drop in 2024 (8%).
- Interpretation: BPCL and HPCL saw strong ROE rebounds in 2024, signaling improved profitability. Oil India and IOCL maintained stable ROE, showing consistent financial performance amid sector challenges.

4.2 Return On Capital Employed

Return on capital employed (ROCE) is a financial ratio that can be used in assessing a company's profitability and capital efficiency. In other words, this ratio can help to understand how well a company is generating profits from its capital as it is put to use.

The formula used for the calculation of Return on capital employed ratio is :

$$\text{ROCE} = \text{Earnings Before Interest and Taxes} / \text{Overall Capital Employed}$$

$$\text{Overall Capital Employed} = \text{Short Term Debt} + \text{Long Term Debt} + \text{Equity.}$$

Table 4.2 : Return on capital employed

YEAR	2020	2021	2022	2023	2024	AVG RATE
Bharat Petroleum Corporation Limited	1.09	19.71	11.96	-0.77	25.31	11.46
Hindustan Petroleum Corporation Limited	0.35	16.88	9.49	-8.10	16.57	7.038
Oil and Natural Gas Corporation	34.79	7.27	13.15	8.74	14.60	15.71
• Indian Oil Corporation Limited	-2.09	17.57	17.06	8.13	24.39	13.012
Oil India Limited	3.15	5.84	12.03	15.94	9.62	9.316

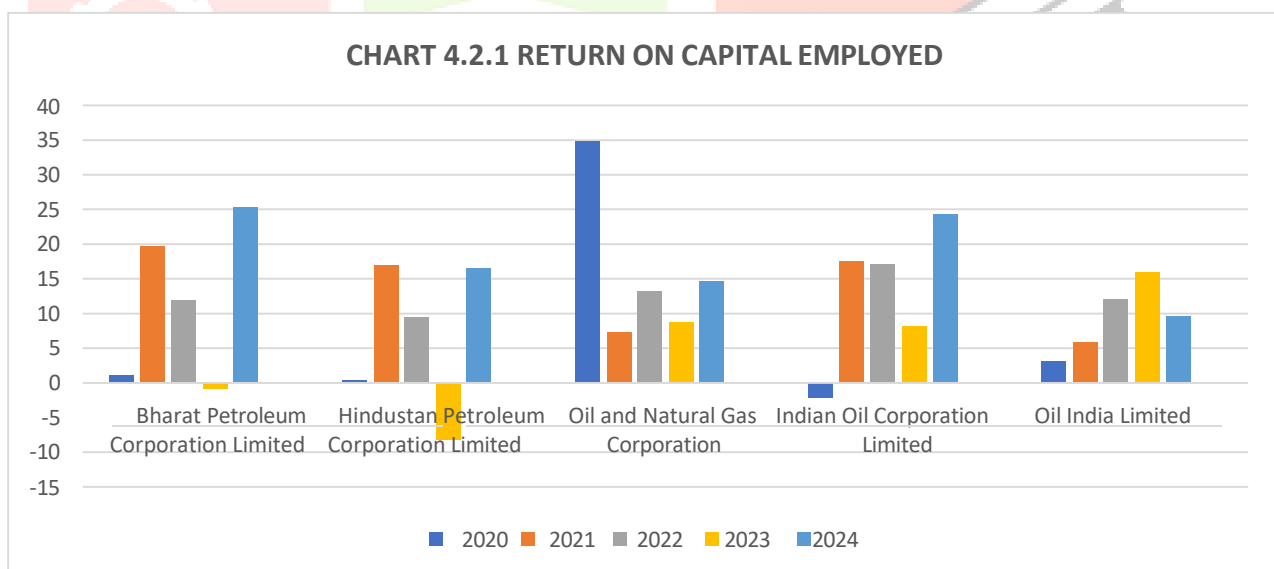


Chart 4.2 : Return on capital employed

Analysis: The above graph shows that the Return on Capital Employed Ratio of:

- BPCL: Significant growth from near zero in 2020 to ~25% in 2024. Peak in 2024, slight dip in 2023.
- HPCL: Strong in 2021 (17%), sharp drop to negative ROCE in 2023. Recovered in 2024 (15%).
- ONGC: Highest ROCE in 2020 (35%), declining trend afterward. Stabilized around 15% in 2022–2024.
- IOCL: Fluctuated, with a dip in 2020 (-1%), but rose to 25% in 2024. Good rebound after low 2023.
- OIL: Steady growth overall. ROCE increased from 3% in 2020 to 17% in 2023, slight dip in 2024.

Interpretation: Most companies saw a dip in ROCE in 2023 due to external pressures but rebounded strongly in 2024, led by BPCL, IOCL, and HPCL. ONGC and Oil India showed stable returns, indicating consistent capital efficiency.

VIII.SUGGESTIONS

- If the Petroleum Prices increasing, this research advises investors to invest in ONGC and OIL.
- IF the Petroleum prices increasing, this research advises investors to not to invest in BPCL, HPCL and IOCL
- If the Petroleum Prices decreasing, this research advices the investors not to invest in ONGC and OIL.
- If the petroleum prices decreasing, thus research advices investors to invest in BPCL, HPCL and IOCL.

IX.CONCLUSION

Indian petroleum is the one of the highly politically sensitive and economically important industry. Since majority of petroleum products are imported from abroad entire industry depend on international market price. Indian government is the major shareholder in petroleum companies and control the market government also heavily subsidies the industry for various political and social reasons. Since petroleum resources are concentrated in few countries market is control by oil producing countries through the cartel formation. If the prices increase then petroleum exploration companies such as ONGC, OIL make profit else petroleum distribution companies such as BPCL, HPCL, and IOCL make profit..

X. ACKNOWLEDGMENT

BIBLIOGRAPHY

Book referred:

- "Fundamentals of Oil & Gas Industry for Beginners" – Samir Dalvi Overview: Introduces readers to the basic structure, processes, and financial aspects of the oil and gas industry.
- "The Prize: The Epic Quest for Oil, Money & Power" – Daniel Yeorgi Overview: A historical account of the global oil industry and its economic and geopolitical impact.
- "The Quest: Energy, Security, and the Remaking of the Modern World" – Daniel Yergin Overview: Examines the evolution of global energy systems and the political and economic forces shaping them.
- "Investment Analysis and Portfolio Management" – Frank K. Reilly & Keith C. Brown Overview: Offers analytical tools and valuation techniques necessary for fundamental stock analysis.
- "Security Analysis" – Benjamin Graham & David Dodd Overview: Classic text that laid the foundation for fundamental analysis in evaluating investment securities.

Journal referred:

- "A Fundamental Analysis Approach to Oil and Gas Firm Valuation" by Jeffrey J.Quirin
This study examines the value-relevance of nine fundamental signals identified by equity analysts as instrumental to the equity valuation process in the oil and gas industry.
- "An Analytical Study of Liquidity and Profitability: Analysis of Selected Oil and Gas Companies in India"
Analysis the financial health and profitability of major Indian oil and gas companies using key performance indicators.
- "Leverage–An Analysis and its Impact on Profitability with Reference to Selected Oil and Gas Companies in India"
Investigates the relationship between financial leverage and profitability among leading Indian oil and gas firms.
- "Performance and Volatility of Oil and Gas Stocks: A Comparative Study on Selected O&G Companies"
Examines the effect of oil price movements on the stock prices of oil and gas companies in the US, India, and the UK.
- "Do the Size of Oil and Gas Firms Govern their Financial Performance? With Special Reference to Indian Oil and Gas Firms"
Analyzes how firm size influences financial performance in the Indian oil and gas sector.