“Study of Nifty Oil and Gas Sector: Fundamental Approach”

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**ABSTRACT**

*This report summarizes the practical experience gained during a two-month internship at Finoability Pvt. Ltd., focusing on Fundamental analysis of Nifty Oil and Gas sector. The goal is to identify and evaluate stocks based on their value and growth potential, ultimately forming a high-performing investment portfolio. Using fundamental Analysis, I conducted a thorough valuation to identify stocks that are either undervalued or exhibit strong earnings growth. Specifically, stocks were classified into two categories:   
Value Picks: These are stocks that are undervalued and have demonstrated year-over-year (YOY) growth in earnings per share (EPS).   
Growth Picks: These stocks, while overvalued, possess a positive Price/Earnings to Growth (PEG) ratio of 1 or less, indicating potential for significant future growth.   
Using key financial ratios pertinent to the oil and gas industry, the value and growth picked stocks were ranked. Based on those rankings, funds were allocated accordingly to optimise the portfolio. A portfolio comprising selected oil and gas sector stocks is constructed, with the Net Asset Value (NAV) calculated for performance evaluation. The portfolio’s performance is compared against the NSE index daily to determine if it outperforms this benchmark. This analysis is valuable for investors seeking opportunities in oil and gas sector companies.*

1. **INTRODUCTION**

This project is about the “Study of Nifty Oil and Gas sector: Fundamental Approach”. Fundamental Analysis has been adopted as the methodology to analyze the sector.

Basis of valuation and ranking of stocks:

* Ratio Analysis
* Value Picks
* Growth Picks

Funds have been allocated to the selected stocks according to their ranking. After that, a portfolio consisting of the selected Oil and Gas sector stocks is created and the Net Asset Value (NAV) of the portfolio is calculated. Performance of the entire portfolio is analyzed with respect to the NSE index.

Definition of concept

Fundamental analysis is a method for evaluating a security's intrinsic value by examining economic, financial, and other qualitative and quantitative factors. It involves using real data to determine a security's true worth. While it is most often used to value stocks, fundamental analysis can be applied to any type of security. The core idea is that, over time, the market price of a security will reflect its intrinsic value.

Fundamental analysis focuses on financial metrics such as revenues, earnings, future growth prospects, return on equity, and profit margins when analysing stocks. This approach helps determine a company's underlying value and its potential for future growth. It aims to filter out short-term market noise and concentrate on the company's actual business performance, as fundamentally strong companies tend to see their stock prices appreciate over the long term, thereby creating wealth for investors.

Scope of the Project

This report's objective is to give investors with insightful analysis of the Nifty Oil and Gas Sector by concentrating on important facets. The following are the analysis's goals:

* Understand growth potential- This entails analysing the growth rates, overall financial health, and growth potential of the businesses that occupy the top 10 positions.
* Finding Multi-bagger Stocks- Our quest here to identify those stocks that possess the ability to deliver those spectacular, double-digit returns over a very long-term duration is our primary focus. This is more specifically identified as the multi-bagger stocks that have a possibility to outperform the overall market by a very large measure and present investors with enormous profit opportunities. The aim is to help investors to get some directions on how to get the most from investment in possible since such opportunities are present in Oil and Gas sector.
* Risk Assessment- In addition to identifying the opportunities for growth, we shall assess the risks which are associated with venturing into the IT industry. This involves evaluating the level of risk that is present in a specific market, risks that might be specific to a given business such as changes in the technology and in the economy. They must be in a position to spot these risks so as to prevent loss-making stocks and make the appropriate choices.

1. **OBJECTIVES**

* To conduct a comprehensive analysis of the Nifty Oil and Gas sector using a fundamental approach, aiming to understand the underlying factors driving the sector's performance and identify potential investment opportunities or risks.
* To study the top 10 companies in the Nifty Oil & Gas sector, tracking their performances for 1-month and analyse the resulting index changes.
* To track the Asset Under Management (AUM) and Net Asset Value (NAV) for the chosen oil & gas sector companies over a 1-month period.
* To demonstrate analytical and research skills by tracking the performances of top companies in the oil & gas sector and analyse the resulting index changes.

1. **PROJECT DESCRIPTION**

This project is about the Analysis of top 10 companies taken from Nifty Factsheet of Oil and Gas sector. Fundamental Analysis has been adopted as the methodology to analyze the sector. Valuation is done as a part of analysis and certain stocks are chosen as the “Value Picks” and certain stocks as “Growth Picks”. Using some financial ratios which are important to the oil and gas sector, the value picks and growth picks have been ranked. According to the ranks, funds have been allocated to these selected stocks. Finally, a portfolio consisting of the selected Oil and Gas sector stocks is created and the Net Asset Value (NAV) of the portfolio is calculated. The performance of the entire portfolio is analyzed with respect to the maintained NSE index (which acts as a benchmark) daily to see if the portfolio of the oil and gas sector stocks beats the benchmark of NSE index.

Task 1: Choosing one sector from Nifty Sectoral analysis and finding out top performing companies from the factsheet of the selected sector (Nifty Oil and Gas Sector).

A list of gas companies

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Task 2: Creating Oil and Gas Index of top 10 listed companies.

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Data tracking of the stock: Daily data for the NIFTY Oil and Gas index components was collected from 21st June 2024 to 11th July 2024. The data collection process included the following metrics for each component:

* Stock Prices: Daily closing prices for each company.
* Market Capitalization: Daily market capitalization values. Calculated by multiplying number of outstanding shares with stock price.
* Percentage of Market capitalisation: As for the information on market capitalization, large industries will be weighted more on the index and small companies will be weighted less. It is to be noted that the weight of each company considered here should amount to 100% in all. For instance, if Company A and Company B have market capitalization of ₹10,000 crore and ₹ 5000 crore while selecting the stocks, respectively, Company A stock will then have a weightage of 67%, and Company B will command 33% of the overall weightage.
* Number of shares: Total shares outstanding for each of the firms is provided in this column and it is one of the essential figures in the determination of market capitalization of the firm in question.
* Percentage change in price: Represents the variation in stock price as compared to the previous day’s closing price has been calculated in percentage. Calculated as follows: (Present stock price – Previous stock price)/Previous stock price \* 100
* Index weight: Calculation of index point as per the market capitalisation and change in price. Calculated as follows: Percentage in Market Capitalisation \* Percentage change in price
* Base Index: Every index has a base value on start of that index. Here the base index is considered as 1000.
* Index change: Index change every day due to change in price of the stock. Here the change in index is calculated as: Previous day index\* Index Weight
* The data was sourced from reliable financial data providers and the National Stock Exchange (NSE) website to ensure accuracy and consistency. The Index was maintained till 11th July 2024.

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Task3: Company selection for Custom Index (Portfolio)

* Determine the P/E Ratio: Determine using the Price-to-Earnings (P/E) ratio for each of the selected stocks. The measure of P/E ratio shows the position of the current stock price in terms of its EPS, hence telling the valuation of the stock.
* Determine the Industrial P/E: Then identify the P/E multiples that prevail in this sector with the help of medians of all the P/E ratios of the IT stocks you have selected. This ratio, Industrial P/E, can be used to estimate the total valuation of the entire IT sector
* Evaluate the Value: Now, compare the P/E ratios of individual stocks to the industry P/E ratio: The Industrial P/E should be used to determine whether a stock is overpriced, for the simple reason that if its P/E ratio is greater than the Industrial P/E, then it's overpriced. It therefore goes without saying that a stock may be cheap, meaning that it has a P/E ratio below the Industrial P/E.

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Task 4: Selection of Value Based Stocks (Undervalued Stocks)

* Growth in the Top and Bottom Lines
  + Selecting Stocks: It simply means that, if you see earnings and revenues moving up then the stock would be great to invest in.
  + Justification: This portrays a rather steady progression, which confirms the notion that the business is indeed strengthening its position of profitability and overall financial health.
* Topline Boost the bottom line Reduce
  + Stock Selection: Buy the stock even when revenues are up, and profits down so be wary of companies that show such trends.
  + Justification: Margins of this company may be temporarily under pressure, but the company could be investing in impressive expansion plans, and overall profit-making capability may be promising.
* Topline Reduce with the Bottom Line Boost Your
  + Stock Selection: Select the stock that has increased its profits even though its sales showing downward trend.
  + Justification: It can mean that the business is achieving the objective of tackling certain costs or improving the productivity of processes, and it is a positive thing.
* Declining Top and Bottom-Line
  + Stock Rejection: When adopting this criterion, one should refuse to invest in a company’s stock if both earnings and revenues are in an unfavourable state (declining).
  + Justification: This suggests a less profitable business that may be experiencing certain operational or financial problems that could lead to its shut down.
* Variations in Money Matters
  + Choosing Stocks: The recommended amount should be spent if the sales or profit fluctuation does not cross more than 15% while staying more than 10%.
  + Presumption: Some fluctuations are normal and can be attributed to various cycles of business therefore depict gradual improvement.
* Significant Annual Variation
* Ignore Fluctuation: Seasonal change affects should not exceed 25% of the previous year’s value and anything more should be discarded.
* These could have been due to specific events that are not likely to transpire again and as such, they may not portray the true picture of the company’s performance.
* PAT (profit after taxes) is negative
  + Stock Rejection: If the negative PAT incidents sum up to more than the 50% of the total occurrences of the event in the last five years, the stock should be rejected. For example, PAT may decline in the current year or reveal a recent decline that can indicate a deterioration of financial sustainability and may, therefore, signal long-term issues.
* COVID Year Consideration
  + Ignore Anomalies: During the Covid year 2020-2021, allow for variation in financial patterns and trends. Rational for the purpose of analysing the problem, the distortion becomes quite clear due to specific extra-ordinary conditions as a result of the pandemic hence it cannot be considered as anomalies of the business.
* Prolonged Examination
  + Additional Analysis: If the financial analysis cannot conclude anything based on a 10- year period, then analyse data from the past 5 years.
  + Goal: This is further believed to give the decision-makers a better platform by offering a shorter period of time that offers more accurate information on the present trends and rate of growth for the business.

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Task 5: Selection of Growth Based Stocks (Overvalued)

* Identification of Criteria Stocks:
* Focus on stocks that have their P/E ratio higher than the industry P/E ratio. A higher P/E ratio often suggests that the market holds a positive opinion, expecting these firms to achieve greater profit growth in the future than industry average.
* Examination
  + PEG (Price/Earnings to Growth) Ratio: To evaluate whether the company’s growth rate is sufficient to warrant a high P/E ratio, use the Price to Earnings Growth ratio also known as the PEG Ratio.
  + Interpretation: The value lower than one can indicate that this stock is potentially attractive for purchase since the price has been lowered correspondingly to the forecasted profits growth.
* Selecting a Company
* Choose companies with PEG ratio less than 1.5, these ranges supported the view that the stock has an appropriate valuation that reflects its growth profile and if PEG is negative reject the company.

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Task 6: Ranking of Growth and Value Picks and Creation of Portfolio

* Choosing Stocks: The first step in the ranking procedure is to compile a list of selected growth and value stocks. Value companies are those with a low price to earnings ratio (P/E ratio); growth stocks have a strong potential for growth.
* Analysis of Financial Ratios: Examine the following financial ratios for every chosen stock to evaluate its performance and overall financial health:
  + Current Ratio: Liquidity scale assesses the capacity of paying current liabilities and how effectively a business enterprise meets its short-term obligations. Its is higher the better.
  + Quick Ratio: An availability measure of its instantaneous character excluding stock from current assets.
  + Debt to Equity Ratio: To show the way in which assets of the business were financed through the combination of debt and equity.
  + Interest coverage ratio (ICR): ICR represents the number of times the business can meet the obligation of interest on the current number of debts.
  + Return on Equity (ROE): Determines the return on equity that is owned by shareholders to highlight the firm’s profitability.
  + Net Profit Margin: Measures an organization’s ability to turn total revenues into profit.
* Analysis of Comparative Sectors: To assess a company's position in the industry, its financial ratios are compared to the averages for the sector. This comparison analysis facilitates comprehension of each company's performance in relation to its industry peers.
* Method of Ranking: In addition to other qualitative elements like market position, managerial effectiveness, and potential for future growth, each firm is graded according to its financial ratios.





Task 7: Asset Allocation & Net Asset value (NAV)

* Initial Fund Allocation
  + Total Funds Available: A corpus of 10 crores is being utilized as the initial amount at the time of starting the organization.
  + Fund Allocation Based on Ranking: Rank based funding where funds are allocated towards each specific stock in a manner that corresponds to its rank within the portfolio ensures that a proportionate distribution is attained.
  + Shares Calculation: If the total amount of cash available was divided among all of the stocks, then to determine the number of shares of each stock that should be bought one should divide the above value by the current price of the stock.
* Fixed Asset Allocation and Number of Shares
  + Stable Allocation: This is to maintain a standard when dividing the shares that no new division of shares will be made to accommodate more shares.
  + No further Trades: After allocating investments and portfolio the frequency of the trading activity is expected to reduce resulting in a constant AUM of ₹ 10 Crores.

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* Calculate the NAV:
  + NAV Determination: NAV refers to the net asset value of the mutual fund fluctuating as the price per unit varies with the overall assets of the fund.
  + Market Value computation: In so far as the state of the market is concerned, then each day, an aggregate value of all owned stocks is computed to arrive at the value of the portfolio.
  + Net asset value is calculated by totalling up the total worth of the portfolio and then dividing this by the total quantity. This means if on any given date, the ‘total Net Asset Value or NAV is ₹10 and total assets prevailing in the market for the portfolio is of ₹10 Crores and number of units are 10,000,000.

Task 8: Keeping track of both Index and Portfolio daily and analysing their performance.

* Daily NAV Adjustment
  + Price Updates: With these call options, every day the value of stocks rises or declines depending on the current market situation.
  + NAV Adjustments: To give a true picture of its performance, the NAV is computed to reflect on the closing value.
  + Performance Monitoring: To enhancing the investors’ transparency, stock performance and changes in the NAV was regularly monitored and disclosed.

Similarly to the Index, Portfolio was maintained, and NAV was calculated regularly till 11th July 2024.

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**Outcome form the tasks:**

At the end of a 1-month period, change in both Index and Portfolio is calculated and compared. I found out that both Index and Portfolio were racing closely over the period. While analysing both, Index performed 8.19% positive while portfolio showed the growth of 8.06% in NAV.

In the short term, Index beat the portfolio by 0.13%. Since this portfolio is for long term investment purpose, I believe that portfolio will surely beat the index.

I recommend the selected stocks after fundamental analysis of Nifty Oil & Gas sector to the potential investors for their portfolio.

1. **CHALLENGES & LIMITATIONS**

**Challenges:**

Although the aim of the report is to provide enlightening information on the performance of NIFTY Oil and Gas Sector, conducting a fundamental study of the Nifty Oil and Gas sector involves several challenges due to the complex nature of the industry and its exposure to various factors:

* Dependency on Historical data: Fundamental analysis highly depends on historical data to predict and forecast future performances. However, past performance isn't always a dependable predictor of future results. Unexpected events, such as geopolitical crises or technological advancements, can greatly influence the industry and make historical data less applicable.
* Information Overload: The oil and gas sector are full of huge structured and unstructured pieces of data that comprise their financial statements, news regarding the market and reports of the industry. It's a humongous task to sort it out for identifying material information. Given resources, care should be taken that the data is accurate and reliable; however, pre-processing could assess the quality across each source.
* Market Volatility: Under various conditions, such as supply and demand, geopolitical events, and other economic variables, the prices of oil and gas fluctuate. Volatility can make people uncertain about future prices or performance of corporations and make forecasting future trends difficult.
* Complexity of Financial Ratios: Fundamental analysis requires a deep understanding of financial ratios and their implications. The figures derived from financial ratios can be quite problematic, especially for industries as complex as oil and gas.

**Limitations:**

As every method has its pros and cons, fundamental analysis also comes with its own limitations. They are:

* Backward-Looking: Much of the analysis involves using past data and performance to predict the future. It may be so that the past gives an indication, but it does not describe future trends very well-especially for fast-moving industries, or in great periods of economic and political change.
* Time-Consuming: The detailed fundamental analysis entails a large amount of research and study that could be very time-consuming. This may weigh heavily on investors with little time or resources.
* Subjectivity: Indeed, fundamental analysis often involves judgment on the quality of management and future earnings predictions. Other analysts may interpret the same information differently and reach different conclusions.
* Market Efficiency: At any efficient market, the price of stock reflects most of the information available to the public almost instantaneously. It is tough to develop a low- or high-priced stock using simple analysis.
* Unforeseen events: Events not likely to be predicted by fundamental analysis include natural disasters, geopolitical conflicts, or technological changes. These will make a big difference in the price of the stock.
* Limited scope: The sole intent of fundamental analysis is to derive an institution's intrinsic value based entirely on the entity's actual performance and future prospects; it does not completely cover other influences on stock prices, including market sentiments, investors' activities, and general economic conditions.

1. **LEARNINGS**

Fundamental analysis is a method used to evaluate the intrinsic value of an asset by examining related economic, financial, and other qualitative and quantitative factors. Learnings I gathered during analysis of Nifty Oil and Gas Sector are:

* Clear understanding of Financial Statements: While working on this project, I gained a thorough understanding of financial statements along with its particulars and what does they stand for.
* Understanding the Moats: Sustainable Competitive Advantage which are predictable depending upon the product type, company, brand and market capitalization.
* Comparative Analysis: Comparing the financial statements of various companies internally as well as with their peers gave insights to not only the sector but also of each company.
* Ratio Analysis: As a Data Analysis tool, practical experience of analysis of financial ratios helped in forecasting and predicting the growth of the company which helped in choosing stock for our Portfolio.
* Competitive Landscape: This project helped me in understanding the competitive landscape of the oil and gas sector, including the major players, market share, and barriers to entry, through which I can help investors identify potential winners and losers.
* Selection criteria of the Portfolio: From this project, two major criteria of the selection of stocks for portfolio were P/E and PEG ratio for Value Picks and Growth Picks respectively.

1. **REFERNCES**

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