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Financial Health Analysis of Gas Industries with Special Reference to Petronet LNG Limited

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Abstract

Financial Ratios are essential aspect of a company's financial health. Financial ratios quantify many aspects of a business and are an integral part of analysing financial statements. It helps us understand the how company is performing over the years. This paper studies the financial strength and weakness of oil and gas companies. We perform a comparative analysis in terms of the financial ratios of different gas companies. Tools like SPSS and Excel were used to analyse the secondary data. Liquidity Ratio, Leverage Ratio, Probability Ratio, Solvency Ratio and some other ratios were used. It helped us determine the financial health of various public oil and gas companies Petronet LNG Ltd. (PLL), Oil and Natural Gas Corporation (ONGC) and Gas Authority Of India Ltd. (GAIL). All three companies had some ratios better than other two companies. ONGC turned out to be best performing company when compared to GAIL & PLL.

Key Words: - Oil and Gas companies, Financial Ratios, Performance, P/E Ratio, Dividend, Invest

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I. INTRODUCTION

A financial ratio or accounting ratio is the relative importance of two numbers taken from a company's financial statements. Commonly used in accounting, many standard ratios are used in an attempt to assess the overall financial health of a business or other organization. Financial ratios are available to managers within the company, current and potential shareholders (owners) of the company, and creditors of the company. Financial analysts use financial ratios to compare the strengths and weaknesses of various companies. If the stock of 1 company is traded in the financial market, the market price of the stock is used in certain financial ratios. Financial ratios quantify many aspects of a business and are an integral part of financial statement analysis. Financial ratios are categorized based on the financial aspect of the business that the ratio measures. The liquidity ratio measures the availability of cash to pay debts.

The activity ratio measures how quickly a company converts non-cash assets into liquid assets. The debt ratio measures a company's ability to repay its long-term debt. Profitability ratios measure a company's use of its assets and control of its expenses to generate an acceptable rate of return. The market ratio measures the reaction of investors to owning shares of a company and the cost of issuing them. It focuses on shareholder return on investment and the relationship between return and investment value in company's shares [2].

In this Study, we will be using financials ratios of the various public oil and gas companies to analyse their financial health. Liquidity Ratio, Leverage Ratio, Probability Ratio, Solvency Ratio and some other ratios will be used. It will us determine the financial health of various public oil and gas companies Petronet LNG Ltd. (PLL), Oil and Natural Gas Corporation (ONGC) and Gas Authority Of India Ltd. (GAIL). A comparison between these companies will be performed. This will help us determine which company will be best for someone to invest in.

Petronet LNG Ltd is an Indian oil and gas company established by the Indian government to import liquefied natural gas (LNG) and set up LNG receiving terminals in the country. It is a joint venture initiated by the Natural Gas Authority of India (GAIL), Oil and Natural Gas Corporation Limited (ONGC), Indian Oil Corporation Limited (IOC) and Bharat Petroleum Corporation Limited (BPCL) [3]. GAIL (INDIA) Limited was incorporated under the Indian Companies Act 1956 to expedite and optimize the efficient and economical utilization of natural gas and its fractions for the benefit of the national economy [4]. Maharatna ONGC is India's largest crude oil and natural gas company, accounting for 71% of India's national production. Crude oil is the raw material used by downstream companies such as IOC, BPCL, HPCL and MRPL (the latter two are subsidiaries of ONGC) to produce petroleum products such as gasoline, diesel, kerosene, naphtha and LPG cooking gas [5].

II. RELATED WORK

A thorough analysis of relevant research publications in the area of financial health and financial ratios is provided in Table 1.

Table 1: Detailed survey of related papers

Reference	Title	Year of publication	Authors	Description	Findings
[6]	Financial Health Analysis of Large Scale Oil and Natural GasCompanies in India – With Special Reference to Selected Oil and Natural Gas Companies	2015	G.Kalaiselvi and Dr.Shunmugannda Vadivel	Attempt to analyze and forecast the financials of GAIL, ONGC, IOC, BPCL, HPCL and OIL over 10 years by applying the 2 Altman Z-Score model 2	Between 2005 and 2010 and 2012, Oil was in the too healthy zone for 7 years, and in the next 3 years it was in the healthy zone
[7]	Financial Ratios and Corporate Endurance: A Case of the Oil and Gas Industry	1993	Kevin c.w. chen, chi-wen jevons lee	Survival analysis is applied to study a class of financial distress when a financial analyst can identify events that trigger the	The results show that the liquidity ratio, leverage ratio, operating cash flow, exploration success, age and size are important factors affecting

				dynamic process of business adversity and wants to know how long a business can tolerate adversity.	the endurance of the company.
[8]	A Study on Financial Performance of Oil and Natural Gas Companies in India	2012	Alekha Chandra Panda	Attempts to understand the role of the oil and gas sector in the economic development of India. This study highlights the financial performance of oil and gas companies through 2011-2012	Downstream companies have lower net profit margins than upstream companies
[9]	Financial performance ranking of oil and gas companies in india using topsis method	2016	Santosh Kumar Yadav, Rohit Kapoor and Amol S. Dhaigude	Analysis of the financial performance of oil and gas companies using prioritization techniques according to the TOPSIS methodology	Hindustan Corporation ranked #1 in 2011. Bharat Petroleum Corporation limited was second, Reliance third and Gail ltd. 4th, Petronet 5th,

				(Ideal Solution Protocol)	Indian Oil last in 2011
[10]	An Analytical Study of Liquidity and Profitability: Analysis of Selected Oil and Gas Companies in India	2021	Priyanka Meghanathi and Alok Kumar Chakrawal	To examine the financial status and profitability of some Indian oil and gas companies, the study was conducted. From 2016-17 to 2020-21	The main finding of the study is that the liquidity and profitability of Reliance industries Ltd outperforms that of other selected oil and gas companies.
[11]	Financial Leverage and Profitability: Evidence from Oil and Gas Sector of India	2020	Dr. Mohd Taqi, Mr. Rizwan Khan and Mr. Imran Anwar	To measure the impact of financial leverage on the financial performance of companies in the oil and gas industry in India.	Study concluded that the leverage is positively correlated with the profitability of Indian companies in the oil and gas industry
[12]	An Empirical Analysis of Financial Performance of Selected Oil Exploration and Production Companies in India	2022	P.Venkataraman and Dr. K.Subramaniam	Based on Secondary Data from CMIE Survey of Relations Affecting India Selected Petroleum Exploration and Production	Findings from Oil Exploration Companies demonstrate that companies should focus primarily on short-term assets and liabilities to best meet the demands

				Corporate Profitability over 10 Year Period	of productive operations
[13]	Analysis Of Financial Performance Of Oil And Gas Industry In India	2019	Dr. Parveen Kumar	He painstakingly analyzed the financial performance of oil and gas companies in the public and private sectors from 2006 to 2015.	Private sector companies are said to have relatively high liquidity compared to public sector companies. The availability of liquid assets is necessary to meet the company's short-term obligations, but the existence of excess liquidity is detrimental to the company's profitability
[14]	Analysis Of Capital Structure, Leverage And Long Term Solvency Of Selected Public Sector Oil And Gas Companies In India	2020	Dr. Aniruddha Sarkar	It attempts to critically analyze the capital structure, leverage and long-term solvency of selected public sector oil and	The study highlights a number of related issues. , can be used to formulate appropriate policies and strategies for globalization and

				gas companies in India for the period 2000-01 to 2014-15	liberalization of the Indian economy.
[15]	Liquidity Position Of The Selected Oil And Gas Companies In India	2019	Dr. D. Vengateswari	The study makes recommendations to maintain short-term solvency at an optimal level, all businesses can strive to meet current obligations on time and increase sources of long-term funding to meet their ongoing needs	A healthy liquidity position is essential to manage from meeting Periodic operating liabilities and response from a business continuity perspective
[16]	A Study On Determinants Of Market Value Added Of Selected Oil And Natural Gas Companies In India	2019	Kalaiselvi. G	Try to identify the factors that determine the added value in the market. In this study, a sample was taken from six companies in the Indian oil and gas industry	This study concludes that GAIL (India) Limited, Bharat Petroleum Corporation Ltd., Indian Oil Corporation and Hindustan Petroleum Corporation Ltd.

				with total assets exceeding Rs 30,500 crore in 2013-14	add net operating profit after tax as a stronger determinant of market value, while Oil and Natural Gas Corporation Limited and Oil India Ltd., on the other hand, do not have strong market determinants of added value
[17]	Diagnosing the Financial Distress in Oil Drilling and Exploration Sector of India through Discriminant Analysis	2019	Anita Nandi, Partha Pratim Sengupta, Abhijit Dutta	They attempted to determine the financial status over 5 years of 12 selected companies in the sector in India	The study showed that 75% of the companies were in areas with a healthy financial situation. The results show that the Z-scores are well explained by the need for working capital/total assets.

III. DATA ANALYSIS

- This work is based on secondary data.
- Data was collected from various websites.
- Ratio analysis was performed.

- Results and findings are in section IV.

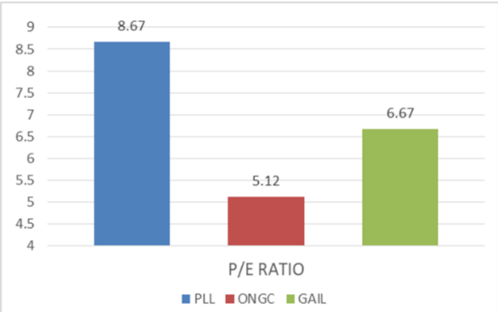
a) Various Financial Ratios :-

PARTICULAR	PLL	ONGC	GAIL
P/E RATIO	8.67	5.12	6.67
P/B VALUE	2.13	0.87	1.24
DEBT TO EQUITY RATIO	0.34	0.03	0.11
EV/EBITA	4.45	3.48	4.62
PRICE TO EARNING GROWTH	0.73	1.38	0.39
RETURN ON EQUITY	26.1	16.99	18.64
INTEREST COVERAGE RATIO	17.52	25.83	91.02
CURRENT RATIO	3.18	0.98	1.1
ASSET TURNOVER RATIO	204.4	32.71	106.12
DIVIDEND YIELD	5.14	7.78	6.81

b) Comparison between ratios of companies is shown as:

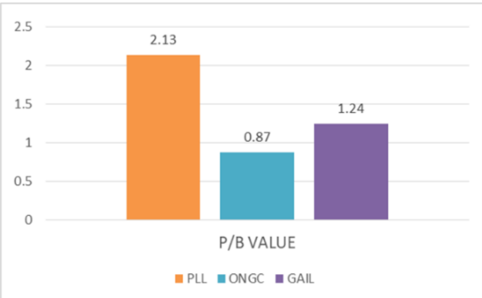
- **P/E RATIO**

The price-to-earnings (P/E) ratio relates a company's share price to its earnings per share.



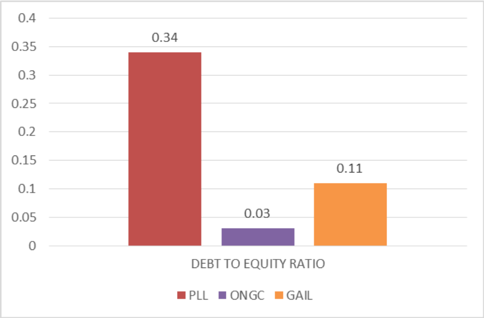
- **P/B VALUE**

The P/B ratio measures the market's valuation of a company relative to its book value.



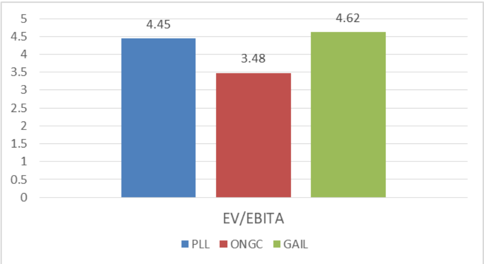
- **DEBT TO EQUITY RATIO**

The debt-to-equity (D/E) ratio shows the proportion of equity and debt a company is using to finance its assets.



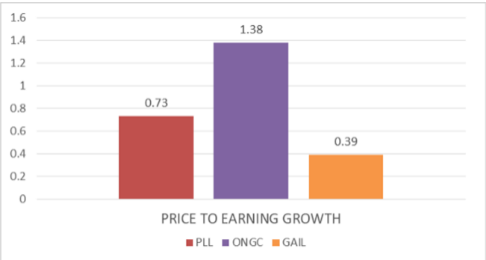
- **EV/EBITDA**

EV/EBITDA is a ratio that compares the enterprise value (EV) of a company to its earnings bef ore interest, taxes, depreciation and amortization (EBITDA). The EV/EBITDA ratio is often use d as a valuation measure to compare the relative value of different companies



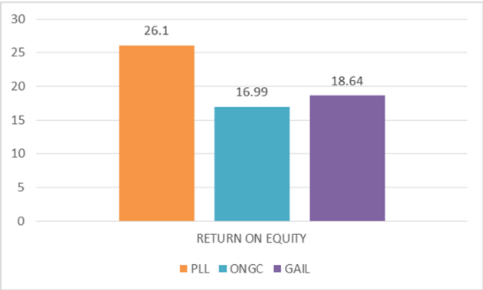
- **PRICE TO EARNING GROWTH**

P/E Growth and Dividend Yield (PEGY Ratio) Developed by legendary investor and fund mana ger Peter Lynch



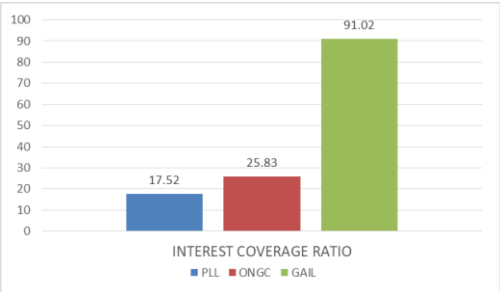
- **RETURN ON EQUITY**

Return on Equity (ROE) is a measure of a company's net income divided by equity.



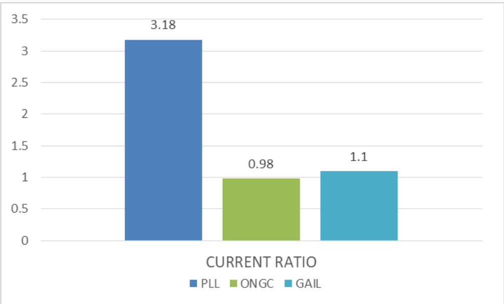
- **INTEREST COVERAGE RATIO**

The interest coverage ratio measures a company's ability to pay interest due on outstanding debt.



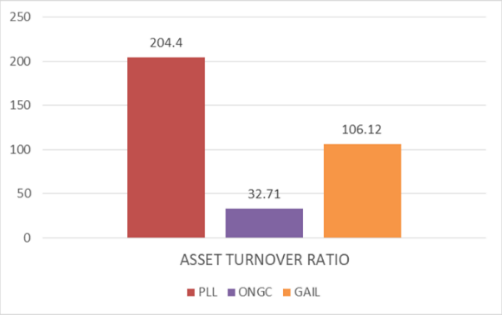
- **CURRENT RATIO**

The current ratio compares all of a company's current assets to its current liabilities.



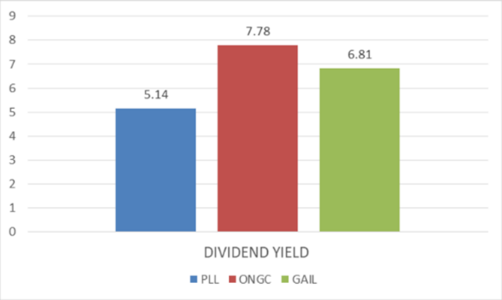
- **ASSET TURNOVER RATIO**

Asset turnover is the ratio of total sales or revenue to average assets.



- **DIVIDEND YIELD**

Dividend yield – expressed as a percentage – is the amount a company pays out to shareholders who own its stock divided by its current price.



c) Objectives:

1. To study the financial strength and weakness of gas companies in India.
2. To perform a comparative analysis in terms of the financial ratio of different gas companies.

We have specified these three objectives for our study. All the ratios are mentioned in part b of this section.

d) Design of Study:

The design of the study was a ratio analysis. Researcher got the data through various websites. Analysis was done using simple analysis tools Excel and SPSS.

IV. RESULTS AND FINDINGS

- ONGC as observed from ratio analysis the company have good valuations i.e it is comparatively undervalued and have almost debt equal to equity or have 0 debt which makes the company free from risk but it also means it lacks growth perspective. As the debt of the company is low the financial leverage is also low which means cost of their financing is high compared to others. The gives very good dividend which very important for the shareholders as it keeps them invested in the company.
- PLL as observed from ratio analysis has a good ROE which it has converting its equity financing into profits consistently. This is a gas company is which growing constantly and has the potential to grow further and give its shareholders decent returns. Company also has more than 3 times assets than its liabilities this shows very low risk of the company going insolvent.
- GAIL as observed from ratio analysis has good growth perspective as it also has best PEG Ratio although debt of the company is low. The interest paying is also very good in GAIL this means if they can increase some debt they won't be facing problems in paying of the interest. GAIL comes up as 3 best among the 3 companies.

This paper consists of following points:

- Important financial ratios were taken and same are mentioned above. Ratio analysis were mapped with objectives and mentioned in section III.
- Financial Ratios are determining financial health of the company.

Significance and Limitation:

Despite of performing ratio analysis and finding out the financial health of the companies, although financial ratios are important but they are not the only factors influencing the financial health of the companies. There are other fundamental factors that were not analysed in this that influences the performance of the company

V. CONCLUSION

The research begins with an aim to study the financial ratios of major gas companies in India and to perform a comparative analysis of different companies of the gas sector as ratios of a company is one of main factors in determining the financial health of a company. This research was carried out by collecting secondary data in the form of financial ratios. There 3 companies selected for the analyses i.e. Petronet LNG Limited (PLL), Oil And Gas Corporation (ONGC), Gas authority of India Limited. (GAIL) as they belong to gas sector. Major ratios were taken like P/E Ratio, P/B Ratio, Debt to Equity Ratio, EV/EBITA, Dividend Yield, Price to Earning Growth (PEG Ratio), Interest Coverage Ratio, Return On Equity and Current Ratio.

And to conclude, we observed that ONGC should best choice for investing according to ratio analysis as it gives best dividend, has almost 0 debt and it is undervalued in the market but is has low growth perspectives. On the other hand if someone is looking for investing opportunity with great growth and can bear some risk then they should invest in GAIL or PLL as they have great growth perpectives. These 3 companies are best performing in the gas sector. This also show that only financial ratios are not important but there are many other factors also which we didn't analyse in this study.

From this Project, it can be concluded that:

1. Financial Ratios play an important role in determining financial health of a company.
2. By comparing ratios of 3 major gas companies of India we got to know which is best to invest in near future.

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