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Solvency analysis of a public sector undertaking: A Study of Oil and Natural Gas Corporation Ltd. (ONGC).

Dr. Javed Iqbal[1], Mr. Sheikh Mohmad Arif[2]

[1]Assistant Professor, School of management studies BGSBU Rajouri, J&K-185234
[2]Research Scholar, School of management studies BGSBU Rajouri, J&K-185234

ABSTRACT

A financial statement is a collection of data organized according to logical and consistent accounting procedures. Its purpose is to convey an understanding of some financial aspect of a business firm. Financial analysis also referred to as financial statement analysis or accounting analysis refers to an impost of the viability, stability and profitability of a business, sub business or study. It is performed by professionals who prepare reports using ratios that make use of information taken from financial statements and other reports. These reports are usually presented to top management as one of their bases in making business decision. The present paper explains in detail the analysis of financial statements of Oil and Natural Gas Corporation Ltd. It provides insights into widely used financial tool, ratio analysis. So every company will be interested in knowing its financial performance. The paper entitled "Solvency analysis of public sector undertaking A study of ONGC Ltd " throw light on overall performance of the company. On the basis of interpretations, findings and suggestions the paper concludes that there is a rise in the total debt of ONGC Ltd. Which is distressing its overall liquidity, solvency and overall performance therefore the researchers suggest that there should be a balanced solvency to be opted by the company in order to achieve more stability and future growth.

KEYWORDS: Capital Gearing Ratio, Debt-Equity Ratio, Solvency Ratios, Solvency Ratio.

I. INTRODUCTION

A financial statement is an organized collection of data according to logical and consist ant accounting procedures. Its purpose is to convey an outstanding of some financial aspects of a business firm. It may show a position at a moment of time as in the case of balance sheet, or may reveal a series of activities over a given period of time, as in the case of an income statement.
'Solvency' the term of great importance for everyone concerned directly or indirectly to the company. Solvency in finance or business is the degree to which the current assets of an individual or entity exceed the current liabilities of that individual or entity. Solvency can also be described as the ability of a corporation to meet its long-term fixed expenses and to accomplish long-term expansion and growth. This is best measured using the Net Liquid Balance (NLB) formula. In this formula solvency is calculated by adding cash and cash equivalents to short-term investments, then subtracting notes payable. A key metric used to measure an enterprise's ability to meet its debt and other obligations. The solvency ratio indicates whether a company's cash flow is sufficient to meet its short-term and long-term liabilities. The lower a company's solvency ratio, the greater the probability that it will default on its debt obligations.

The solvency ratio is only one of the metrics used to determine whether a company can stay solvent. Other solvency ratios include debt to equity, total debt to total assets, and interest coverage ratios.

II. COMPANY PROFILE

Company profile Oil and Natural Gas Corporation Limited (ONGC) is an Indian multinational oil and gas company headquartered in Dehradun, Uttarakhand, India. It is a Public Sector Undertaking (PSU) of the Government of India, under the administrative control of the Ministry of Petroleum and Natural Gas. It is India's largest oil and gas exploration and production company. It produces around 77% of India's crude oil (equivalent to around 30% of the country's total demand) and around 62% of its natural gas. ONGC is Indian National Oil Company and the most valuable public sector enterprise with a majority stake held by the government of India. The company is governed by the companies' act 1956. The financial performance and physical targets are determined on the basis of the memorandum of understanding signed with the ministry of petroleum and Natural Gas. The aspects such as the company's functioning, performance management, corporate governance, corporate social responsibility, and sustainable development are regulated as per the guidelines of the Department of Public Enterprises.

III. JUSTIFICATION OF THE STUDY

Finance is primary requirement of any project whether it is industrial or business. The success of any business depends upon its financial performance. Keeping in view the above basic factors one has to be very careful in the acquiring, investment, and planning of finance. How the company is performing financially, plays a vital role in profitability, feasibility, growth and attracting the prospective investors. A company's financial performance also helps to attract the investors and financial institutions. Keeping in view all above things the researcher has selected to find out solvency analysis of ONGC Ltd.

IV. REVIEW OF LITERATURE

Taqi Muhammad (2013), in his research paper evaluated the performance and efficiency of mineral and metal trading corporation during the period from 2000-01 to 2010-11 using various financial and statistical tools for analysis and interpretation of the data obtained basically from the published reports by the corporation. Researcher examines that the profitability position of the corporation is not very impressive. The gross and net profit ratio does not show a good indication regarding profitability. The main reason of low profit is very high cost of sales and other related direct expenses.
Roy Manish & Sabah Naeem (2014)in their paper analysis the performance of Oil And Natural Gas Corporation by using ratio analysis tool particularly those which are related to financial statement and find out the strength and weakness of the company and their position in the market for this balance sheet of 2010-2013 is used.

Kumar Aditya (2016) "An appraisal of financial solvency of ONGC" From the study of five years (2012-2016) financial data it has found that the profit earning capacity and short term investing capacity of ONGC is quite good. The study has suggested that the value of EBIT should be high in order to attain a maximum productivity capacity of assets. Through this study it indicates that the fluctuating trend might shift the company into a situation of bankruptcy.

Izhar Ahmed (2016) The research paper is authored to entitle the "Analysis of financial performance of Hindusthan Petroleum Corporation Limited". This study focuses on the analysis of profitability position, financial system, profit margin and expenses ratio. This study is based on secondary data for a period of fifteen years from 2000 to 2015. In this duration of study, the researcher has used multiple regression analysis for the testing of the hypotheses. In order to measure the impacts of liquidity, solvency and efficiency on return on investment .The researcher has taken return on capital employed as a dependent variable under return on investment. This study has suggested that HPCL is required good strategies for maintaining the profitability in future.

V. OBJECTIVES OF THE STUDY

1) To understand the concept of Solvency and its significance.
2) To examine and evaluate the Solvency analysis of ONGC Ltd.
3) To study the financial performance in the light of liquidity and solvency of the company.
4) To provide suggestions and conclusion on the basis of findings of the study.

VI. SCOPE OF STUDY

- The study covers analysis of finance performance of ONGC Ltd.
- It indicates solvency, profitability, as well as the financial position of ONGC Ltd.
- It gives an idea of net worth of the company.
- Gives a reflection about the future of the company in the light of financial performance.

VII. RESEARCH METHODOLOGY

This study is micro analytical in nature and is based on secondary data .The data is collected from various resources such as annual reports of the company under study, journals, magazines, news papers and other sources. Annual reports for the period of five years (2013-2017) has been analyzed.

VIII. LIMITATIONS OF THE STUDY

Every research study has their own limitations as this study has also some limitations which are as follows:
1. This research study is based on secondary data the reliability of which will depend upon it audit.
2. Authenticity of the data depends on the annual report of the companies.
3. Lack of prior research studies on the topic is one of the great limitation of the study.
4. Time duration for this study is also a great constraint.

IX. DATA ANALYSIS

Consolidated balance sheet of ONGC Ltd. As on the 31st march 2013 to 31st march 2017
Rs in crores

Particulars	**2013**	**2014**	**2015**	**2016**	**2017**
Liability	**Rs(Cr)**	**Rs(Cr)**	**Rs(Cr)**	**Rs(Cr)**	**Rs(Cr)**
Equity share capital	4277.76	4277.76	4277.76	4277.76	6416.63
Reserves	148250.25	167873.23	176176.64	180466.57	214772.86
Net worth	**152528.01**	**172150.99**	**180454.40**	**184744.33**	**221189.49**
Secured Loan	5259.89	28137.08	18383.86	21599.50	55681.89
Unsecured	15190.95	17451.05	33487.47	31993.29	0.00
Total Debt	**20450.84**	**45588.13**	**51871.33**	**53592.79**	**55681.89**
Minority Interest	1946.65	2912.54	2473.13	2506.71	4124.30
Current Liabilities	52187.36	72902.34	67844.99	74430.55	63687.79
Provisions	26344.49	31356.8	35038.83	40936.87	25522.17
Total CL and Provisions	78531.85	104259.14	102883.82	115367.42	89209.96
Total Liabilities	**253457.85**	**324910.8**	**234798.86**	**356211.25**	**370205.64**
Net Block	**49104.07**	**155923.43**	**88928.03**	**185377.13**	**174159.46**
Capital Work in Progress	123926.36	72033.68	154413.13	68595.02	57169.28
Investment	2128.18	4745.9	4749.14	8982.24	61159.71
Loans and Advances	30503.67	36897.85	44092.24	47696.75	43009.83
Cash and Bank Balance	19619.05	24480.13	16096.92	25783.92	13,013.63
Inventories	12780.39	14801.46	10606.22	10089.74	11364.08
Sundry Debtors	15395.61	16028.36	18797.01	9686.45	10329.62
Miscellaneous Expenses	0			0	0

		0	0		
Total Assets	**253457.35**	**324910.8**	**337682.7**	**356211.25**	**370205.61**

Source: Annual reports of ONGC Ltd. From 2013 to 2017

Consolidated profit and loss account of ONGC Ltd. As on 31st March 2013 to 31st March 2017 ……… Rs in Cr…………

Particulars	**2013**	**2014**	**2015**	**2016**	**2017**
Sales Turnover	165848.84	178205.18	166066.86	142927.12	142148.96
Less Excise	3445.67	3728.13	5177.12	11429.25	0.00
Net sales	**162403.17**	**174477.05**	**160889.74**	**131497.87**	**142148.96**
Add: Other incomes	5490.04	6893.71	5964.44	833.37	8506.26
Total income	**167893.21**	**181370.76**	**166854.18**	132331.24	150655.22
Less Expenses					
Raw-material consumed	61730.35	68276.75	61912.64	35877.40	37839.10
Power and Fuel	218.20	286.60	876.30	916.57	1070.49
Other manufacturing Expenses	30151.29	6834.66	20926.54	5814.41	6855.14
Employee Cost	2458.51	2530.88	9361.34	2712.81	12146.62
Miscellaneous expenses	14089.63	39296.71	12523.84	38005.48	37300.91
Depreciation	12094.23	16580.90	18032.97	18008.68	17770.71
Other written off	11045.65	8488.13	10951.42	6079.72	5203.94
Total Expenses	131787.86	142294.63	134585.05	107415.07	118186.91
Operating profit (EBIT)	**36105.71**	**39076.13**	**32269.13**	**24916.17**	**32468.31**
Less interest	483.80	624.34	2862.38	2157.32	2953.44
EBT	35621.91	38451.79	29406.75	22758.85	29514.44
Less Tax	12751.90	12760.39	9697.41	8416.98	9561.73
Adjusted PAT (Net Profit)	**22870.01**	**25691.4**	**19709.34**	**14341.87**	**19952.71**

Source: Annual reports of ONGC Ltd. From 2013 to 2017

X. Ratio Analysis

Ratio Analysis A ratio is a simple arithmetic expression of the relationship of one number to another. It may be defined as the indicated quotient of two mathematical expressions. According to Accountant's Handbook by Wixon, Kell and Bedford, "a ratio is an expression of the quantitative relationship between two numbers". Ratio analysis is a technique of analysis and interpretation of financial statements. It is the process of determining and presenting the relationship of items and group of items in the statement.

1. Debt-Equity Ratio:

Debt-Equity Ratio also known as external –internal ratio Equity ratio is used to measure claim of outsiders and shareholders against the assets of the firm.

$$\text{Debt Equity Ratio} = \frac{\textbf{Outsiders fund}}{\textbf{Sharesholders funds}} \times 100$$

Table 1 Statement of outsiders funds to share holders fund Rs in crores

Year	Outsiders fund	Shareholders Fund	Ratio
2013	20450.84	152528.01	13%
2014	45588.13	172150.99	26%
2015	51871.33	108454.40	28.74%
2016	53592.79	184744.33	29%
2017	55681.89	221189.49	25.17%

Source: Annual reports of ONGC Ltd. From 2013 to 2017

Interpretation:

The above table shows the relationship between outsider's funds and shareholders' funds, as it is found from this table that outsiders fund used by the company is increasing very much from 13% to 29% i.e. from 2013 to 2016, but decreasing in 2017 to 25%.

Funded Debt to total Capitalization Ratio:

The ratio establishes a link between the long term funds raised from outsiders and total long term funds available in the business.

$$\text{Funded debt to total Capitalization} = \frac{\text{Funded debt (long term debt)}}{\text{Total capitalization}} \times 100$$

Table 2 Statement of funded debt to total capitalization Rs in crores

Year	Funded Debt	Total Capitalization	Ratio
2013	20450.84	172978.85	11.82%
2014	45588.13	217739.12	20.93%
2015	51871.33	232325.73	22.32%
2016	53592.79	238337.12	22.48%
2017	55681.89	276871.38	20.11

Source: Annual reports of ONGC Ltd. From 2013 to 2017

Interpretation:-

The table depicts the relationship between funded debt and total capitalization, as the tables reflects that debt is increasing continuously from 11.82% to 22.48% i.e. from 2011 to 2016, in 2017 it shows decrease of 2.53%.

3. Proprietary Ratio or Equity Ratio:

This is also known as shareholders to total equities ratio or net worth to total assets ratio. This ratio establishes the relationship between shareholders funds to total assets of the firm.

$$\text{Proprietary or Equity Ratio} = \frac{\textbf{Shareholders fund}}{\textbf{Total assets}} \times 100$$

Table 3 Statement of shareholders funds to total assets Rs in crores

Year	Shareholders Fund	Total Assets	Ratio
2013	152528.01	253457.35	60.17%
2014	172150.99	324910.8	52.98%
2015	180454.40	337682.7	53.43%
2016	184744.33	356211.25	51.86%
2017	221189.49	370205.61	59.74%

Source: Annual reports of ONGC Ltd. From 2013 to 2017

Interpretation: - The table reflects relationship between shareholders fund and total assets as the ratio fluctuates from year to year i.e. from 60 to 52, in 2013 to 2014 then decreases from 53 to 51 and shows increase in 2017.

4. Solvency Ratio:

The ratio indicates the relationship between the total liabilities to outsiders to total assets of a firm.

$$\text{Solvency Ratio} = \frac{\textbf{Total liabilities to outsiders}}{\textbf{Total assets}} \times 100$$

Table 4. Statement of total liabilities to total assets Rs in crores

Year	Total Liabilities to outsiders	Total Assets	Ratio
2013	20450.84	253457.35	08.06%
2014	45588.13	324910.8	14.03%
2015	51871.33	337682.69	15.36%
2016	53592.79	356211.25	15.04%
2017	55681.89	370205.61	15.04%

Source: Annual reports of ONGC Ltd. From 2013 to 2017

Interpretation: - The above table shows the relationship between total liabilities to outsiders and total assets, as it depicts that total liabilities to outsiders increases continuously from 2013 to 2015 i.e. from 8.06% to 15.36%. and in 2016 and 2017 it remains constant.

5. Capital Gearing Ratio:

The term capital gearing is used to describe the relationship between equity share capital including reserves and surpluses to preference share capital and other fixed interest bearing loans. If the preference share capital and other fixed interest bearing loans exceed the equity share capital including reserves, the firm is used to be highly geared. The firm is said to be in low gear if preference share capital and other fixed interest bearing loans are less than equity capital and reserves.

$$\text{Capital Gearing Ratio} = \frac{\textbf{Equity share capital+surplus+reserves}}{\textbf{Preference capital+long term debts}}$$

Table 5 Statement of capital gearing ratio Rs in crores

Year	**Equity share capital + Reserves+ surplus**	**Preference capital+ Long Term Debt**	**Ratio**
2013	152528.01	20450.84	07.45
2014	172150.99	45588.13	03.77
2015	180454.40	51871.33	03.47
2016	184744.33	53592.79	03.44
2017	221189.49	55681.89	03.97

Source: Annual reports of ONGC Ltd. From 2013 to 2017

Interpretation: - The above table shows the relationship between equity share capital, reserves, surplus and preference capital, long term debt as the equity share capital, reserves, surplus decreases from 2013 to 2016 continuously i.e. 07.45 to 3.44%; and in the year 2017 it gets increased at 50% as compared to previous year where the ratio was 03.97%.

XI. FINDINGS

- As concern to operating profit of the company it is decreasing constantly from year to year which is due to increase in cost of goods or total expenses**.**
- The operating profit of the company is also showing a diminishing trend which is due to increase in the outsiders funds because the company is paying more and more interest from last 5 years.
- It has been found that the current liabilities of the company are increasing more and more as compared to the current assets; the ratio of current assets in relation to current liabilities is decreasing but still the company has good composition of current assets and current liabilities.
- The company is relying more on internal equity but from last four years the company is taking more debt.
- In case of total capitalization the funded debt is also increasing from last 5 years which is not good for the company.
- As regarding to shareholders funds in relation to total assets the shareholders funds are also getting decreased from last three years.
- The company has good solvency ratio. Regarding solvency ratio the company is maintaining a good balance of assets that can be claimed by outsiders. But the total liabilities to outsiders in relation to total assets are also increasing. Which will not be good for the company
- As regarding to Capital gearing the internal equity of the company is getting decreased as compared to the total debt because the ratio of capital gearing is showing decline from last 4 years.

XII. SUGGESTIONS

- The operating profit of the company is decreasing which is not good for the company .The company should decrease the cost of goods so that it can increase the operating profit.
- The company should also control on the interest paid to outsiders for the debt, so that the net profit can be increased.
- The company should also maintain a good control on the expenses in relation to total sales so that it can maximize its profit.
- Current assets are also showing decline trend in relation to current liabilities of the company .but the company has a very good mix of current assets and current liabilities and company should try to maintain it in future and should also try to keep control on its current liabilities.
- The company is using more equity than debt the company should maintain an appropriate mix of owner's funds and outsiders funds in financing the firm's assets as doing in last 5 years.
- The equity ratio has been decreasing from year to year which is not good for the company because the company will not be able to maintain the long term solvency position of the company, if this ratio will continuously decrease so the company should maintain a balance between the shareholders funds and the total assets.
- The total capitalization is well mixed but the company should not take more funds from outsiders as it will reduce the net profit of the company.
- Company has very good solvency position and it should try to hold control over total liabilities in relation to outsider's funds also in future. The solvency ratio of the company is good but is increasing from 2013-2015 but show little decrease in last two years which the company has maintained as low as possible. Company is trying to manage more satisfactory or stable long term solvency position of the firm.

CONCLUSION

The total equity is fluctuating from year to year the company should maintain in the proper equity as compared to the total debt which is good for the company. The fixed assets are increasing in a good rate which is good for the company; but in the 2013 and 2014 there is decline in the fixed assets which the company should try to maintain at a good level. The company maintained the good solvency but in the year 2015 it has been increased. The company overcomes to maintain the good solvency position in next two years. Over all the company is doing satisfactory.

REFERENCES

[1] Bagechi, S.K (2004). Accounting Ratios for Risk Evaluation, The Management Accountant, New Delhi, vol.39, No.7, and pp: 571-573.

[2] Das, S. (2010). Analysis and Interpretation of Financial Statements: Case Studies, Thesis submitted in Department of Mining Engineering National Institute Of Technology, Rourkela, vol: 21, issue: 9, pp: 28-45.

[3] Gopinathan, T. (2009). Financial Ratio Analysis for Performance Check: Financial Statement Analysis with Ratios Can Reveal Problem Areas, Journal of financial ratio analysis for performance evaluation, vol: 14, pp: 37-58.

[4] Izhar Ahmed. International Journal of Research in Management, Economics and Commerce. 2016; 6(4). ISSN-2250-057x

[5] Jenkins, L. (2009). Contribution Margin and Breakeven Analysis: Determining when a Company will Realize a Profit, Journal of contribution margin and breakeven analysis, vol: 8, pp: 65-83

[6] Kumar Aditya. Abhinav International Monthly Journal of Research in Management & Technology. 2016; 5(4). Online ISSN-2320-0073,.

[7] VK Kamboj, A Bhardwaj, HS Bhullar, K Arora, K Kaur, Mathematical model of reliability assessment for generation system, Power Engineering and Optimization Conference (PEDCO) Melaka, Malaysia, 2012 IEEE.

[8] Mistry, D. S. (2011). Performance Appraisal of Indian Automotive Industry through Production Trend Analysis, Inverts Journal of Management, vol. 3, No. 1, pp: 33-46.

[9] Sheela, C (2011). A Study on Financial Performance of Wheels India Ltd. –Chennai, Interdisciplinary Journal of Contemporary Research in Business. Vol. 2, issue: 10.

[10] Singh, P. K. (2003). Financial Appraisal of IDBI Bank Ltd. Through Financial Indicators, The Management Accountant, vol. 38, No. 6, pp: 425-433.

[11] Tyagi, Avnish, Ajitsaria, Naman (2005). Financial Analysis of Hindustan Liver Limited, Research journal of business and management, vol: 1, No.2, pp: 1-40.

[12] Taqi Muhammad (2013).Financial appraisal and analysis of minerals and metal trading corporation, Research journal of Management and Social Sciences vol. 9, No. 1, pp: 49-66.

[13] Vanitha, S., & Selvam, M. (2007). Financial Performance of Indian Manufacturing Companies during Pre and Post Merger, International Research Journal of Finance, and Economics, vol: 12, No.2, pp: 7-35.

[14] Roy Manish and Sabah Naeem (2014). Financial statement analysis of ONGC, Research journal of Business and Management Invention, Volume 3, Issue 9, pp: 55-60.

[15] Singh Anurag and Tandon Priyanka (2012). A study of financial performance: A comparative study of SBI and ICICI banks, International Journal of Marketing, Financial Services & Management Research vol.1 Issue: 11, ISSN: 2277-3622.

[16] Okundamiya, M.S, and Ojieabu, C.E. (2010). Performance Analysis and Evaluation of Communication Systems, Journal of Mobile\Communication, vol. 4, No. 2, pp: 47-53.

[17] Tiwari Anshuja, Parray Firdous (2012). Analysis of short-term financial position – A case study of Ranbaxy ltd, A Journal of Economics, and Management vol.1, Issue 6, ISSN: 2278-0629.

[18] Uzma, S. (2010). Financial Indicators for Growth Performance: Comparison of Pharmaceutical Firms in Pakistan, International Conference on Business and Economics Research, vol.1 (2011), IACSIT Press, Kuala Lumpur, Malaysia.

[19] www.moneycontrol.com

[20] www.ongcindia.com