

## Impact of Capital Structure on Financial Performance of Oil and Natural Gas Corporation Limited

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### Abstract

Every Company needs money to run and operate efficiently. Finance plays an important role in the right direction of the company. Adequate finance will go a long way in estimating the present and future needs of an organization and for its smooth running which is essential for optimal capital structure. This research paper the study tries to examine the impact of capital structure on the financial performance of Oil and Natural Gas Corporation Limited. It helps to reveal the financial performance of the company through the techniques of financial statement analysis. The data have been collected from the annual reports of Oil and Natural Gas Corporation Limited during the study period of ten years starting from 2012-13 to 2021-22 and the data analysis have been conducted by using a sample of student t-test. It found that the company has increased debt capital in their business. So that operating profit, Earning Per Share, Owner's equity and return on capital employed has been declined. In this regard, Some financial ratios are used for the analysis findings and suggestions have been framed.

**Keywords:-** Capital Structure, Financial Performance, Debt Equity Ratio, Total Debt Ratio, Gross Profit Ratio, Net Profit Ratio, Return on Equity, Return on Capital Employed.

### Introduction:-

In every business, capital is required for the stage of establishment, development, expansion, diversion etc. because without capital we are not able to start any organization. Capital can be raised from different sources like debentures, preference share capital, equity share capital and retained earnings etc. In any business organization, after determining the amount of capitalization, it is necessary to determine the capital structure. The capital structure of any firm is the combination of different sources of finance used by the firm. It refers to the mix of a firm's capitalization and includes long-term sources of funds. The determination of capital structure is necessary for both other time establishments of business enterprisers and other times of changes in capital structure. The finance managers should always look into the capital structure because it is very difficult to choose the components of capital for an organization such as equity, debentures, preference capital etc. A company's capital structure depends upon its function and how risky the particular business.

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In the capital structure, such a ratio of the various sources of capital is determined. A company with a specific capital structure that is fully capable of meeting the structure of a company has its own part of a specific type of securities, which may be more profitable or riskier for the company in the future. When a company has a lot of fluctuations in its earnings, then it will be assumed that this type of structure is called high capital. The company is taking a lot of risks itself. Such capital structure is called gearing of capital. This capital structure not only significantly reduces the income of equity shareholders in the time of prosperity but also poses great risk to the company as in such years the company is unable to bear the fixed burden on preference shares and debentures. Therefore, the capital structure of the company should be determined very carefully.

It is difficult to imagine an ideal capital structure that can be applied equally to all companies and all businesses, so the capital structure should be determined for each company in each individual situation according to its specific needs. Under the capital and how much part is in the form of share, what part of the equity should be in the form of equity and how much part should be in the form of preference shares. Whereas a certain dividend has to be paid on preference shares. It is not mandatory to pay the dividend on the same equity shares, in fact, there is a need for proper proportion and coordination among the equity share and preference shares. So that, the capital structure can be strengthened. The future growth of the company depends on its capital structure, so it is very important to consider many elements while constructing the capital structure.

#### **Justification of the Study:-**

Capital structure is composed of debt and equity. It consists of debt and equity capital in their structure and it is also known as capital mix. It plays a significant role in the financial performance of the business on the debt capital interest will be given while on share capital dividend is compulsory given on debt capital while the dividend is not compulsory given on share capital but every business having both the capital that is debt and equity in their business but employed of this capital later on depending on the rate of return and cost of capital. However, the capital mix plays a significant role in the overall financial performance of the business. Thus, we have chosen the topic of the research paper is the Impact of capital structure on the financial performance of ONGC Ltd.

#### **Review of literature:-**

**Chandrika Prasad Das & Rabindra Kumar Swain (2018)**, the purpose of the study is to analyse the influence of capital structure on financial performance. They used secondary data and took 50 top manufacturing companies for their study, regression model has been used to analyse the relationship and impact of capital structure. They conclude that there is a significant relationship between capital structure and profitability and has a significant impact on financial performance.

**Dr. Sushil Kalyani and Dr. Neeti Mathur (2017)**, in their study, find out the impact of capital structure on the overall profitability of a firm. The sample of the study was during the period 2005 to 2015 of seven firms listed in NSE and BSE which was belonging to the Oil and Natural Gas Industry of India. They conclude that net sales, degree of operating leverage and growth of assets are significant

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relationships with the net profit ratio of the select firms of Oil and Natural Gas Industry in India.

**Anshu Handoo & Kapil Sharma (2014)**, in their study, identified the most important determinants of capital structure of 870 listed Indian firms for the period 2001-2010. They tested it with regression analysis. They concluded that profitability, growth asset tangibility, size, cost of debt, tax rate, and debt serving capacity have a significant impact on the leverage structure.

**Rupali S. Ambadkar(2019)**, in their study found that the companies have low debt levels in their capital structure. Short-term debt funds are an important mode of financing adopted by Foreign Direct Investment companies. This paper concluded that capital structure has a significant impact on profitability and assets of financing have an effect on performance.

#### **Objectives of the Study:-**

This study has the following objectives:-

- To analyse the concept of capital structure.
- To examine the impact of capital structure on the financial performance of ONGC Ltd.

#### **The hypothesis of the Study:-**

This study has fulfilled the following null hypothesis.

H<sub>01</sub> : There is no significant impact of capital structure on the financial performance of ONGC Ltd.

#### **Research Design:-**

Research Design is a blueprint of research it has defined how to carry out the research work. Every research does require data. In this regard, this study also required data. Data are classified into two categories first one is primary data & another is secondary data but in this study, we have used secondary data. The sources of secondary data are annual reports, budgets, statistical reports, internal reports and any other published document. The objective which was taken is also analysed and the hypothesis is also tested with the help of student's t-test, statistical tools have also been used for analyzing the study.

#### **Limitation of the Study:-**

- This study is based on secondary data.
- It has covered a limited time period.
- Data are grouped and sub-grouped as per the requirement of the study.
- Reliability of data also depends on audit.

#### **Analysis of Impact of Capital Structure on Financial Performance of ONGC Limited:-**

The capital structure consists of debt and equity and to analyse the impact of capital structure on financial performance through ratio analysis because it is measure for effective performance of the

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company. In this research paper, we analyze our data by some ratio's of capital structure and financial performance which help to determine the overall efficiency and effectiveness of ONGC Limited.

**Debt Equity Ratio:** This ratio is used to measure how much financing of debt capital has been taken in the firm in comparison with equity capital. The ratio shows the relationship between the outsider's funds and the shareholder's funds. There should be a capital mix of debt and equity funds in financing the firm. The debt equity ratio helps to the proper calculation of the risk factor of the firm

$$\text{Debt Equity Ratio} = \frac{\text{Total Debt}}{\text{Net Worth}} \times 100$$

**Table No. 1; Statement Showing Debt Equity Ratio ( ₹ in Crores)**

Year	Total Debt (Rs.)	Net Worth (Rs.)	Ratio %
2012-13	98982.68	152528.01	0.65
2013-14	149847.27	172150.99	0.87
2014-15	154755.14	180454.40	0.86
2015-16	142120.18	197813.64	0.72
2016-17	237720.29	194385.22	1.22
2017-18	240610.00	204018.94	1.18
2018-19	259455.08	218140.76	1.19
2019-20	286507.28	205104.60	1.40
2020-21	300667.83	220980.99	1.36
2021-22	302121.48	259502.91	1.16
Mean ( $\bar{x}$ )	217278.72	200508.05	1.06
CAAGR	20.52	7.01	7.94

(Source: Annual Reports of ONGC Ltd. for the year 2012-2013 to 2021-2022)

#### Interpretation:

Table No.1 shows that the Debt Equity Ratio was very fluctuating during the period of study between 2012-13 to 2021-2022. The highest Debt Equity Ratio of 1.40 times was in the year 2019-20 and the least ratio of 0.65 times was seen in 2012-13. Total debt has the highest value of Rs.302121.48 Crores in 2021-22 and least of Rs.98982.68 Crores in 2012-13. Net Worth has the highest value of Rs.25950.91 Crores in 2021-22 and least value of Rs.152528.01 Crores in 2012-13. It has too much variability in Debt Equity Ratio.

**Total Debt Ratio:-** This ratio shows the ability of a company to pay off its total liabilities with its total

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assets. It also measures the financial leverage i.e, a company has total liabilities which is higher level compared with assets so that it is riskier and highly leveraged for lenders. It also indicates the solvency ratio because it implies a more favourable ratio is a lower ratio rather than a higher ratio because more stability of business implies usually a lower debt ratio which shows the low risk to lenders.

$$\text{Total Debt Ratio} = \frac{\text{Total Debt}}{\text{Total Assets}} \times 100$$

**Table No. 2; Statement Showing Total Debt Ratio ( ₹ in Crores)**

Year	Total Debt (Rs.)	Total Assets (Rs.)	Ratio %
2012-13	98982.68	253457.34	0.39
2013-14	149847.27	324910.80	0.46
2014-15	154755.14	337682.68	0.46
2015-16	142120.18	342585.63	0.41
2016-17	237720.29	445397.48	0.53
2017-18	240610.00	460234.94	0.52
2018-19	259455.08	495702.05	0.52
2019-20	286507.28	510017.61	0.56
2020-21	300667.83	543264.61	0.55
2021-22	302121.48	585449.32	0.52
Mean ( $\bar{x}$ )	217278.72	429870.25	0.49
CAAGR	20.52	13.10	3.21

**(Source: Annual Reports of ONGC Ltd. for the year 2012-2013 to 2021-2022)**

**Interpretation:** Table No.2 shows the situation of the Total Debt Ratio. The highest value of 0.56 times was shown in 2019-20 and the least of 0.39 times was in 2012-13. In Years 2013-14 and 2014-15 remain the same at 0.46 times. Similarly, the year 2017-18, 2018-19 and 2021-22 remain the same at 0.52 times. It showed consistency and fluctuation also during the study period. At the beginning of the study period it was the lowest ratio after that it has gone upward and downward but the same year it was also constant.

**Gross Profit Ratio:-** This ratio helps to measure the profitability and financial performance of a company which implies how much profit a company makes the cost of goods sold after deducting the direct expenses. It also indicates the company using efficiently its raw materials and labour during the time of production Selling and distribution. This ratio helps to finance manager has taken

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necessary action during the fall and to improve the situation.

$$\text{Gross Profit Ratio} = \frac{\text{Gross Profit}}{\text{Net Sales}} \times 100$$

**Table No. 3 Statement Showing Gross Profit Ratio ( ₹ in Crores)**

Year	Gross Profit (Rs.)	Net Sale (Rs.)	Ratio %
2012-13	104105.18	161465.99	64.47
2013-14	112581.20	173244.98	64.98
2014-15	101398.57	159069.69	63.74
2015-16	105538.07	134816.22	78.28
2016-17	118845.95	280114.82	42.43
2017-18	126279.97	321102.18	39.33
2018-19	155331.59	419495.60	37.03
2019-20	132538.43	394582.34	33.59
2020-21	115645.78	302315.66	38.25
2021-22	207338.26	531761.83	38.99
Mean ( $\bar{x}$ )	127960.30	287796.93	50.11
CAAGR	9.92	22.93	-3.95

(Source: Annual Reports of ONGC Ltd. for the year 2012-2013 to 2021-2022)

**Interpretation:-** Table No.3 shows that Gross Profit was Fluctuating tendency consistency during the study period between 2012-13 to 2021-22. The highest Gross Profit Ratio 78.28% was in the year 2015-16 and the least ratio of 33.59% was observed in the year 2019-20. At the beginning of the study period it was 64.47% after that it increased to 64.98%, in the year 2013-14. Then in the next year, it decreased to 63.74% after that it has gone up to 78.28% but in the next year it reduced to 2019-20 it was 33.59% then in the next year, it has increased.

**Operating Profit Ratio:-** This Ratio means profit earned through operating activities of the business is called Operating Profit. This shows the relationship between operating Expenses or costs and Net Sales. Operating Expenses are those which are related to the business activities. It is computed to determine the operational efficiency of the firm and judge the profitability of the business and it indicates how much profit generates from its sales.

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$$\text{Operating Profit Ratio} = \frac{\text{Operating Profit}}{\text{Net Sales}} \times 100$$

**Table No. 4; Statement Showing Operating Profit Ratio ( ₹ in Crores)**

Year	Operating Profit (Rs.)	Net Sale (Rs.)	Ratio %
2012-13	35804.87	161465.99	22.17
2013-14	37938.98	173244.98	21.90
2014-15	25863.78	159069.69	16.26
2015-16	25281.80	134816.22	18.75
2016-17	35925.24	280114.82	12.83
2017-18	34642.66	321102.18	10.79
2018-19	51040.20	419495.60	12.17
2019-20	11494.97	394582.34	2.91
2020-21	14385.45	302315.66	4.76
2021-22	54732.09	531761.83	10.29
Mean ( $\bar{x}$ )	32711.00	287796.93	13.28
CAAGR	5.29	22.93	-5.36

**(Source: Annual Reports of ONGC Ltd. for the year 2012-2013 to 2021-2022)**

**Interpretation:-** Table No.5 Shows the relationship between operating profit and net sales. In the year 2012-13 the highest ratio of 22.17% and the least ratio of 2.19% in the year 2019-20. It leads to a decline in the Operating Profit ratio. And it also showed a very fluctuating and declining tendency which was not satisfactory. In the years 2013-14 it was 22.17% after that it was a downward and upward ratio during the study period.

**Net Profit Ratio:-** This ratio expresses the relationship between Profit after Tax and revenue from operations which is related to net sales. This ratio is calculated to determine the profitability and overall efficiency of the firm in production, administering, selling and distribution Expenditure. It is expressed in the form of percentage, if percentage of net profit is high with no investment change that means a high return on investment. If percentage of net profit is low and fall in profits, the return on investment is also low.

$$\text{Net Profit Ratio} = \frac{\text{Net Profit}}{\text{Net Sales}} \times 100$$

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**Table No. 4; Statement Showing Net Profit Ratio (₹ in Crores)**

Year	Net Profit (Rs.)	Net Sale (Rs.)	Ratio %
2012-13	24219.64	161465.99	15.00
2013-14	26506.53	173244.98	15.30
2014-15	18333.52	159069.69	11.53
2015-16	12875.21	134816.22	9.55
2016-17	24419.25	280114.82	8.72
2017-18	22105.93	321102.18	6.88
2018-19	30494.96	419495.60	7.27
2019-20	10803.60	394582.34	2.74
2020-21	16248.69	302315.66	5.37
2021-22	45522.11	531761.83	8.56
Mean ( $\bar{x}$ )	23152.94	287796.93	9.09
CAAGR	8.80	22.93	-4.29

**(Source: Annual Reports of ONGC Ltd. for the year 2012-2013 to 2021-2022)**

**Interpretation:-** Table No.4, shows the relationship between Net Profit and Net Sales. In the year 2013-14 company had a Net Profit ratio of 15.30%, which is the highest during the study period. After that, it continuously decreased up to 2017-18 it was 6.88%, then in the next year, it increased to 7.27%, after that it decreased to 2.74% in the year 2019-20 again it has increased in the next year to 5.37% and 89.56% in the year 2020-21 and 2021-22.

**Return on Equity Ratio:-** This ratio is calculated to determine the profitability and financial performance of a company and is calculated by net profit after tax dividing by shareholders' fund. It tells about how effective management of the company is utilizing its equity in its business operation. It means how efficiently the management is investing into its assets or business that will be better invested and more will be the productive assets and more will be the profit generated for the company.

$$ROE = \frac{\text{Profit After Tax}}{\text{Shareholders Fund}} \times 100$$

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**Table No. 6; Statement Showing Return on Equity ( ₹ in Crores)**

Year	EAT (Rs.)	Equity Capital (Rs.)	Ratio %
2012-13	24219.64	152528.01	15.88
2013-14	26506.53	172150.99	15.40
2014-15	18333.52	180454.40	10.16
2015-16	12875.21	197813.64	6.51
2016-17	24419.25	194385.22	12.56
2017-18	22105.93	204018.94	10.84
2018-19	30494.96	218140.76	13.98
2019-20	10803.60	205104.60	5.27
2020-21	16248.69	220980.99	7.35
2021-22	45522.11	259502.91	17.54
Mean ( $\bar{x}$ )	23152.94	200508.05	11.55
CAAGR	8.80	7.01	1.05

**(Source: Annual Reports of ONGC Ltd. for the year 2012-2013 to 2021-2022)**

**Interpretation:-** Table No.6, shows the Return on Equity ratio, the highest ratio of 17.54% was in the year 2021-22 and the least ratio was 5.27% in the year 2019-20. This ratio shows that fluctuating tendency during the study period in the year 2012-13 to 2021-22, This ratio was not satisfactory from the point of view interest of owners. At the beginning of the year 2012-13 it was 15.88% after that it has been decreasing up to 2020-21. Then it increased to 17.54% in the next year 2021-22.

**Earning Per Share Ratio:** - This ratio estimates the capacity of the company to payment of dividends to its equity shareholders. It helps in determining the market price of a company's equity share. It indicates the earnings of each share and the company's profit. If low EPS is bad because it means lesser earnings for shareholders and high EPS is good because it means more earnings for shareholders.

$$\text{EPS} = \frac{\text{Profit After Tax}}{\text{No. of Equity Shares}} \times 100$$

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**Table No. 7; Statement Showing EPS Ratio (₹ in Crores)**

Year	EAT (Rs.)	No. of Equity Shares (Rs.)	EPS
2012-13	24219.64	855.55	28
2013-14	26506.53	855.55	31
2014-15	18333.52	855.55	21
2015-16	12875.21	855.55	15
2016-17	24419.25	1283.33	19
2017-18	22105.93	1283.33	17
2018-19	30494.96	1258.03	24
2019-20	10803.60	1258.03	9
2020-21	16248.69	1258.028	13
2021-22	45522.11	1258.028	36
Mean ( $\bar{x}$ )	23152.94	1102.10	21.30
CAAGR	8.80	4.70	2.86

**(Source: Annual Reports of ONGC Ltd. for the year 2012-2013 to 2021-2022)**

**Interpretation:-** Table No.7, reveals that Earning Per Share of ONGC Limited, as per this table, the Earning Per Share has been fluctuating during the study period in the year 2012-13 it was 28 per share after that it increased in the year 2013-14 then after it has been continuously decreasing but in the year 2018-19 it has increased then after again it has decreased but in the year of 2021-22 it has increased.

**Return on Capital Employed Ratio:-** This ratio is a profitability ratio, which measures how much using efficiently a company invest its capital to earn profit. It assesses the relationship between Earning before Interest and Tax and the total assets.

$$\text{Return on Capital Employed Ratio} = \frac{\text{Operating Profit}}{\text{Total Assets}} \times 100$$

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**Table No. 8; Statement Showing ROCE Ratio ( ₹ in Crores)**

Year	Operating Profit (Rs.)	Total Assets (Rs.)	Ratio %
2012-13	35804.87	253457.34	14.13
2013-14	37938.98	324910.80	11.68
2014-15	25863.78	337682.68	7.66
2015-16	25281.80	342585.63	7.38
2016-17	35925.24	445397.48	8.07
2017-18	34642.66	460234.94	7.53
2018-19	51040.20	495702.05	10.30
2019-20	11494.97	510017.61	2.25
2020-21	14385.45	543264.61	2.65
2021-22	54732.09	585449.32	9.35
Mean ( $\bar{x}$ )	32711.00	429870.25	8.10
AGR	5.29	13.10	-3.38

(Source: Annual Reports of ONGC Ltd. for the year 2012-2013 to 2021-2022)

**Interpretation:-** Table No.8, shows that Return on Capital Employed was very fluctuating during the study period. The highest ratio of 14.12% in the year 2012-13 and least ratio of 2.25% in the year 2019-20. The year 2015, 2016 and 2018 were constantly the same i.e. 7.66%, 7.67%, and 7.52%. The years 2020 & 2021 were constantly the same i.e. 2.25% and 2.64%. It has decreased to 9.34% from 14.12%.

#### Testing of Hypothesis

$H_{01}$  : There is no significant impact of capital structure on the financial performance of ONGC Limited.

$$r = + 0.57$$

$$t = \frac{r}{\sqrt{1-r^2}} \times \sqrt{n-2}$$

$$t = 1.95$$

$$t_{0.05} = 1.56$$

Hence  $t > t_{0.05}$

Thus null Hypothesis is not accepted.

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**Interpretation:-** The calculated value is more than the critical value, thus null hypothesis is significant because the capital structure has a significant impact on the financial performance of ONGC Ltd. It is hereby clarified that the company has increased debt capital in their business than its operating profit, earnings per share, owner's equity & ROCE has been declined due to the huge amount of debt capital used in the business.

### Findings

On the basis of Analysis and Interpretation, we have found the following findings which are as follows:

- ONGC Limited has increased that debt capital as the company to owner's equity which has a negative impact on the business because interest amount significant increases year by year during the study period it has a negative impact on the business.
- The Position of total debt to total assets is not satisfactory because more than 50% of assets are employed by debt and 50% of the total assets are employed by net worth this situation is not worthwhile for the stakeholders because the rate of return is not also satisfactory, thus, it has an adverse effect on the business.
- The operating profit of ONGC Limited was satisfactory during the year 2012-13 2016-17 then after it has been significantly decreased which has a negative impact on the business. This profit has been decreasing due to only capital structure or the use of the huge amount of debt capital in the business.
- Net Profit position was satisfactory up to the year 2015-16 then after it has been decreased. This situation has an adverse impact on the business.
- ROE position was satisfactory up to 2014-15 then after it has decreased then again income. This situation was fluctuating during the study period.
- EPS situation was fluctuating during the study period because EPS has been also decreased and increased in the study period but mostly it has decreased. It has a negative impact on the business.

### Suggestions

On the basis of the finding and observation of the study the following suggestions are as follows:

- The Company should decrease their debt capital and increase equity share capital for decreasing the amount of interest.
- The Company should increase their equity share capital for the increase in the share of investment in total assets.
- The Company should decrease their debt capital for improvement of operating profit.
- The Company should control their expenses and reduce interest and increase in sales for improving the position of the business.
- The Company should increase their profit by controlling on expenses.

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- The Company should increase their profit after tax by control on expenses and increase its revenues.

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