A Study on Determinants of Profitibality of Oil and Natural Gas Corporation Limited

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ABSTRACT
Oil and Natural Gas Corporation (ONGC) is the largest oil and gas company in India. The sustainable development of a firm is dependent on the profit earned during a long period consistently. The profit earned helps the firm to improve the performance. The profit of a firm could be determined by various factors. From the revenue point of view, the operating revenue and other income are the major sources of revenue whereas the expenditure items would affect the net profit inversely. This paper has been undertaken with the aim of understanding the influence of revenue and expenditure items on the net profit. In this regard, the annual reports of ONGC for the period of 10 years from 2014-15 to 2023.24 have been collected. The data collected from the annual reports have been grouped and tabulated wherever necessary. The data so collected have been analyzed using mean, standard deviation, coefficient of variation, compounded annual growth rate, ANOVA and multiple regression analysis. The results indicated that the revenue items have positively influenced the net profit while the expenditure items have negatively influenced the net profit of the firm. The major determinant of the net profit of ONGC is found to be the net revenue from operations.

Keywords: Net operating revenue; other income; operating and direct expenses; employee benefit expenses; finance costs and net profit.

INTRODUCTION
Oil and Natural Gas Corporation plays a crucial role in catering to the domestic needs of oil and natural gas in India. The company was established by the erstwhile Prime Minister Jawaharlal Nehru in 1955 as a division. Then, it was converted into directorate and later it was transformed into a commission. Of late, it was restructured as a corporation. The company was recognized as a Navaratna company and subsequently, it was conferred the status of Maharatna company. The company has crossed over 60 years of successful journey. The company has contributed to 71 per cent of the domestic crude oil production. ONGC has been the supplier of crude oil to the oil giants of the country – Indian Oil Corporation, Bharat Petroleum Corporation Limited and Hindustan Petroleum Corporation Limited. Mangalore Refinery and Petrochemical Limited is one of the subsidiaries of ONGC.

REVIEW OF LITERATURE
Vinay, Kandpal., P., C., Kavidayal. (2013) has revealed that effective working capital management has significantly influenced the net profit. **Kumar, Aditya. (2016)** indicated that ONGC has the capacity of profit earning over the years. **Wirda, Lilia., Jemson, Sinaga., Cindy, Puspita., Fransiska,**

Simbolon. (2019) stated that the revenue has made a positive and significant impact on the profit while operating costs have made no significant impact on the profit earned. **Febrinia., Anasthasya., Jullie., J.., Sondakh., Claudia., M., W., Korompis (2021)** indicated that there was a positive impact of income on the net profit and insignificant impact of operating expenses on the net profit. **Arjun, Dahal. (2022)** explained that other income like fees, commission and discounts has significantly influenced the net profit. **Priyanka, Dineshgiri, Meghanathi., Alok, Kumar, Chakrawal. (2022)** found that the profitability performance of ONGC was lesser than Reliance Industries Limited. **Kiki, Resky, Ananda., Mulyana, Machmud., Hamida, Hasan. (2023)** found that the income has positively and significantly influenced the net profit. **Herlina, Puspa, Dewi. (2023)** observed that the net profit has been significantly influenced by operating revenue and not significantly influenced by operational expenses. **Lingqi, Zhao. (2023)** pointed out that non-interest income has positively influenced the net profit. **Dhiroj, Kumar, Panda., Biswa, Mohana, Jena. (2024)** proclaimed that corporate social responsibility has no significant impact on the profitabiltiy of ONGC.

STATEMENT OF THE PROBLEM

The ONGC has been operated with consistent net profit earned every year. The profit earned by the company is distributed among the shareholders with a healthy pay-out ratio. At the same time, earnings retention of the company is around 68 per cent at the end of the previous fiscal year of 2023-24. The company has been paying a dividend of 32 per cent as at the end of the year 2023-24. Under these circumstances, it is essential for the company to maintain the net profit earned every year. The company has to understand the major determinants of profit in order to optimize the profit. The present study has been undertaken to examine the determinants of net profit of ONGC

OBJECTIVES OF THE STUDY

The present study has been undertaken with the following objectives:

1. To assess the growth of major sources of revenue and expenditure of ONGC
2. To measure the growth of net profit of ONGC and
3. To examine the determinants of net profit of ONGC

METHODS AND MATERIALS

The financial statements of ONGC have been collected from the annual reports of the company for a period of 10 financial years from 2014-15 to 2023-24. From these reports, the major sources of revenue and expenditure and net profit have been collected and analyzed using mean, standard deviation, coefficient of variation and compounded annual growth rate. The impact of revenue and expenditure on the net profit of the company has been analyzed using ANOVA and multiple regression analysis.

RESULTS AND DISCUSSION

The revenue items taken from the profit and loss account of the firm include net revenue from operations and other income while the expenditure items include operation and direct expenses, employee benefit expenses and finance costs. The performance of the firm relating to these revenue and expenditure items and their effect on the net profit of the firm have been analyzed and discussed in this paper.

TABLE 1: DESCRIPTIVE STATISTICS

	N	Minimum	Maximum	Mean	S.D.	CV %	CAGR %
Net Revenue from Operations	10	67836.99	143750.27	97639.45	24835.64	25.44	5.16
Other Income	10	5366.57	10778.19	7362.27	1437.07	19.52	8.06
Operating and Direct Expenses	10	5054.46	71647.26	15930.57	20620.64	129.44	16.54
Employee Benefit Expenses	10	2784.63	12113.03	9849.81	2749.70	27.92	-11.81
Finance Costs	10	2.79	4081.31	2072.83	1113.42	53.72	124.74
Net Profit	10	11246.44	40525.97	24278.55	11519.35	47.45	9.62

NET REVENUE FROM OPERATIONS

Net revenue from operations is the major source of revenue for the firm after subtracting the excise duty and other taxes. According to the descriptive statistics analysis, the net revenue from operations of the firm has varied between Rs.67836.99 crores and Rs. 143750.27 crores during the study period. The mean and standard deviation of net revenue from operations were Rs. 97639.45 crores and Rs. 24835.64 crores respectively. The coefficient of variation was computed to be 25.44 per cent. It indicates that the net revenue from operations was maintained consistently by the firm during the study period. The CAGR was measured to be 5.16 per cent. It implies that the growth of net revenue from operations was marginal throughout the period of study.

OTHER INCOME

Other income includes income earned by the firm from various other sources. The results revealed that the minimum and the maximum other income earned by the firm during the study period were Rs. 5366.57 crores and Rs. 10778.19 crores respectively. The average other income of the firm was computed to be Rs. 7362.27 crores with a standard deviation of Rs. 1437.07 crores. The performance of the firm with regard to other income was very consistent as indicated by the CV of 19.52 per cent and the growth was gradual as disclosed by the CAGR of 8.06 per cent.

OPERATING AND DIRECT EXPENSES

Among the expenditure, the firm incurs the highest amount on the operating and direct expenses. The analysis denoted that the operating and direct expenses ranged with the minimum of Rs. 5054.46 crores and the maximum of Rs. 71647.26 crores. The average operating and direct expenses incurred by the firm was Rs. 15930.57 and the standard deviation was Rs. 20620.64 crores. It is implied from the CV of 129.44 per cent that the performance of the firm regarding operating and direct expenses was highly inconsistent. The operating and direct expenses have grown over 16.54 per cent as indicated by the CAGR.

EMPLOYEE BENEFIT EXPENSES

The next major expenditure for the firm is the amount spent on the employees. Their salary, allowances and all the benefits made available to employees are included in this head of expenditure. It was observed that the minimum and the maximum amount spent by the firm on employee benefit expenses were Rs. 2784.63 crores and Rs. 12113.03 crores respectively. The average expenditure incurred by the firm for employee benefit expenses was ascertained to be Rs. 9849.81 croes while the standard deviation and the CV were Rs. 2749.7 crores and 27.92 per cent respectively. It reveals that the firm has maintained consistent performance with regard to employee benefit expenses. The CAGR of -11.81 evinces that there was a negative growth during the study period.

FINANCE COSTS

Finance costs are the costs incurred for generating funds. It includes interest payable on debts and other costs involved for availing financial assistance from banks and others. On the scrutiny of finance costs of the firm during the study period, it is indicated that the minimum finance costs incurred was Rs. 2.79 crores while the maximum finance costs incurred was Rs. 4081.31 crores. The average expenditure on finance costs and the standard deviation were Rs. 2072.83 crores and Rs. 1113.42 crores respectively. The performance of the firm relating to finance was little inconsistent since the CV was 53.72 per cent. The finance costs have increased tremendously during the study period as disclosed by the CAGR of 124.74 per cent.

NET PROFIT

Anne, Mathieu. (2022) indicated that the net profit is the sum total of all earnings and deducted by all the costs involved. Net profit is the net result of operations of a firm. It is the excess of total revenues over the total expenditure. From the surplus, depreciation, interest and tax are subtracted to ascertain the net profit / loss of the firm for the period. The evaluation of net profit of the firm stated that the firm has earned the minimum net profit of Rs. 11246.44 crores during the study period and the maximum net profit of Rs. 40525.97 crores with an average of Rs. 24278.55 crores. The standard deviation of Rs. 11519.35 crores and the CV of 47.45 per cent revealed that there was a little inconsistent performance. The CAGR of 9.62 per cent denotes that there was a gradual growth in the net profit of the firm.

With a view to examine the impact of revenue and expenditure items of ONGC on the net profit, the following hypotheses have been tested:

Null Hypothesis H_0: There is no significant influence of the selected revenue and expenditure items on the net profit of ONGC

Alternative Hypothesis H_1: There is a significant influence of the selected revenue and expenditure items on the net profit of ONGC.

TABLE 2: VARIABLES ENTERED/REMOVED

Model	Variables Entered	Variables Removed	Method
1	Finance Costs Employee Benefit Expenses Net Revenue from Operations Other Income Operating and Direct Expenses	-	Enter

Dependent Variable: Net Profit

All requested variables entered.

In order to study the influence of the selected revenue and expenditure items on the net profit of the firm, multiple regression analysis with enter method has been applied. The model specifies that all the requested variables have been entered and the dependent variable is the net profit of the firm. The predictors are finance costs, employee benefit expenses, net revenue from operations, other income and operating and direct expenses.

TABLE 3: MODEL SUMMARY

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.905	0.819	0.594	7342.069

Predictors: (Constant), Finance Costs, Employee Benefit Expenses, Net Revenue from Operations, Other Income, Operating and Direct Expenses

The model summary indicates that the correlation coefficient between the net profit and predictors was 0.905. It implies that there was a positive and higher degree of correlation between net profit and the predictors. The coefficient of determination (r square) indicates that the predictors have explained the net profit to the extent of 81.9 per cent.

TABLE 4: ANOVA

Source of variation	DF	SS	MS	F	P value
Regression	5	978634757.729	195726951.546	3.631	0.118
Residual	4	215623905.209	53905976.302		
Total	9	1194258662.938			

Dependent Variable: Net Profit

Predictors: (Constant), Finance Costs, Employee Benefit Expenses, Net Revenue from Operations, Other Income, Operating and Direct Expenses

The results of ANOVA evinced that the F value was computed to be 3.631 and the p value stating the relationship between the net profit and the predictors was 0.118. Since the p value is greater than 0.118, it is concluded that no significant impact was made by the predictors on the net profit of the firm.

TABLE 5: COEFFICIENTS

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-2037.663	51836.507		-0.039	0.971
	Net Revenue from Operations	0.441	0.137	0.951	3.211	0.033*
	Other Income	2.203	3.255	0.275	0.677	0.536
	Operating and Direct Expenses	-0.335	0.747	-0.6	-0.449	0.677

	Employee Benefit Expenses	-2.388	4.948	-0.57	-0.483	0.655
	Finance Costs	-1.98	3.613	-0.191	-0.548	0.613

* Significant @ 5%

The coefficients derived from the regression analysis indicated that net revenue from operations has positively and significantly influenced the net profit of the firm while the other income has made a positive but insignificant impact on the net profit. The operating and direct expenses have negatively influenced the net profit of the firm. The impact made by employee benefit expenses on the net profit has been found to be negative and insignificant. There exists no significant influence of finance costs on the net profit of the firm. The revenue items have positively influenced the net profit while the expenditure items have negatively influenced the net profit of the firm. The influence made all the expenditure items is found to be insignificant.

CONCLUSION

The predominant supplier of oil and natural gas in the country has been performing fairly well over the last decade. Revenue from operations and other income have witnessed consistent performance and positive and gradual growth during the last ten years. The operating and direct expenses have been subject to highly inconsistent performance and higher growth in the operating and direct expenses has been observed. It draws the attention of the management to monitor and control the operating and direct expenses. Employee benefit expenses were found to be consistent across the years of study and the negative growth in the employee benefit expenses has been convincing for the management. On the contrary, the finance costs have compelled the management to make immediate critical policy decision making since the growth of finance costs has affected the net profit to a greater extent. The revenue items have positively influenced the net profit and the expenditure items have inversely affected the net profit of ONGC.

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