

PROFITABILITY ANALYSIS OF INDIAN CORPORATE- A CASE STUDY OF OIL INDIA LIMITED (OIL) AND CASTROL INDIA (CI)

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Abstract

One of India's six core businesses is the oil and gas industry. It is crucial from a strategic standpoint and has a major impact on choices made in other significant economic sectors. This study, which is focused on analyzing the profitability of two Indian public sector oil and petroleum businesses, was conducted while keeping sector complexity in mind. Its main objective is to compare the two firms' historical performance, current financial situation, and anticipated future performance in various business contexts while recognizing the impact of profitability ratios on the company's future. As a result, this essay compares the profitability of Oil India Limited (OIL), the leading oil firm, and Castrol India, a formidable rival. It has undergone a ratio-based analysis. Their SD and CV, the sum of their mean values, and their average scores are also computed. Finally, a conclusion statement based on a t-test (test of significance) has been made. Despite having diverse business environments and market dynamics, it has been observed that the profitability situations of the two companies are relatively comparable.

Keywords: Profitability Analysis, Mean values, Standard Deviation, Return on Investment, and t-test.

Introduction

According to a report, India's oil and gas sector is expected to generate US\$139,814.7 million in revenue by 2015 (IBEF). In line with the trend of economic growth, the production of petroleum products from Indian refineries increased from 217.736 MMT in 2012–13 to 220.756 MMT in 2013–14, or by 1.39%. However, consumption of petroleum products in India increased by only 0.73% to 158.197 MMT in the same period. The primary goal of a business is to provide a respectable return on the capital put into it. A profitability study can be used to determine whether the business is making enough money on the capital that has been invested in it. Knowing one's ability to pay dividends and interest is also helpful. The profitability ratios demonstrate the general effectiveness and performance of a business. The two categories of profitability ratios are margins and returns. The firm's capacity to convert sales dollars into profits at different phases of measurement is represented by ratios that reflect margins. The ability of the company to gauge its overall effectiveness in creating returns for its shareholders is represented by ratios that reflect returns.

Justification of the Study

The need for oil and gas is anticipated to increase, making the sector an attractive place for investment because India's economic growth is directly correlated with energy demand. Therefore, in order to help potential investors, make informed investment decisions, it is necessary to research the profitability of such a developing industry. The two oil firms are the study's primary focus.

➤ **OIL INDIA LIMITED (OIL)**

➤ **CASTROL INDIA (CI)**

OIL INDIA LIMITED (OIL)

Oil India Limited is a public sector organisation (PSU) that reports to the Indian government's Ministry of Petroleum and Natural Gas. Crude oil, natural gas, and petroleum products are explored for, developed, produced, and transported by this company. Oil India Limited was established on February 18, 1959, in accordance with the Indian Companies Act of 1913. On September 1, 1961, it was converted to the Companies Act of 1956. It was established to exploit India's northeastern region's oil and natural gas potential. At Naharkatiya in Assam, Oil India Limited made its initial commercial crude oil discovery in 1959. Since then, the company has made several significant discoveries of crude oil and natural gas in the northeastern region of India. In 1961, it started production from its first oilfield at Naharkatiya. Over the years, Oil India Limited has expanded its operations to other parts of India

and has also ventured into international operations. It has exploration and production activities in countries such as Libya, Gabon, Iran, Nigeria, Yemen, Venezuela, Mozambique, and the USA. Oil India Limited has also diversified into other businesses such as renewable energy, pipelines, city gas distribution, and exploration and production of shale gas. Today, it is one of the largest oil and gas exploration and production companies in India, with a significant presence in the international market.

CASTROL INDIA (CI)

A British international oil and gas firm called Castrol Limited has a subsidiary called Castrol India Limited. Here is a synopsis of Castrol India Limited's past. Incorporated in India in 1979, Castrol India Limited started operating there in 1980. As a public limited company in 1994, Castrol India Limited had its shares listed on both the Bombay Stock Exchange and the National Stock Exchange. A high-performance diesel engine oil called Castrol CRB Turbo was introduced in 2002 by Castrol India Limited. In Patalganga, Maharashtra, Castrol India Limited constructed a cutting-edge blending and packaging facility in 2005. Castrol India Limited unveiled Castrol MAGNATEC in 2011, an engine oil containing clever molecules that stick to engine components and offer constant protection as soon as the engine is started. In 2019, Castrol India Limited introduced Castrol POWER1 ULTIMATE, a high-end motorcycle oil with technology borrowed from the racing world. Today, Castrol India Limited is one of the top lubricant producers in India, providing a variety of industrial and automotive lubricants to clients across the nation.

Literature Review

Asha Sharma and R.B. Sharma (2011) The movement of important financial indicators and their connection to the profitability of the textile sector are identified and studied. Moreover, whether the important factors that have been found moving in a manner that is synchronized with the fundamental profitability parameters is being investigated. The sample for the study for the years 2006 to 2010 includes all three comparably profitable businesses.

Elijelly (2004) The relationship between profitability and liquidity was experimentally investigated in the paper "Liquidity - Profitability Trade-off: An Empirical Investigation in an Emerging Market" on a sample of Saudi joint stock businesses using the current ratio and cash gap (cash conversion cycle) as measures of profitability. The study discovered a substantial inverse link between the firm's profitability and its current ratio-measured liquidity level.

James Clausen (2009) briefly described the liquidity ratios in his article. Ratio studies of financial statements are frequently used by investors and lending institutions to assess a company's profitability and liquidity. Investors can hesitate to make an investment if the ratios show bad performance. As a result, the current ratio, also known as the working capital ratio, compares current assets and liabilities. The company's capacity to repay its short-term debt commitments with its current assets is gauged by its current ratio. A greater ratio, in his opinion, shows that the business is better able to pay off short-term debt using current assets. The fast ratio, also known as the acid test ratio, compares short-term assets to current liabilities. Assets that can be swiftly transformed into cash are known as fast assets. They typically consist of present assets with little inventory.

Rahman and Nasir (2007) analyzed working capital variables and profitability indicators using regression analysis over a six-year period (1999–2004) to examine the relationship between them. The results revealed a negative correlation between working capital and profitability because of the liquidity–profitability tangle

Singh and Pandey (2008) recommended that working capital management is crucial since it directly affects profitability and liquidity. Fixed and current assets are also important for the smooth operation of any corporate organization. They investigated the elements of working capital and discovered that managing working capital had a substantial impact on Hindalco Industries Limited's profitability.

V. Vijavalakshmi and M. Srividya (2014) they concluded from their analysis that a company's financial stability is crucial to its managerial performance. The analysis practically demonstrates that during the study period, the selected pharmaceutical businesses' net profit ratio is significantly influenced by their gross profit ratio, operating ratio, return on equity capital, and earnings per share. The chosen Indian pharmaceutical companies' profitability during the study period is satisfactory,

nonetheless. There were a few ups and downs in the profitability during the study period, but they had little to no impact on the company's operations. The pharmaceutical industry must invest more money and make more sales if it is to perform well; only then will its performance improve.

Mohmad and Dr. Syed (2016), examined the liquidity and profitability of chosen companies, and more particularly made comparisons between the liquidity and profitability results of chosen companies. Based on the Quick Ratio, pharmaceutical businesses perform very differently from one another. When it comes to profitability, Cipla outperforms Dr. Reddy's labs.

Research Methodology

The study is a special reference to the two most preferred and trusted oil petroleum companies; oil India Limited (OIL) and Castrol India (CI). For this purpose, an exploratory method has been adopted as it helps us to investigate any problem with a suitable hypothesis and it is also important for clarification of any concept. The study will be based on secondary data and a comparison has been made on the profitability of both companies.

The Objective of the Study

- ❖ To find out the comparative profitability position of Oil India Limited (OIL) and Castrol India (CI).
- ❖ To judge the difference in the mean values of various profitability ratios between the companies and between the years during the study period.
- ❖ To analyze the profitability to know how the position of profits stands as a result of total transactions made during the year.

Hypothesis:

- $H_0: U_1 = U_2$ i.e. There is no significant difference in the profitability position of Oil India Limited (OIL) and Castrol India (CI).
- $H_1: U_1 \neq U_2$ i.e. There is a significant difference in the profitability position of Oil India Limited (OIL) and Castrol India (CI).

Research Tool

In this study, a contemporary financial analysis that meticulously assesses and scrutinizes pertinent elements for a company's efficient operation has been conducted to understand the findings. Ratio analysis is used to evaluate the ability to generate profits. Additionally, average scores, the sum of mean values, and SD and CV are computed. The test of significance is a research technique that is used to support an assertion. Companies are ranked based on their performance following a careful review of all performance indicators. The study's conclusion is based on the period that the researchers chose, which could be different from other assessments.

Data Collection

The researcher has gathered data from a variety of websites, studies that have been published, periodicals, annual reports, company websites, and annual reports that have been released by both companies. The study is based on financial data from 2015–2016 through 2019–2020, which spans the previous five years.

Limitations

Only the previous five years were included in the current study, which was conducted by only two companies. The research's sole source of data is secondary research, and the statistical and accounting methods utilized to conduct the study have limitations of their own.

Profitability Analysis

Profitability in business serves as a gauge of efficiency. Users of an entity's financial statements can use profitability ratios to assess the management's overall performance in terms of returns on sales and investments. The profitability of the business is determined by profit in relation to capital employed. For a corporation to keep its capital and grow its operations, profitability is crucial. If a company consistently loses money, eventually its financial situation will deteriorate. Consequently, a measure of profitability is a general indicator of effectiveness. The mathematical relationship between the profit and the investment or sales is built in order to obtain the profitability ratios based on either investment or sales.

Ratios based on sales:

- Operating profit margin (%)
- Profit before interest & tax margin (%)
- Gross profit margin (%)
- Net profit margin (%)
- Return on capital employed (%)
- Return on net worth (%)

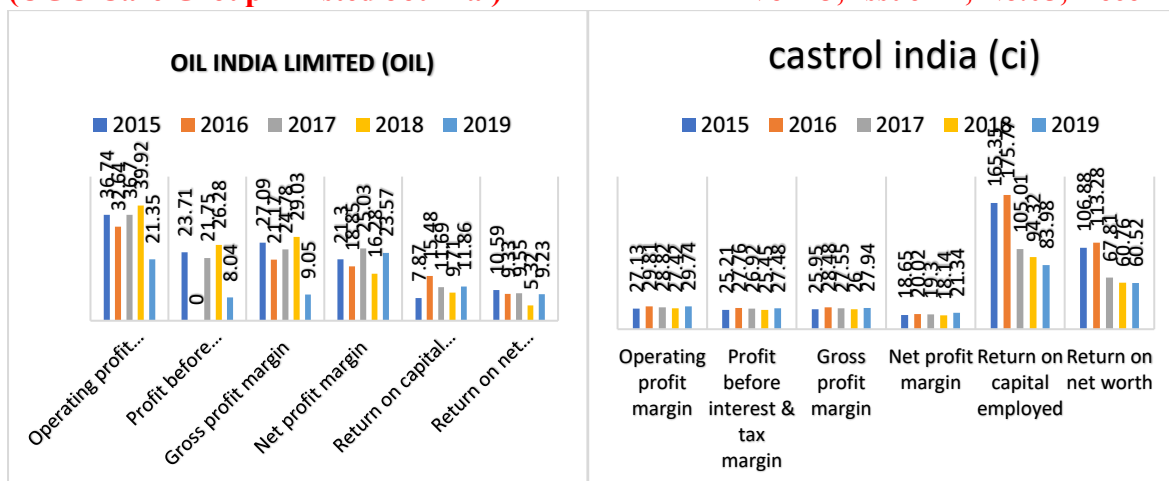
Data Analysis

Financial statements were taken for five years from 2015-2016 to 2019-2020 to evaluate the income position of the companies taken as samples i.e., of Oil India Limited (OIL) and Castrol India (CI) and profitability ratios were calculated and further, their standard deviations and covariance were ascertained. The calculations are summarised in Table No. 1 as follows:

Table no.1

S.NO.	Profitability ratios Oil India Limited (OIL) and Castrol India (CI)								
	Ratio	2015	2016	2017	2018	2019	AVERAGE	SD	CV
1	Operating profit margin								
	OIL	36.74	32.64	36.7	39.92	21.35	33.47	6.49	19.38
	CI	27.13	29.81	28.82	27.42	29.74	28.58	1.13	3.95
2	Profit before interest & tax margin								
	OIL	23.71	17.99	21.75	26.28	8.04	19.55	7.06	36.11
	CI	25.21	27.76	26.92	25.45	27.48	26.56	1.05	3.94
3	Gross profit margin								
	OIL	27.09	21.17	24.78	29.03	9.05	22.22	7.09	31.89
	CI	25.95	28.48	27.55	26	27.94	27.18	1.03	3.79
4	Net profit margin								
	OIL	21.3	18.85	25.03	16.28	23.57	21.01	3.16	15.03
	CI	18.65	20.02	19.3	18.14	21.34	19.49	1.12	5.74
5	Return on capital employed								
	OIL	7.87	15.48	11.69	9.71	11.86	11.32	2.54	22.42
	CI	165.35	175.77	105.01	94.32	83.98	124.89	38.02	30.45
6	Return on net worth								
	OIL	10.59	9.33	9.55	5.32	9.23	8.80	1.65	18.75
	CI	106.88	113.28	67.81	60.76	60.52	81.85	23.29	28.45

Figure 1&2: different ratios of Oil India Limited and Castrol India.



Source: the authors

Findings based on ratio analysis:

- According to Table No. 1, the **operating profit margin** for oil is steadily rising each year. In 2015, it was 36.74%, and by 2019, it had increased to 21.35%. In contrast, the operating profit margin of CI was 27.13 in 2015, but it started to decline in 2018 before increasing once more in March 2019. This indicates that the operating profit margin of the company has improved and is now sufficient to pay for expenses, dividends, and the creation of reserves. This ratio's higher sign provides a more accurate picture of their financial situation.
- OIL's **profit margin before interest and taxes** in March 2015 was 23.71%; in March 2019, it was 8.04%. CI's profit margin before interest and taxes in March 2015 was 25.21%; in March 2019, it jumped to 27.48%. Increased sales and lower expenses cause the ratio to reduce, but it is still unfavourable because it resulted in a low Profit before interest and tax margin and it also shows a decline in both organisations' efficiency.
- The **gross profit margin** for oil is very low in the year 2019 (9.05%), whereas the gross profit margin for CI is low in the year 2015 (25.95%). When compared to CI, which had a profit of 26.00% in March 2018, OIL's profit jumped to 29.03%. As a result, the ratio is extremely low and demonstrates the company's inefficiency. Reduced ratio results in a low gross profit margin for the company.
- The **Net Profit Margin** reveals the business's general effectiveness. The average net profit margins for OIL and CI are 21.006% and 19.49%, respectively. As a result, this is also quite low, and both organizations must increase operational efficiency for the business to make a significant profit in the next years.
- While the same CI has also increased from 175.77% to 105.01%, the **Return on Capital Employed** by OIL rose in 2016 and slightly reduced every year from 15.48 to 11.69%. This demonstrates that only OIL is trying to cut back on its Return on Capital Employed costs. But even so, OIL has a lower expense ratio than CI.
- The **Return on Net Worth** is 8.804% whereas CI is 81.85%, demonstrating the ineffective utilization of the resources provided to the company. To demonstrate that the company is in a strong financial position, it must work to increase profits.

Table no. 2

Comparisons based on mean values of ratios				
S.NO	Profitability ratios	The formula of the ratios	Average ratios of	
			OIL	CI
1.	Operating profit margin	Operating Profit/Net Sales	33.47	28.584
2.	Profit before interest & tax margin	EBIT(NetProfit+Tax+Interest)/Total Revenue	19.554	26.564
3.	Gross profit margin	Gross profit/ total revenue	22.224	27.184
4.	Net profit margin	Net profit /net sales*100	21.006	19.49
5.	Return on capital employed	Income before interest and tax/ capital employed	11.322	124.89
6.	Return on net worth	Net income/shareholders' equity	8.804	81.85
Total			116.38	308.562
Average Score			19.3967	51.427
Ranking			2 nd	1 st

Findings based on mean values:

It was discovered that comparing the two companies based on the mean values of their ratios was necessary in order to analyze Table No. 1 above. Table No. 2 evaluates both businesses based on average scores to demonstrate their earning potential. Table No. 2 makes clear that CI outperforms OIL in the profitability study. The approximate profitability value for CI is 51.427, whilst the approximate profitability score for OIL is 19.397. However, it was also deduced that only in 2 out of the 6 profitability ratios is the comparative variability of CI less than that of OIL.

Test of Hypothesis:

t-test is based on t-distribution and is considered an appropriate test for judging the significance of a sample mean or for judging the significance of the difference between the means of two samples in case of a small sample(s) when the population variance is not known (in which case we use the variance of the sample as an estimate of the population variance). The relevant test statistic, t, is calculated from the sample data and then compared with its probable value based on t-distribution (to be read from the table that gives probable values of t for different levels of significance for different degrees of freedom) at a specified level of significance for concerning degrees of freedom for accepting or rejecting the null hypothesis.

Table no.3

Test of Significance (t-test)							
1	Operating profit margin	33.47	28.584	5.54134169	0.4408	2.306	Yes
2	Profit before interest & tax margin	19.554	26.564	6.14535552	-0.5703	2.306	Yes
3	Gross profit margin	22.224	27.184	5.94429362	-0.4172	2.306	Yes
4	Net profit margin	21.006	19.49	2.62148728	0.2892	2.306	Yes
5	Return on capital employed	11.322	124.89	66.2514882	-0.8571	2.306	Yes
6	Return on net worth	8.804	81.85	42.2517092	-0.8644	2.306	Yes

Calculation of t-test

At a 5% level of significance for 8 degrees of freedom, the table value is calculated. A summary has been generated below after the preceding computations of the test of significance with all the profitability ratios in order to properly evaluate the results. Result We utilized a t-test (Fisher's t-test) to calculate the test statistic in order to compare the means of two samples because in this situation the variance of the populations is unknown and sample sizes are small. At a 5% level of significance with d.f.8, which is 2.306, the observed 't' value of all the profits is smaller than the table value of 't'. This demonstrates that the null hypothesis, according to which there is no appreciable difference between CI and OIL's profitability position, is adopted.

Conclusion

The study finds that the results of ratios in relation to sales of both companies are pretty similar in light of the aforementioned revelation and facts. The ratios in relation to investment demonstrate that CI is more successful in realizing returns on invested money. In all relevant profitability criteria, CI has a little better strategic position than its rival. It has achieved the highest ranking in the profitability study. On the other side, OIL has clinched the second spot. Both businesses are in a sound financial situation and are fiercely competing with one another.

Suggestions

By examining the current trends in the Indian economy and oil firms, we may conclude that while these companies' futures are promising, they still have a long way to go. Investment in oil companies will be wise given the industry's boom. Long-term investment in both companies may be beneficial.

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