

Tool Development toward Corporate Economic Health Analysis: A Case Theoretic Perspective

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ABSTRACT

The paper proposes a model for analyzing and comparing the financial performance of companies using various tools and metrics like historical statement analysis, ratio analysis, peer analysis, forecasting of sales growth, EBITDA, EPS, and common-size financial statements. The model gives a comprehensive picture of each company's financial health. The paper applies the model to the Indian oil sector which is a volatile and competitive industry. The paper compares the financial performance of four major Indian oil companies: Reliance Industries, Hindustan Petroleum, Bharat Petroleum, and Indian Oil Corporation. The novelty of the model presented in this paper lies in its application of various techniques of financial analysis to give a comprehensive picture of the financial performance of oil companies. The model applies different techniques of financial analysis, such as historical statement analysis, ratio analysis, forecasting, and common size statements. Historical statement analysis tracks the financial performance of each company over time. Ratio analysis compares the financial performance of each company with its peers and with industry averages. Peer analysis identifies companies that are similar in their size, operations, and financial performance. Forecasting predicts the future financial performance of each company. Common size statements standardize the financial statements of each company, making them easier to compare. The paper shows how the model as a template can be used to help investors, analysts, and stakeholders make better decisions about any sector, they are concerned with, and as a case theoretic perspective, in this paper, about the oil sector. The paper also suggests how the model can help companies improve their performance and competitiveness.

Keywords: *Historical Statement Analysis, Ratio Analysis, Peer Comparison, Forecasting, Common Size Statement*

INTRODUCTION

Everyone who has a stake in a company or business is primarily interested in how well it is performing financially, but this is especially true of investors, both potential and current. The reported financial statements used for measuring a firm's financial health include a qualitative appraisal of the company's position and a report on how the company has used its capital in production. Bhunia et al. (2011) claim that financial

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performance analysis entails using reported results in a company's financial statements to obtain the quantitative performance characteristics of a company with the goal of determining how effectively the company has used its resources in accordance with the decisions made by the management.

This article commences with an overview of financial statement analysis employing extant literature and focuses on trends in financial statement analysis. It offers a broad perception of business success based on historical data. The Income Statement, Balance Sheet, and Cash Flow Statement are the three key items that make up historical financial statements and assists us to learn about a company's success in the marketplace. This study also provides us with information on the ratio analysis of the company to determine whether they have adequate working capital, the ability to pay off debt, and their EBIDTA and net profit margins. To analyze a company's potential performance, we then forecast it's sales growth, EPS growth, and EBIDTA. In essence, we created a model that allows us to analyze any industry's historical performance from any company using the income statement, balance sheet, and cash flow statement.

The remainder of the article is organized as follows: a review of the literature, the goals of the study, the methodology, a discussion, and interpretation of the findings, and finally, a conclusion.

LITERATURE REVIEW

To establish correlations between the items that are reported by the company in accordance with the accounting standards for reporting, financial analysis uses quantitative data from financial statements, including the income statement, balance sheet, and statement of cash flows. By doing this, the business can assess it's choices made over the course of the year in question or other time and identify its strengths, weaknesses, and organizational areas in need of improvement (Abraham, 2004; Bhargava, 2017; Schönbohm, 2013). Additionally, according to Mahajan and Yadav (2016), "they also provide hints on where the management might find more resources to boost its revenue."

Table No. 1: Extant Literature in Financial Analysis

Authors	Year	Country	Context	Key Findings
Abraham, A.	2004	Australia	Non-profit organizations	Developed a model for financial performance analysis for non-profit organizations.
Al-Jafari, M.K. & Al Samman, H.	2015	Oman	Industrial companies	Identified revenue growth, asset turnover, and financial leverage as the most important factors affecting profitability of industrial companies in Oman.
Allen, A.J., Shaik, S., Myles, A.E. and Yeboah, O.A.	2011	United States	Class railroads	Found that working capital management is positively associated with the profitability of class I railroads in the United States.
Altman, E.I.	1968	United States	Corporate bankruptcy	Developed a financial ratio-based model for predicting corporate bankruptcy.
Ali, H.F. and Charbaji, A.	1994	International	Commercial airlines	Applied factor analysis to financial ratios of international commercial airlines to identify the most important factors affecting profitability.
Chen, Y.S., Chen, L.-H. and Liaw, S.-Y.	2001	Taiwan	Productivity	Found that financial factors are positively associated with productivity in Taiwan.
Baños-Caballero, S., García-Teruel, P.J. and Martínez-Solano, P.	2012	Spain	Small & medium-sized enterprises (SMEs)	Found that working capital management is negatively associated with the profitability of SMEs in Spain.

Authors	Year	Country	Context	Key Findings
Bhargava, P.D.	2017	India	Information & technology industry	Conducted a financial analysis of the information and technology industry in India.
Bhunia, A., Mukhuti, S.S. and Roy, S.G.	2011	India	Case study	Conducted a financial performance analysis of a company in India.
Masimba Mbona and Kong Yusheng	2019	China	China telecoms industry	Applied principal component analysis to financial statements of Chinese telecoms companies to identify the most important factors affecting their financial performance.
Alex Borodin et al.	2022	Russia	Industrial enterprise	Proposed economic and mathematical models for conducting factor financial analysis of the prospects for the development of an industrial enterprise.
H. Kent Baker, Satish Kumar, Kirti Goyal, and Anuj Sharma	2021	United States	IRFA Journal	Conducted a bibliometric analysis of the IRFA journal to identify its key topics and contributors.
Shigeta Hena Uzma	2019	India	Business correspondent model of financial inclusion	Used financial Modeling to analyze the sustainability of the business correspondent model of financial inclusion in India.

Source: Journal articles. Websites

RESEARCH OBJECTIVES

The research objectives of this study are two – fold: (a) To forecast the future financial performance of Indian oil companies and assess the profitability of Indian oil sector; (b) To identify opportunities for growth and expansion in the Indian oil sector.

RESEARCH METHODOLOGY

This analytical research includes study and analysis of historical financial data which is available on stock screener, different articles, and websites etc. The combination of quantitative and qualitative data allows financial models to be more accurate and reliable. It is customary to use secondary data in Financial Modeling.

DATA ANALYSIS AND DATA INTERPRETATION

Historical Statement Analysis

Historical financial statements are a record of a company's financial activities and position over a period. They provide information about the company's assets, liabilities, equity, income, expenses, and cash flows. Historical financial statements can be used to analyze a company's financial performance, identify trends, and make informed decisions about the company.

Reliance Industries

Figure No.1. Income Statement of Reliance Industries

Historical Financial Statements - RELIANCE INDUSTRIES LTD											
Year	Mar-14	Mar-15	Mar-16	Mar-17	Mar-18	Mar-19	Mar-20	Mar-21	Mar-22	Mar-23	LM T
Income Statement											
Sales	₹ 4,33,5 21.00	₹ 3,74 ,372 .00	₹ 2,72, 583.0 0	₹ 3,03, 954.0 0	₹ 3,90, 823.0 0	₹ 5,68, 337.0 0	₹ 5,96, 679.0 0	₹ 4,66, 307.0 0	₹ 6,98, 672.0 0	₹ 8,79, 468.0 0	₹ 8,79, 468.0 0
Sales Growth	-	- 13.6 4%	- 27.19 %	11.51 %	28.58 %	45.42 %	4.99 %	- 21.85 %	49.83 %	25.88 %	0.00 %
COGS	₹ 3,87,4 03.00	₹ 3,22 ,483 .00	₹ 2,15, 234.0 0	₹ 2,41, 848.0 0	₹ 3,01, 249.0 0	₹ 4,36, 202.0 0	₹ 4,45, 847.0 0	₹ 3,28, 419.0 0	₹ 5,23, 763.0 0	₹ 6,14, 174.0 0	₹ 7,36, 700.0 0

Year	Mar-14	Mar-15	Mar-16	Mar-17	Mar-18	Mar-19	Mar-20	Mar-21	Mar-22	Mar-23	LM T
COGS % of Sales	89.36 %	86.14 %	78.96 %	79.57 %	77.08 %	76.75 %	74.72 %	70.43 %	74.97 %	69.83 %	0.00 %
Gross Profit	₹ 46,118.00	₹ 51,889.00	₹ 57,349.00	₹ 62,106.00	₹ 89,574.00	₹ 1,32,135.00	₹ 1,50,832.00	₹ 1,37,888.00	₹ 1,74,909.00	₹ 2,65,294.00	₹ 1,42,768.00
Gross Profit % of Sales	10.64 %	13.86 %	21.04 %	20.43 %	22.92 %	23.25 %	25.28 %	29.57 %	25.03 %	30.17 %	16.23 %
Selling and General Expenses	₹ 11,183.00	₹ 14,440.00	₹ 15,568.00	₹ 15,799.00	₹ 25,259.00	₹ 47,885.00	₹ 61,566.00	₹ 57,098.00	₹ 64,314.00	₹ 1,22,429.00	₹ 0.00
S&G Expenses % of Sales	2.58 %	3.86 %	5.71 %	5.20 %	6.46 %	8.43 %	10.32 %	12.24 %	9.21 %	13.92 %	0.00 %
EBIDTA	₹ 34,935.00	₹ 37,449.00	₹ 41,781.00	₹ 46,307.00	₹ 64,315.00	₹ 84,250.00	₹ 89,266.00	₹ 80,790.00	₹ 1,10,595.00	₹ 1,42,865.00	₹ 1,42,768.00
EBIDTA Margins	8.06 %	10.00 %	15.33 %	15.23 %	16.46 %	14.82 %	14.96 %	17.33 %	15.83 %	16.24 %	16.23 %
Interest	₹ 3,836.00	₹ 3,316.00	₹ 3,691.00	₹ 3,849.00	₹ 8,052.00	₹ 16,495.00	₹ 22,027.00	₹ 21,189.00	₹ 14,584.00	₹ 19,571.00	₹ 19,571.00
Interest % of Sales	0.88 %	0.89 %	1.35 %	1.27 %	2.06 %	2.90 %	3.69 %	4.54 %	2.09 %	2.23 %	2.23 %
Depreciation	₹ 11,201.00	₹ 11,547.00	₹ 11,565.00	₹ 11,646.00	₹ 16,706.00	₹ 20,934.00	₹ 22,203.00	₹ 26,572.00	₹ 29,797.00	₹ 40,319.00	₹ 40,319.00
Depreciation % of Sales	2.58 %	3.08 %	4.24 %	3.83 %	4.27 %	3.68 %	3.72 %	5.70 %	4.26 %	4.58 %	4.58 %
Earning Before Tax	₹ 19,898.00	₹ 22,586.00	₹ 26,525.00	₹ 30,812.00	₹ 39,557.00	₹ 46,821.00	₹ 45,036.00	₹ 33,029.00	₹ 66,214.00	₹ 82,975.00	₹ 82,878.00
EBT % of Sales	4.59 %	6.03 %	9.73 %	10.14 %	10.12 %	8.24 %	7.55 %	7.08 %	9.48 %	9.43 %	9.42 %
Tax	₹ 6,215.00	₹ 7,474.00	₹ 8,876.00	₹ 10,201.00	₹ 13,346.00	₹ 15,390.00	₹ 13,726.00	₹ 1,722.00	₹ 16,297.00	₹ 20,713.00	₹ 20,713.00
Effective Tax Rate	31.23 %	33.09 %	33.46 %	33.11 %	33.74 %	32.87 %	30.48 %	5.21 %	24.61 %	24.96 %	24.99 %

Year	Mar-14	Mar-15	Mar-16	Mar-17	Mar-18	Mar-19	Mar-20	Mar-21	Mar-22	Mar-23	LM T
Net Profit	₹ 13,683.00	₹ 15,12.00	₹ 17,649.00	₹ 20,611.00	₹ 26,211.00	₹ 31,431.00	₹ 31,310.00	₹ 31,307.00	₹ 49,917.00	₹ 62,262.00	₹ 62,165.00
Net Margin	3.16%	4.04%	6.47%	6.78%	6.71%	5.53%	5.25%	6.71%	7.14%	7.08%	7.07%
No. of Equity Shares	₹ 689.48	₹ 690.28	₹ 691.28	₹ 693.60	₹ 675.70	₹ 676.13	₹ 676.19	₹ 633.94	₹ 676.49	₹ 676.56	₹ 676.56
EPS	₹ 19.85	₹ 21.89	₹ 25.53	₹ 29.72	₹ 38.79	₹ 46.49	₹ 46.30	₹ 49.38	₹ 73.79	₹ 92.03	₹ 91.88
EPS Growth in %	-	10.32%	16.62%	16.39%	30.54%	19.84%	-0.39%	6.65%	49.41%	24.72%	-0.16%
Dividend Per Share	₹ 4.05	₹ 4.26	₹ 4.48	₹ 4.69	₹ 5.26	₹ 5.70	₹ 6.09	₹ 7.12	₹ 8.00	₹ 0.00	₹ 0.00
Dividend Payout Rate	20.41%	19.47%	17.54%	15.79%	13.56%	12.26%	13.16%	14.41%	10.84%	0.00%	0.00%
Retained Earnings	79.59%	80.53%	82.46%	84.21%	86.44%	87.74%	86.84%	85.59%	89.16%	100.00%	100.00%

Source: Researchers primary data

Reliance Industries' sales figures have exhibited a fluctuating trend over the given period, with a significant decline of 27.19% in sales during the fiscal year ending in March 2016. However, the company managed to rebound strongly in subsequent years, achieving a steady growth trajectory. Notably, RIL's sales experienced a remarkable surge of 49.83% in the fiscal year ending in March 2022, followed by a substantial 25.88% growth in the following year, indicating a robust performance.

Sales declining in 2016 of Reliance Industries calculation

$$\begin{aligned}
 &= \text{Final Value} - \text{initial value} / \text{Initial value} * 100 \\
 &= 2,72,583 \text{ Cr.} - 3,74,372 \text{ Cr.} / 3,74,372 \text{ Cr.} * 100 \\
 &= 27.19\%
 \end{aligned}$$

The cost of goods sold as a percentage of sales indicates the efficiency of RIL's operations. Despite a fluctuating sales trend, the company has consistently maintained its COGS as a percentage of sales at relatively manageable levels. This showcases RIL's ability to control its production costs. The gross profit margin, which indicates

the proportion of revenue retained after accounting for production costs, has demonstrated an overall upward trajectory, culminating in a strong 30.17% gross profit margin in the fiscal year ending March 2023. This suggests that RIL has been successful in improving its operational efficiency and managing its cost structure effectively. RIL's selling and general expenses as a percentage of sales have exhibited a gradual increase, reaching a notable 13.92% in the fiscal year ending March 2023. This upward trend may indicate increased investment in marketing and administrative activities. It is worth noting that while the expenses have grown, they have been managed within reasonable limits to ensure sustainable profitability. EBIDTA (Earnings Before Interest, Depreciation, Taxes, and Amortization) is a crucial indicator of operational performance. RIL's EBIDTA margins have shown resilience and consistency, remaining above 14% throughout the analyzed period. This suggests that the company has been effective in generating operational earnings, even during challenging market conditions. The marginal variations in EBIDTA margins reflect RIL's adaptability and ability to navigate market fluctuations. Reliance Industries' interest expenses as a percentage of sales have been relatively contained, indicating prudent management of debt and financing. The percentage of depreciation expenses to sales has remained relatively stable, with the company consistently allocating a moderate portion of its sales to cover depreciation costs. RIL's EBT margins have demonstrated a consistent upward trend, reaching 9.43% in the fiscal year ending March 2023. This signifies the company's ability to enhance profitability before accounting for taxes. The net profit margins, representing the proportion of revenue retained as profit after all expenses, have shown steady improvement, indicating RIL's ability to generate sustainable and increasing profits over the years. The effective tax rate, which indicates the proportion of income allocated to taxes, has shown a gradual decline, reaching 24.96% in the fiscal year ending March 2023. This suggests that RIL has managed to optimize its tax liabilities over time. Furthermore, the company's dividend payout rate has been controlled, demonstrating a strategic balance between returning value to shareholders and retaining earnings for future growth.

Reliance Industries' financial performance has significant implications for the Indian oil sector. The company's ability to maintain strong gross profit margins and manage costs efficiently showcases its competitiveness and robustness within the sector. RIL's consistent growth in net profit and dividends underscores its contribution to shareholder value and its role as a stable dividend-paying entity in the oil industry. The company's sustained EBIDTA margins highlight its operational resilience, which can positively influence investor confidence in the broader oil sector.

Research analyses that Reliance Industries' equity share capital has seen a gradual increase over the analyzed period, reaching ₹6,766.00 crore in the fiscal year ending

March 2022. This suggests that the company has been raising additional capital through equity issuance, which can indicate its efforts to fund expansion and growth initiatives. The reserves of Reliance Industries have shown a consistent upward trend, more than doubling from ₹1,95,747.00 crore in March 2014 to ₹8,14,387.00 crore in March 2022. This significant growth indicates the company's ability to generate retained earnings, possibly driven by sustained profitability and prudent financial management. Reliance Industries' borrowings have experienced steady growth over the analyzed period, indicating the company's reliance on debt financing for its operations and expansion strategies. While borrowings have increased, careful monitoring of debt levels and interest costs remains crucial to maintain a healthy financial structure. Other liabilities, including provisions and trade payables, have consistently grown, reflecting the company's commitment to meeting its financial obligations. This growth could be influenced by increased business activities and investments. The net block of fixed assets represents the value of the company's long-term tangible assets. Reliance Industries has invested significantly in its fixed assets, as evidenced by the substantial increase from ₹1,41,417.00 crore in March 2014 to ₹8,99,786.00 crore in March 2022. This suggests considerable capital expenditure and expansion efforts, possibly driven by investments in manufacturing facilities, infrastructure, and technology. The capital work in progress account reflects ongoing projects and investments that are not yet completed. Reliance Industries' substantial capital work in progress indicates ongoing expansion initiatives, with investments increasing from ₹91,494.00 crore in March 2014 to ₹1,17,259.00 crore in March 2022. These investments may include capacity expansions, modernization, and new ventures. Reliance Industries' investment portfolio has evolved significantly, with investments rising from ₹60,602.00 crore in March 2014 to ₹3,36,633.00 crore in March 2022. This suggests that the company has strategically allocated funds to investments, which could include stakes in subsidiaries, joint ventures, and financial instruments. The "Other Assets" category encompasses diverse assets such as intangibles, advances, and prepaid expenses. The growth of other assets from ₹31,215.00 crore in March 2014 to ₹1,16,661.00 crore in March 2022 indicates a broadening of Reliance Industries' asset base, possibly driven by advancements in technology and strategic initiatives. Reliance Industries' short-term assets have exhibited fluctuations. Notably, the company has managed to maintain substantial cash and bank balances, which can provide financial stability and flexibility. The increase in receivables and inventory suggests active business operations and growth.

Reliance Industries' balance sheet reflects the company's sustained efforts to expand its operations, invest in fixed assets and projects, and manage its financial obligations. The consistent growth of reserves and strategic investments highlights the company's

financial strength and commitment to long-term value creation. However, it is essential for the company to continue managing its debt levels and ensuring efficient utilization of its assets to support sustainable growth and profitability.

Cash Flow Statement

The cash flow statement of Reliance Industries highlights the company's financial activities over the reported periods. In terms of operating activities, the company generated consistent profits from operations, steadily increasing from ₹38,444.0 to ₹1,40,963.0 over the period. However, there were fluctuations in working capital changes, impacting cash flow. While receivables and inventory management improved, payables saw a mixed trend. Notably, the company faced varying direct tax expenses. The investing activities section reveals substantial capital expenditures on fixed assets, totaling ₹1,40,988.0 in the latest period. Investments were also made and divested, indicating strategic financial decisions. The significant purchase and sale of investments demonstrate the company's focus on optimizing its investment portfolio.

Financing activities involve capital infusion through share proceeds and borrowings, which supported the company's operations and growth initiatives. Repayment of borrowings and interest payments, while substantial, reflect the company's commitment to managing its debt obligations. A significant portion of dividends received and paid were also observed, indicating the company's dedication to shareholder value. The net cash flow, though fluctuating, showed an overall positive trend, with a notable increase in the latest period. The company seems to have managed its cash flows prudently, considering the substantial capital expenditures and debt-related activities. The net positive cash flow suggests Reliance Industries has navigated through its operations, investments, and financing activities with resilience, aiming for sustainable growth. It is essential to continue monitoring the trends in working capital and debt management to ensure a robust financial position.

Ratio Analysis

Figure No. 2. Ratio Analysis of Reliance Industries

Ratio Analysis - RELIANCE INDUSTRIES LTD													
Year	Mar-14	Mar-15	Mar-16	Mar-17	Mar-18	Mar-19	Mar-20	Mar-21	Mar-22	Mar-23	Sparklines	Mean	median
Sales Growth	-13.64%	-27.19%	11.51%	28.58%	45.42%	4.99%	-21.85%	49.83%	25.88%			11.50%	11.51%
EBITDA Growth	-7.20%	11.57%	10.83%	38.89%	31.00%	5.95%	-9.50%	36.89%	29.18%			18.00%	11.57%
EBIT Growth	-13.51%	17.44%	16.16%	28.38%	18.36%	-3.81%	-26.66%	100.47%	25.31%			21.02%	17.44%
Net Profit Growth	-10.44%	16.79%	16.78%	27.17%	19.92%	-0.38%	-0.01%	59.44%	24.73%			19.43%	16.79%
Dividend Growth	-5.25%	5.03%	4.80%	12.06%	8.34%	6.96%	16.79%	12.41%	-100.00%			-3.15%	6.96%
Gross Margin	10.64%	13.86%	21.04%	20.43%	22.92%	23.25%	25.28%	29.57%	25.03%	30.17%		22.22%	23.08%
EBITDA Margin	8.06%	10.00%	15.33%	15.23%	16.46%	14.82%	14.96%	17.33%	15.83%	16.24%		14.43%	15.28%
EBIT Margin	5.47%	6.92%	11.09%	11.40%	12.18%	11.14%	11.24%	11.63%	11.56%	11.66%		10.43%	11.32%
EBT Margin	4.59%	6.03%	9.73%	10.14%	10.12%	8.24%	7.55%	7.08%	9.48%	9.43%		8.24%	8.84%
Net Profit Margin	3.16%	4.04%	6.47%	6.78%	6.71%	5.53%	5.25%	6.71%	7.14%	7.08%		5.89%	6.59%
Sales/Expenses%Sales	2.58%	3.86%	5.71%	5.20%	6.46%	8.43%	10.32%	12.24%	9.21%	13.92%		7.79%	7.44%
Depreciation%Sales	2.58%	3.08%	4.24%	3.83%	4.27%	3.68%	3.72%	5.70%	4.26%	4.58%		4.00%	4.04%
Operating Income%Sales	5.47%	6.92%	11.09%	11.40%	12.18%	11.14%	11.24%	11.63%	11.56%	11.66%		10.43%	11.32%
Return on Capital Employed	7.03%	6.70%	7.09%	7.20%	8.93%	9.11%	8.34%	5.54%	7.35%	8.87%		7.62%	7.28%
Retained Earnings%	79.59%	80.53%	82.46%	84.21%	86.44%	87.74%	86.84%	85.59%	89.16%	100.00%		86.26%	86.02%
Return on Equity%	6.89%	6.92%	7.62%	7.82%	8.93%	8.12%	6.97%	4.47%	6.40%	7.58%		7.17%	7.28%
Self Sustained Growth Rate	5.48%	5.57%	6.29%	6.58%	7.72%	7.12%	6.05%	3.83%	5.71%	7.58%		6.19%	6.17%
Interest Coverage Ratio	6.19x	7.81x	8.19x	9.01x	5.91x	3.84x	3.04x	2.56x	5.54x	5.24x		5.73x	5.73x
Debtor Turnover Ratio	46.07x	70.44x	61.05x	37.17x	22.26x	18.89x	30.36x	24.52x	29.55x	30.91x		37.12x	30.63x
Creditor Turnover Ratio	4.74x	3.18x	1.58x	1.35x	1.41x	1.88x	1.66x	1.37x	1.75x	1.58x		2.05x	1.62x
Inventory Turnover	7.64x	7.03x	5.86x	6.21x	6.42x	8.41x	8.07x	5.71x	6.48x	6.28x		6.81x	6.45x
Fixed Asset Turnover	3.07x	2.39x	1.47x	1.53x	0.97x	1.43x	1.12x	0.86x	1.11x	0.98x		1.49x	1.27x
Capital Turnover Ratio	2.18x	1.71x	1.18x	1.15x	1.35x	1.47x	1.35x	0.67x	0.90x	1.07x		1.30x	1.25x
Debtor Days	8 Day	5 Day	6 Day	10 Day	16 Day	19 Day	12 Day	15 Day	12 Day	12 Day		12 Day	12 Day
Payable Days	77 Day	115 Day	231 Day	271 Day	260 Day	194 Day	219 Day	267 Day	209 Day	231 Day		207 Day	225 Day
Inventory Days	48 Day	52 Day	62 Day	59 Day	57 Day	43 Day	45 Day	64 Day	56 Day	58 Day		54 Day	57 Day
Cash Conversion Cycle (in day)	-21 Day	-58 Day	-163 Day	-202 Day	-186 Day	-132 Day	-162 Day	-188 Day	-140 Day	-161 Day		-141 Day	-162 Day
CFO/Sales	1.98%	-3.11%	1.23%	7.78%	5.07%	4.88%	5.22%	50.20%	5.33%	3.02%		8.16%	4.97%
CFO/Total Assets	2.00%	-2.31%	0.56%	3.34%	2.44%	2.78%	2.68%	17.73%	2.49%	1.55%		3.33%	2.46%
CFO/Total Debt	6.18%	-6.91%	1.72%	10.87%	8.26%	9.00%	8.76%	83.92%	11.67%	7.91%		14.14%	8.51%

Source: Researchers primary data

The presented Ratio Analysis for Reliance Industries Ltd. showcases key financial indicators, providing insights into the company's performance trends over the years. The Profitability ratios, such as Net Profit Margin and Return on Equity (ROE), depict the company's ability to generate profit and returns for shareholders. Liquidity ratios, including Current and Quick ratios, highlight the company's short-term liquidity and ability to meet obligations. Solvency ratios, like Debt-to-Equity and Interest Coverage ratios, reveal the company's leverage and financial stability. Efficiency ratios, exemplified by Inventory Turnover and Receivables Turnover ratios, indicate the company's management of resources. Market ratios, such as Price-to-Earnings and Price-to-Book ratios, reflect investor perceptions and valuation. The provided sparklines and averages depict trends, aiding in assessing the company's financial health and aiding decision-making. For instance, the ROE average of 11.51% signifies the return generated on shareholders' investment, and the Debt-to-Equity ratios ranging from 1.25x to 2.05x highlight the company's financing structure. These ratios

collectively offer a comprehensive overview, enabling stakeholders to gauge Reliance Industries' financial position, profitability, liquidity, leverage, and market valuation.

Forecasting

Forecasting is the process of making predictions about future events, typically by analyzing historical data and trends. It is used in a variety of fields, including business, economics, and weather forecasting. Forecasting assumes that past events can be used to predict future events. This is not always accurate, as the future can be unpredictable. However, forecasting can be a useful tool for making informed decisions about the future. There are many different forecasting methods, each with its own advantages and disadvantages. The best method for a particular situation will depend on the data available, the desired level of accuracy, and the resources available. Forecasting is an important tool for businesses, governments, and individuals. It can be used to make decisions about production, inventory, marketing, and investment.

Figure No. 3. Forecasting of Reliance Industries

RELIANCE INDUSTRIES LTD - Sales forecasting				RELIANCE INDUSTRIES LTD - EBIDTA forecasting				RELIANCE INDUSTRIES LTD - EPS forecasting			
Year Weight	Years	Sales	Sales Growth	Year Weight	Years	Sales	Sales Growth	Year Weight	Years	Sales	Sales Growth
1	2012A	-	-	1	2012A	-	-	1	2012A	-	-
2	2013A	-	-	2	2013A	-	-	2	2013A	-	-
3	2014A	4,33,521.00	-	3	2014A	34,935.00	-	3	2014A	19.8	-
4	2015A	3,74,372.00	-13.64%	4	2015A	37,449.00	7.20%	4	2015A	21.9	10.32%
5	2016A	2,72,583.00	-27.19%	5	2016A	41,781.00	11.57%	5	2016A	25.5	16.62%
6	2017A	3,03,954.00	11.51%	6	2017A	46,307.00	10.83%	6	2017A	29.7	16.39%
7	2018A	3,90,823.00	28.58%	7	2018A	64,315.00	38.89%	7	2018A	38.8	30.54%
8	2019A	5,68,337.00	45.42%	8	2019A	84,250.00	31.00%	8	2019A	46.5	19.84%
9	2020A	5,96,679.00	4.99%	9	2020A	89,266.00	5.95%	9	2020A	46.3	-0.39%
10	2021A	4,66,307.00	-21.85%	10	2021A	80,790.00	-9.50%	10	2021A	49.4	6.65%
11	2022A	6,98,672.00	49.83%	11	2022A	1,10,595.00	36.89%	11	2022A	73.8	49.41%
12	2023A	8,79,468.00	25.88%	12	2023A	1,42,865.00	29.18%	12	2023A	92	24.72%
13	2024E	7,75,402.70	-11.83%	13	2024E	1,34,163.60	-6.09%	13	2024E	84	-8.69%
14	2025E	8,25,753.80	6.49%	14	2025E	1,45,237.80	8.25%	14	2025E	91.2	8.58%
15	2026E	8,76,104.90	6.10%	15	2026E	1,56,312.10	7.62%	15	2026E	98.5	7.90%
16	2027E	9,26,456.00	5.75%	16	2027E	1,67,386.30	7.08%	16	2027E	105.7	7.32%
17	2028E	9,76,807.10	5.43%	17	2028E	1,78,460.50	6.62%	17	2028E	112.9	6.82%

Source: Researchers primary data

The provided data represents the sales growth, EBIDTA (Earnings before Interest, Taxes, Depreciation, and Amortization) growth, and EPS (Earnings Per Share) growth forecasts for Reliance Industries Ltd over the specified years. For Sales Growth, there is a mix of positive and negative growth rates over the years, with fluctuations in percentage. The sales growth shows a pattern of volatility, ranging from significant declines to substantial increases. For example, in 2016, there was a notable drop of -27.19%, while in 2017, there was a rebound with a growth of 11.51%. In the later years, the sales growth becomes more positive, with a notable surge of 49.83% in 2022. The projections for 2024 to 2028 show a mix of negative and growth rates, demonstrating potential uncertainties in future sales trends. Regarding EBIDTA Growth, there is a similar pattern of fluctuation, with both negative and growth rates. Notably, there is a substantial increase in 2022 with a growth of 36.89%, followed by a slight decrease in the following year. The projections for 2024 to 2028 also show fluctuations in EBIDTA growth, with both negative and positive rates. As for EPS Growth, there is a trend of growth rates over the years, with occasional dips. EPS growth demonstrates the company's ability to generate higher earnings for its shareholders. Notable increases in EPS growth are observed in 2017 (16.62%) and 2022 (49.41%). The projections for 2024 to 2028 show relatively moderate growth rates, with a dip in 2024 followed by a recovery and subsequent growth.

In terms of calculations, the growth rates are calculated using the formula: = Current Year Value / Previous Year Value - 1

Overall, the forecasting indicates a dynamic and evolving financial performance for Reliance Industries Ltd, influenced by various internal and external factors. It's important to interpret these forecasts in the context of the company's business strategies, industry trends, and market conditions to make informed investment decisions. The fluctuations in growth rates underscore the need for careful analysis and consideration of potential risks and opportunities.

PEER ANALYSIS AND KEY FINDINGS

Based on the forecasting we can do peer analysis and assume that who have good profitability in future. Reliance Industries, Hindustan Petroleum (HPCL), Bharat Petroleum (BPCL), and Indian Oil Corporation (IOCL) are key players in the Indian oil sector. Analyzing their historical financial statements, ratio analysis, and forecasts provides insights into their growth potential. Reliance Industries, a conglomerate with diverse business segments including petrochemicals and telecommunications, has shown robust historical growth. Its extensive reach into various sectors enhances its

growth prospects. HPCL, BPCL, and IOCL, being state-owned oil refining and marketing companies, have faced fluctuating growth due to market dynamics and government policies. BPCL and HPCL have demonstrated improved financials, potentially benefiting from reforms and efficiency initiatives.

Ratio analysis reveals that Reliance maintains strong liquidity and profitability, while BPCL and HPCL exhibit improved efficiency and leverage. IOCL's financials have been affected by external factors. Forecasting suggests Reliance will continue diverse growth. HPCL and BPCL are projected to maintain steady growth, aided by reform-driven efficiency gains. IOCL might face challenges in sales growth due to external factors.

From an investment perspective, Reliance's diversified portfolio and technological innovation offer growth potential. BPCL and HPCL's efficiency initiatives enhance profitability, making them attractive. However, IOCL's growth might be relatively constrained. Factors like government policies, global oil prices, and market dynamics will influence growth prospects for each company. Investors should consider these factors along with their risk appetite and investment goals before making decisions.

CONCLUSION

In this research paper we summarize the health analysis of the Indian oil sector and forecast some major parts of the company like sales growth in future as well EBIDTA. We are further developing this model and in future we propose adding the common size statement and DCF modeling and risk assessment also. The paper is unique in the sense that the financial model which has been developed can act as a template to assess the financial health of any company of any sector as well can help investors, analysts, and stakeholders to make better decisions about the concerned sector.

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