

AN EMPIRICAL STUDY ON THE IMPACT OF FINANCIAL LEVERAGE ON THE PROFITABILITY OF RELIANCE INDUSTRIES LTD. AMONG BSE-30 COMPANIES

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ABSTRACT

The oil and gas industry is among the eight core industries in India and has a crucial role to play in affecting the general economic growth of the nation. In the current study, the independent variable is financial leverage, and the dependent variables are the Net Profit Ratio (NPR), Earnings per Share (EPS), Return on Equity (ROE), and Return on Assets (ROA). The research is premised on secondary data drawn from the annual consolidated financial statements of Reliance Industries Ltd. over a span of five years between 2020–21 and 2024–25. Correlation analysis is used to examine the relationship between financial leverage and profitability, and linear regression analysis is used to examine the influence of financial leverage on the profitability indicators. The results indicate that financial leverage is not significantly related to EPS and is significantly positively related to NPR, ROE, and ROA. Nevertheless, the regression analysis shows that financial leverage is not statistically significant to the overall profitability of Reliance Industries Ltd. in the study period, with the exception of ROE. The research concludes that financial leverage does not play a significant role in the overall profitability of Reliance Industries Ltd. over the period of study. It is therefore important to have an optimal capital structure in order to maximize the return to shareholders without raising financial risk.

Keywords: *Financial leverage; Profitability; Reliance Industries Ltd.*

1. Introduction

Leverage refers to the capacity of a company to generate greater income by using fixed assets or debt. Among the important components of financial management is the financial decision in any sort of business enterprise. A good financial decision should be made with consideration of the wide coverage of the financial mix (capital structure), the total amount of capital (capitalization), and the cost of capital. One of the important things for management is capital structure, as it determines the debt–equity ratio of the business enterprise, which influences the profit to the shareholder and the risk. The determination of the debt–equity mix is therefore significant in the contribution to the value of the company and the market value of the shares. With the help of debt analysis, the debt–equity mix of the company can be analysed.

2. Concept of Leverage

Leverage is the capacity of a firm to utilize long-term funds with a fixed cost in order to increase the returns of the owner. To be precise, leverage is the debt amount that the firm utilizes to fund its assets. A firm with a high debt amount in its capital structure is regarded as a highly levered firm. A company that is not in debt is referred to as unlevered. Leverage, as a term, is generally used to describe a connection between two related variables. In financial analysis, it depicts the effect of a single financial variable on some other

associated financial variable. Such financial variables can be costs, output, sales revenue, earnings before interest and tax (EBIT), earnings per share (EPS), etc. James C. Van Horne says that leverage is the utilization of fixed cost in an effort to raise (or lever up) profitability. According to J. E. Walter, leverage can be described as the percentage of returns on equity and the net rate on the total capitalization.

3. Types of Leverage

Leverage is the process by which fixed costs are used to boost returns in the running or the financing of a firm. It determines how sensitive profits are to changes in sales or earnings. There are three broad categories of leverage, namely Operating Leverage, Financial Leverage, and Combined Leverage.

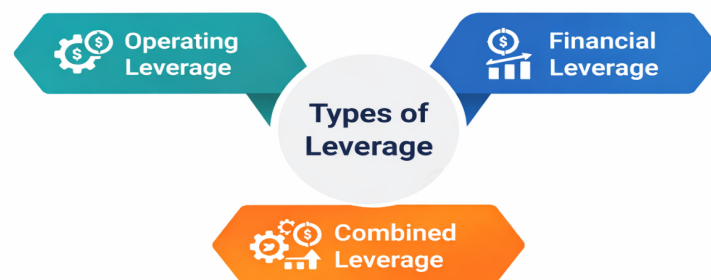


Figure 1. Types of Leverage

Operating Leverage. Operating leverage is used to evaluate how fixed operating costs affect the operating profit of a firm. It shows the sensitivity of Earnings Before Interest and Taxes (EBIT) to changes in sales. Degree of Operating Leverage (DOL) = Contribution / EBIT.

Financial Leverage. Financial leverage is the application of fixed financial costs, which include interest on debt, to improve returns to equity shareholders. It is a measure of the sensitivity of Earnings per Share (EPS) to change in EBIT. Degree of Financial Leverage (DFL) = EBIT / EBT.

Combined Leverage. Combined leverage is the combined effect of operating leverage and financial leverage on the earnings of a firm. It demonstrates the relationship between changes in sales and Earnings per Share (EPS). Degree of Combined Leverage (DCL) = DOL × DFL.

4. Concept of Profitability

Profitability can be defined as the capacity of a business venture to make profits out of its activities after meeting all the ensuing costs, which encompass operating costs, interest, and taxes. It is a measure of how well a firm makes use of its resources—including assets, capital, and equity—to make returns within a particular period. Financial performance can be measured in terms of profitability, which is common among management, investors, and creditors to determine the financial health, operational efficiency, and long-term sustainability of a firm. It is normally measured using profitability ratios like Net Profit Ratio, Return on Assets, Return on Equity, and Earnings per Share, which give an insight into the ability of the firm to transform revenue into profit. Stable profitability increases shareholder wealth, market confidence, and sound managerial and investment decision-making.

5. Review of Literature

Dwiantari & Artini (2021) researched the effect of liquidity, leverage, and profitability on financial distress (property and real estate companies on the IDX, 2017–2019). A purposive sampling method was employed and 53 firms were chosen. Regression analysis was utilized in testing the hypothesis. The findings indicated that liquidity and profitability significantly influence financial distress negatively, and leverage positively.

Prajapati (2021) examined the impact of liquidity and leverage on profitability, exploring the relationship between liquidity and profitability and the effect of financial leverage and liquidity on the financial performance of selected pharmaceutical firms in the Nifty index (2008–09 to 2017–18). Using mean, standard deviation, and correlation, the study observed that liquidity ratios are positively correlated with profit, while profitability and capital structure are not affected significantly by leverage.

Mohammed, Puat, Amirrudin & Hashim (2020) studied leverage, liquidity, and profitability ratios of 22 Malaysian listed oil and gas firms over ten years (2008–2017). Using correlation, the results indicated that leverage (debt–equity ratio) has a strong negative association with firms' profitability, while liquidity ratios are insignificantly correlated with profitability.

Ramlan (2020) undertook a study of the effect of leverage and liquidity on company performance for 21 manufacturing and construction companies on Bursa Malaysia (2014–2018), with liquidity and leverage as independent variables and ROA as the dependent variable. Using correlation and multiple regression, the researcher established that liquidity and leverage had a significant relationship with company performance.

Zimny (2021) studied the impact of financial leverage on company market valuation for 11 energy companies on the Warsaw Stock Exchange. Using correlation and multiple regression, the study found that leverage significantly influences market valuation, and reported positive correlation and regression coefficients between leverage and firm value.

Orajekwe & Okegbe (2020) analysed financing leverage and dividend policy in oil and gas companies in Nigeria (2011–2018), using an ex-post facto design with nine sampled firms. Using descriptive statistics, correlation, and least-squares regression, the research found a significant relationship between long-term debt and total debt and the dividend payout ratio, but no relationship for short-term debt.

Krishna & Kumar (2018) published a study of financial leverage and firm performance for selected public-sector undertakings listed on the BSE. Using correlation and regression, it established a negative correlation between SDR, LDR, and TDR with ROA, and a positive correlation with ROE, at the 1% significance level.

Khedkar (2015) examined leverage analysis and profitability for Dr. Reddy's Laboratories (2010–2014). Using ratio analysis and correlation, the finding was that the Degree of Operating Leverage had a significant negative relationship with ROI, and negative correlation between ROI and both DFL and DCL was noted.

Krishnan & Mohandas (2013) discussed factors influencing the leverage of Indian companies, analysing how growth, profitability, liquidity, and dividend policy influence leverage. Sampling 40 Indian firms across four sectors (CMIE database, 2006–2010) and using multiple regression, the findings established that liquidity and profitability play a significant role in the leverage of Indian companies.

Sukhija (2012) examined the leverage and profitability position of selected textile companies in India, testing how leverage affects the EPS of six textile companies over six years (2005–2010). Using correlation,

the findings indicated that the total leverage of Lakshmi Mills Co. Ltd. was maximum, implying increased profits, and clarified that companies could re-optimize their capital structure and capacity utilization to generate future profit.

Alkhatib (2012) examined the determinants of leverage of 121 listed companies on the Jordanian Stock Exchange (2007–2010), using liquidity, size, growth rate, profit, and tangibility as explanatory variables. Regression results revealed no significant relationship overall; when split, liquidity and tangibility played an important positive role in the industrial sector, while tangibility, growth rate, and liquidity played a positive role in the services sector.

Kothari (2004) assessed the impact of liquidity and leverage on profitability with selected pharmaceutical companies of India (10 firms in the Nifty index, 2008–09 to 2017–18). Using descriptive statistics and correlation, the study revealed a positive relationship between liquidity ratios and profits, a negative correlation of profit with debt ratio and debt–equity ratio, and that leverage did not significantly influence profitability or capital structure.

6. Research Gap

The literature on financial leverage and profitability is dominated by studies where a number of firms or whole industries are analysed with mixed findings, meaning that there is no agreement on the profitability–leverage relationship. In addition, empirical evidence on large-cap Indian oil and gas companies—especially Reliance Industries Ltd., a BSE-30 company—is limited, although it is a major player in the Indian economy. Prior studies also do not focus much on concurrent analysis of various profitability measures including Net Profit Ratio, Earnings per Share, Return on Equity, and Return on Assets using correlation and regression analysis. Thus, the current research fills this gap by presenting a firm-level, specific analysis of the relationship and effects of financial leverage on the profitability of Reliance Industries Ltd.

7. Objectives of the Study

1. To know the relationship between profitability and financial leverage of Reliance Industries Ltd.
2. To examine how financial leverage affects the Net Profit Ratio of Reliance Industries Ltd.
3. To investigate the impact of financial leverage on the Earnings per Share of Reliance Industries Ltd.
4. To determine the effect of financial leverage on the Return on Equity of Reliance Industries Ltd.
5. To determine the effect of financial leverage on the Return on Assets of Reliance Industries Ltd.

8. Hypotheses of the Study

To test the statistical significance, the following null hypotheses are formulated:

H01: Financial leverage has no significant correlation with the Net Profit Ratio of Reliance Industries Ltd.

H02: Financial leverage and the Earnings per Share of Reliance Industries Ltd. do not have a significant relationship.

H03: Financial leverage has no significant association with the Return on Equity of Reliance Industries Ltd.