



## Corporate Leverage's Effect on Profitability

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### ABSTRACT

This study explores the complex interplay between corporate leverage and profitability in the context of a few Indian industrial sectors. The manufacturing industry, a key engine of economic expansion, frequently encounters difficulties due to changes in technology and market dynamics. The choice of how to balance debt and equity financing becomes crucial among these difficulties. Corporate leverage, as a gauge of debt utilisation, has a big impact on how profitable and long-lasting a company is. This study aims to advance knowledge of how corporate leverage affects profitability in the particular setting of Indian manufacturing. Assessing current levels of corporate leverage, examining its effects on profitability, finding industry-specific variances, and providing insights to guide strategic financial decisions are the study's main goals. The study uses a quantitative methodology that involves gathering and analysing financial data from sources that are readily accessible to the public. To find connections and patterns in the data, statistical approaches are used. The conclusions drawn from the data analysis are anticipated to further knowledge of how corporate leverage affects profitability in the particular industrial industries under study. Despite focusing on a particular group of businesses, this research may provide insights that are applicable to financial decision-making in a variety of manufacturing sectors.

**Keywords:** corporate leverage, profitability, manufacturing industries, financial decision-making.

### Introduction

Within the fields of finance and economics, there has long been significant study and debate on the dynamic interaction between corporate leverage and profitability. The combination of stock and debt financing that makes up a company's financial structure plays a key role in determining its performance and sustainability in the cutthroat business environment. In this setting, it becomes crucial to investigate how corporate leverage affects profitability.

### Background of the Study

The manufacturing industry, frequently referred to as the foundation of an economy, is essential for producing goods, creating jobs, and fostering economic expansion. Manufacturing businesses encounter a variety of problems in a fast evolving global economic environment, from technology breakthroughs to market volatility. These businesses must make important decisions about their capital structure, specifically the ratio of debt to equity in their financing structure. Corporate leverage, which measures how much debt is being used, has the power to have a big impact on a company's long-term viability and profitability.

### Review of Literature

Modigliani and Miller (1958) discovered that FP was unaffected after looking at how an organization's debt structure affected FP. However, they claimed in a later study that these organisations prefer to finance with debt rather than equity because of high taxes and deductible interest rates (Modigliani and Miller 1963), which is consistent with the trade-off theory, which claims that debt gives an organisation a tax advantage (Akeem et al. 2014). In order to increase performance, the company should take on additional debt, which will reduce taxes and increase ROA (Saif-Alyousfi et al. 2020). Nirajini and Priya (2013) also support this point of view. Homapour et al. (2022) examined British businesses and discovered that leverage enhances stock market performance while lowering financial market risk. Our review of the literature will concentrate on this subject area since it attempts to empirically examine the DR and FV nexus with a moderate influence on profitability.

In order to examine how CS affects industrial performance in India, Goel et al. (2022) substituted debt finance for CS and profit margins for business success. These results show no association between performance and debt financing, which is in line with earlier research. It is possible to study the CS and FP of Sri Lanka's listed firms by simulating the CS with debt and the FP with ROA and return on capital employed (ROCE) (Pratheepkanth 2011; Yinusa et al. 2021). The findings indicate a poor link between leverage and FP. Degrading the FP of the company is the result of growing debt.

A transaction's or investment's profitability is measured (Liao et al. 2020). It also displays the management's capacity to increase business earnings or serve as a gauge of efficiency. High profitability suggests that the company has a bright future for investors. The stability and liquidity of the financial

system are significantly impacted by profitability. Therefore, when evaluating a company's profitability, investors should consider the company's financial liquidity. When making long-term investments, investors are taking financial security and profitability levels into greater consideration.

The importance of firm-specific determinants on leverage decisions is highlighted in studies by Rajan and Zingales (1995) and Frank and Goyal (2003). These variables include the size of the company, potential for expansion, the tangible nature of the assets, profitability, and market characteristics. According to their research, businesses with growth potential and observable assets are more inclined to use debt to fund their operations.

Leverage's effect on profitability is still a hotly debated subject. According to Myers (1977), a moderate amount of debt can increase a company's value by bringing management and shareholder objectives into alignment. High levels of indebtedness, however, may result in financial distress expenses and have an impact on profitability. Through their market timing theory, Baker and Wurgler (2002) contend that businesses pace the issue of equity and debt in response to market conditions, which has an effect on both leverage and profitability.

Studies by Bradley, Jarrell, and Kim (1984) and Titman and Wessels (1988) highlight the importance of differences in the leverage-profitability connection that are peculiar to a certain industry. Different industries have different risk profiles and asset structures, which affect how much leverage is used and how profitable the results are. This is where the manufacturing sector, which includes a wide range of sub-industries, may show unusual patterns.

Limited but expanding research is available on the Indian manufacturing industry. Studies by Chakraborty (2011) and Bhattacharyya and Ravi kumar (2019) draw attention to the complexity of the Indian market, where businesses must contend with issues like market conditions, regulatory frameworks, and access to outside capital. The leverage-profitability nexus may be impacted differentially by these elements in the Indian setting.

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## Rational of the Study

In light of these factors, this study aims to explore the complex link between corporate leverage and profitability in the context of certain Indian manufacturing industries. The lack of thorough research on the complex consequences of leverage on profitability in the particular Indian industrial scene is the driving force for this study. This research intends to identify industry-specific trends and insights that may have wider significance for corporate financial decision-making by focusing on a select group of industries.

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## Objectives

1. To examine how corporate leverage affects these industrial companies' profitability.
2. To pinpoint any differences in the leverage-profitability connection that are industry-specific.
3. To offer information that could help Indian manufacturing enterprises make prudent financial decisions.

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## HYPOTHESES

H01: There is no significant relationship between Operating Leverage, Combined Leverage and Financial Leverage

H02: There is no significant relationship between Operating Leverage and Combined Leverage

H03: There is no significant relationship between Financial Leverage and Combined Leverage

H04: There is no significant impact of combined Leverage, Operating Leverage on earnings per share (EPS)

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## RESEARCH METHODOLOGY

The study uses a quantitative methodology that involves gathering and analysing financial data from sources that are openly accessible. The study's goals can be achieved by using statistical tools to identify links and patterns in the data.

**Universe:** Manufacturing Sector

**Tool:** mean, standard deviation, correlation and regression

**Selected variables:** The one variable is used as dependent variable and three variables are used as independent variables.

### a. Dependent variable

1. Earnings per Share

### b. Independent variable

1. Operating leverage
2. Financial leverage

### 3. Combined leverage

**Sample Size:** The current study has selected five sample companies from a chosen manufacturing sector in India that are listed on the National Stock Exchange (NSE) in order to evaluate the stated hypotheses and address the study's objectives.

S. No.	Firm Name
1	Tata Motors Limited (TATA MOTORS)
2	HCL Technologies Limited (HCLTECH)
3	Hindustan Unilever Limited (HINDUNILVR)
4	Tata Steel Limited (TATASTEEL)
5	Sun Pharmaceutical Industries Limited (SUNPHARMA)

**Table1: List of Firms Selected for the Study**

**Duration of the Study:** 2019 to 2023

### Scope and Limitations

It is significant to emphasise that the scope of this analysis is restricted to a select group of industrial sectors in India, chosen for their economic importance and the accessibility of pertinent data. The study's focus is on how corporate leverage affects profitability; it does not include a thorough investigation of every element that affects profitability.

### Significance of the Study

It is significant to emphasise that the scope of this analysis is restricted to a select group of industrial sectors in India, chosen for their economic importance and the accessibility of pertinent data. The study's focus is on how corporate leverage affects profitability; it does not include a thorough investigation of every element that affects profitability.

### Analysis

Variables	N	Minimum	Maximum	Mean( $\bar{}$ )	Std. Deviation( $\sigma$ )
EPS	5	-117.68	609.92	1.79	2.65
OL	5	-0.69	0.32	0.03	0.41
FL	5	0.62	1.39	0.81	0.30
CL	5	-0.96	0.23	-0.05	0.49

**Table 2: Descriptive Statistics of Earning Per Share, Operating, Financial and Combined Leverage**

Table 2 displays descriptive data on the Earnings per Share, Operating, Financial, and Combined Leverage of the Indian Manufacturing Industry. It is implied that the variable EPS has a range of values between -117.68 and 609.92, with 1.79 and 2.65 being its minimum and maximum values, respectively. It is implied that the variable OL has a range of values between -0.69 and 0.32, with the being between 0.03 and 0.41. It is implied that the variable FL has a range of values between 0.62 and 1.39, with 0.81 and 0.30 as its minimum and maximum values. It is discovered that the variable CL has a range of values between -0.96 and 0.23, while is between -0.05 and 0.49.

### Correlation Analysis

Variables	EPS	OL	FL	CL	
EPS	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	5			
OL	Pearson Correlation	.795			
	Sig. (2-tailed)	.106			
	N	5	1		
FL	Pearson Correlation	-.595			
	Sig. (2-tailed)	.284	5		
	N	5	-.916*	1	
CL	Pearson Correlation	.727	.029		
	Sig. (2-tailed)	.165	5	5	
	N	5	.992**	-.917*	1
			.002	.029	
			5	5	5

**Table 3: Results of Correlation Analysis for Selected Variables (in crore)**

OL and FL have a negative link that is statistically significant at the 5% level according to Pearson's correlation analysis, while OL and CL have a highly significant positive relationship that is statistically significant at the 1% level. Additionally, the negative correlation between FL and CL (-0.918) is significant at the 5% level (see table 3).

Variables	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	$\beta$	Std. Error	$\beta$		
EPS	-518.480	64.414		-8.047	.000
OL	3656.412	182.435	.5739	20.042	.034*
FL	-2308.005	151.027	-.4448	-15.286	.097**
CL	491.725	72.153	.573	6.817	.045*
<b>R</b>					.998
<b>R2</b>					.998
<b>F</b>					303.041(0.044)

**Table 4: Multiple Regression Results of selected Financial Variables of Earning per Share, Operating, Financial and Combined Leverage**

According to Table 4, OL has a sizable positive co-efficient (0.034) on EPS in Indian manufacturing companies. Because the CL has a large positive co-efficient (0.045) on EPS of Manufacture Industry businesses in India, There is no significant influence of Operating Leverage on earnings per share (EPS) is rejected at the 5% level. There is no significant impact of CL on EPS" is therefore rejected at a level of 5%. However, the FL's positive co-efficient on EPS is negligible (.093). With an R<sup>2</sup> of 0.99 and a value of 0.042, the F statistic indicates a strong fit for the regression and is significant at the 5% level.

**Considering business structures, capital requirements, risk profiles, and market dynamics differ among industries, the link between leverage (the use of debt financing) and profitability can vary dramatically. Here are a few industry-specific factors that may affect the relationship between leverage and profitability:**

1. Manufacturing, steel, and construction are examples of cyclical industries.

- Because of economic cycles, these sectors frequently see major changes in demand and revenue.

- When the economy is struggling and earnings are falling, managing interest payments can be difficult due to high debt levels.

In some sectors, lower leverage may be preferred to preserve financial stability through economic cycles.

2. Technology and software sectors: While technology firms may have substantial initial capital expenditures for R&D, they often have lower operational costs.

Due to the availability of venture capital and equity funding, debt may be less typical.

- In order to achieve growth and innovation, technology organisations may prioritise profitability over leverage.

3. FMCG and retail: These sectors frequently have higher inventory turnover and lower capital intensity.

- To retain flexibility and agility in responding to market changes and shifting customer preferences, lower leverage may be preferable.

- Marketing, brand recognition, and consumer loyalty are a few examples of variables that could have an impact on profitability.

4. Energy & Utilities: Infrastructure projects may be financed with modest leverage in capital-intensive businesses like energy and utilities.

- Commodity prices, changes in regulations, and environmental factors can all have an impact on profitability.

5. Healthcare and pharmaceuticals: These sectors' R&D costs might be high, which has an effect on their profitability.

- For capital-intensive undertakings like the creation of new drugs or the expansion of facilities, debt may be strategically utilised.

6. Banking and Financial Services:

Leverage is ingrained in the business strategy of banks and other financial organisations, according to number

Given the significance of interest rate spreads, credit quality, and regulatory requirements, the link between leverage and profitability is intricate.

7. Real estate and construction: - Profitability is highly correlated with market demand and property values; - High capital requirements for property development and construction can result in moderate to high debt.

8. Aerospace and Defence: These sectors frequently have protracted lead times, convoluted supply networks, and high R&D expenditures.

- Government contracts and worldwide geopolitical issues may affect profitability, however leverage may be used for specialised projects.

#### 9. Automobile Manufacturing:

The production of automobiles is a capital-intensive business that has made large investments in R&D and manufacturing infrastructure.

- Although leverage can be used for innovation and expansion, market demand, rivalry, and economic conditions can have an impact on profitability.

10. Telecommunications: - Leverage may be used to finance infrastructure projects, but profitability can be affected by regulatory changes and technical improvements. - High initial infrastructure costs and ongoing investments in technology and network expansion.

**Making wise financial decisions is essential for the success of Indian manufacturing businesses. These are some crucial ideas and elements that these businesses ought to think about:**

#### 1. Financial Planning and Budgeting:

- Create a thorough budget and financial plan that details your income, costs, investments, and savings.
- To make sure that financial performance is in line with goals, periodically monitor and analyse it.

#### 2. Cost Management:

- Use efficient cost management techniques to reduce costs without sacrificing quality.
- Determine where there are opportunities for cost savings, such as in production procedures, supply chain administration, and overhead.

#### 3. Working Capital Management:

- To prevent cash flow problems, keep a healthy balance between receivables and payables.
- Effectively control inventory levels to avoid shortages or overstocking.

#### 4. Capital Investment:

- To ensure profitable investments, carefully assess capital expenditure projects using metrics like Net Present Value (NPV) and Internal Rate of Return (IRR).
- Give investments a higher priority if they are in line with the long-term strategy and growth goals of the organisation.

#### 5. Debt Management:

- To prevent using too much financial leverage, keep your debt-to-equity ratio within a sensible range.
- Work with lenders to negotiate fair conditions and oversee debt repayment plans.

#### 6. Risk management:

- Recognise and evaluate monetary risks such exchange rate fluctuations, interest rate changes, and supply chain interruptions.
- Put risk-reduction methods in place, such as diversification and hedging.

#### 7. Cash Flow Management:

- Maintain a constant cash flow by keeping an eye on incoming and outgoing funds.
- Prepare backup plans in case of unforeseen changes in financial flow.

#### 8. Financial Reporting and Analysis:

- Produce accurate financial reports and statements in order to make wise decisions.
- Examine the company's financial health and performance using financial ratios and KPIs.

#### 9. Tax Planning:

- Ensure legal requirements are met while optimising tax planning solutions to reduce tax liabilities.

#### 10. Market Research and Demand Forecasting:

- Conduct in-depth market research to understand consumer preferences and business trends.
- Make use of demand forecasting to match production to anticipated consumer demand.

#### 11. Technology Adoption and Innovation:

- Invest in R&D to innovate and maintain competitiveness.

- Adopt technology that boosts productivity, excellence, and competitiveness.
12. Sustainability and CSR Initiatives:
- Take into account CSR (corporate social responsibility) programmes and sustainable business practises, which can have long-term beneficial financial effects.
13. Human Resource Management:
- Create a healthy work environment to retain talent and lower turnover costs
  - Invest in staff training and development to improve skills and productivity.
14. Legal and Regulatory Compliance:
- To prevent legal problems and related expenses, stay current on pertinent laws and regulations.
15. Diversification and Expansion:
- Consider the financial viability and potential hazards while evaluating chances for diversification and expansion.
16. Collaborations and Partnerships:
- Investigate strategic collaborations and partnerships to pool resources and cut expenses.

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## Conclusion

The study shows that OL and CL have a considerable impact on EPS in terms of corporate leverage (OL, FL, and CL). According to the findings, the study disproves Hypotheses 4 and 5, showing that the OL and CL have an impact on the manufacture industry in India. The positive effects of OL and CL on EPS, however, make the influence of FL on EPS insignificant.

It's crucial to remember that the relationship between leverage and profitability is complicated and affected by a wide range of elements other than industry classification, such as management choices, market circumstances, the competitive environment, and macroeconomic factors. Each company's financial plan should be customised to meet its unique needs and objectives while taking into account both industry-specific and general financial concepts.

Manufacturing companies should tailor their financial plans to fit their particular needs and objectives. Making wise financial decisions can be aided by seeking the advice of financial counsellors, accountants, and industry professionals.

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