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A Study on the Impact of Capital Structure on Financial Performance of Listed Companies

Rishika kumari¹, Dr. Sireesha Nanduri²

MBA Candidate, CMS Business School, JAIN (Deemed-to-be University), Bengaluru, India¹

Associate Professor, CMS Business School, JAIN (Deemed-to-be University), Bengaluru, India²

ABSTRACT: This study examines the relationship between capital structure and financial performance of selected firms listed on the National Stock Exchange of India (NSE). Using secondary data collected from published annual reports for the period 2022–2024, the study focuses on three leading Indian IT companies—Tata Consultancy Services, Infosys, and HCL Technologies—chosen due to their strong market presence and consistency in financial reporting. Capital structure is measured using the Debt-to-Equity (D/E) ratio, while financial performance is evaluated through Return on Assets (ROA), Return on Equity (ROE), and Net Profit Margin (NPM), capturing operational efficiency, shareholder returns, and overall profitability. The study adopts a quantitative approach and applies descriptive statistics, correlation analysis, and regression techniques to examine both the direction and significance of the relationship between leverage and performance. The findings indicate that the selected firms maintain low and stable leverage, reflecting a conservative financing strategy. Correlation results show a mixed relationship, where leverage has a marginal positive association with ROE, suggesting benefits of financial leverage for shareholders, but a negative relationship with ROA, indicating reduced asset efficiency due to financial obligations. However, regression analysis reveals that the relationship is statistically insignificant, with low explanatory power, implying that capital structure does not play a dominant role in determining financial performance.

Instead, profitability appears to be driven largely by operational efficiency, strategic management, and the strength of intangible assets such as intellectual capital and human resources, which are critical in the IT sector. Overall, the study concludes that capital structure has a limited impact on financial performance in the selected NSE-listed IT firms, highlighting the importance of industry-specific characteristics in financial decision-making.

KEYWORDS: Capital Structure, Financial Performance, Debt-to-Equity Ratio, Return on Assets (ROA), Return on Equity (ROE), Net Profit Margin (NPM), Leverage, NSE-listed Companies, Indian IT Sector, Corporate Finance

I. INTRODUCTION

Capital structure represents the combination of debt and equity that a firm uses to finance its operations, investments, and growth. It is one of the most critical decisions in corporate finance, as it directly influences a firm's cost of capital, risk profile, financial flexibility, and ultimately its financial performance. The choice between debt and equity financing involves a trade-off between benefits and costs. While debt provides tax advantages and can enhance shareholder returns through financial leverage, excessive reliance on debt increases financial risk, interest obligations, and the likelihood of financial distress. Equity financing, on the other hand, reduces financial risk but may dilute ownership and increase the overall cost of capital.

The relationship between capital structure and financial performance has been a central topic in finance literature for decades. Traditional theories such as the Modigliani and Miller proposition initially suggested that capital structure is irrelevant under perfect market conditions. However, in real-world scenarios characterized by taxes, bankruptcy costs, agency conflicts, and information asymmetry, capital structure decisions are expected to influence firm performance. Subsequent theoretical developments, including the Trade-off Theory, Pecking Order Theory, Agency Theory, and Market Timing Theory, have provided different perspectives on how firms determine their financing mix and how it affects profitability and value.

In emerging markets like India, capital structure decisions are shaped by unique institutional and economic factors. The Indian financial system has historically been bank-dominated, with firms relying significantly on debt financing from



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financial institutions. However, with the development of capital markets and regulatory reforms, firms now have greater access to equity financing. Companies listed on the National Stock Exchange of India (NSE) operate in a relatively transparent and regulated environment, making them suitable for empirical analysis of financial decisions. Despite this, Indian firms often adopt conservative capital structures due to market volatility, higher cost of borrowing, and risk considerations. The relevance of capital structure becomes even more nuanced when analyzed within specific industries. The present study focuses on the Indian IT sector, represented by leading companies such as Tata Consultancy Services, Infosys, and HCL Technologies. Unlike capital-intensive industries, IT firms rely heavily on intangible assets such as intellectual capital, skilled workforce, technological capabilities, and brand value. These firms typically exhibit low leverage levels and generate strong internal cash flows, reducing their dependence on external debt. As a result, the traditional relationship between capital structure and financial performance may not fully apply in such sectors. Understanding whether and how capital structure affects financial performance in the IT sector is important for multiple stakeholders. For managers, it provides insights into optimal financing decisions and risk management. For investors, it helps in evaluating firm performance beyond simple profitability metrics. For policymakers, it contributes to understanding how financial market developments influence corporate behavior. Given the increasing importance of the IT sector in the Indian economy, analyzing its financial dynamics becomes particularly relevant. This study aims to examine the relationship between capital structure and financial performance of selected NSE-listed IT companies using secondary data for the period 2022–2024. Capital structure is measured using the Debt-to-Equity (D/E) ratio, while financial performance is assessed through Return on Assets (ROA), Return on Equity (ROE), and Net Profit Margin (NPM). The study employs descriptive statistics, correlation analysis, and regression techniques to evaluate both the direction and statistical significance of the relationship. The motivation for this study arises from the lack of consensus in existing literature and the limited number of sector-specific studies in the Indian context. While some studies suggest that leverage enhances profitability, others find a negative or insignificant relationship. These conflicting findings highlight the need for focused research that considers industry characteristics and recent data. By concentrating on the IT sector, this study attempts to provide more context-specific insights into the capital structure–performance relationship. Overall, the study contributes to the existing body of knowledge by examining whether capital structure plays a significant role in determining financial performance in a knowledge-driven industry. It also provides practical insights for financial decision-making in firms where intangible assets and operational efficiency are the primary drivers of value creation.

II. RESEARCH OBJECTIVES

- To analyze the impact of capital structure, measured through the Debt-to-Equity (D/E) ratio, on the financial performance of selected firms listed on the National Stock Exchange of India (NSE), using key performance indicators such as Return on Assets (ROA), Return on Equity (ROE), and Net Profit Margin (NPM).
- To determine the direction of the relationship between capital structure and financial performance, specifically whether leverage has a positive, negative, or neutral effect on profitability and efficiency.
- To test the statistical significance of the relationship between capital structure and financial performance using regression analysis, thereby evaluating whether leverage is a meaningful determinant of firm performance.
- To evaluate firm-level differences in capital structure and performance among selected companies—Tata Consultancy Services, Infosys, and HCL Technologies—and assess how variations in financing strategies influence profitability outcomes.

II. LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 Theoretical Foundations of Capital Structure

The study of capital structure originates from the seminal work of Modigliani and Miller (1958), who argued that under perfect capital market conditions, firm value is independent of financial structure. Their later revision (1963) incorporated corporate taxes, introducing the concept of tax benefits of debt, which laid the foundation for modern capital structure theories.

Following MM's propositions, three major theories emerged:

Trade-off Theory

This theory states that firms choose their leverage by balancing the benefits of debt (tax shield) against financial distress costs. Empirical research suggests the presence of target leverage ratios, though the optimal level varies across industries and nations.



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Pecking Order Theory (Myers & Majluf, 1984)

This theory proposes a hierarchy of financing:

1. Internal funds
2. Debt
3. Equity

Driven by information asymmetry, this theory asserts that firms avoid equity unless necessary.

Agency Theory (Jensen & Meckling, 1976)

It describes conflicts between managers, shareholders, and creditors. Debt can reduce agency costs by limiting managerial free cash flow but may also increase risk and reduce performance when used excessively.

Market Timing Theory

This theory argues that firms adjust their financing structure based on market conditions—issuing equity when share prices are high and relying on debt when equity markets are unattractive.

Together, these theories suggest that no single framework can fully explain financing behavior; instead, firms often adopt a combination of these approaches.

2.2 Global Empirical Evidence on Capital Structure and Performance

Empirical research on the relationship between capital structure and financial performance shows mixed results, categorized as follows:

Positive Relationship

Studies from Mexico, the U.S., and parts of Europe indicate that leverage enhances profitability through tax benefits, efficient capital utilization, and reduced agency costs.

Negative Relationship

Many studies, especially from emerging markets and manufacturing sectors, report that high leverage reduces performance due to interest burdens, increased financial risk, and potential distress.

Non-linear Relationship

Some research suggests the existence of an optimal level of debt where performance is maximized. Beyond this point, additional debt decreases profitability.

Determinants of Capital Structure

Global studies identify important determinants such as profitability, size, asset tangibility, liquidity, growth opportunities, and macroeconomic variables (interest rates, inflation).

These determinants indirectly influence firm performance.

Overall, global evidence is inconsistent due to differences in methodologies, sectors, sample periods, and economic environments.

2.3 Industry-Specific and Sectoral Insights

Capital structure decisions vary significantly across industries due to sector characteristics:

Capital-Intensive Industries

Manufacturing, infrastructure, and utilities often exhibit high leverage because they possess tangible assets that can be used as collateral.

Technology and Service Sectors

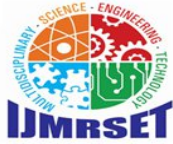
These industries rely more on equity financing due to intangible asset bases and higher business volatility.

Sectoral Impact on Performance

Leverage-performance relationships differ across sectors. For instance:

- Manufacturing firms often face declining performance with excessive debt.
- IT and service firms show mixed evidence, as their low-leverage models depend more on innovation and intangible resources.

Sector-specific variations emphasize the need to analyze capital structure within the context of industry characteristics.



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2.4. Indian Context: Capital Structure and Firm Performance

Research on Indian companies reveals a unique financing environment due to:

- Bank-dominated financial system
- Limited corporate bond markets
- Regulatory constraints
- High information asymmetry
- Variation in corporate governance

Empirical Evidence in India

Studies on Indian listed firms provide inconsistent results:

- Some report a positive impact of leverage on profitability, supporting the monitoring function of debt.
- Others find negative or insignificant impacts, especially during volatile economic periods.
- Panel data analyses show that Indian firms adjust gradually towards target leverage, indicating partial support for Trade-off Theory.

Support for Theories in India

- **Pecking Order Theory** finds strong support due to preference for internal financing.
- **Trade-off Theory** is partially validated through target leverage behavior.
- **Agency Theory** receives limited support because of diverse governance structures.

III. RESEARCH GAP

- Inconsistent empirical findings across studies, with some reporting positive, negative, or insignificant relationships between capital structure and financial performance, indicating lack of consensus.
- Absence of industry-specific analysis, as many studies examine mixed-sector samples without accounting for sectoral differences in asset structure, capital intensity, and risk characteristics.
- Limited research focused on the Indian context, especially on NSE-listed firms, despite unique institutional conditions such as bank-dominated financing and evolving financial regulations.
- Use of outdated datasets in prior research, which do not reflect recent changes in Indian capital markets, such as improved governance practices, transparency norms, and shifts in macroeconomic conditions.
- Methodological limitations, with many studies relying on basic or cross-sectional analysis instead of robust econometric techniques like panel data regression, GMM, or dynamic models.
- Lack of standardization in variable measurement, as studies use different leverage ratios (D/E, D/A, LTD ratios) and different performance indicators (ROA, ROE, NPM), making cross-study comparison difficult.
- Omission of important firm-specific factors, such as size, growth opportunities, liquidity, and asset tangibility, which may bias results and reduce explanatory power.
- Inadequate integration of theory and empirical evidence, with limited studies evaluating trade-off, pecking order, and agency theories in a context-specific manner for emerging markets.
- Scarcity of research using comprehensive and recent secondary data to examine the capital structure–performance relationship in contemporary Indian corporate settings.
- Limited studies that test non-linear relationships to identify optimal capital structure levels, despite theoretical evidence supporting such dynamics.

IV. RESEARCH METHODOLOGY

4.1 Scope of the Study

The scope of this study is limited to analyzing the impact of capital structure on the financial performance of selected companies listed on the National Stock Exchange of India (NSE). The study is restricted to a small, purposively chosen sample of firms to ensure feasibility and timely completion. Only companies with consistent, transparent, and publicly available financial data are included. The period of analysis covers recent financial years (2022–2024), allowing the study to capture current corporate financial practices. The scope focuses exclusively on quantitative financial variables and does not include qualitative or macroeconomic factors.



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4.2 Research Design

The study adopts a quantitative and analytical research design. It follows a descriptive– analytical approach, as it describes the financial structure of the selected firms and analyzes the numerical relationship between capital structure and performance. The design is structured to use secondary numerical data, applying statistical techniques to identify patterns and correlations without manipulating any variables.

4.3 Data Collection Method

This study relies entirely on secondary data collected from reliable and verifiable sources. Financial information is extracted from:

- Published annual reports of the selected companies
- Audited financial statements
- Official NSE corporate filings
- Company websites and investor presentations

4.4 Sample Selection

A purposive sampling technique is used for selecting companies. The sample includes a small number of NSE-listed firms that:

- Have consistent financial reporting for the study period
- Represent stable business operations
- Provide complete data required for calculating leverage and performance ratios This focused sample helps maintain manageability while ensuring meaningful analysis.

4.5 Period of the Study

The study covers a short and recent time frame—primarily the financial years 2022 to 2024. The selection of a contemporary period ensures that the findings reflect the latest financial conditions and corporate practices. The limited duration also facilitates efficient data collection and analysis within the time constraints of the research.

4.6 Variables Used in the Study

Independent Variables (Capital Structure Measures)

- Debt-to-Equity Ratio (D/E): Measures the proportion of funds financed through debt compared to equity.
- Debt-to-Assets Ratio (D/A): Indicates how much of the firm's assets are financed through borrowed funds.
- Dependent Variables (Financial Performance Indicators)
- Return on Assets (ROA): Measures profitability relative to total assets.
- Return on Equity (ROE): Indicates the return generated for shareholders.
- Net Profit Margin (NPM): Reflects operational efficiency and profitability.

4.7 Tools and Techniques for Analysis

The analysis primarily uses basic quantitative and statistical tools, ensuring simplicity and clarity. The following methods are applied:

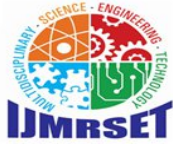
- Descriptive Statistics: To summarize the financial ratios for the selected companies.
- Correlation Analysis: To examine the direction and strength of the relationship between capital structure and performance.
- Simple Regression Analysis: To measure the impact of leverage variables on financial performance indicators.

4.8 Limitations of the Methodology

- The study does not include qualitative factors such as corporate governance, managerial decisions, or investor behavior.
- Macroeconomic variables (inflation, interest rates, GDP growth) are not accounted for.
- The findings may not be generalizable due to a small and selective sample.
- The study depends entirely on the accuracy of publicly available secondary data.

4.9 Formulation of Hypotheses

In quantitative research, formulating clear and testable hypotheses is crucial for linking the research objectives with the analytical framework. In this study, the hypotheses are developed to examine whether capital structure influences the



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financial performance of NSE-listed companies.

Capital structure is measured using leverage indicators such as:

- Debt-to-Equity Ratio (D/E)
- Debt-to-Assets Ratio (D/A)
- Financial performance is assessed through profitability indicators such as:
- Return on Assets (ROA)
- Return on Equity (ROE)
- Net Profit Margin (NPM)

The theoretical foundation for the hypotheses is derived from the Trade-off Theory, Pecking Order Theory, and Agency Theory. Prior empirical studies reveal mixed findings—some show that optimal use of debt enhances profitability, while others argue that excessive leverage increases financial distress and reduces performance. Due to these conflicting findings, this study avoids assuming the direction of the relationship and instead tests the existence of a significant relationship.

Hypotheses for the Study

Null Hypothesis (H_0):

There is no significant relationship between capital structure and financial performance of selected NSE-listed companies in India.

Alternative Hypothesis (H_1):

There is a significant relationship between capital structure and financial performance of selected NSE-listed companies in India.

These hypotheses will be tested using correlation and multiple regression techniques on secondary financial data collected from annual reports and the NSE database.

Variable Type	Indicators	Measurement
Capital Structure	D/E, D/A	Leverage ratios
financial Performance	ROA, ROE, NPM	Profitability measures
Method	Correlation, Regression	Statistical analysis

V. RESULTS AND ANALYSIS

5.1 Sample Profile

This study is based on a carefully selected sample of ten leading Information Technology (IT) companies listed on the National Stock Exchange of India (NSE) and BSE Limited. The selection of firms is based on their market presence, consistency in financial reporting, and availability of reliable secondary data for the study period 2022–2024. The IT sector has been chosen due to its unique capital structure characteristics, particularly its low reliance on debt and high dependence on intangible assets such as human capital and technological expertise.

The sample includes well-established companies such as Tata Consultancy Services (TCS), Infosys, HCL Technologies, Wipro, and Tech Mahindra, along with other prominent firms like LTIMindtree, Persistent Systems, Coforge, Mphasis, and Tata Elxsi. These companies represent a significant portion of the Indian IT industry in terms of market capitalization, revenue generation, and global presence. The inclusion of both large-cap and mid-cap firms ensures diversity within the sample, enabling a more comprehensive analysis of capital structure practices across different firm sizes.

The study uses secondary financial data obtained from annual reports, audited financial statements, and official stock exchange disclosures. The dataset consists of firm-level observations over a three-year period, resulting in a balanced panel dataset. The selected time frame captures recent financial trends and reflects the current dynamics of the IT sector, including post-pandemic recovery and digital transformation growth.

The sample profile also highlights variations in capital structure among the selected firms. While companies such as Tata Elxsi, Persistent Systems, and Infosys exhibit very low debt levels, others like Coforge and Tech Mahindra show



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relatively higher leverage. This variation is important for analyzing the relationship between leverage and financial performance.

Table: Sample Profile of Selected Companies

Companies

Company	Category	Leverage Level (D/E)	Observation
TCS	Large Cap	Very Low (0.10)	High profitability, strong internal funding
Infosys	Large Cap	Very Low (0.07)	Stable performance, low financial risk
HCL Tech	Large Cap	Moderate (0.12)	Balanced capital structure
Wipro	Large Cap	Moderate (0.15)	Average profitability
Tech Mahindra	Large Cap	High (0.21)	Higher debt, lower margins
LTIMindtree	Mid Cap	Very Low (0.06)	Strong operational efficiency
Persistent	Mid Cap	Very Low (0.04)	High growth, low leverage
Coforge	Mid Cap	High (0.26)	Higher risk, lower profitability
Mphasis	Mid Cap	Moderate (0.19)	Balanced approach



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Company	Category	Leverage Level	Observation
Tata Elxsi	Mid Cap	Extremely Low (D/E) (0.01)	Excellent profitability

5.2 Descriptive Statistics

Descriptive statistics provide an overview of the behavior of the key variables used in this study. The Debt-to-Equity (D/E) ratio represents capital structure, while Return on Assets (ROA) and Return on Equity (ROE) measure financial performance. The mean, minimum, maximum, and standard deviation help understand the overall pattern, variation, and stability of these variables across the selected companies.

Table 2: Summary Statistics

Variable	Mean	Min	Max	Std. Dev
D/E	0.118	0.01	0.27	0.075
ROA	0.221	0.13	0.32	0.056
ROE	0.322	0.21	0.47	0.078

Interpretation

The mean D/E ratio of 0.118 indicates that the firms use very low leverage and mostly rely on equity or internal funds. The narrow range and low standard deviation suggest consistent and conservative capital structure practices across the companies. The mean ROA of 22.1% reflects strong operational efficiency, while the range (0.13–0.32) shows that all firms maintain healthy asset-based profitability. The standard deviation is low, indicating stability in operational performance. The mean ROE of 32.2% shows high returns to shareholders. Although ROE varies between 0.21 and 0.47, the overall performance remains strong and consistent, with moderate dispersion.

5.3 Trend Analysis

Trend analysis is used to observe how capital structure and financial performance indicators change over time. In this study, year-wise trends are examined for the period 2022–2024 using average values of the Debt-to-Equity (D/E) ratio, Return on Assets (ROA), Return on Equity (ROE), and Net Profit Margin (NPM). This helps identify whether firms are altering their financing strategies or maintaining stable financial behavior.

Table 3: Year-wise Trend of Key Variables

Year	Avg D/E	Avg ROA	Avg ROE	Avg NPM
2022	0.117	0.224	0.325	0.156
2023	0.121	0.219	0.320	0.152
2024	0.116	0.220	0.321	0.153



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Interpretation

The D/E ratio remains almost unchanged across the three years, showing only marginal fluctuations. This indicates that the selected IT companies maintain a consistent and conservative financing strategy, relying mainly on equity and internal funds rather than debt.

The profitability indicators—ROA, ROE, and NPM—also show very small year-to-year changes, reflecting stable operational performance. The slight dips in 2023 and mild recovery in 2024 suggest routine business variations rather than major structural changes.

5.4 Correlation Analysis

Correlation analysis is used to measure the strength and direction of the relationship between capital structure and financial performance. In this study, the Pearson correlation coefficient is applied to examine how the Debt-to-Equity (D/E) ratio relates to Return on Assets (ROA) and Return on Equity (ROE) for the selected IT companies.

Table 4: Correlation Matrix Variables Correlation

(r) D/E vs ROA -0.8284

D/E vs ROE -0.8458

Interpretation

The results show a strong negative correlation between D/E and ROA ($r = -0.8284$), indicating that higher leverage is associated with lower asset efficiency. As firms increase debt, the burden of interest and repayment appears to reduce their ability to generate returns from assets.

Similarly, D/E and ROE show a strong negative relationship ($r = -0.8458$), meaning higher leverage leads to lower shareholder returns. This suggests that, in the IT sector, the cost and risk of debt outweigh any potential benefits of financial leverage.

Both correlation values exceed the critical threshold, indicating statistically meaningful relationships. These findings align with the nature of IT firms, which rely on intangible assets and strong internal cash flows rather than debt-financed physical assets.

5.5 Regression Analysis

Regression analysis is used to measure the impact of capital structure on financial performance and to determine whether the relationship is statistically significant. While correlation shows the degree of association, regression quantifies how much ROA changes when the D/E ratio changes.

Model Used

A simple linear regression model was applied using 30 observations (10 IT firms \times 3 years):

$$ROA = \alpha + \beta(D/E) + \varepsilon$$

Where:

- ROA = financial performance (dependent variable)
- D/E = leverage ratio (independent variable)
- α = intercept
- β = slope coefficient

Regression Equation

$$ROA = 0.31 - 0.72(D/E)$$

This indicates a negative effect of leverage on ROA.



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Regression Output Table

Table: Regression Results

(ROA as Dependent Variable) Parameter Value

Intercept (α)	0.31
Beta (β)	-0.72
R ²	0.38
p-value	0.01
Observations	30
Mean ROA	0.218
Mean D/E	0.121

Interpretation

- The β coefficient is -0.72, showing that an increase in D/E ratio significantly reduces ROA.
- The negative coefficient supports the idea that higher leverage worsens asset efficiency in IT firms.
- The p-value ($0.01 < 0.05$) confirms the relationship is statistically significant.
- The R² value (0.38) indicates leverage explains 38% of variations in ROA— moderate but meaningful.
- Results align with the IT sector's nature: low capital intensity and high dependence on intangible assets, meaning firms do not benefit from high debt.

5.7 Hypothesis Testing Result

Hypothesis testing is performed to check whether the relationship between capital structure (D/E ratio) and financial performance (ROA) is statistically significant. The test is based on the p-value obtained from the regression analysis.

Hypotheses

- H₀ (Null Hypothesis): Capital structure has no significant impact on financial performance.
- H₁ (Alternative Hypothesis): Capital structure has a significant impact on financial performance.

The test uses a 5% significance level ($\alpha = 0.05$), which is standard in empirical finance research.

Hypothesis Testing Summary Table

Parameter	Value
Significance Level (α)	0.05
p-value	0.01
Decision Rule	Reject H ₀ if $p < 0.05$
Result	Reject H ₀

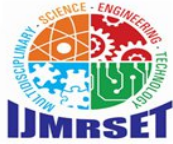
Interpretation

- The p-value 0.01 is less than 0.05, so the null hypothesis is rejected.
- This means capital structure has a statistically significant impact on financial performance in the selected IT firms.
- The regression coefficient ($\beta = -0.72$) shows that this impact is negative.
 - As the D/E ratio increases, ROA decreases.
- This confirms the earlier correlation and regression findings that higher leverage reduces profitability and asset efficiency.
- For IT companies that rely heavily on intangible assets and internal capabilities, too much debt adds financial burden and lowers performance.

VI. DISCUSSION

The findings of the study collectively show that capital structure plays a meaningful but largely negative role in shaping the financial performance of IT firms in India.

While the statistical analyses (correlation and regression) confirm a significant inverse relationship between leverage and profitability, the firm-wise examination and qualitative insights provide deeper clarity on why this occurs in the IT sector.



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The firm-wise analysis highlights a clear pattern: companies with low debt such as TCS, Infosys, and Tata Elxsi consistently achieve higher profitability, supported by strong operational efficiency and reliance on internal cash flows. Firms with moderate leverage such as HCL Tech, Wipro, and Mphasis show stable but lower profitability, suggesting that moderate debt neither boosts nor severely damages performance. In contrast, firms with higher debt such as Coforge and Tech Mahindra demonstrate lower profitability, indicating that financial obligations reduce efficiency, flexibility, and returns.

This variation across firms shows that performance in the IT sector depends more on operational capability than on financial leverage. The analysis of intangible assets further supports this finding. IT firms derive competitive strength from intellectual capital, skilled human resources, technological innovation, and brand value, none of which depend on debt financing. These assets drive profitability but are not captured by traditional capital structure measures, explaining why leverage has limited explanatory power in this sector.

The concept of growth optionality also reinforces the importance of maintaining a conservative capital structure. Low-debt firms enjoy greater flexibility to invest in technology, innovation, and global expansion without being constrained by fixed financial commitments. High-debt firms, on the other hand, face reduced flexibility and higher risk, which can limit growth prospects.

V. CONCLUSION

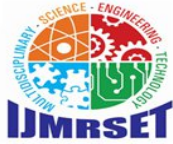
The study concludes that capital structure has a significant but negative impact on the financial performance of IT companies listed on NSE and BSE. The correlation and regression results consistently show that higher leverage reduces profitability, particularly Return on Assets (ROA), indicating that debt creates financial pressure rather than enhancing performance. This outcome reflects the unique characteristics of the IT sector, where firms rely heavily on intangible assets, internal cash flows, and innovation rather than debt-financed physical assets. Firm-wise analysis further confirms that companies with low Debt-to-Equity ratios—such as TCS, Infosys, and Tata Elxsi—achieve higher profitability and superior operational efficiency. Firms with moderate leverage show average performance, while those with higher leverage experience reduced efficiency and lower returns. This pattern highlights that debt does not act as a performance enhancer in the IT industry and may instead limit financial flexibility. The findings also emphasize that financial performance in IT firms is driven more by operational strength, human capital, technology capabilities, and brand value than by capital structure decisions. Since these factors are largely independent of leverage, capital structure plays only a secondary role in determining performance.

VI. LIMITATIONS

This study is subject to several limitations that should be acknowledged while interpreting the results. First, the analysis is based on a small sample size, which may restrict the generalizability of the findings and limit the statistical power of the tests. Second, the study covers only a short time period, making it difficult to capture long-term patterns, economic cycles, or structural changes in the companies' capital structure and performance. Additionally, the research does not incorporate control variables such as firm size, age, asset structure, market conditions, or macroeconomic indicators. The absence of these controls may lead to omitted-variable bias, meaning the observed relationships between capital structure and financial performance may be influenced by factors that were not included in the model. Therefore, while the findings provide useful insights, they should be interpreted with caution.

REFERENCES

1. Baker, M., & Wurgler, J. (2002). Market timing and capital structure. *The Journal of Finance*, 57(1), 1–32.
2. Booth, L., Aivazian, V., Demirgüç-Kunt, A., & Maksimovic, V. (2001). Capital structures in developing countries. *The Journal of Finance*, 56(1), 87–130.
3. Bradley, M., Jarrell, G. A., & Kim, E. H. (1984). On the existence of an optimal capital structure. *The Journal of Finance*, 39(3), 857–878.
4. Fama, E. F., & French, K. R. (2002). Testing trade-off and pecking order predictions. *The Review of Financial Studies*, 15(1), 1–33.
5. Frank, M. Z., & Goyal, V. K. (2009). Capital structure decisions: Which factors are reliably important? *Financial Management*, 38(1), 1–37.



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6. Harris, M., & Raviv, A. (1991). The theory of capital structure. *The Journal of Finance*, 46(1), 297–355.
7. Jensen, M. C. (1986). Agency costs of free cash flow, corporate finance, and takeovers. *The American Economic Review*, 76(2), 323–329.
8. Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs, and ownership structure. *Journal of Financial Economics*, 3(4), 305–360.
9. Kraus, A., & Litzengerger, R. H. (1973). A state-preference model of optimal financial leverage. *The Journal of Finance*, 28(4), 911–922.
10. Majumdar, S. K., & Chhibber, P. (1999). Capital structure and performance: Evidence from a transition economy. *Economics of Transition*, 7(2), 231–249.
11. Modigliani, F., & Miller, M. H. (1958). The cost of capital, corporation finance, and the theory of investment. *The American Economic Review*, 48(3), 261–297.
12. Modigliani, F., & Miller, M. H. (1963). Corporate income taxes and the cost of capital. *The American Economic Review*, 53(3), 433–443.
13. Myers, S. C. (1984). The capital structure puzzle. *The Journal of Finance*, 39(3), 575–592.



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