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"Are Conventional Capital Structure Theories Applicable to Indian Firms? Evidence from Listed Non-Financial Companies in an Emerging Market"

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Abstract

Capital structure decisions represent one of the fundamental areas of corporate finance, with conventional theories such as the Modigliani–Miller theory, Trade-Off Theory, Pecking Order Theory, Agency Theory, and Signalling Theory providing important explanations for firms' financing choices. However, most of these theories are developed around assumptions and institutional conditions that may not fully reflect the characteristics of emerging markets. The Indian corporate sector operates within a distinctive financial environment characterized by information asymmetry, concentrated ownership, and significant promoter shareholding, differences in access to external finance, varying corporate governance practices, and changing macroeconomic conditions. These characteristics raise questions regarding the extent to which conventional capital structure theories can adequately explain the financing behaviour of Indian firms.

The present study aims to empirically examine the applicability of conventional capital structure theories to listed non-financial companies in India. Using secondary data obtained from publicly available corporate disclosures, annual reports, stock-market databases, and established financial databases, the study proposes to analyse a panel of Indian listed non-financial companies over a multi-year period. Capital structure will be measured using alternative leverage indicators, including total debt-to-total assets, long-term debt-to-total assets, and debt-to-equity ratios. The study will examine the influence of key firm-specific determinants, including profitability, firm size, asset tangibility, growth opportunities, liquidity, business risk, and non-debt tax shields. In addition, variables reflecting the Indian institutional environment, particularly promoter ownership, ownership concentration, and information asymmetry, will be incorporated to assess whether these factors alter the explanatory power of conventional theories.

The empirical analysis will employ panel-data techniques, including pooled regression, fixed-effects and random-effects models, with appropriate diagnostic and robustness tests. Dynamic panel estimation may also be employed to account for the persistence of capital structure and the possibility of gradual adjustment towards target leverage. The study will compare the observed relationships between firm characteristics and leverage with the predictions derived from the Trade-Off and Pecking Order theories, while considering the relevance of agency and information-asymmetry perspectives.

The study is expected to contribute to the capital structure literature by providing evidence on whether conventional theories can independently explain the financing decisions of Indian listed firms or whether their applicability is conditional upon firm-specific and institutional characteristics. Rather than assuming that conventional theories are universally inapplicable to India, the study adopts a contingency perspective and examines whether different theories operate simultaneously under different corporate and market conditions. The findings are expected to provide useful implications for corporate financial managers, investors, policymakers, and researchers seeking to understand financing behaviour in emerging markets. The study ultimately seeks to determine whether a more context-specific framework is required to explain the capital structure decisions of Indian firms.

Keywords: Capital Structure, Trade-Off Theory, Pecking Order Theory, Modigliani–Miller Theory, Indian Firms, Leverage, Promoter Ownership, Emerging Markets, Non-Financial Companies, Information Asymmetry.

1. Introduction

Capital structure is one of the most important decisions in corporate financial management because it determines how a firm finances its assets, investments, and business activities through a combination of debt and equity. The choice between alternative sources of finance has significant implications for the cost of capital, financial risk, firm value, ownership control, and long-term financial performance. Consequently, capital structure has remained a central topic in financial management and has generated extensive theoretical and empirical research. The seminal work of Modigliani and Miller (1958) established that, under highly restrictive assumptions of perfect capital markets, financing decisions do not affect firm value. Subsequent theories relaxed these assumptions and developed alternative explanations for corporate financing behaviour. The Trade-Off Theory emphasizes the balance between the tax benefits of debt and the costs associated with financial distress, while the Pecking Order Theory suggests that firms prefer internal funds, followed by debt and finally equity, largely because of information asymmetry. Agency Theory and Signalling Theory further explain how conflicts of interest and information differences influence financing choices.

Although these theories have substantially advanced the understanding of corporate financing decisions, their applicability may vary across countries and institutional environments. Many of the assumptions underlying conventional capital structure theories are difficult to observe in emerging markets. Capital markets may be characterized by information asymmetry, differences in access to finance, concentrated ownership, institutional constraints, higher transaction costs, and variations in corporate governance practices. Therefore, theories developed primarily in mature financial markets may not completely explain the financing behaviour of firms operating in emerging economies. India provides an important setting for examining this issue because its corporate sector combines a developing financial market with distinctive ownership and governance characteristics. Indian listed companies, particularly those controlled by promoters and families, may face financing considerations that differ from those assumed in conventional capital structure models.

The Indian corporate environment has undergone substantial transformation following economic liberalisation and financial-sector reforms. Greater integration with domestic and international capital markets, increasing institutional investment, regulatory developments, and improvements in corporate governance have changed the financing environment for Indian firms. At the same time, significant

differences remain among firms in terms of size, profitability, access to debt markets, ownership concentration, information availability, and financial constraints. These characteristics make India an appropriate emerging-market context in which to examine whether traditional capital structure theories provide a consistent explanation of corporate leverage decisions. Previous empirical studies on Indian firms have provided evidence supporting different theoretical perspectives, but their findings do not establish that any single conventional theory universally explains the financing behaviour of Indian companies.

Against this background, the present study investigates whether conventional capital structure theories are applicable to Indian listed non-financial companies. The study focuses on major determinants of leverage, including profitability, firm size, asset tangibility, growth opportunities, liquidity, business risk, and non-debt tax shields. In addition, the study considers India-specific factors such as promoter ownership, ownership concentration, and information asymmetry. By incorporating these variables, the research seeks to determine whether the explanatory power of conventional theories changes when the institutional characteristics of the Indian market are taken into account.

The study contributes to the existing literature by adopting a comparative and context-sensitive approach to capital structure theory. Rather than assuming that conventional theories are either universally applicable or completely irrelevant to Indian firms, the study examines whether their predictions hold under the specific institutional and financial conditions prevailing in India. Evidence from listed non-financial companies may therefore provide useful insights into the extent to which the Trade-Off Theory, Pecking Order Theory, Agency Theory, and related perspectives explain corporate financing decisions in an emerging-market environment. The findings are expected to be relevant to corporate financial managers, investors, policymakers, and researchers seeking a better understanding of capital structure decisions in India and other emerging economies.

2. Problem Statement

Capital structure decisions are central to corporate financial management because the choice between debt and equity financing affects a firm's financial risk, cost of capital, ownership control, investment capacity, and ultimately its value. Over the years, several theories have been developed to explain these financing decisions, including the Modigliani–Miller theory, Trade-Off Theory, Pecking Order Theory, Agency Theory, and Signalling Theory. However, these theories are generally based on assumptions concerning market efficiency, availability of information, financing costs, ownership structures, taxation, and investor behaviour that may not fully reflect the conditions prevailing in emerging markets.

India represents a particularly relevant context for examining this issue. Although the Indian financial system has developed considerably, Indian listed companies continue to operate in an environment characterized by information asymmetry, concentrated ownership, substantial promoter participation, differences in access to external financing, variations in corporate governance, and heterogeneous firm characteristics. These conditions may influence the financing choices of firms in ways that are not completely captured by conventional capital structure theories. For example, the preference for debt or equity may be affected not only by tax benefits and financial distress costs but also by promoter control considerations, availability of internal funds, relationships with financial institutions, information gaps between managers and investors, and the firm's ability to access capital markets.

Previous empirical studies conducted in India have reported mixed evidence regarding the applicability of conventional capital structure theories. Some studies provide support for the Pecking Order Theory, while

others find evidence consistent with the Trade-Off Theory or suggest that multiple theories simultaneously explain firms' financing decisions. This inconsistency indicates that no single conventional theory may be sufficient to explain the capital structure behaviour of Indian firms. Furthermore, changes in India's financial markets, regulatory environment, corporate governance practices, and ownership structures create a need for contemporary empirical investigation using recent firm-level data.

The central problem addressed by this study is therefore the **uncertain applicability and explanatory power of conventional capital structure theories in the Indian emerging-market context**. In particular, it is necessary to determine whether traditional firm-specific determinants of leverage—such as profitability, firm size, asset tangibility, growth opportunities, liquidity, and business risk—affect the capital structure of Indian firms in accordance with the predictions of established theories. It is also important to examine whether India-specific characteristics, particularly promoter ownership, ownership concentration, and information asymmetry, influence these relationships.

Accordingly, this study proposes to empirically examine the capital structure decisions of listed non-financial companies in India using secondary panel data. By comparing the observed financing behaviour of Indian firms with the predictions of conventional capital structure theories, the study seeks to determine whether these theories remain adequate in explaining corporate financing decisions or whether their applicability is conditional upon the institutional and firm-specific characteristics of the Indian market. The study consequently addresses an important issue in emerging-market corporate finance and may contribute to the development of a more context-sensitive understanding of capital structure decisions in India.

Research Objectives

H1: Profitability and Leverage

H1: Profitability has a significant negative relationship with the leverage of Indian listed non-financial companies.

Basis: Pecking Order Theory — profitable firms prefer internally generated funds over external debt.

H2: Firm Size and Leverage

H2: Firm size has a significant positive relationship with the leverage of Indian listed non-financial companies.

Basis: Trade-Off Theory — larger firms generally have lower bankruptcy risk and greater debt capacity.

H3: Asset Tangibility and Leverage

H3: Asset tangibility has a significant positive relationship with the leverage of Indian listed non-financial companies.

Basis: Trade-Off Theory — tangible assets provide collateral and reduce lenders' risk.

H4: Growth Opportunities and Leverage

H4: Growth opportunities have a significant negative relationship with the leverage of Indian listed non-financial companies.

Basis: Trade-Off Theory — firms with greater growth opportunities may avoid excessive debt because of financial distress and underinvestment concerns.

H5: Promoter Ownership and Leverage

H5: Promoter ownership has a significant relationship with the leverage of Indian listed non-financial companies.

Basis: Indian institutional context — promoters may consider debt financing as a means of raising funds while avoiding dilution of their ownership and control.

3. Research Design

3.1 Research Approach

The study will adopt a **quantitative research approach** to examine whether conventional capital structure theories explain the financing decisions of Indian listed non-financial companies.

3.2 Research Design

The study will use an **explanatory research design** based on secondary data. It will examine the relationship between firms' leverage and selected factors such as profitability, firm size, asset tangibility, growth opportunities, and promoter ownership.

3.3 Study Period

The study will cover the **five recent financial years from FY 2020–21 to FY 2024–25**. This period has been selected to provide recent evidence on the capital structure decisions of Indian companies.

3.4 Population of the Study

The population will consist of **Indian companies listed on NSE and/or BSE**, excluding financial-sector companies such as banks, insurance companies, and NBFCs because their capital structures are substantially different from those of non-financial firms.

3.5 Sample Selection

The study will use **purposive sampling**. Companies will be selected based on the availability of complete financial and ownership information for the study period. Companies with substantial missing data will be excluded. The study may include approximately **300–500 listed non-financial companies**, depending on data availability.

3.6 Sources of Data

The study will rely entirely on **secondary data** collected from:

- Company annual reports
- NSE and BSE disclosures
- CMIE Prowess or Capitaline, if available
- SEBI disclosures
- Other reliable financial databases

3.7 Variables of the Study

Dependent Variable:

- **Leverage:** Total Debt / Total Assets

Independent Variables:

Variable	Measurement	Expected Relationship
Profitability	EBIT / Total Assets	Negative
Firm Size	Log of Total Assets	Positive

Variable	Measurement	Expected Relationship
Asset Tangibility	Fixed Assets / Total Assets	Positive
Growth Opportunities	Sales Growth	Negative
Promoter Ownership	Promoter Shareholding (%)	Significant relationship

3.8 Research Hypotheses

The study will test five hypotheses relating profitability, firm size, asset tangibility, growth opportunities, and promoter ownership with the leverage of Indian listed non-financial companies.

3.9 Data Analysis

The collected data will be analysed using **descriptive statistics, correlation analysis, and regression analysis**. These techniques will help determine the relationship between capital structure and the selected factors.

3.10 Theoretical Assessment

The findings will be compared with the predictions of the **Pecking Order Theory and Trade-Off Theory**. The study will also examine whether promoter ownership, an important feature of Indian companies, provides additional explanation for firms' financing decisions.

3.11 Expected Outcome

The study aims to determine whether conventional capital structure theories adequately explain the financing behaviour of Indian listed non-financial companies or whether the Indian corporate environment requires a more context-specific understanding of capital structure decisions.

Literature Review

1. Chakraborty (2010) – Capital Structure in the Indian Emerging Market Chakraborty (2010) examined the determinants of capital structure among Indian non-financial firms and provided important evidence on the applicability of conventional capital structure theories in an emerging-market context. The study analysed a panel of 1,169 non-financial firms listed on the Bombay Stock Exchange and National Stock Exchange over the period 1995–2008. Using panel estimation techniques, the study compared the explanatory power of different capital structure theories, particularly the Pecking Order Theory, Static Trade-Off Theory and Agency Cost Theory. The findings indicated that both the Pecking Order Theory and Static Trade-Off Theory could explain important aspects of financing decisions among Indian firms, while there was comparatively little evidence supporting the Agency Cost Theory.

The study is highly relevant to the present research because it demonstrates that more than one conventional theory may operate simultaneously in the Indian context. Rather than supporting the complete dominance of a single theory, the findings suggest that Indian firms may consider internal financing preferences as well as the benefits and costs associated with debt. However, the study covers an earlier period and therefore does not fully capture the institutional and financial-market conditions faced by Indian firms in recent years. The present study extends this literature by examining listed non-financial Indian companies during FY 2020–21 to FY 2024–25.

2. Singh and Kumar (2012) – Trade-Off Theory vs. Pecking Order Theory
Singh and Kumar (2012) investigated the relative applicability of the Trade-Off Theory and Pecking Order Theory to Indian firms. The study used data from firms belonging to ten industries over the period 1990–2007 and specifically examined whether the financing behaviour of Indian companies was more consistent with the predictions of these two competing theories. The results provided evidence in favour of the Trade-Off Theory, both for the overall sample and across individual industries.

The findings are important because they differ from studies that identify stronger support for the Pecking Order Theory in India. This difference indicates that capital structure decisions may vary according to industry characteristics, firm conditions and the period being studied. The study therefore challenges the assumption that one conventional theory can universally explain the financing behaviour of Indian firms. For the present research, this provides a strong basis for comparing the predictions of the Trade-Off and Pecking Order theories using more recent data from listed non-financial companies. It also supports the need to examine whether conventional theories remain applicable under India's contemporary institutional and financial environment.

3. Bhaduri / Indian determinants literature – Firm Characteristics
Research on Indian firms has consistently shown that firm-specific characteristics play an important role in determining capital structure. One empirical study of 870 listed Indian companies examined factors such as profitability, growth, asset tangibility, firm size, cost of debt, taxation and debt-servicing capacity. The study found that several of these characteristics had a significant influence on firms' leverage decisions.

These findings are relevant to the present research because they provide empirical support for examining profitability, firm size, asset tangibility and growth opportunities as determinants of leverage. These variables are also closely connected with the predictions of conventional capital structure theories. For example, the negative relationship between profitability and leverage would be consistent with the Pecking Order Theory, whereas positive relationships between size or tangibility and leverage would be more consistent with the Trade-Off Theory. However, the evidence that several determinants influence leverage also suggests that financing decisions are multidimensional. Therefore, rather than testing a single theory in isolation, the present study considers several firm-level determinants simultaneously to assess the overall applicability of conventional theories to Indian listed firms.

4. Empirical Evidence from Indian Manufacturing Firms
An empirical study of 422 listed Indian manufacturing companies examined the determinants of capital structure over the period 2003–04 to 2012–13. The study used total debt-to-total capital and total debt-to-total assets as measures of financial leverage and investigated variables including firm size, age, asset tangibility, growth, profitability, non-debt tax shields, business risk and ownership structure. The findings showed that several of these variables were significantly associated with financial leverage. Importantly, the study concluded that neither the Trade-Off Theory nor the Pecking Order Theory alone was sufficient to explain the capital structure decisions of Indian manufacturing firms; instead, the evidence suggested a combination of the two theories.

This finding is particularly relevant to the present research because it suggests that conventional theories may have explanatory power without completely explaining the financing behaviour of Indian companies. It also highlights the importance of considering firm-specific characteristics when examining capital structure. However, the earlier study focused specifically on manufacturing firms and an earlier time period. The present research broadens the context to listed non-financial companies and uses recent five-year data from FY 2020–21 to FY 2024–25. This may provide a more contemporary assessment of whether conventional capital structure theories continue to explain Indian firms' financing decisions.

5. Maji and Ghosh (2007) – Evidence of Mixed Theoretical Support
A recent literature review by Tiwari and Kumar (2025) examined research on the determinants of capital structure, with particular attention to Indian firms. The review considered studies from both developed and developing economies and focused on factors influencing leverage and the relationship between capital structure and firm value. The authors highlighted the continuing importance of firm characteristics in explaining capital structure decisions and identified gaps in the existing literature that warrant further investigation.

The recent review is particularly useful for the present study because it demonstrates that capital structure remains an active area of research in India. Earlier studies have produced mixed evidence regarding the Trade-Off and Pecking Order theories, while firm-level characteristics such as profitability, size, growth and asset structure repeatedly appear as important determinants. This suggests that the applicability of conventional theories may depend on the institutional and economic environment in which firms operate. The present study addresses this issue by focusing on recent evidence from FY 2020–21 to FY 2024–25 and by incorporating promoter ownership as an India-specific factor alongside conventional determinants of leverage.

Sampling Plan

Target Population

The target population consists of companies listed on the **National Stock Exchange (NSE) and/or Bombay Stock Exchange (BSE)** in India. The study focuses specifically on listed **non-financial companies**, as the capital structure of financial institutions is subject to different regulatory requirements and business models.

Study Period

The study covers a recent five-year period from **FY 2020–21 to FY 2024–25**. This period provides contemporary evidence on the financing decisions of Indian firms and captures changes in the business and financial environment during these years.

Sampling Method

The study will use **purposive sampling**. Companies will be selected based on predefined criteria to ensure that the final sample contains firms for which the required financial and ownership information is available consistently throughout the study period.

Inclusion Criteria

A company will be included in the sample if:

1. It is listed on the NSE and/or BSE during the study period.
2. It is classified as a non-financial company.
3. It has financial statements available for the relevant five-year period.
4. Information on debt, total assets, profitability, size, asset tangibility and growth is available.
5. Promoter shareholding information is available where required.
6. The company has sufficient data to calculate the variables used in the study.

Exclusion Criteria

The following companies will be excluded:

1. Banks and other banking institutions.
2. Insurance companies.
3. Non-Banking Financial Companies (NBFCs).
4. Other financial-service companies whose capital structure is substantially influenced by sector-specific regulations.
5. Companies with substantial missing financial or ownership data.
6. Companies that do not have sufficient observations during the study period.

Sample Size

The final sample will consist of approximately **300–500 listed non-financial companies**, subject to the availability and completeness of data. The exact number of companies will be determined after applying the inclusion and exclusion criteria. With five years of observations, the study may provide approximately **1,500–2,500 firm-year observations**, before accounting for missing observations.

Sampling Unit

The primary sampling unit is an **individual listed non-financial company**. For analysis, each company will contribute annual observations for the financial years from FY 2020–21 to FY 2024–25.

Sources for Sample Identification

Companies may be identified using official stock-exchange listings and company disclosures available through **NSE and BSE**, while financial and ownership information may be collected from annual reports and reliable financial databases such as **CMIE Prowess and Capitaline**.

Final Sample Selection Procedure

The sample selection will follow these steps:

Step 1: Identify companies listed on NSE and/or BSE during the study period.

Step 2: Remove financial-sector companies such as banks, insurance companies and NBFCs.

Step 3: Check the availability of annual financial statements for FY 2020–21 to FY 2024–25.

Step 4: Check the availability of information required to measure leverage, profitability, firm size, asset tangibility, growth opportunities and promoter ownership.

Step 5: Exclude companies with substantial missing or inconsistent data.

Step 6: Prepare the final panel dataset containing the selected companies and their annual observations.

Rationale for the Sampling Plan

The sampling plan is designed to provide a reasonably broad representation of Indian listed non-financial companies while maintaining data quality and comparability. Excluding financial institutions reduces the effect of sector-specific regulations on leverage decisions. The five-year study period and inclusion of promoter ownership also allow the study to examine whether conventional capital structure theories adequately explain financing decisions within the contemporary Indian institutional environment.

I can give you a **complete numerical example for a sample of 300 firms × 5 years = 1,500 firm-year observations**, but I should not present invented statistics as if they were actual empirical findings. The numbers below are therefore **illustrative/simulated results** for showing how your final paper can look. This is especially important because published Indian studies produce mixed evidence—for example, Chakraborty finds support for both Pecking Order and Trade-Off theories, while other studies find different patterns. (ScienceDirect)

4. Data Analysis and Results

The study considers **300 listed non-financial Indian companies** over five financial years, from **FY 2020–21 to FY 2024–25**, resulting in a maximum of **1,500 firm-year observations**.

4.1 Descriptive Statistics

Table 1: Descriptive Statistics

Variable	N	Mean	Std. Dev.	Minimum	Maximum
Leverage (%)	1,500	38.42	21.16	2.10	91.80
Profitability (%)	1,500	8.76	7.42	-18.60	31.40
Firm Size	1,500	8.94	1.52	5.21	13.27
Asset Tangibility (%)	1,500	42.65	19.83	5.40	88.70
Growth (%)	1,500	11.38	18.45	-35.20	76.90
Promoter Ownership (%)	1,500	51.27	18.64	5.10	89.70

The average leverage of the sampled firms is approximately **38.42%**, indicating a moderate dependence on debt financing. Average promoter ownership is **51.27%**, showing the importance of concentrated ownership in the Indian corporate environment.

4.2 Year-wise Leverage

Table 2: Average Leverage by Year

Financial Year	Average Leverage (%)
FY 2020–21	40.10
FY 2021–22	39.25
FY 2022–23	38.70
FY 2023–24	37.65
FY 2024–25	36.40

The illustrative results show a gradual decline in average leverage from **40.10% to 36.40%** over the study period.

4.3 Correlation Analysis

Table 3: Correlation Matrix

Variable	LEV	PROF	SIZE	TANG	GROWTH	PROM
LEV	1.000					
PROF	-0.31	1.000				
SIZE	0.24	0.18	1.000			
TANG	0.29	0.12	0.34	1.000		
GROWTH	-0.12	0.21	0.08	0.05	1.000	
PROM	-0.16	0.10	-0.05	0.09	0.03	1.000

The correlation results indicate a **negative relationship between profitability and leverage (-0.31)**, providing preliminary support for the Pecking Order Theory. Firm size (**0.24**) and asset tangibility (**0.29**) show positive relationships with leverage, which are consistent with Trade-Off Theory.

4.4 Regression Analysis

The following panel regression model is used:

$$\mathbf{LEV = \beta_0 + \beta_1 PROF + \beta_2 SIZE + \beta_3 TANG + \beta_4 GROWTH + \beta_5 PROM + \varepsilon}$$

Table 4: Panel Regression Results

Variable	Expected Sign	Coefficient	p-value	Result
Profitability	–	**-0.284**	**0.000**	Significant
Firm Size	+	**0.067**	**0.012**	Significant
Asset Tangibility	+	**0.193**	**0.000**	Significant
Growth	–	**-0.041**	**0.038**	Significant
Promoter Ownership	±	**-0.086**	**0.021**	Significant
R^2	—	**0.31**	—	—
Adjusted R^2	—	**0.29**	—	—
Observations	—	**1,500**	—	—

The illustrative regression results show that all five explanatory variables are statistically significant at the **5% level**.

Profitability has a negative coefficient (**-0.284; p < 0.001**), supporting the prediction that more profitable firms rely less on debt. This is consistent with the Pecking Order Theory.

Firm size has a positive coefficient (**0.067; p = 0.012**) and asset tangibility has a positive coefficient (**0.193; p < 0.001**). These findings are consistent with Trade-Off Theory.

Growth has a negative coefficient (**-0.041; p = 0.038**), also consistent with the expected Trade-Off relationship.

Promoter ownership has a significant negative coefficient (**-0.086; p = 0.021**), suggesting that ownership structure may influence financing decisions in Indian firms.

The model explains approximately **31% of the variation in leverage**, based on the illustrative R^2.

4.5 Hypothesis Testing

Table 5: Final Hypothesis Results

Hypothesis	Expected Relationship	Coefficient	p-value	Decision
H1: Profitability → Leverage	Negative	-0.284	0.000	**Supported**
H2: Firm Size → Leverage	Positive	0.067	0.012	**Supported**
H3: Tangibility → Leverage	Positive	0.193	0.000	**Supported**
H4: Growth → Leverage	Negative	-0.041	0.038	**Supported**
H5: Promoter Ownership → Leverage	Significant	-0.086	0.021	**Supported**

At the **5% significance level**, all five illustrative hypotheses are supported.

4.6 Theory-wise Interpretation

Table 6: Applicability of Capital Structure Theories

Theory	Evidence	Assessment
Pecking Order Theory	Profitability negatively related to leverage	**Supported**
Trade-Off Theory	Size and tangibility positively related to leverage	**Supported**
Trade-Off Theory	Growth negatively related to leverage	**Supported**
India-specific ownership perspective	Promoter ownership significantly related to leverage	**Supported**

The results indicate that **no single theory completely explains capital structure decisions**. The negative relationship between profitability and leverage supports the Pecking Order Theory, while the positive effects of size and tangibility support the Trade-Off Theory.

This interpretation is consistent with earlier Indian evidence that both Pecking Order and Trade-Off mechanisms can operate simultaneously.

4.7 Overall Finding

Based on the **illustrative results**, conventional capital structure theories appear to be **partially applicable rather than universally applicable** to Indian listed non-financial companies.

The evidence can be summarized as follows:

- **H1 supported → Pecking Order Theory**
- **H2 supported → Trade-Off Theory**
- **H3 supported → Trade-Off Theory**
- **H4 supported → Trade-Off Theory**
- **H5 supported → Indian ownership context**

Therefore, the proposed conclusion is that **Indian firms' financing decisions are better explained by a combination of conventional capital structure theories and India-specific institutional factors rather than by a single conventional theory.**

This conclusion is also broadly consistent with previous Indian research reporting mixed or combined support for capital structure theories.

Important: The numerical results above—such as **38.42% leverage, -0.284 profitability coefficient, R^2 = 0.31, and the p-values—are simulated/illustrative. They must not be presented in your final paper as actual findings unless they are obtained by analysing the real data of the 300 companies.**

5. Conclusion

The present study examined whether conventional capital structure theories are applicable to Indian firms, with particular reference to listed non-financial companies in an emerging market. The study focused on 300 listed non-financial firms over the five-year period from FY 2020–21 to FY 2024–25, resulting in a proposed dataset of 1,500 firm-year observations. The study considered the major determinants of capital structure, namely profitability, firm size, asset tangibility, growth opportunities and promoter ownership, and evaluated their relationship with leverage.

The findings indicate that conventional capital structure theories are relevant to Indian firms, but their applicability is not complete or universal. The evidence suggests that both the Pecking Order Theory and Trade-Off Theory contribute to explaining the financing behaviour of Indian firms. Therefore, capital structure decisions cannot be adequately explained by relying on a single theoretical perspective.

Profitability was found to have a negative and significant relationship with leverage. This finding is consistent with the Pecking Order Theory, which suggests that profitable firms generally prefer to use internally generated funds before relying on external debt. The positive relationship between firm size and leverage provides support for the Trade-Off Theory. Larger firms generally have more stable operations, greater access to credit markets and lower perceived financial distress risk, which may allow them to use more debt.

Asset tangibility also showed a positive and significant relationship with leverage. This finding supports the Trade-Off perspective because tangible assets can be used as collateral and may reduce the risk faced by lenders. Growth opportunities were negatively related to leverage, which is also consistent with the argument that firms with greater growth opportunities may avoid excessive debt because of financial flexibility and potential agency or distress costs.

An important finding of the study is the significant role of promoter ownership. Promoter ownership showed a negative relationship with leverage in the illustrative analysis. This suggests that ownership structure may influence financing decisions in Indian companies. Concentrated promoter ownership can affect managerial preferences, control considerations and the willingness of firms to use external financing. This result highlights the importance of incorporating India-specific institutional characteristics into capital structure analysis.

Overall, the study concludes that conventional capital structure theories are **partially applicable to Indian firms**. The evidence supports important predictions of both the Pecking Order Theory and Trade-Off Theory, but neither theory alone provides a complete explanation of financing behaviour. The presence of promoter ownership and other institutional characteristics makes the Indian corporate environment different from the assumptions underlying conventional theories developed largely in developed-market settings.

Thus, the answer to the research question is that conventional theories remain useful, but their explanatory power is conditional on the institutional and ownership characteristics of Indian firms. A more comprehensive understanding of capital structure in India requires combining conventional financial theories with firm-specific and India-specific factors. The study therefore supports a **context-specific approach rather than complete rejection of conventional capital structure theories**.

Major Findings of the Study

The study provides several important findings regarding the capital structure decisions of listed non-financial companies in India. Based on the proposed sample of 300 firms and 1,500 firm-year observations covering FY 2020–21 to FY 2024–25, the major findings are as follows.

1. Moderate dependence on debt:

The illustrative analysis indicates an average leverage of approximately 38.42%. This suggests that Indian listed non-financial firms use a combination of debt and equity financing rather than depending entirely on debt financing. The average leverage also indicates the importance of capital structure decisions in determining the financial position of Indian firms.

2. Profitability has a negative relationship with leverage:

Profitability was found to have a negative and statistically significant relationship with leverage. The illustrative regression coefficient was -0.284 with a p-value of 0.000. This supports the first hypothesis and provides evidence in favour of the Pecking Order Theory. More profitable firms appear more capable of financing their activities through internally generated funds, reducing their dependence on external debt.

3. Firm size has a positive relationship with leverage:

Firm size showed a positive and significant relationship with leverage, with an illustrative coefficient of 0.067 and a p-value of 0.012. This supports the second hypothesis and is consistent with the Trade-Off Theory. Larger firms generally have greater access to financial markets and may face comparatively lower financial distress risk.

4. Asset tangibility positively affects leverage:

Asset tangibility showed a positive and significant relationship with leverage. The illustrative coefficient was 0.193 with a p-value below 0.001. This supports the third hypothesis. Firms with a higher proportion of tangible assets may find it easier to obtain debt because such assets can provide security or collateral to lenders.

5. Growth opportunities have a negative relationship with leverage:

Growth opportunities were negatively related to leverage, with an illustrative coefficient of -0.041 and a p-value of 0.038. The fourth hypothesis was therefore supported. Firms with greater growth opportunities may prefer to maintain financial flexibility and avoid excessive debt commitments.

6. Promoter ownership is an important determinant:

Promoter ownership was found to have a significant negative relationship with leverage in the illustrative analysis. The coefficient was -0.086 with a p-value of 0.021. This supports the fifth hypothesis and highlights the importance of ownership structure in understanding Indian firms' financing decisions.

7. Both major conventional theories receive support:

The findings provide evidence for both Pecking Order Theory and Trade-Off Theory. Profitability supports the Pecking Order explanation, while firm size and asset tangibility support the Trade-Off

explanation. This indicates that Indian firms may use different financing strategies depending on their individual characteristics.

8. Conventional theories alone are insufficient:
The findings suggest that no single conventional theory completely explains capital structure decisions in Indian firms. The significance of promoter ownership indicates that institutional and ownership-related characteristics need to be incorporated into the analysis.

9. Overall explanatory power is moderate:
The illustrative regression produced an R^2 of approximately 0.31, indicating that the selected variables explain around 31% of the variation in leverage. This suggests that the selected conventional and India-specific variables are relevant, while other factors may also influence financing decisions.

10. Overall applicability is conditional:
The central finding is that conventional capital structure theories are applicable to Indian firms, but only to a certain extent. Their predictions become more meaningful when combined with factors related to ownership structure, corporate governance and the institutional environment of the Indian emerging market.

Suggestions and Recommendations
Based on the findings of the study, several suggestions can be made for corporate managers, investors, lenders, policymakers and future researchers.
1. Firms should adopt a balanced capital structure:
Indian companies should maintain an appropriate balance between debt and equity rather than depending excessively on either source of finance. Debt can provide tax benefits and support business expansion, but excessive borrowing can increase financial distress and repayment pressure.

2. Profitability should guide financing decisions:
More profitable firms should make effective use of internally generated funds before increasing external borrowing. This can reduce interest costs and dependence on external financiers. However, firms should also maintain sufficient financial flexibility for future investment requirements.

3. Debt capacity should be evaluated according to firm size:
Larger firms may have greater borrowing capacity because of their scale, stability and access to financial markets. However, borrowing decisions should still be based on cash-flow capacity and repayment ability rather than size alone.

4. Tangible assets can be strategically used:
Companies with substantial tangible assets may use these assets to improve access to secured financing. However, managers should avoid using collateral capacity as a justification for excessive borrowing.

5. Growth-oriented firms should preserve financial flexibility:
Firms with significant growth opportunities should avoid excessive fixed debt obligations. Maintaining adequate financial flexibility can help firms respond to new investment opportunities without creating unnecessary financial pressure.

6. Promoter ownership should be considered in financing decisions:
Indian companies should recognise the influence of promoter ownership on capital structure decisions. Promoters should balance their desire to retain control with the need to obtain sufficient external finance for business expansion. Excessive preference for internal financing may restrict growth, while excessive debt may increase financial risk.

7. Investors should consider ownership and financing structure together:
Investors should not evaluate companies only on the basis of profitability or earnings. Promoter ownership, leverage, asset structure and growth prospects should also be considered when assessing the financial position and risk of a company.

8. Lenders should consider firm-specific characteristics:
Banks and other lenders should evaluate profitability, asset quality, business stability, growth prospects and ownership structure while determining the debt capacity of firms. A standard lending approach may not be equally appropriate for all companies.

9. Companies should strengthen financial planning and risk management:
Management should regularly review debt levels, interest obligations and cash-flow requirements. Proper financial planning can help firms obtain the benefits of debt while limiting financial distress.

10. Conventional theories should be applied with an Indian perspective:
The study suggests that conventional theories should not be completely rejected, but their assumptions should be interpreted in the context of the Indian market. Promoter ownership, concentrated ownership, corporate governance, information asymmetry and access to finance should be incorporated into capital structure decisions.

11. Policymakers should promote transparent financial markets:
Greater transparency, improved disclosure practices and stronger corporate governance can reduce information asymmetry between companies, investors and lenders. This may improve firms' access to external finance and contribute to more efficient capital allocation.

12. Future research should extend the scope of the study:
Future studies can include a larger number of firms, longer study periods and additional variables such as liquidity, business risk, taxation, firm age, corporate governance and ownership concentration. Comparative studies between financial and non-financial firms or between different industry groups could also provide deeper insights.
Overall, the most important suggestion is that Indian firms should not follow a single financing rule. Capital structure decisions should be based on profitability, size, asset structure, growth opportunities, ownership characteristics and the overall financial environment. A flexible and context-specific approach

is likely to be more appropriate for Indian companies than relying exclusively on any one conventional capital structure theory.

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