

Review of literature on capital structure: Independent and Dependent Variables

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Abstract

Choosing a capital structure presents many difficulties for businesses. Choosing the right balance between debt and equity is one of the most important decisions. A poor capital structure decision can completely ruin any company's success. Researchers have shown interest in analyzing the capital structure of the companies. The main objective of this paper is to review these empirical studies of capital structure and to identify frequently used parameters by the researchers for the last 14 years. The empirical capital structure literature is reviewed in this paper, focusing on works released since 2010. The research paper also intends to address particular issues for further investigation while highlighting the significant gaps in the literature on the factors influencing capital structure. It also compares the outcomes of practical research with theoretical expectations. This study investigates the independent factors and their dependent effects that lead companies to stray from ideal capital structures. This study primarily focuses on a review of studies in the context of (i) Capital structure in the banking and financial institutions sector, (ii) Capital structure in the metals industry, (iii) Retail industry, (iv) Software industry, and (v) Pharmaceutical industry. Only secondary data were used in this present study.

Keywords: Capital structure, Dependent Variable, Independent variables, Literature review, Sector-wise Analysis

JEL Classification: C51, G32, L25

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1. Introduction

Modigliani and Miller initially proposed the idea of capital structure in 1958. Following Modigliani and Miller's (1958) lead, several researchers have since attempted to deviate from their presumptions to establish different theories on capital structure. Fen et al. (2012) mentioned that Firm value may be a combination of a company's potential for growth and the effectiveness of its day-to-day operations. Kumar et al. (2017) state that past and future investments determine a company's worth. The company must select the right financial mix to fund these initiatives. Eriotis (2007) states that the management of a company makes poor or unwise judgements about the capital structure's balance and financial distress, which might result in bankruptcy may very occur. Gherghina et al. (2020) emphasized that innovativeness drives competitiveness and economic growth, to which capital structure is integral. Rajan & Zingales (1994), it is evident from the literature that there is conflicting empirical data concerning the different ideas.

This study focuses on dependent and independent variables considered in this study of capital structure of the banking and financial institutions sector, metals industry, retail industry, software industry, and pharmaceutical industry. Furthermore, by examining the relationships between capital structure and factors that influence capital structure in sample industries, this study Summarises several of the conclusions of earlier researchers. As a result, this research strengthens the hypothesis that earlier researchers have already established, apart from establishing a framework across industries to understand the correlation between factors and leverages. This discussion can help researchers better identify the true economic forces underlying the factors.

Objectives of the study

- 1) To identify variables used in selected sectors' capital structure and performance-related studies.
- 2) To identify key factors/variables of capital structure and profitability.

2. Literature Review

The paper is a review paper. Therefore, all contents are linked to the review only; however, the following paragraphs define a few key research works done in the past to channel the review process.

Panda et al. (2013) and Sharma (2022) mentioned that Modigliani and Miller's groundbreaking work from 1958 was the foundation for the new era of capital structure theories. Several studies have been done on the different facets of capital structure, but no clear theory has surfaced yet. The majority of studies have focused mostly on corporations' asset financing strategies.

Pinto et al. (2017), Gohar & Waseem (2016), Khare & Rizvi (2010), Akhtar et al. (2016), Shibru (2012), Panda et al. (2013), Nimalathasan & Brabete (2010) observed that capital structure decisions are critical for firms to maximize profits and navigate the competitive environment. The company is free to select any ratio of debt to equity. It can issue less debt and more equity or more debt and less equity. The choice of capital structure is crucial when making capital investments since it impacts profitability, cost of capital, or both. The debt-to-equity ratio is the capital structure, and determining if a capital structure exists is best for the company's owners. Khare & Rizvi (2010) and El-Chaarani & El-Abiad (2019) reported that a company's overall operational earnings are decided by its investment decision, and the financing mix can influence the portion of earnings distributed to shareholders. However, the cost of capital may be influenced by leverage, affecting the firm's value.

According to Sunita (2018), the core of the Indian financial system is thought to be the banking industry. Without the growth of a stable banking industry, no economy can progress. The banking industry provides more than 90% of business credit in India. The banks' primary aim is to reduce financing costs to achieve expansion. The cost of borrowing money can be decreased by appropriately focusing on combining debt and equity—internal and external financing—. Serwadda (2019) states that a bank's main responsibility is to collect money from investors and then disburse it to the business community so that it may use it. Because of this, banks have always been concerned with debt repayment and liquidity, and they can only succeed in these areas by putting systems in place to recognize, assess, monitor, and manage risks.

Nguyen et al. (2021) say that to control the minimum financial leverage ratio, the Basel Committee modified Basel rules, namely Basel 3, to consider the financial institutions' off-balance sheet and on-balance sheet operations. Determining the impact of capital structure on bank performance can benefit policymakers, administrators, and shareholders. It can enhance bank performance and maximize bank value and the value of assets for shareholders. Wang et al. (2011) executive remuneration level and capital structure have a strong inverse relationship.

Definition of capital structure

Definition 1. “Capital structure of a firm refers to the composition of the makeup of its capitalization, and it includes all long-term capital resources viz loans, reserves, shares, and bonds.” by Gerstenberg

Definition 2. “The term capital structure is frequently used to indicate the long-term sources of funds employed in a business enterprise.” by R.H Wessel

Definition 3. “Capital structure is the permanent financing of the firm represented by long-term debt, preferred stock, and net worth.” by Weston and Brigham

Definition 4. “Capital structure is essentially concerned with how the firm decides to divide its cash flows into two broad components, a fixed component that is earmarked to meet the obligations toward debt capital and a residual component that belongs to equity shareholders.” by P. Chandra

Definition 5. “The mix of a firm’s permanent long-term financing represented by debt, preferred stock, and common stock equity.” by James C. Van Home

Definition 6. “The composition of a firm’s financing consists of equity, preference, and debt.” by P. Chandra

Definition 7. “The long-term sources of funds employed in a business enterprise.” by R.H. Wessel

Definition 8. “The capital structure of business can be measured by the ratio of various kinds of permanent loan and equity capital to total capital.” by Schwarty

Definition 9. “Capital structure is the permanent financing of the firm represented by long-term debts, preferred stock and net worth.” Net worth is the equity shareholders’ interest and includes reserves and surpluses, retained earnings and net worth reserves.” Weston and Brigham

Definition 10. “Capital structure or financial structure of a – company refers to the type of securities to be issued and the proportionate amount that makes up the capitalization.” by Gerstenberg

3. Research Methodology

The context

This research paper uses a deductive qualitative methodology to identify dependent and independent variables of capital structure. Independent and dependent variables are important ideas in experimental and observational research that serve as the foundation for a cause-and-effect connection inside a study. The independent variable is the factor that the researcher manipulates or controls to examine its influence on the dependent variable. In an experiment, it is the assumed reason or input. To investigate the influence of the independent variable on the dependent variable, researchers change or categorise it.

On the other hand, the dependent variable is the outcome or response that researchers measure to assess the effects of the independent variable. The variable is expected to change in response to variations in the independent variable. The relationship between the independent and dependent variables helps researchers understand the nature of the phenomenon under investigation and establish a connection between different factors. Essentially, the independent variable is the "if" in an experiment, while the dependent variable is the "then," reflecting the cause-and-effect dynamics at the core of scientific inquiry. In this study, dependent and independent variables are used to determine the effect of capital structure on the financial performance of selected industries. The study analyzed a wide range of 59 independent variables and 15 dependent variables, drawing information from a comprehensive review of 56 research papers. Based on the existing literature, the aim was better to understand the relationships and interactions among these variables.

Data its source

Secondary data is crucial, incorporating over fifty research publications, articles, and review papers from diverse general and international outlets. Including this extensive secondary data enhances the depth and breadth of the study's analysis, drawing insights from a wide range of reputable sources.

Period of study

This study aims to assess the current state of research conducted over the past 14 years. Factors influencing capital structure. The investigation is specifically focused on the period spanning from 2010 to 2023. By examining relevant variables, the research seeks to provide insights into the dynamic landscape of capital structure decisions within this timeframe. The selected time frame allows for a comprehensive analysis of trends and shifts in the financial landscape, contributing to a deeper understanding of the factors shaping companies' capital structures. Ultimately, the study offers valuable perspectives that can inform financial strategies and decision-making in the coming years.

Sampling design

This study encompasses five distinct industries as the focal points for both independent and dependent variables. The chosen sectors are the banking and financial institutions sector, which offers insights into financial dynamics. The Metals industry is included to investigate its unique economic characteristics. The Retail industry is a key focus, exploring consumer-driven trends and market dynamics. The Software industry is examined for its technological advancements and business models. Lastly, the Pharmaceutical industry is scrutinized to understand the complexities of healthcare-related markets. These diverse sectors serve as representative samples, contributing to a comprehensive analysis of industry-specific variables in the study.

Data analysis technique

In examining the influence of capital structure on financial performance, this study employed both frequency analysis and tabular analysis as analytical tools. The study aimed to comprehensively investigate and present data patterns and relationships through these methods. The validity of the study's findings was ensured by conducting relevant statistical calculations, including tabulations and frequency analysis, thereby enhancing the robustness of the research outcomes.

4. Result and Analysis

Results and analysis are integral parts of research, with results presenting findings and analysis interpreting their significance. They elucidate the meaning and implications of the collected data, guiding the understanding of the study's outcomes within the context of its objectives and broader literature.

4.1 Independent variables:

This section presents the findings obtained through data collection and independent variables used by researchers in the studies related to capital structure.

Table 1. (A) Independent variables of capital structure in five different industries.

2010 - 2023		Banking and financial institutes																		Sources	
IV SN	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19		
1	✓	✓																			Pinto et al. (2017)
2			✓	✓	✓																El-Chaarani & El-Abiad (2019)
3	✓																				Mujahid et al. (2014)
4	✓				✓	✓															Gohar & Waseem (2016)
5	✓	✓																			Sunita (2018)
6							✓		✓	✓		✓	✓	✓	✓						Khare & Rizvi (2010)
7		✓	✓	✓																	Maduane & Tsaurai(2016)
8	✓	✓																			Prasad (2019)
9	✓	✓																			Nguyen et al. (2021)
10			✓	✓																	Serwadda (2019)
11							✓	✓			✓										Akhtar et al. (2016)
12							✓	✓		✓		✓									Shibru (2012)
13										✓											SH. Ibrahim (2019)
14	✓	✓	✓	✓																	Zafar et al. (2016)
15	✓	✓	✓	✓																	Acharya (2019)
16			✓	✓	✓																Aljamaan (2018)
Capital structure in Metal industry																					
17							✓			✓		✓	✓	✓	✓					✓	Panda et al. (2013)
18							✓	✓				✓	✓			✓				✓	Pal (2014)
19	✓	✓																			Takeh & Navaprabha (2015)
20							✓			✓		✓	✓	✓	✓					✓	Sharma (2022)
21							✓			✓		✓	✓	✓	✓						Dakua (2018)
22	✓		✓	✓																	Mehta (2021)
23										✓		✓				✓	✓	✓			Banerjee & De (2014)
24								✓							✓						Sanjeevi & Rao (2013)
25		✓	✓	✓																	Sibanda (2019)
26							✓	✓		✓		✓	✓		✓	✓				✓	Mand & Singh (2014)
Capital structure in Retail industry																					
27		✓	✓	✓																	Kasozi (2018)
28	✓									✓											Mukaddam & Sibindi (2020)
29							✓	✓		✓		✓				✓					Feng (2022)
30	✓	✓																			Maxim (2023)
31							✓	✓		✓		✓	✓		✓						Nandi & Banerjee (2021)

29	✓				✓															
33											✓									
39					✓				✓											
41	✓								✓											
43												✓	✓	✓						
44															✓					
49									✓											
53	✓				✓										✓	✓				
54																			✓	
55	✓																			✓

Table 2: Financial ratio / Independent variables as studies by researchers (2010 – 2023)

IV	Independent Variable	Formula	%	Author
1	Debt to Equity ratio	$\frac{\text{Debt}}{\text{Equity}}$ $\frac{\text{Total debt}}{\text{Total equity}}$ $\frac{\text{Total liabilities}}{\text{Shareholder's equity}}$ $\frac{\text{Total Liability}}{\text{Total Equity}}$ $\frac{\text{Total debt}}{\text{Equity}}$ $\frac{\text{Total debt}}{\text{Book value of equity}}$	19 (34.5%)	Pinto et al. (2017), Gohar & Waseem (2016), Mujahid et al. (2014), Sunita (2018), Prasad (2019), Nguyen et al. (2021), Zafar et al. (2016), Acharya (2019), Takeh & Navaprabha (2015), Mehta (2021), Mukaddam & Sibindi (2020), Maxim (2023), Patjoshi & Nandini (2020), Azhagaiah & Gavoury (2011), Fen et al. (2012), Abhilash et al. (2021), Jacob & Ajina (2020), Rehan et al. (2020), Nwafor et al. (2022)
2	Total debt ratio or Financial debt ratio Debt to total fund ratio or General solvency ratio	$\frac{\text{Debt}}{\text{Total assets}}$ $\frac{\text{Total debt}}{\text{Total assets}}$ $\frac{\text{Short-term debt} + \text{Long term debt}}{\text{Overall Assets}}$ $\frac{\text{Total liabilities}}{\text{Total assets}}$ $\frac{\text{Total debt}}{\text{Assets}}$ $\frac{\text{Debt}}{\text{Assets}}$	20 (36.4%)	Pinto et al. (2017), El-Chaarani & El-Abiad (2019), Sunita (2018), Maduane & Tsaurai (2016), Prasad (2019), Nguyen et al. (2021), Serwadda (2019), Zafar et al. (2016), Acharya (2019), Aljamaan (2018), Takeh & Navaprabha (2015), Sibanda (2019), Kasozi (2018), Maxim (2023), En & Malek (2021), Azhagaiah & Gavoury (2011), Abhilash et.al (2021), Mohammadzadeh et al. (2013), Nwafor et al. (2022)
3	Short-term debt ratio	$\frac{\text{Short-term debt}}{\text{Total assets}}$ $\frac{\text{Short-term liability}}{\text{Asset}}$	11 (20%)	El-Chaarani & El-Abiad (2019), Maduane & Tsaurai (2016), Serwadda (2019), Zafar et al. (2016), Acharya (2019), Aljamaan (2018), Mehta (2021), Sibanda (2019), Kasozi (2018), En & Malek (2021), Mohammadzadeh et al. (2013)
4	Long-term debt ratio	$\frac{\text{Long-term debt}}{\text{Total assets}}$ $\frac{\text{Long-term liability}}{\text{Asset}}$ $\frac{\text{Long-term borrowing}}{\text{Total assets}}$	13 (23.6%)	El-Chaarani & El-Abiad (2019), Maduane & Tsaurai (2016), Serwadda (2019), Zafar et al. (2016), Acharya (2019), Aljamaan (2018), Mehta (2021), Sibanda (2019), Kasozi (2018), En & Malek (2021), Sarkar (2016), Mohammadzadeh et al. (2013) Varghese & Sahai (2021)
5	Long-term debt to-equity ratio	$\frac{\text{Long-term debt}}{\text{Total equity}}$ $\frac{\text{Long-term borrowing}}{\text{Shareholders' fund}}$	3 (5.5%)	Gohar & Waseem (2016), Patjoshi & Nandini (2020), Varghese & Sahai (2021)
6	Short-term debt to Equity ratio	$\frac{\text{Short-term debt}}{\text{Total equity}}$	1(1.8%)	Gohar & Waseem (2016)
7	Asser Structure or Tangibility or Collateral or PPE	$\frac{\text{Fixed assets}}{\text{Total assets}}$ $\frac{\text{Total Fixed assets}}{\text{Total assets}}$ $\frac{\text{Net fixed assets}}{\text{Total assets}}$ $\frac{\text{Ratio of net fixed assets}}{\text{Total assets}}$ $\frac{\text{Ratio of tangible assets}}{\text{Total assets}}$ $\frac{\text{Fixed assets}}{\text{Total liabilities}}$	22 (40%)	Khare & Rizvi (2010), Akhtar et al. (2016) Shibru (2012), Panda et al. (2013), Pal (2014), Sharma (2022), Dakua (2018), Mand & Singh (2014), Feng (2022), Nandi & Banerjee (2021), Abdou et al. (2012), Rao et al. (2019), Hashemi (2013), Hacini et al. (2022), Tazvivinga et al. (2021), Shanmugam et al. (2018), Dhingra et al. (2018), Mudgal (2016), Fen et al. (2012), Thanh & Trang (2021), Bhat & Periyasami (2021), Keerthi & Manjunatha
8	Net profitability or Return on total assets	$\frac{\text{Net profit}}{\text{Total revenue}}$ $\frac{\text{EBIT}}{\text{Total asset}}$ $\frac{\text{PAT}}{\text{Total Assets}}$ $\frac{\text{Annual EBITDA}}{\text{Total assets}}$ $\frac{\text{PBDITA}}{\text{Total assets}}$ $\frac{\text{Profit before tax}}{\text{Total assets}}$ $\frac{\text{Net Profit Margin}}{\text{PAT / Total Assets}}$	19 (34.5%)	Akhtar et al. (2016). Shibru (2012), Pal (2014), Sanjeevi & Rao (2013), Mand & Singh (2014), Feng (2022), Nandi & Banerjee (2021), Abdou et al. (2012), Rao et al. (2019), Hacini et al. (2022), Shanmugam et al. (2018), Dhingra et al. (2018), Mudgal (2016), Fen et al. (2012), Thanh & Trang (2021), Bhat & Periyasami (2021), Yuxuan & Wenlin (2014), Malhotra, Keerthi & Manjunatha

		PBITD / Total asset		
		Retained profits / Total assets		
		EBT / TA		
9	Net growth rate (sale)	Net Sales	8 (14.5%)	Khare & Rizvi (2010), Abdou et al. (2012), Rao et al. (2019), Hashemi (2013), Tazvivinga et al. (2021), Kedzior et al. (2020), Fen et al. (2012), Mudgal (2016)
		$[\text{Sales}(t) \text{ sales } (t-1)] / \text{sales } (t-1)$		
		% change in sales on a YOY basis		
		% Increase in sales turnover		
		Yearly sales growth percentage		
		Sales from the t-year minus sales from the t-1 year, and deflated by the sales from t-1 year.		
		Percentage change in sales over the year		
		$[(\text{Sales of current year} - \text{Sales of previous year}) / \text{Sales of previous year}]$		
10	Size of the firm (Assets)	Natural logarithm of Total asset	20 (36.4%)	Khare & Rizvi (2010), Shibru (2012), Ibrahim (2019), Panda et al. (2013), Sharma (2022), Dakua (2018), Banerjee & De (2014), Mand & Singh (2014), Mukaddam & Sibindi (2020), Feng (2022), Nandi & Banerjee (2021), Hashemi (2013), Hacini et al. (2022), Shanmugam et al. (2018), Mudgal (2016), Kedzior et al. (2020), Thanh & Trang (2021), Bhat & Periyasami (2021), Yuxuan & Wenlin (2014), Keerthi & Manjunatha
		Total asset		
		Log (Average Total Assets)		
11	Liquidity & Solvency (quick ratio)	Cash+ Balance with securities / Total assets	3 (5.5%)	Akhtar et al. (2016), Abdou et al. (2012), Yuxuan & Wenlin (2014)
		(Cash, near cash, marketable securities and debtors) / current liabilities		
		$(\text{Current assets} - \text{inventory}) / \text{Current liabilities}$		
12	Business risk or volatility	Coefficient of variation of operating Profit	12 (21.8%)	Khare & Rizvi (2010), Shibru (2012), Panda et al. (2013), Pal (2014), Sharma (2022), Dakua (2018), Banerjee & De (2014), Abdou et al. (2012), Hashemi (2013), Shanmugam et al. (2018), Bhat & Periyasami (2021), Feng (2022)
		Standard Deviation of Operating Income		
		Standard Deviation of EBIT / Mean of EBIT		
		Coefficient of variation of operating PBIT		
		(SD of the annual EBIT, based on the current year and preceding 2 yr.) / (mean annual EBIT over 3yr.)		
		$(\text{SD of EBIT}) / \text{Total Assets}$		
		$\text{SD} (\text{EBIT} / \text{Total assets})$		
13	Non-debt tax shield NDTs	$(\text{PBDIT-I-T} / .30) / \text{Total asset}$	11 (20%)	Khare & Rizvi (2010), Panda et al. (2013), Pal (2014), Sharma (2022), Dakua (2018), Mand & Singh (2014), Nandi & Banerjee (2021), Rao et al. (2019), Shanmugam et al. (2018), Mudgal (2016), Bhat & Periyasami (2021)
		Depreciation / Total Assets		
		Total Depreciation Change / Total Assets		
		Depreciation scaled down by total asset.		
14	Liquidity (Current ratio)	Current asset / Current liability	18 (32.7%)	Khare & Rizvi (2010), Panda et al. (2013), Sharma (2022), Dakua (2018), Mand & Singh (2014), Nandi & Banerjee (2021), Abdou et al. (2012), Rao et al. (2019), Hacini et al. (2022), Tazvivinga et al. (2021), Shanmugam et al. (2018), Dhingra et al. (2018), Mudgal (2016), Kedzior et al. (2020), Fen et al. (2012), Thanh & Trang (2021), Bhat & Periyasami (2021), Keerthi & Manjunatha
		Total current assets / Total current liabilities		
15	Return on Capital Employed (Profitability)	Operating profit / Capital employed	5 (9.1%)	Khare & Rizvi (2010), Panda et al. (2013), Sharma (2022), Dakua (2018), Sanjeevi & Rao (2013)
		PBIT / Capital Employed		
		PAT / Capital Employed		
16	Net growth rate (assets)	Advances / Total assets	15 (27.3%)	Akhtar et al. (2016), Shibru (2012), SH. Ibrahim (2019), Pal (2014), Banerjee & De (2014), Mand & Singh (2014), Nandi & Banerjee (2021), Abdou et al. (2012), Shanmugam et al. (2018), Thanh & Trang (2021), Bhat & Periyasami (2021), Yuxuan & Wenlin (2014), Keerthi & Manjunatha, Feng (2022)
		Annual change in total asset		
		Current assets - Last year's assets / Last year's assets		
		Percentage change in Total assets		
		$\{(\text{Tan} / \text{TAn-1})^{(1/n)} - 1\}$		
		$[\text{Total assets}(t) - \text{Total assets } (t-1)] / \text{Total assets } (t-1)$		

		<u>Change in Fixed assets</u>		
		<u>(Final TA - Initial TA) / Initial TA</u>		
		<u>Market value / Book value</u>		
17	Firm age	<u>Number of years since incorporation</u>	9	Banerjee & De (2014), Mand & Singh (2014),
		<u>2010, less the year of incorporation</u>	(16.4%)	Rao et al. (2019), Hashemi (2013)
		<u>Natural Log of the number of years since listed</u>		Tazvivinga et al. (2021), Shanmugam et al. (2018), Mudgal (2016), Kedzior et al. (2020), Thanh & Trang (2021)
		<u>Log (Current Year- Year of incorporation)</u>		
		<u>Age of t-year</u>		
		<u>Present year – year of listing</u>		
18	Size of the firm (sale)	<u>Log (sales)</u>	7	Pal (2014), Banerjee & De (2014), Abdou et al. (2012), Rao et al. (2019), Tazvivinga et al. (2021), Dhingra et al. (2018), Fen et al. (2012)
		<u>Log (Average Sales)</u>	(12.7%)	
19	Uniqueness	<u>Selling Expenses / Gross Sales</u>	3 (5.5%)	Panda et al. (2013), Sharma (2022)
		<u>Selling and distribution expand over sales</u>		Mand & Singh (2014)
20	Interest rate	<u>Markup or Interest earned / Advances</u>	1 (1.8%)	Akhtar et al. (2016)
21	Total debt to capital	<u>Total debt / Total capital</u>	1 (1.8%)	Ibrahim (2019)
22	Capital Intensity ¹	<u>Total Assets / Total Revenue or Capital Expenditure/ Labor Costs</u>	1 (1.8%)	Shanmugam et al. (2018), Deoskar (2024)
23	Interest coverage ratio ²	<u>EBIT / Interest Expense</u>	1 (1.8%)	Takeh & Navaprabha (2015), Hayes (2024)
24	Total assets debt ratio	<u>Total assets / Total debt</u>	1 (1.8%)	Takeh & Navaprabha (2015)
25	Liquidity (Cash ratio)	<u>Liquid assets / Deposits</u>	1 (1.8%)	Shibru (2012)
26	Average sale growth rate	<u>Compound average growth of annual sales</u>	3 (5.5%)	Panda et al. (2013), Sharma (2022), Dakua (2018)
27	Equity ratio or Debt ratio	<u>Equity / Total assets</u>	3 (5.5%)	Maxim (2023), Sarkar (2016), Varghese & Sahai (2021)
		<u>Net Worth / Total Assets</u>		
		<u>Shareholders fund / Total assets</u>		
28	Debt service capacity (Interest)	<u>Average EBIT / Average Interest</u>	3 (5.5%)	Banerjee & De (2014), Mand & Singh (2014), Keerthi & Manjunatha
		<u>EBIT / Fixed interest charges</u>		
		<u>PBDIT / Total interest</u>		
29	Return on Equity ROI/ROE	<u>PBIT / Equity</u>	4 (7.3%)	Sanjeevi & Rao (2013), Rao et al. (2019), Tazvivinga et al. (2021), Kedzior et al. (2020)
		<u>Profit margin* Asset Turn over* Equity multiplier</u>		
30	Depreciation ratio	<u>Current depreciation / Total sales</u>	1 (1.8%)	Abdou et al. (2012)
31	Market-to-book value	<u>Share price / Book value per share</u>	1 (1.8%)	Abdou et al. (2012)
32	Operating profit margin	<u>Operating profit / Total sales</u>	1 (1.8%)	Abdou et al. (2012)
33	Gross profitability	<u>Gross income / Sales revenue</u>	2 (3.6%)	Abdou et al. (2012), Hashemi (2013)
		<u>The ratio of pre-tax profits to sales turnover</u>		
34	Gross Profit	<u>Gross Profit / Net Sales</u>	1 (1.8%)	Sanjeevi & Rao (2013)
35	Net Profit	<u>Net Profit / Net Sales</u>	1 (1.8%)	Sanjeevi & Rao (2013)
36	Return on fixed assets	<u>PAT / Gross Block (FA)</u>	1 (1.8%)	Sanjeevi & Rao (2013)
37	Financial leverage	<u>Average Debt / Average Asset</u>	1 (1.8%)	Banerjee & De (2014)
38	Dividend Payout	<u>Average Dividend / Average Profit after Tax</u>	2 (3.6%)	Banerjee & De (2014), Mand & Singh (2014)
		<u>Dividend per share to earnings per share</u>		
39	Degree of Operating leverage	<u>AVG {(EBITt-EBITt-1)/EBITt-1}/AVG {(SALESt-SALESt-1)/SALESt-1}</u>	2 (3.6%)	Banerjee & De (2014), Mand & Singh (2014)
		<u>% Change in EBIT / % Change in sales</u>		
40	Effective tax rate	<u>1- (EAT/ EBT)</u>	5 (9.1%)	Mand & Singh (2014), Mudgal (2016), Yuxuan & Wenlin (2014), Keerthi & Manjunatha, Feng (2022)
		<u>Corporate tax/PBT</u>		
		<u>Income tax expenses / Total Profit</u>		
		<u>Tax provision / Profit before tax</u>		
41	Price-earnings Ratio	<u>MPS / EPS</u>	1 (1.8%)	Mand & Singh (2014)
42	Earnings Variability	<u>Deviation from mean of net profit / Total number of years for each firm in a given year</u>	1 (1.8%)	Mand & Singh (2014)
43	Promoter Holdings	<u>% of shares held by the promoters / Total number of shares outstanding</u>	1 (1.8%)	Mand & Singh (2014)

44	Financial strength (Total AT Ratio) or Operating ability	$\frac{\text{Sales}}{\text{Total assets}}$ $\frac{\text{Operating income}}{\text{Final total assets}}$	3 (5.5%)	Dhingra et al. (2018), Yuxuan & Wenlin (2014)
	Internal financial ability	Cash and cash equivalents / Total assets		Feng (2022)
45	Board size	Total number of Directors	1 (1.8%)	Mukaddam & Sibindi (2020)
46	Board independence	Number of non-executive board members / Total number of board members	1 (1.8%)	Mukaddam & Sibindi (2020)
47	Institutional ownership	$\frac{\text{Institutional shares}}{\text{Total shares}} \times 100\%$	1 (1.8%)	Mukaddam & Sibindi (2020)
48	Solvency (Financial charges coverage ratio)	$\frac{\text{EBIT} + \text{finance charges}}{\text{Interest} + \text{finance charges}}$	1 (1.8%)	Dhingra et al. (2018)
49	Cash Operating profit	Cash flow from operating income	1 (1.8%)	Mudgal (2016)
50	Pluralist Executives	1 if the CEO is the chairman of the Board of Directors; 0 if the CEO is not the chairman of the Board of Directors.	1 (1.8%)	Thanh & Trang (2021)
51	Cash flow	$\frac{\text{Profit after tax} + \text{Depreciation}}{\text{Total Assets}}$	1 (1.8%)	Rao et al. (2019)
52	Intangibility	$\frac{\text{Intangibles}}{\text{Total assets}}$	1 (1.8%)	Kedzior et al. (2020)
53	INNOV_INT	$\frac{\text{Internally generated intangibles}}{\text{Total assets}}$	1 (1.8%)	Kedzior et al. (2020)
54	INNOV_EXT	$\frac{\text{Externally acquired intangibles}}{\text{Total assets}}$	1 (1.8%)	Kedzior et al. (2020)
55	Leverage ratio	$\frac{\text{Long-Term Debt}}{\text{Net Worth}}$	1 (1.8%)	Sarkar (2016)
56	Capital guarantee Ability	$\frac{\text{Inventory} + \text{FA} + \text{Projects under construction} + \text{Investment}}{\text{Total Assets}}$	1 (1.8%)	Yuxuan & Wenlin (2014)
57	Ownership concentration	The sum of ratio that the top three shareholders holds	1 (1.8%)	Yuxuan & Wenlin (2014)
58	Degree of financial leverage	$\frac{\text{EBT}}{\text{EBIT}}$	1 (1.8%)	Malhotra
59	Cost of debt	$\frac{\text{Interest before tax}}{\text{Long term debt}}$	1 (1.8%)	Keerthi & Manjunatha

Capital Intensity¹ & Interest coverage ratio²: The author does not define capital intensity and Interest coverage ratio; however, Deoskar (2024) and Hayes (2024) provide the following formulas.

* The authors of the papers 3, 19, 37, and 38 employed 1, 4, 9, and 2 independent variables, respectively, without providing a formula-related variable.

This table displays one independent variable employed, along with the total number of authors and their proportion. The study indicates that authors can employ a range of 1 to 15 independent variables in their paper, with a minimum requirement of 1 independent variable. It suggests that authors have flexibility in selecting and utilizing variables in their research, allowing for a comprehensive examination of factors influencing the study. Including at least one independent variable ensures a foundational element for analysis and contributes to the depth of understanding within the research context. The three variables with the highest percentage are Asset Structure or Tangibility (40%): This refers to the proportion of tangible assets like property, plant, and equipment (PPE) in a firm's total assets. Higher tangibility often correlates with easier access to debt financing due to the availability of collateral, mitigating lenders' risk.

Net Profitability or Return on Total Assets (34.5%): This metric reflects a firm's ability to generate profits relative to its total assets. Higher profitability typically attracts equity financing, as investors are drawn to companies with strong earnings potential.

Size of the Firm (Assets) (36.4%): A firm's size, measured by its total assets, influences its capital structure decisions. Larger firms may have access to diverse funding sources but could face challenges in maintaining flexibility due to their scale.

4.2 Dependent variables

This section presents the findings obtained through data collection and dependent variables used by researchers in the studies related to capital structure.

Table 3. Dependent variables of capital structure in five different industries.

2010 - 2023																Sources
DV SN.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	
Banking and financial institutes																
1.	✓	✓	✓													Pinto et al. (2017)
2.				✓	✓											El-Chaarani & El-Abiad (2019)
3.				✓	✓	✓										Mujahid et al. (2014)
4.				✓		✓	✓									Gohar & Waseem (2016)
5.	✓	✓	✓	✓	✓	✓										Sunita (2018)
6.								✓								Khare & Rizvi (2010)
7.				✓												Maduane & Tsaurai (2016)
8.	✓	✓	✓		✓											Prasad (2019)
9.				✓	✓											Nguyen et al. (2021)
10.		✓		✓	✓				✓							Serwadda (2019)
11.								✓								Akhtar et al. (2016)
12.										✓						Shibru (2012)
13.				✓	✓											Ibrahim (2019)
14.				✓	✓	✓										Zafar et al. (2016)
15.				✓	✓											Acharya (2019)
16.				✓	✓	✓					✓					Aljamaan (2018)
Capital structure in the Metal industry																
17.										✓						Panda et al. (2013)
18.												✓				Pal (2014)
19.			✓	✓	✓								✓			Takeh & Navaprabha (2015)
20.										✓						Sharma (2022)
21.										✓						Dakua (2018)
22.			✓	✓	✓											Mehta (2021)
23.				✓												Banerjee & De (2014)
24.								✓								Sanjeevi & Rao (2013)
25.	✓			✓	✓											Sibanda (2019)
26.										✓						Mand & Singh (2014)
Capital structure in Retail industry																
27.				✓												Kasozi (2018)
28.				✓	✓											Mukaddam & Sibindi (2020)
29.								✓								Feng (2022)
30.				✓												Maxim (2023)
31.								✓		✓						Nandi & Banerjee (2021)
32.										✓						Abdou et al. (2012)
33.								✓		✓		✓		✓	✓	Rao et al. (2019)
34.														✓	✓	Hashemi (2013)
35.										✓						Hacini et al. (2022)
36.								✓								Tazvivinga et al. (2021)
Capital structure in the Software industry																
37.										✓				✓	✓	Shanmugam et al. (2018)
38.	✓			✓	✓						✓					Patjoshi & Nandini (2020)
39.								✓								Dhingra et al. (2018)
40.				✓	✓											En & Malek (2021)
41.								✓								Mudgal (2016)
42.			✓	✓												Azhagaiah & Gavoury (2011)
43.										✓						Kedzior et al. (2020)
44.					✓	✓										Sarkar (2016)
45.				✓												Fen et al. (2012)
46.	✓		✓	✓	✓											Abhilash et al. (2021)
Capital Structure in the Pharmaceutical Industry																

47.					✓											Jacob & Ajina (2020)
48.	✓			✓	✓											Mohammadzadeh et al. (2013)
49.									✓							Thanh & Trang (2021)
50.	✓		✓		✓	✓										Rehan et al. (2020)
51.									✓				✓	✓		Bhat & Periyasami (2021)
52.	✓			✓	✓											Varghese & Sahai (2021)
53.									✓							Yuxuan & Wenlin (2014)
54.								✓								Malhotra
55.									✓							Keerthi & Manjunatha
56.				✓												Nwafor et al. (2022)

Table 4: Financial ratio / Dependent variables as studies by researchers (2010 – 2023)

DV	Dependent variable	Formula		Author
1	Net profit ratio	$\frac{\text{Net Profit} / \text{Sales}}{\text{Net Profit after Tax} / \text{Net Sales}}$ $\frac{\text{Profit after tax} / \text{Turnover}}{\text{Net profit} / \text{Total revenue}}$	9 (16.07%)	Pinto et al. (2017), Sunita (2018), Prasad (2019), Sibanda (2019), Patjoshi & Nandini (2020), Abhilash et al. (2021), Mohammadzadeh et al. (2013), Rehan et al. (2020), Varghese & Sahai (2021)
2	Net interest margin	$\frac{(\text{Investment Returns}-\text{Interest Expenses}) / \text{Average Earning Assets}}{(\text{Interest Received} - \text{Interest Paid}) / \text{Average Invested Assets}}$ $\text{Net interest income} / \text{Average earnings assets}$	4 (7.14%)	Pinto et al. (2017), Sunita (2018), Prasad (2019), Serwadda (2019)
3	Return on capital employed	$\frac{\text{PBIT} / \text{Capital Employed}}{\text{EBIT} / \text{Capital employed}}$ $\frac{\text{Net Operating Profit} / \text{Employed Capital}}$	8 (14.29%)	Pinto et al. (2017). Sunita (2018), Prasad (2019), Takeh & Navaprabha (2015) Mehta (2021), Azhagaiah & Gavoury (2011), Abhilash et al. (2021), Rehan et al. (2020)
4	Return on assets	$\frac{\text{Net income} / \text{Total assets}}{\text{Net income} / \text{Average total assets}}$ $\frac{\text{EBIT} / \text{Total assets}}{\text{Profit after tax} / \text{Total assets}}$ $\frac{\text{EAT} / \text{Total assets}}{\text{Net income after tax} / \text{Total book value of assets}}$ $\text{Rate of return on total assets}$	26 (46.43%)	El-Chaarani & El-Abiad (2019), Mujahid et al. (2014), Gohar & Waseem (2016), Sunita (2018), Maduane & Tsaaurai (2016), Nguyen et al. (2021), Serwadda (2019), Ibrahim (2019), Zafar et al. (2016), Acharya (2019), Aljamaan (2018), Takeh & Navaprabha (2015), Mehta (2021), Banerjee & De (2014), Sibanda (2019), Kasozi (2018), Mukaddam & Sibindi (2020), Maxim (2023), Patjoshi & Nandini (2020), En & Malek (2021), Azhagaiah & Gavoury (2011), Fen et al. (2012), Abhilash et al. (2021), Mohammadzadeh et al. (2013), Varghese & Sahai (2021), Nwafor et al. (2022)
5	Return on equity	$\frac{\text{Net income} / \text{Total equity}}{\text{Net income (before dividend to common stock)} / \text{Shareholders Equity}}$ $\frac{\text{Net Income} / \text{Shareholders Equity}}{\text{Net income} / \text{Average Equity}}$ $\frac{\text{EBIT} / \text{Total Equity}}{\text{Net income after tax} / \text{Total book value of equity}}$ $\frac{\text{Net profit} / \text{Equity capital}}{\text{Net income} / \text{Shareholders fund}}$	22 (39.29%)	El-Chaarani & El-Abiad (2019), Mujahid et al. (2014), Sunita (2018), Prasad (2019), Nguyen et al. (2021), Serwadda (2019), Ibrahim (2019), Zafar et al. (2016), Acharya (2019), Aljamaan (2018), Takeh & Navaprabha (2015), Mehta (2021), Sibanda (2019), Mukaddam & Sibindi (2020), Patjoshi & Nandini (2020), En & Malek (2021), Sarkar (2016), Abhilash et al. (2021), Jacob & Ajina(2020), Mohammadzadeh et al. (2013), Rehan et al. (2020), Varghese & Sahai (2021)
6	Earnings per share	$\frac{\text{Dividend on preferred stock} / \text{Average outstanding share}}{\text{Earnings Available to Equity Shareholders} / \text{No. Of outstanding Equity}}$	7 (12.50%)	Mujahid et al. (2014), Gohar & Waseem (2016), Sunita (2018), Zafar et al. (2016) Aljamaan (2018), Sarkar (2016), Rehan et al. (2020)
7	Spread ratio ³	OTM and ATM	1(1.79%)	Gohar & Waseem (2016), Mitchell(2021)
8	Debt equity ratio	$\frac{\text{Total Debt} / \text{Total Equity}}{\text{Debt} / \text{Equity}}$ $\frac{\text{Debt} / \text{Total funds}}{\text{Total debt} / \text{Total shareholder's equity}}$ $\frac{\text{Total debt to total capital}}{\text{Total liabilities} / \text{Total equity} + \text{Total liabilities}}$ $\text{Debt} / \text{Debt} + \text{values of equity}$	10 (17.86%)	Khare & Rizvi (2010). Akhtar et al. (2016), Sanjeevi & Rao (2013), Feng (2022), Nandi & Banerjee (2021), Rao et al. (2019), Tazvinga et al. (2021), Dhingra et al. (2018), Mudgal (2016), Malhotra

9	Cost to income	Bank operating expenses / Net interest income	1(1.79%)	Serwadda (2019)
10	Debt ratio	Total debt / Total assets Total liabilities / Total assets Debt / Assets	15 (26.79%)	Shibru (2012), Panda et al. (2013), Sharma (2022), Dakua (2018), Mand & Singh (2014), Nandi & Banerjee (2021), Abdou et al. (2012), Rao et al. (2019), Hacini et al. (2022), Shanmugam et al. (2018), Kedzior et al. (2020), Thanh & Trang (2021), Bhat & Periyasami (2021), Yuxuan & Wenlin (2014), Keerthi & Manjunatha
11	Return on Investment ⁴	Net ROI / COI FVI – IVI / COI	2 (3.57%)	Aljamaan (2018), Patjoshi & Nandini (2020) Beattie (2024)
12	Leverage	Total borrowing / Total assets	2(3.57%)	Pal (2014), Rao et al. (2019)
13	Operating profit margin ⁵	Operating Earnings / Revenue	1 (1.79%)	Takeh & Navaprabha (2015), Hayes (2022)
14	Long term debt ratio	Long term debt ratio	4 (7.14%)	Rao et al. (2019), Hashemi (2013), Shanmugam et al. (2018), Bhat & Periyasami (2021)
15	Short-term debt ratio	Short-term debt ratio	4 (7.14%)	Rao et al. (2019), Hashemi (2013), Shanmugam et al. (2018), Bhat & Periyasami (2021)

Spread ratio³ stands for An ATM (at-the-money) or OTM (out-of-the-money) call or put option is purchased and then sold two or more of the same option further for additional OTM. Return on Investment⁴ & Operating profit margin⁵, the author does not define Spread ratio, Return on Investment, and Operating profit margin; however, Mitchell (2021), Beattie (2024) & Hayes (2022) provide the following formula, respectively.

* The authors of the papers 3, 4, 14, 16, 18, 19, 21, 22, 37, 38, 42, 48, 50 and 56 employed 3, 3, 3, 3, 1, 4, 1, 3, 3, 4, 2, 3, 4 and 1 dependent variables, respectively, without providing a formula-related variable.

This table displays one dependent variable employed, the total number of authors and their proportion. The research mostly concentrated on a single dependent variable, and the authors always employed a single measure. The dependent variable had a minimum value of 1 and a maximum value of 6. The authors' methodological approach is highlighted by their consistent use of a single dependent variable, highlighting a focused examination of a particular component or consequence. The dependent variable's narrow range, which runs from 1 to 6, indicates that the researchers consciously decided to focus on a single topic and examine it in great detail to improve the accuracy and comprehensibility of their study's conclusions.

Researchers utilize return on assets, return on equity, and debt ratio as significant variables in their studies with varying frequencies. The percentages provided denote the prevalence of these variables in research, with return on assets being the most frequently used at 46.43%, followed by return on equity at 39.29%, and debt ratio at 26.79%. It indicates their importance in understanding financial performance and risk assessment across different research contexts.

5. Discussion

This section interprets data analysis in the context of objectives and highlights its implications. This may lead to potential future research directions in capital structure and profitability.

Table 5: Frequency distribution of independent and dependent variables:

Variable	Frequency	Variable	Frequency
Independent variables			
IV7. Asset structure or Tangibility or Collateral or PPE	22	IV10. Size of the firm (Assets)	20
IV8. Net Profitability	19	IV2. Total debt ratio	19
IV1. Debt to equity ratio	19	IV14. Current ratio	18
IV16. Net Asset growth	15	IV4. Long-term debt ratio	13
IV12. Business risk	12	IV3. Short-term debt ratio	11
IV13. Non-debt tax shield NDTs	11	IV17. Firm age	9

IV9. Net Sales Growth rate	8	IV18. Size of the firm (sale)	7
IV15. Return on Capital Employed or Profitability	5	IV40. Effective tax rate	5
IV29. ROI or Return on equity	4	IV5. Long-term Debt to-equity ratio	3
IV11. Quick ratio	3	IV19. Uniqueness	3
IV44. Financial strength (Asset Turnover Ratio)	3	IV27. Equity ratio	3
IV28. Debt Service Capacity (Interest)	3	IV26. Average sale growth rare	3
IV38. Dividend Payout	2	IV39. Degree of Operating Leverage	2
IV33. Gross profitability	2	IV6. Short-term Debt to Equity ratio	1
IV20. Interest rate	1	IV21. Total debt to capital	1
IV22. Capital Intensity	1	IV23. Interest coverage ratio	1
IV24. Financial debt ratio	1	IV25. Cash ratio	1
IV30. Depreciation ratio	1	IV31. Market-to-book value	1
IV32. Operating profit margin	1	IV34. Gross Profit	1
IV35. Net Profit	1	IV36. Return on Fixed Assets	1
IV37. Financial Leverage	1	IV41. Price-earnings ratio	1
IV42. Earnings Variability	1	IV43. Promoter Holdings	1
IV45. Board size	1	IV46. Board independence	1
IV47. Institutional ownership	1	IV49. Cash Operating profit	1
IV48. Solvency (Financial Charges Coverage Ratio)	1	IV50. Pluralist Executives	1
IV51. Cash flow	1	IV52. Intangibility	1
IV53. INNOV_INT	1	IV54. INNOV_EXT	1
IV55. Leverage Ratio	1	IV56. Capital guarantee ability	1
IV57. Ownership concentration	1	IV58. Degree of financial leverage	1
IV59. Cost of debt	1		
Dependent variables			
DV4. Return on assets	26	DV5. Return on equity	22
DV10. Debt ratio	15	DV8. Debt equity ratio	10
DV1. Net profit ratio	9	DV3. Return on capital employed	8
DV6. Earnings per share	7	DV2. Net interest margin	4
DV14. Long-term debt ratio	4	DV15. Short-term debt ratio	4
DV11. Return on Investment	2	DV12. Leverage	2
DV7. Spread Ratio	1	DV9. Cost to income	1
DV13. Operating profit margin	1		

Table 6: Top Five maximum utilized independent and dependent variables:

Independent variable	Frequency	Dependent variable	Frequency
Asset structure or Tangibility or Collateral or PPE	22	Return on assets	26
Size of the firm (Assets)	20	Return on equity	22
Net Profitability	20	Debt ratio	15
Total debt ratio	19	Debt equity ratio	10
Debt to equity ratio	19	Net profit ratio	9

Tables 5 and 6 were derived from the data presented in Table 1, Table 2, and Table 3 or Table 4. They are compilations or results derived from the contents and findings of these tables. Combining data from these sources provides a comprehensive understanding or analysis of the subject matter. Table 6 displays the five variables most frequently utilized by the researchers in their studies.

5.1 Key determinants of capital structure: Understanding the role of independent variables

A firm's capital structure is crucial in influencing its financial stability and risk management. As per the data presented in Table 6, the top five most utilized independent variables in capital structure, Asset Structure or Tangibility, play a pivotal role. The variable reflects the proportion of a firm's tangible assets, such as property, plant, and equipment (PPE). Firms with higher tangibility may find it easier to secure debt financing as these tangible assets can serve as collateral, providing lenders with a sense of security.

The Size of the Firm (Assets) is a significant factor in capital structure decisions. Larger firms may have greater access to diverse funding sources and can spread risk across a larger asset base. However, they might face challenges in maintaining flexibility and agility in decision-making due to their size.

Net profitability is a crucial financial metric that influences capital structure choices. Firms with higher profitability may opt for equity financing, as investors are attracted to companies with strong earnings potential. Conversely, less profitable firms may use debt financing to leverage their existing assets and enhance shareholder returns.

Total Debt Ratio is another key determinant, representing the percentage of a company's debt-financed assets. This ratio measures the firm's leverage and risk exposure. A higher total debt ratio indicates a greater reliance on debt, potentially increasing financial risk and amplifying shareholder returns in favourable conditions. The fifth most utilized independent variable is debt to equity ratio. The debt-to-equity ratio measures the proportion of a company's financing that comes from debt compared to shareholders' equity. It indicates the level of financial leverage and risk exposure in the company's capital structure.

In summary, these top five independent variables in capital structure decisions highlight the intricate balance firms must strike between risk, profitability, liquidity, and the nature of their assets. By considering Asset Structure or Tangibility, Size of the Firm (Assets), Net Profitability, Total Debt Ratio, and Debt to equity ratio, businesses can make informed choices in structuring their capital to achieve optimal financial performance and sustainability.

5.2 Key determinants of capital structure: Understanding the role of dependent variables

Conversely, the provided financial ratios offer insights into a company's capital structure and financial performance. According to the information provided in Table 6, the five most extensively utilized dependent variables in capital structure are as follows:

Return on assets (ROA) measures how efficiently a company utilizes its assets to generate profits, with a higher percentage indicating better performance. In this case, an ROA of 26 suggests that the company effectively utilises its assets.

Return on equity (ROE) measures the profitability of shareholder equity, reflecting how well a company uses shareholder investments to generate profits. With an ROE of 22, the company is demonstrating a solid return on shareholder equity, indicating effective management of investor funds.

The debt ratio 15 signifies the proportion of a company's assets funded by debt. A lower debt ratio implies a lower financial risk, indicating that only 15 company assets are financed through debt, while most come from equity.

The debt-equity ratio, standing at 10, compares a company's total debt to its equity and indicates financial leverage. A lower ratio suggests lower financial risk, as debt is less than equity. In this case, the company uses a conservative approach with a debt-equity ratio. The net profit ratio measures a company's profitability to its total revenue. This ratio indicates that the company can convert its total revenue into net Profit, reflecting a reasonable level of profitability.

These top five most utilized dependent variables collectively portray a financially prudent and efficiently managed capital structure for the company. Combining strong return metrics (ROA and ROE), conservative debt utilization (debt ratio and debt-equity ratio), and a decent net profit ratio suggests a balanced and sustainable financial strategy, contributing to the company's overall financial health and stability.

Table 7: Industry-wise maximum used independent and dependent variables

Sector	Independent Variables	Frequency
Banking and Financial institutes	Total debt ratio	10
Metal industry	• Asset structure or Tangibility or Collateral or PPE	5
	• Size of the firm (Assets)	5
	• Business risk	5
	• Non-debt tax shield NDTs	5
Retail industry	Asset structure or Tangibility or Collateral or PPE	7
Software industry	Current ratio	5
Pharmaceutical industry	Net Profitability	5
Sector	Dependent Variables	Frequency
Banking and Financial institutes	Return on assets	11
Metal industry	• Return on assets	4
	• Debt ratio	4
Retail industry	• Debt-equity ratio	4
	• Debt ratio	4
Software industry	Return on assets	5
Pharmaceutical industry	• Return on equity	4
	• Debt ratio	4

In this research context, the independent variables for various industries have been identified in Table 7, each with its unique focus. For the Banking and Financial Institutes sector, the Total Debt Ratio is the independent variable, and its frequency of occurrence in this sector is noted as 10. It implies that the total debt ratio is a key factor being examined across various entities within this industry. Moving on to the Metal Industry, there are four identified independent variables: Asset Structure, or Tangibility, or Collateral, and Property, Plant, and Equipment (PPE), Size of the firm (Assets), Business risk and non-debt tax shield NDTs, the frequency of occurrence for each of these variables within the sector is mentioned as 5, indicating that these factors are being studied across a subset of companies within the Metal Industry. The Retail Industry, on the other hand, focuses on Asset Structure, Tangibility, Collateral, or PPE as its independent variable, with a frequency of 7. It suggests a concentrated investigation into the impact and relevance of these variables within the retail sector.

In the Software Industry, the chosen independent variable is the Current Ratio, and the frequency of occurrence is 5. It implies that researchers across different software companies are exploring the significance of the current ratio as a factor that influences industry dynamics. Finally, the pharmaceutical industry considers net profitability its independent variable, with a frequency of 5. It focuses on understanding the relationship between net profitability and various factors within the pharmaceutical sector. In essence, this research framework highlights the diverse independent variables chosen for different industries, shedding light on the specific financial metrics or indicators that researchers find crucial for understanding and analyzing the performance and dynamics of each industry.

On the other hand, this research study focuses on evaluating and comparing key dependent financial indicators across various industries. As Table 7 presents, the banking and financial sector, serving as the baseline, centres its analysis on the dependent variable of Return on Assets, with a frequency occurrence of 11. It indicates a robust sample size for comprehensive insights into the performance of financial institutions. In the metal industry, the research encompasses two dependent variables—Return on Assets and Debt Ratio—with a frequency of 4 each. This dual focus allows for a nuanced examination of financial health, considering profitability and leverage. The metal industry's lower

frequency suggests a more specialized sample, potentially indicating a need for targeted financial management strategies.

In the retail industry, the study delves into two distinct dependent variables—Debt Equity Ratio and Debt Ratio—with a frequency of 4. This dual-variable approach in the retail sector aims to comprehensively understand the industry's financial structure, emphasizing the interplay between equity and debt. In the software industry, the investigation concentrates solely on Return on Assets, with a frequency occurrence of 5. It suggests a focused exploration of profitability metrics within the software sector, where the emphasis is placed on assessing asset utilisation efficiency. Lastly, in the pharmaceutical industry, the research unfolds with two dependent variables—Return on Equity and Debt Ratio—each occurring four times. This dual-variable analysis in the pharmaceutical sector signifies a balanced evaluation of profitability and leverage, recognizing the unique financial dynamics within this industry. By strategically selecting and analyzing these dependent variables across different industries, the research aims to provide a comprehensive comparative analysis, shedding light on each sector's financial performance and management strategies. The varying frequencies of the chosen variables reflect the nuanced financial landscapes and priorities inherent in different industries.

6. Conclusion

The study examines the factors influencing capital structure within the Indian and global contexts, utilizing data from fifty-six research papers. The study takes into account 59 independent variables and 15 dependent variables. Consistency in conclusions regarding significant determinants of capital structure was demonstrated by the data spanning 14 years. The findings improve the understanding of the financing behaviour of Indian companies between 2010 and 2023. A few important independent variables receive much attention from researchers because of their possible influence on a corporation's financial health and performance. A company's size (asset-based), net profitability, asset structure, total debt ratio, tangible collateral, and property, plant, and equipment (PPE) holdings are just a few examples of the variables frequently examined to see how they affect different facets of business performance. These elements are critical in determining how businesses handle their assets, liabilities, and organizational structures. On the other hand, dependent variables such as return on equity, return on assets, debt ratio, and debt-equity ratio are critical for evaluating a company's profitability, efficiency, and financial leverage. Researchers analyse the interplay between these independent and dependent variables to unravel the intricate dynamics shaping firms' financial standing and strategic decision-making processes.

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