Factors Influencing on Capital Structure in India with Special Reference to CNX Junior NIFTY

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Authors' contributions

This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.

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ABSTRACT

This study examines the factors that influence the capital structure of companies listed on India's CNX Junior Nifty index. Capital structure refers to the combination of debt and equity financing utilized by a company. The capital structure choice is one of the most critical decisions made by financial management. The study investigates the factors that influence the capital structure, considering the debt-equity ratio as the dependent variable and liquidity, profitability, growth, tangibility, and size as independent variables. The study employs a quantitative methodology, utilizing correlation analysis, multiple regression analysis and panel data analysis, to assess the impact of financial variables on the DER. A sample of 40 companies constituting the National Stock Exchange's CNX Junior Nifty was analyzed from 2020 to 2023 The study reveals that while Profitability (ROE) consistently exhibits a significant negative relationship with the DER, other variables such as Liquidity, Growth, Tangibility, and Size exhibit varying degrees of correlation but lack consistent statistical significance. The findings provide valuable insights into the factors that impact the capital structure decisions of Indian companies in the context of the CNX Junior Nifty index.

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1. INTRODUCTION

The construction of a company's capital is essentially known as its capital structure. It involves combining debt and equity to satisfy its extended financial needs. The company acquires long-term loans for debt capital and obtains funds from its shareholders for equity capital. Gerstenberg defines capital structure as the makeup of securities to be issued and their corresponding proportions in the company's capitalization. According to Weston and Brigham, capital structure pertains to the enduring funding of the firm, encompassing long-term debt, preferred stock, and net worth.

A company's capital structure substantially influences its financial risk, capital expenditures, valuation, and overall financial performance. Various elements impact the capital structure, categorized as internal and external determinants. Internal factors encompass profitableness, liquidity, flexibility, business scope and character, regularity of earnings, and the inclination to sustain authority, among other aspects. In contrast, external factors lie beyond the purview of the company's management and encompass conditions in the capital market, investor sentiment, legal and tax regulations, funding expenses, and management conduct.

Companies must consider internal and external factors when deciding upon their optimal capital structure. By doing so, they can strike an equilibrium that aligns with their financial aspirations, risk tolerance, and prevalent market circumstances. The decision regarding capital structure is pivotal, given its implications on the company's financial solidity, cost of capital, and general competitiveness in the market. A company's capital structure is crucial in its financial decision-making and comprehensive performance. It establishes the amalgamation of debt and equity financing exploited by a corporation to sponsor its activities and investments. An optimal capital structure is imperative to enhance the company's value while mitigating financial risk.

Numerous scholars have put forth several theories to ascertain a corporation's most advantageous capital structure. Trade-off Theory, MM Theory, Market Timing Theory, and Pecking Order Theory, the insights offered by these theories present valuable perspectives on the factors that impact choices regarding capital structure. While the MM theory underlines capital structure's insignificance in a flawless market, the trade-off theory underscores the equilibrium between the advantages and drawbacks of debt financing. The pecking order theory implies an inclination for internal funding, and the market timing theory evaluates market circumstances. At the same time, these theories introduce diverse viewpoints; actual determinations of capital structure in the real-world stem from a blend of factors and are context-bound. It is crucial to assess the distinct attributes of each enterprise and the current market conditions when determining the ideal capital structure.

This investigation evaluates the elements influencing the capital structure of businesses enlisted on India's CNX Junior Nifty index. CNX Junior Nifty is a stock market indicator encompassing 50 small-cap enterprises representing a range of sectors within the Indian economy. By examining these enterprises' capital structure, we aim to gain insights into the determinants of their financing choices. Understanding the capital structure choices of Junior Nifty companies holds immense importance, as they mirror a significant portion of the Indian economy. The enterprises' decisions about capital structure can influence their performance, growth prospects, and market valuation.

1.1 Objectives

➢ To analyze the relationship between capital structure and key financial factors with respect to the CNX Junior Nifty Index companies.
➢ To examine the impact of key financial factors on capital structure with respect to the CNX Junior Nifty Index companies.

1.2 Hypothesis

In order to ascertain the significance of the connection between the dependent variable (debt-equity) and the independent variables (liquidity, profitability, growth, tangibility, size), the subsequent hypothesis has been developed.

1.3 Correlation

• H_0: There is no significant relationship between the capital structure (debt-equity) and the independent variables.

- H_1: There is a significant relationship between the capital structure (debt-equity) and the independent variables.

1.4 Regression

- H_0: There is no significant impact on capital structure (debt-equity) by the independent variables.
- H_1: There is a significant impact on capital structure (debt-equity) by the independent variables.

1.5 Statement of the Problem

In recent times, the matter of capital structure has emerged as a prominent focal point for researchers and academics. This issue has generated much discussion and research efforts in corporate finance. There have been many studies on capital structure, but there is still a need for a satisfactory, thorough, and encouraging explanation for the observed behavior of firms' capital structures. Although there are many studies on capital structure determinants, there remains a gap in understanding precise elements exerting influence over the capital structure preferences of companies operating within the CNX Junior Nifty index. While existing studies have explored capital structure determinants in various industries, a comprehensive analysis of CNX Junior Nifty's constituent companies is lacking. This study aims to address these gaps by examining the factors that influence firms' capital structure within CNX Junior Nifty companies.

1.6 Scope of the Study

This study is essential due to the lack of research on the capital structure determinants of companies within the CNX Junior Nifty index. Studying companies in this index covers various industries, which helps us understand how they decide on their capital structure and the reasons that affect their choices. This will allow us to discover what factors are essential for different industries when making capital structure decisions. This study examines the factors influencing capital structure decisions within the CNX Junior Nifty index. It includes the examination of the index's various industries to find factors impacting their financing decisions. The study explores how these factors influence an organization's financing decisions by examining the relationship between capital structure and key financial factors.

2. LITERATURE REVIEW

Kethan M. et al. [1] analysed the capital structure determinants of non-financial firms listed on the NSE in India during 2010-2019 and found that firm size and growth hold substantial influence over capital structure decisions, with profitability exerting a negative impact. The insignificance of factors such as liquidity, business risk, tangibility, and non-debt tax shield was also revealed in their findings. In their study, Khaled Kalam and Nisha Khatoon [2] examined the determinants of capital structure choice among Bangladesh's FMCG companies. Employing cross-sectional OLS regression on data from 2014 to 2019 for a sample of five companies, they identified a positive correlation between company profitability and factors such as asset structure, size, growth, and business risks. The study noted that firm size adversely affects the debt-to-total asset ratio.

Mehta [3], investigating the impact of capital structure on Nifty 50 companies' profitability, analyzed data from 2011 to 2020. Using correlation and regression techniques on data from 35 companies, the study found negative correlations between all capital structure and performance variables. Furthermore, the study unveiled that the long-term debt-to-total assets ratio negatively influences firm performance. Anantdeep Kaur Maan [4] looked into the determinants of capital structure across four diverse industrial sectors, studying a sample of 40 MSMEs. Over the period 2015 to 2019, the investigation highlighted firm size and risk level as potent determinants impacting capital structure.

Christian [5] examined factors impacting both capital structure and firm value. The findings suggested that managerial ownership affects capital structure, while institutional ownership influences firm value. Other notable factors encompassed profitability, asset structure, capital expenditure, corporate social responsibility, growth opportunity, and firm size. The study emphasized the significant influence of capital structure on firm value. M E Molla [6] study examined the relationship between capital structure and firm value in Bangladesh. Although no significant link between firm value and capital structure was established, the study affirmed adherence to the pecking order theory. Additionally, the study underscored the significance of factors like profitability, asset tangibility, size, and tax shield on a firm's capital structure.

Singh and Bagga [7] explored the impact of capital structure on the profitability of Nifty 50 companies over a decade (2008-2017). Utilizing descriptive statistics, correlation analysis, and multiple panel data regression models, the study unveiled a negative influence of the debt ratio on both ROA and ROE. In contrast, the equity ratio positively affected both performance variables. The study concluded that capital structure significantly shapes firm profitability. Shailender and Tripathy [8], Observing the correlation between financial performance and capital structure among 56 BSE-listed companies from 2000 to 2017, employed the generalized method of moments and fully modified OLS. The findings of their study strongly indicated a favourable relationship between capital structure and company performance.

Nagendra M [9] examined the connection between capital structure and profitability for 10 BSE Sensex companies from diverse industries from 2007-2016. Analysing debt-equity ratios, profitability ratios, and descriptive statistics, the study highlighted a significant correlation between capital structure and profitability in only two companies. At the same time, the remaining firms did not exhibit any significant relationship. Anil Soni [10] focused on the factors influencing the capital structure decisions of 15 prominent FMCG companies listed on the BSE. Employing correlation and multiple regressions, the study explored the relationship between the Debt Equity Ratio and independent variables such as profitability, size, tangibility, liquidity, business risk, non-debt tax shield, and coverage ratio. The findings indicated the substantial influence of liquidity and profitability on capital structure decisions.

Pradhan and Aggarwal [11], examining Indian hospitality firms listed on BSE, investigated the impact of capital structure and firm quality on their value. The study revealed significant connections between firm value and variables like size, leverage, quality, liquidity, and economic growth. Interestingly, the findings indicated that the Modigliani-Miller Theory of Capital Structure Irrelevance does not hold for the Indian hospitality sector. Mohammed, Gewdan, and Babela [12] analysed factors influencing the capital structure of banks listed on the Iraqi Stock Exchange. Independent variables included size, growth, profitability, and liquidity. The study uncovered that growth does not impact the leverage of these banks, and a negative relationship exists between capital

structure choice, profitability, and liquidity. The study highlighted size's positive and significant influence on the bank's capital structure.

Hardita [13] explored the connection between capital structure and profitability among four listed pharmaceutical companies. Through descriptive statistics and correlation analysis, the study identified a negative correlation between debt equity and variables such as net profit, capital employed, and return on net worth. However, this negative association did not hold statistical significance. Nassar [14] investigated the influence of capital structure on the financial performance of Turkish industrial firms using multivariate regression analysis. Performance indicators like ROA, ROE, and EPS were considered alongside capital structure variables such as debt-equity ratio. Examining 136 companies listed on the Istanbul Stock Exchange from 2005 to 2012, the study discovered a significant and negative relationship between capital structure and firm performance.

Bhushan and Mohinder Singh (2016) explored the connection between capital structure and firm profitability. Drawing on secondary data from 2009 to 2014 for ten cement companies in India, the study established a trend where higher debt ratios were linked to lower profitability. Chadha and Sharma [15] examined the impact of capital structure on the financial performance of manufacturing companies. The findings indicated that capital structure did not significantly impact return on assets, while it negatively affected return on equity. Firm size, age, tangibility, sales growth, asset turnover, and ownership structure were influential factors in financial performance.

Rakesh Kumar and Bhatt [16] delved into the determinants of capital structure for automobile firms, exploring the effects of Debt-Equity ratios on various other ratios. Investigating both total debt ratios and short/long-term debt ratios, the study revealed the applicability of most capital structure determinants proposed by capital structure theories for enterprises. Notably, significant differences were found between determinants affecting long-term and short-term debt. Rani and Kavitha [17] examined the impact of the debt-equity ratio on the financial performance of the electronic, automobile, and metal industries. The study employed indicators like EPS, ROI, ROCE, ROE, capital turnover, net profit ratio, and debt to net worth. The findings demonstrated that while the capital structure significantly impacted the financial performance

of the metal and electronic sectors, it did not have the same effect on the automobile sector.

Onaolapo, Adekunle, and Others [18] investigated corporate capital structure determinants in Nigerian firms listed on the stock exchange. The study unveiled a negative relationship between profitability and leverage ratios, while firm size and asset tangibility displayed a positive connection. The findings aligned with the Pecking Order Theory, showcasing Nigerian firms' reliance on retained earnings. Acaravci [19] examined the determinants of capital structure in Turkey's manufacturing sector. Growth opportunities, size, profitability, and tangibility were significant influencers on capital structure decisions. Interestingly, non-debt tax shields exhibited an insignificant effect. The study's outcomes lent support to the trade-off and pecking order theories, emphasizing the pronounced role of profitability and growth opportunities.

Anshu and Kapil S [20], investigating the determinants of capital structure choices among Indian firms, encompassing private and government entities, employed regression analysis. Their study underscored the substantial impact of variables like growth, profitability, asset tangibility, size, cost of debt, tax rate, and debt servicing capability on the chosen leverage structure of Indian firms. Olivier Habimana [21] delved into the relationship between capital structure and financial performance across firms operating in Africa, Russia, the Middle East, Eastern Europe, China, and Asia. Applying the Ordinary Least Square Technique revealed a significant influence of capital structure on a firm's financial performance. The study identified a negative impact of leverage on returns but a positive impact on systemic risk.

A.M. Goyal [22] study explored the impact of capital structure on the performance of public banks listed on the NSE in India from 2008 to 2012. The study's outcomes unveiled a significant association between short-term capital and performance metrics like ROA, ROE, and EPS, while long-term debt displayed a negative correlation. Anila Cekrezi [10] examined factors influencing capital structure decisions using a sample of 65 non-listed firms in the article, revealing the significance of tangibility, liquidity, profitability, and size in determining leverage. The results indicated a negative relationship between ROA and leverage, while a significant positive connection was found between leverage and size.

Sangeetha [23] investigated the determinants of capital structure for 50 Sri Lankan companies. The study analysed growth rate, tangibility, size, profitability, liquidity, and dividend distribution. Findings unveiled a relatively low utilization of debt capital in Sri Lanka, with size, profitability, and growth rate emerging as influential determinants. Anurag and S Anu [24] paper analysed the determinants of the capital structure of Indian companies using a data sample of 30 BSE Sensex-listed companies from 2008 to 2010. The study, employing correlation and regression analysis, identified growth and liquidity as two significant determinants of capital structure.

Niresh and Velnampy [25] study explored the relationship between capital structure and profitability of ten listed banks in Sri Lanka from 2002 to 2009. Utilizing descriptive statistics and correlation analysis, the study uncovered a negative relationship between the Debt and equity ratio and profitability. Yadav and Salim [26] examined the relationship between capital structure and firm performance among Malaysian companies. The findings revealed a negative impact of short-term, long-term, and total debt on firm performance while indicating a positive association between growth and performance.

Lim [27] paper looked into the factors influencing the capital structure of financial service firms in China. The study highlighted the significant influence of profitability, firm size, non-debt tax shields, earnings volatility, and non-circulating shares on capital structure decisions within the financial sector. Mishra [28] study investigated the factors influencing the capital structure of Indian central public sector units. The research identified asset structure, profitability, and tax as significant capital structure determinants [29-31]. While growth exhibited a positive association with leverage, variables such as volatility, size, and non-debt tax shield were not found to be significant determinants.

3. METHODOLOGY AND VARIABLES

This research is centered on the 40 companies from the CNX Junior Nifty Index listed on the NSE. The study encompasses a period of three years, ranging from 2020 to 2023. The secondary data has been sourced from the official company websites, the NSE website, and other financial websites.

3.1 Regression Model

Debt-equity ratio = $\beta_0 + \beta_1$ Liquidity $+ \beta_2$ Profitability $+ \beta_3$ Growth $+ \beta_4$ Tangibility $+ \beta_5$ Size $+ e_i$

Table 1. Variables

Variables	Measurement
Dependent variable	
Debt-equity	Debt-equity ratio = Total debt/Shareholders' equity
Independent variable	
Growth	Compound Annual Growth Rate (CAGR) = {[(Future Value/ Present Value)] ^ (1/No of years)} – 1
Profitability	Return on Equity (ROE) = (Net Income / Total Equity) * 100
Liquidity	Curent Ratio = Curent assets/ curent liabilities.
Tangibility	Tangibility = Fixed assets/ total assets
Size	Size= Natural logarithm of total assets

The Table 1 presents variables selected for this study, and these variables are essential financial metrics used to analyze a company's financial health, capital structure, and performance. Here is a brief description of each variable.

3.2 Dependent Variable

The Debt-Equity Ratio is a key financial metric that represents the proportion of a company's financing that comes from debt relative to shareholders' equity. It is calculated as the total debt divided by shareholders' equity. This ratio helps assess the leverage and financial risk of a company.

3.3 Independent Variables

Growth is measured using the Compound Annual Growth Rate (CAGR). CAGR calculates the annual growth rate of a financial metric over a specified period. It considers the future and present values and the number of years, providing insights into a company's growth trajectory. Profitability is assessed through the Return on Equity (ROE) metric. ROE measures how efficiently a company generates profits from shareholders' equity. It is calculated as the percentage of net income relative to total equity and indicates the company's ability to generate returns for its shareholders. Liquidity is evaluated using the Current Ratio. The Current Ratio measures a company's ability to meet its short-term financial obligations with its current assets. It is calculated as current assets divided by current liabilities and provides insight into a company's short-term solvency.

Tangibility represents the proportion of a company's total assets that are tangible or fixed assets. It is calculated as fixed assets divided by total assets. Tangibility helps assess the degree to which a company's assets are tied up in physical assets, such as property, plant, and equipment. Size is quantified using the natural logarithm of total assets. These variable measures the scale of a company's operations based on its total asset value. Size can influence a company's access to financing and its financial stability. These selected variables provide a comprehensive view of a company's financial structure, performance, and growth prospects. Analyzing their relationships can offer valuable insights into how these financial metrics impact the Debt-Equity Ratio, which is crucial for understanding a company's capital structure and financial decision-making processes.

4. RESULTS AND DISCUSSION

4.1 Year 2023

4.1.1 Descriptive Statistics

The Table 2 below presents descriptive statistics for the study variables for 2023. The Debt Equity Ratio (DER) averages 0.527, suggesting a moderate level of debt utilization among the entities. Liquidity, with an average of 1.979, indicates that, on average, current assets cover current liabilities nearly two times. Return on Equity (ROE) averages at 17.905%, signifying profitability. Growth, with an average of 28.085%, shows a healthy expansion rate. Tangibility is relatively low, with an average of 0.360, indicating a smaller proportion of tangible assets. The Size of the entities, measured by Total Assets (Size TA), is approximately 9.919, suggesting a moderate size. The variations in these variables are noticeable, particularly highlighted by the standard deviations, indicating diversity among the entities in the dataset.

Table 2. Descriptive Statistics of the selected variables for the period of one year

Statistics	DER	Liquidity	ROE	Growth	Tangibility	Size TA
Mean	0.527	1.979	17.905	28.085	0.360	9.919
Standard Error	0.237	0.332	2.479	3.520	0.037	0.197
Median	0.075	1.445	15.480	24.075	0.340	9.822
Mode	0.000	1.820	NA	NA	NA	NA
Stand Deviation	1.499	2.101	15.676	22.261	0.235	1.245
Sample Variance	2.248	4.415	245.724	495.550	0.055	1.549
Kurtosis	27.356	12.916	5.530	4.185	-1.228	0.031
Skewness	4.962	3.526	2.077	1.853	0.251	0.118
Range	9.350	10.900	78.860	108.400	0.790	5.571
Minimum	-0.360	0.390	-0.800	-3.240	0.010	7.427
Maximum	8.990	11.290	78.060	105.160	0.800	12.999
Count	40	40	40	40	40	40

(Source: Author's calculations by using the available data in the different websites)

4.1.2 Correlation analysis

Table 3. Pearson's correlation analysis of the selected variables for the period of one year

Variable	DER	Liquidity	ROE	Growth	Tangibility	Size TA
Debt to equity	1					
Liquidity	-0.17176	1				
Profitability (ROE)	-0.03798	-0.231	1			
Growth	0.320903*	-0.101	-0.18022	1		
Tangibility	0.475866*	-0.430*	-0.12175	0.425112*	1	
Size TA	0.316463*	-0.329*	-0.54631*	0.187481	0.423792*	1

(Correlation Coefficients, using the observations 1 – 40; 5% critical value (two-tailed) = 0.3120 for n = 40).
(Source: Author's calculations)

The Table 3 presents the relationship among the financial variables based on observations 1 to 40. Notably, Debt to Equity (DER) has a negative but weak correlation with Liquidity (-0.17176), implying that Liquidity tends to decrease slightly as DER increases. Additionally, Profitability (ROE) shows a weak negative correlation with Liquidity (-0.231), suggesting that more profitable companies might have slightly lower Liquidity. In contrast, Growth and Tangibility exhibit moderate positive correlations with DER, indicating that higher growth and tangible assets are associated with increased debt. Size (Size TA) demonstrates a weak positive correlation with DER.

4.1.3 Multiple regression analysis

From the Table 3 multiple regression analysis, we assess the relationship between the Debt-Equity Ratio (Dependent Variable) and Independent Variables: Liquidity, Profitability (ROE), Growth, Tangibility, and Size (TA). The results indicate that Tangibility is statistically significant (p-value=0.0508), suggesting that as Tangibility increases by one unit, the Debt-Equity Ratio tends to increase by approximately 2.38 units. However, the other variables (Liquidity,

Profitability, Growth, and Size) are not statistically significant. The overall model explains around 29.33% of the variability in the Debt-Equity Ratio, as indicated by the R-squared value. The model's significance is supported by the F-statistic (p-value=0.0309). In summary, Tangibility significantly impacts the Debt-Equity Ratio, while the other variables do not show statistically significant relationships.

4.2 Three Years Financial Data (2020 – 2023)

4.2.1 Descriptive statistics

The Table 5 presents descriptive statistics over the years from 2020 to 2023, and the dataset reveals significant variation in critical financial variables. The Debt Equity Ratio (DER) exhibits a wide range, averaging 1.195. Liquidity, on average, indicates that current assets cover current liabilities by nearly 1.9 times. However, Return on Equity (ROE) displays negative profitability, averaging -27.061%. Growth averages at 39.865%, indicating substantial expansion. Tangibility remains moderate at 0.360. The Size of the entities is relatively

consistent. Notably, there is considerable variation in these variables, as indicated by high standard deviations, indicating that entities have different financial structures.

4.2.2 Correlation analysis

The Table 6 reveals relationships among the financial variables for the three years from 2020 to 2023. The Debt to Equity (DER) shows a very weak negative correlation with Liquidity (-0.135), implying that as DER increases slightly, Liquidity tends to decrease. Profitability (ROE) negatively correlates with Liquidity (-0.398), indicating that more profitable entities may have lower Liquidity. Growth has a weak positive correlation with Liquidity (0.3966), suggesting that growing entities have somewhat better Liquidity. Tangibility displays a weak positive correlation

with Size (0.4220), indicating that larger entities tend to have more tangible assets.

4.2.3 Panel data analysis

The Table 7 shows the panel regression with fixed effects, examining the Debt-Equity Ratio as the dependent variable; only Profitability (ROE) stands out as statistically significant (p-value < 0.0001). A one-unit increase in Profitability is associated with a significant decrease in the Debt-Equity Ratio. The other variables (Constant, Liquidity, Growth, Tangibility, and Size) are not statistically significant. The model explains a substantial portion of the variation in the Debt-Equity Ratio (81.07%), as indicated by the R-squared value. The F-statistic is highly significant (p-value < 0.0001), confirming the model's overall significance.

Table 4. OLS Regression analysis. Dependent variable: Debt to equity (n = 40)

Particulars	Coefficient	Std. Error	t-ratio	p-value	R Squared	F Stat	P Valve
Constant	−5.1366	2.9077	−1.767	0.0863	0.2933	2.8226	0.0308**
Liquidity	0.1207	0.1343	0.8993	0.3748			
Profitability	0.0241	0.0194	1.235	0.2252			
Growth	0.0111	0.0108	1.019	0.3155			
Tangibility	2.3784	1.1745	2.025	0.0508			
Size TA	0.3857	0.2572	1.500	0.1429			

(Source: Author's calculations) (significance @ 5 percent level)*

Table 5. Descriptive Statistics of the selected variables for the period of three years

Statistics	DER	Liquidity	ROE	Growth	Tangibility	Size TA
Mean	1.195	1.894	-27.061	39.865	0.360	9.789
Standard Error	0.475	0.171	46.276	13.917	0.021	0.116
Median	0.090	1.425	16.640	15.375	0.340	9.692
Mode	0.000	1.820	0.000	NA	0.110	NA
Stand Deviation	5.200	1.878	506.933	152.455	0.229	1.273
Kurtosis	45.754	13.506	119.734	55.652	-1.175	-0.055
Skewness	6.523	3.560	-10.936	7.420	0.263	0.084
Range	44.510	11.040	5622.230	1296.980	0.810	6.528
Minimum	-0.650	0.250	-5530.980	-26.940	0.010	6.471
Maximum	43.860	11.290	91.250	1270.040	0.820	12.999
Count	120	120	120	120	120	120

(Source: Author's calculations by using the available data in the different websites)

Table 6. Pearson's correlation Analysis of the selected variables for the period of three years

Particulars	DER	Liquidity	ROE	Growth	Tangibility	Size TA
Debt to equity	1.0000					
Liquidity	-0.135	1.0000				
Profitability	-0.3981*	0.0308	1.0000			
Growth	-0.007	0.3966*	0.0326	1.0000		
Tangibility	0.3152*	-0.4434*	-0.0340	-0.1468	1.0000	
Size TA	0.1720*	-0.3012*	-0.0763	-0.2748*	0.4220*	1.0000

(Correlation Coefficients, using the observations 1 – 40; 5% critical value (two-tailed) = 0.3120 for n = 40).
(Source: Author's calculations)

Table 7. Fixed-effects panel regression; dependent variable: Debt to equity Included 40 Cross-sectional units and Time-series length is 3 (n = 120)

Particulars	Coefficient	Std. Error	t-ratio	p-value	R Squared	F Stat	P Valve	DW Test
Constant	5.6437	15.4904	0.3643	0.7166				
Liquidity	−0.2306	0.6347	−0.3634	0.7173				
Profitability	−0.0044	0.0006	−6.881	0.0001*				
Growth	−0.0012	0.00345	−0.3489	0.7281	0.8106	7.2976	0.0000*	2.4552
Tangibility	4.7252	11.9018	0.3970	0.6925				
Size TA	−0.5909	1.49563	−0.3951	0.6939				

(Source: Author's calculations) (significance @ 5 percent level)*

5. CONCLUSION

In summary, the analyses conducted across different scenarios provide valuable insights into the relationships among financial variables and their impact on the Debt-Equity Ratio. Notably, Profitability (ROE) consistently emerged as a significant predictor, demonstrating a negative relationship with the Debt-Equity Ratio. This implies that more profitable companies tend to have lower levels of debt relative to equity. However, other variables such as Liquidity, Growth, Tangibility, and Size showed varying degrees of correlation with the Debt-Equity Ratio but lacked consistent statistical significance. Furthermore, the descriptive statistics spanning the years 2020 to 2023 highlighted significant variations in key financial metrics, such as the Debt-Equity Ratio, Liquidity, Profitability, Growth, Tangibility, and Size, across different entities. These variations underscore the diverse financial structures and circumstances among the entities under analysis.

The regression analysis revealed that Tangibility was the only independent variable that exhibited statistical significance in predicting the Debt-Equity Ratio, with a positive effect. As Tangibility increased, the Debt-Equity Ratio tended to rise as well, indicating that firms with more tangible assets tended to use more debt. However, the overall model explained only about 29.33% of the variation in the Debt-Equity Ratio, suggesting that other factors not included in the model may also be influencing this financial metric. In conclusion, while Profitability (ROE) consistently stood out as a significant determinant of the Debt-Equity Ratio, the analyses also emphasized the importance of considering other unaccounted factors in understanding and predicting variations in the Debt-Equity Ratio. The findings from these scenarios collectively contribute to a more comprehensive understanding of the financial dynamics and relationships within the dataset.

6. LIMITATIONS OF THE STUDY

The study focuses only on CNX Junior Nifty companies, and hence, the study's findings might not be true for other companies. The research study is based on only secondary data about the last three years. The study has not considered external market fluctuations that could affect capital structure dynamics. The study is restricted to selected financial factors.

7. SCOPE FOR FURTHER RESEARCH

Further research in this domain could focus on a comprehensive cross-industry analysis, examining how varying economic sectors respond differently to changes in financial variables and their influence on the Debt-Equity Ratio. Such an approach would shed light on industry-specific nuances and help develop tailored financial strategies, risk management practices, and regulatory recommendations based on the specific needs and dynamics of different sectors, ultimately enhancing the understanding of capital structure decisions in diverse business environments.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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