

## Factors Influencing the Capital Structure of Pharmaceutical Companies in India – An Empirical Study

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### To cite this paper

Sawant, S.V. (2024). Factors Influencing the Capital Structure of Pharmaceutical Companies in India – An Empirical Study. *Orissa Journal of Commerce*. 45(3), 58-69. **Keywords** Capital Structure, Debt-Equity ratio, Liquidity, Business Risk, debt service capacity

### JEL Classification

**Abstract:** Several theories attempt to explain the capital structure's shortcomings, such as bankruptcy, taxes, costs, information asymmetry, and agency costs. In practice, capital market imperfection is necessary because empirical Evidence consistently shows a pattern of leverage ratios. Many researchers have documented the use of leverage ratios in various industries. The debate about capital structure's determinants has been in the corporate finance literature for a long time. Due to the issue's complexity, the multiple theories about its structure have been continuously debated. This paper aims to analyse the range of factors that influence the capital structure of pharmaceutical companies. The research uses a multiple regression model to analyse the data collected from the Indian pharmaceutical industry. It also considers the various characteristics of the debt-equity ratio. The data collected from the pharmaceutical industry was analysed fourteen years. The study's results suggest that the multiple regression model fits the analysis well. It also shows that a range of factors that affect a company's capital structure, such as profitability, growth, and size, do not have significant explanatory coefficients. The factors that affect a company's capital structure, such as debt service capacity, liquidity, and business risk, are substantial. They are, therefore, the most crucial factors that influence the capital structure of Indian pharmaceutical firms.

## 1. Introduction

When a growing company needs capital, it can come from either Equity or debt. Many questions arise when it comes to this matter. Is it better to have all debt or all Equity? Should the company be financed with both Equity and debt? Its debt and Equity composition typically determine the optimal capital structure for a company. Although the exact structure of a company's capital structure is not known, it can be determined by several factors. These include its business risk, financial flexibility, and shareholder wealth. In addition, other factors, such as its growth rate and profitability, are also considered to determine the optimal capital structure. These factors are vital as they help companies find the optimal capital structure to enhance their firm value and minimize costs. Although the availability of capital is often limited, companies can still generate money from various sources. A debate has been raised over the several factors influencing a company's capital structure decisions.

The question of how capital structure affects a company's cost of capital has been a central issue in financial theory for a long time. Two main theories have been presented regarding the subject. One of the main theories that are given is the Net Income approach, which states that the decisions made by a company regarding its capital structure can affect a company's financial performance. On the other hand, the NOD approach says that the decisions made by a company relating to its capital structure do not affect a company's value. The debate about capital structure started to gain momentum following the publication of a theoretical work by Miller and Modigliani in 1958. They claimed that the decisions made by a company regarding its capital structure do not affect a company's wealth creation capacity.

Although Miller and Modigliani supported the NOI approach, Ezra Solomon argued in 1963 that there is an optimal capital structure that can affect a company's financial performance. His analysis also states that the decisions made by a company regarding its capital structure can affect a company's value. The debate about the ratio of Equity and debt in a company's capital structure has been continuously raised.

Numerous authors have since contributed to the development of capital structure theories based on the work of Modigliani and Miller. These include Weston, Wippem, Davenport, Sarma, and Rao. During the years following the publication of Modigliani and Miller's seminal work, multiple theories have been presented that attempt to analyse the various aspects of the capital market. Various researchers acknowledge the importance of capital structure as empirical Evidence shows that companies' leverage ratios across different industries have a consistent pattern over time. Some prominent researchers contributing to the study of capital structure include Bowen, Bradley, Malitz, Kester, Wessels, and Rajan.

The role of capital structure in a company's financial performance has been a central issue in corporate Finance for a long time. Due to the continuously raised debate about the subject, different theories have been presented. Some of the prominent researchers who have contributed to the development of capital structure theories include Barton and Gordon (1988), Demirguc-Kunt (1992), Wald (1999), Pandey (2000), and Gonenc (2003).

## **2. Review of the literature**

This review aims to determine how far Indian firms have substantiated the theoretical and practical theories of capital structure decisions. It also seeks to examine the effects of these decisions on a company's cost of capital.

According to various researchers, Indian firms are more likely to rely on external debt as their primary source of Finance than those in advanced countries. This finding contradicts the "pecking order theory" of Myers and Majluf (1984), which suggests that firms prefer to use internal funds as their primary source of Finance. This paper reviews a couple of studies that have shown this. In 1997, Sahu and colleagues studied debt financing in Indian companies for 11 years. They found that the total debt funds outstanding of the 170 companies exceeded their net worth. During the study period, the average debt fund size of the sample companies was 71.5%. This indicates that the companies are more likely to rely on debt funds as their primary source of Finance. In 1992, Singh and colleagues also found that Indian firms are more likely to rely on external equity finance as their primary source of Finance.

In a study conducted during the 1980s, the researchers analysed the financing patterns of the 50 largest manufacturing companies in nine developing countries. These countries are India, Pakistan, Thailand, Malaysia, Mexico, Zimbabwe, and the Republic of Korea. In 2001, Pal also analysed the corporate financing patterns of Indian firms from 1989 to 1998. According to him, Indian companies have relied on various forms of debt, such as bonds, corporate loans, and fixed deposits, for their financial needs. These are the funds that are required to meet their business requirements.

Deb and colleagues analysed the capital structure decisions of over 200 Indian companies from 1981 to 1990. They found that the funding pattern of the sample firms was in line with the pecking order theory. However, they did not find strong Evidence supporting the agency-theological explanation.

In 1999, Jain and Babu noted that historically, Indian companies have been leaning toward debt. This was due to the lack of capital. However, with the liberalization of capital markets, the underlying factors that led to this trend have changed. As a result, the debt-equity ratio of financial institutions has started to decrease.

### **3. Need for and Objectives of the Study**

The main objective of this study is to analyse the numerous factors that influence the design and structure of a capital structure. The study also draws upon the findings of financial literature to identify the factors that influence the choice of a particular loan. Despite a vigorous theoretical debate about the subject, empirical Evidence is still lagging.

Over the past two decades, various theories have been presented to explain the variations between the debt-to-equity ratios of various firms. Some prominent Indian studies tackling this subject include Venkatesan, Shekhar, Pandey Mohanty, Singla, and Patel. These studies support that debt ratios are influenced by industry growth, business risk, government policy, and capital market developments.

Despite the various theories about the link between capital structure and varied factors, researchers have not produced a definitive conclusion. Therefore, further studies are needed to analyse the factors that can influence the structure of a firm's capital. The changes brought about by the liberalization of the financial markets over the past decade have affected the operations of corporate units. This study aims to provide a comprehensive analysis of the several factors that influence the structure of a capital structure.

#### **3.1 Objectives of the study:**

- 1) To study the nature of corporate structures in India during the post-liberalization decade.
- 2) To analyse the effects of various tax, agency, and information theories on Indian corporate organizations.
- 3) To analyse the relationship between the various factors that affect the profitability and growth of a business, such as financial leverage, asset value, and business risk.

#### **3.2 Scope of the study**

This study covers the pharmaceutical companies in India that were listed from 2003 to 2022. It also excludes the companies that are not available with the data. The total number of companies studied in this industry is 71.

### **3.3 Variables, Theory, and Hypotheses**

#### **3.3.1 Dependent Variable:**

##### **Financial Leverage**

Different authors have different definitions of financial leverage. For instance, 1995, Rajan and Zingales defined leverage according to its objective. There are various definitions of leverage, such as debt-equity ratio and debt-to-capitalization.

The debt-equity ratio, a measure of financial leverage, is computed by considering an organization's total equity and debt. It is used in this study to compare the performance of different financial institutions. Similarly, in 1997, Chatrath and colleagues used book values to calculate equity and debt.

The debt-equity ratio is used because it shows the firm's overall dependence on debt and equity. It also includes long- and short-term liabilities since banks convert short-term loans into long-term ones due to renewal in India. According to Barges (1963), using market value measures of leverage could have a serious bias in the analysis. Hence, book values are utilized to calculate debt and equity.

#### **3.3.2 Independent Variables**

##### **Profitability (PROF)**

The finance concept is divided into the trade-off theory and the Myer (1984) theory. The former suggests that profitability can help boost the debt capacity of a company. On the other, Myer claims that managers follow a hierarchy of earnings, with retained earnings at the top and debt and equity at the bottom.

The relationship between the debt ratio and the PROF is negative, as higher profitability implies that a company will rely more on its internal funds and reduce its debt. A measure of the firm's internal capital generation is a variable that is used by Kester (1986), Titman (1988), Waid (1999), and Pandey (2000). The link between profitability and leverage is negative. It supports the belief that firms with internal accruals and liquid assets can use less debt. Accordingly, the study hypothesizes that:

Hypothesis 1: There is no significant negative relationship between profitability to debt ratios.

#### **Collateral Value of Assets (COVA)**

The various capital structure theories claim that the type of assets a firm has affects its capital structure choice. For instance, the trade-off theory states that firms with assets that can be used as collateral are more likely to issue debt. This has implications for the agency costs of the firm.

Agency costs are the expenses a firm must pay for the excess cash its managers spend on perquisites. This is usually done at the expense of the shareholders. Debt can help curb this tendency by reducing the free cash managers can use for wasteful expenditures.

The composition of a company's assets can also affect its ability to behave opportunistically. For instance, if a firm has a lot of tangible assets, it is more likely that it will be able to issue debt. Firms with many fixed assets are also expected to have more debt than those with less. A study by Pandey and colleagues, 2000 revealed that the relationship between a company's debt and its tangible assets is positive.

Hypothesis 2: There is no significant positive relationship between the collateral Value of Assets (COVA) to debt ratios.

#### **Growth (GROW)**

The option model of Myers, Majluf, and Titman (1977) indicates that firms with high growth rates should reduce their debt levels. In 1988, Wessels and Titman noted that in growing industries, firms have more opportunities to acquire wealth from their debtholders, which can result in higher agency costs.

According to Myers, the amount of debt a firm has is inversely related to its future growth potential. He noted that companies with high debt levels could pass up the value of their assets when they make investments. He also noted that the amount of debt firms have is inversely related to their future growth potential. According to Titman and Wesselson (1988), growth opportunities are not capital assets that can be easily converted into cash and are unsuitable for collateralization.

These assets are considered intangible and have value if a company exists. If it were to fail, the anticipated bankruptcy costs for companies with better growth opportunities would be higher.

The more significant the bankruptcy costs, the lower the financial leverage that a company can have. This is according to the growth rate that is measured by taking a yearly growth rate. A measure of this is the growth rate of total assets. Therefore, as per the pecking order theory, the study hypothesizes

that:

Hypothesis 3: Firm growth to debt ratios will have a significant negative relationship.

#### **Size (SIZ)**

According to Wessels and Titman, large companies are less prone to bankruptcy and more diversified. In addition, they argue that large firms should be heavily leveraged. In 1982, however, a study by Marsh revealed that small firms prefer short-term debt over long-term loans.

Information asymmetry can be observed in the debt ratio of a firm. Large companies may have information asymmetry that allows outside investors to prefer to hold equity rather than debt. This could be a proxy for the likelihood of bankruptcy, as large firms tend to be more diversified.

The natural logarithm of sales is a measure of the size used by Pandey (2000) to determine if a firm's sales are more lucrative than its assets. Titman and Wessel's (1988) use of this parameter have also been noted. In addition, other researchers, such as Kim and Sorenson (1986) and Sinha (1992), have found a negative relationship between the leverage and size ratios. However, in 2003, Halit Gonenc and Pandey noted that the relationship between these two factors is positive. In support of the trade-off theory, the study hypothesizes that:

Hypothesis 4: Firm size will have a significant positive relationship to debt ratios.

#### **Debt Service Capacity (DSC)**

A high debt service capacity can help a company meet its financial obligations, even if EBIT decreases. This means that a firm with a high debt service capacity is likelier to have a higher debt component within its financial structure (Mittal and Singla, 1992).

An organization's capacity to borrow is proportional to how well it can service its obligations (Venkatesan 1983). Higher debt service capacity can result in a higher debt ratio as it implies that the business can pay more interest than depreciation and taxes and hypothesize that:

Hypothesis 5: Firm debt service capacity will have a significant positive relationship to debt ratios.

#### **Tax Rate (TAXR)**

A positive relationship exists between the amount of money corporations spend on debt and the tax rate they pay. In 1986, Senbet and Haugen noted that firms with high tax liabilities tend to use more debt to get the most out of the deduction for interest expenses. According to their study, the tax rate that a company pays is computed by considering the profit before taxes.

Hypothesis 6: Firm effective tax rate will have a significant positive relationship to debt ratios.

#### **Non-Debt Tax Shields (NDTS)**

Masulis and DeAngelo argued in 1980 that the tax benefits of debt are not as substantial as those of non-debt deductions. In 1984, Bradley et al. found a positive coefficient, while Mackie-Mason did the opposite. The study also proxies NDTS with the amortization and depreciation ratios. and hypothesizes that:

Hypothesis 7: Firm non-debt tax shield will significantly negatively affect debt ratios.

#### **Liquidity (LIQ)**

Having greater liquid assets allows firms to fund their investments. However, their liquidity position can negatively affect the leverage ratio. According to the study, this issue can be explained by the body's negative impact on borrowing decisions due to the scaling of current liabilities. Thus, the study hypothesizes that:

Hypothesis 8: Firm liquidity will significantly negatively impact debt ratios.

### **Uniqueness (UNIQ)**

It is expected that a company that invests heavily in research and development will have a higher portion of its value attributed to intangible assets than one that focuses on tangible assets. This means that it will incur higher agency costs when it issues debt.

In 1988, Wessels and Titman noted that a company with unique products is expected to spend more on marketing and selling its products. This is because the demand for such products exceeds the supply of these goods and services. To capitalize on this opportunity, a company can create unique assets through its R&D efforts and specialization.

According to Pandey and colleagues, a range of factors, such as the company's advertising expenditure, R&D budget, and the rate at which its employees leave their positions, can be used to measure the uniqueness of a company. An organization with many intangible assets may have a low collateral value.

The debt ratio is also negatively affected by uniqueness. R&D expenditures can be used to measure a company's uniqueness. However, for Indian companies, these values are not available easily. Therefore, the study proxies for uniqueness with the ratio of selling and distribution expenses to total assets and hypothesizes that:

Hypothesis 9: Firm uniqueness will have a significant negative relationship to debt ratios.

### **Business Risk (BRISK)**

According to Bradley et al. in 1984 and Smith and Barclay in 1995, the optimal debt level of a firm is related to its earnings volatility. The risk coefficient is a measure of this. Thus, the higher the risk, the lower will be the debt level leading to the hypothesis:

Hypothesis 10: Firm Business Risk (BRISK) will have a significant negative relationship with debt ratios.

## **3.3 Methodology**

The selected companies are evaluated according to the classification criteria of the Indian economy's official directory, CMIE. The final list includes firms from the pharmaceutical industry.

This industry group is categorized according to the above criteria. The data for this study was gathered from various sources, such as the CMIE's official directory, the stock exchange platforms of the country's major stock exchanges, and the corporate database of the Center for Monitoring the Indian Economy.

The data collected from these sources was then analysed and interpreted using various statistical techniques. These included multiple regressions, hypothesis testing, and statistical methods. The study

also utilized stock exchange platforms' websites to gather information. The study's findings were then analysed using these tools.

The study employs a multiple regression model to analyse the relationship between various independent variables (e.g., profitability, growth, liquidity) and the dependent variable of debt-equity ratio (DER). Data collected from 71 pharmaceutical companies over ten years are subjected to rigorous statistical analysis, including hypothesis testing and regression diagnostics. The results are interpreted to identify significant factors influencing capital structure decisions in the pharmaceutical industry.

The Empirical Model: The following regression model is used for testing the hypothesis:  
$$Y = a + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \dots + \beta_n X_n + E_i$$

Where, Y is the dependent variable;  $X_1, X_2, \dots, X_n$  are the independent variables; a is the constant term in the equation;  $\beta_1, \beta_2, \beta_3, \dots, \beta_n$  are the coefficients of the Independent variables and  $E_i$  is the error term with mean zero and constant variance.

#### 4. Results and Discussion

The regression analysis reveals significant relationships between certain independent variables and the debt-equity ratio of pharmaceutical companies. Factors such as debt service capacity, liquidity, and business risk emerge as influential determinants of capital structure, while variables like profitability and growth show less significant impacts. The study highlights the nuanced interplay of factors shaping capital structure decisions and underscores the need for further research in this area.

A range of factors affect a company's capital structure. This study identifies the key factors influencing a company's capital structure. It was conducted by selecting ten independent and one dependent variable.

The variables can be studied in many ways to determine the impact of capital structure on a company's operations. A multiple regression model is then used to analyse the data and identify which has the most significant influence on a company's financial position. The study's results are presented below. The study was conducted on the data of various pharmaceutical companies from 2003 to 2022.

The data collected from the companies were then analysed and grouped to form a large data set. The study's results reveal the relationship between several factors such as financial leverage, profitability, and debt-equity ratio. The study also highlighted the independent variables influencing a company's capital structure: growth, size, liquidity, and tax rate. During the analysis, the significance of the various statistical tests was analysed.

The procedure for calculating the multiple regression coefficients is known as the T-test. It involves comparing the values and coefficients from zero to the ones from varying periods. The study's objective is to find out which factors influence a company's capital structure after considering the various companies' data for a decade. Unfortunately, the study's results did not meet the researchers' expectations.

An independent variable's value may not change over time. For instance, the tax rate may not change.

Some of the variables collected during the period are no longer available. The data on these independent and dependent variables were gathered during this period. The total sum of squares is then calculated using the ten-time series observations. Thus, the degrees of freedom for the Total Sum of Squares become  $n-1 = 9$ .

Due to numerous independent variables, the total sum of squares is calculated as  $k = 9$ . However, due to the existence of a regression function, the mean sum of squares for the residual component of variation is not found. This means that the P-value and F statistic cannot be found.

The computation of the standard error of regression coefficients is also affected by the existence of different independent variables. For instance, the degree of freedom of "t" is  $n-K-1=0$ , which limits the scope of the test to determine the significance of regression coefficients. Furthermore, some independent variables do not meet the tolerance limits specified for different variance inflation factors.

This issue is also apparent in the collinearity diagnostics generated by the software. The study has since pooled the various variables' values from all the years, resulting in the fit of multiple regressions. The total number of participating companies is seventy-one.

The data collected from the seventy-one companies during the ten years were then analyzed and grouped to form a set of multiple regressions. Table 1 shows the results of these studies. The data of the dependent variables are also included in the analysis.

Table 1 The results of the pharmaceutical sector's pooled analysis with the debt-equity ratio as a dependent variable.

<b>R</b>		<b>R Square</b>		<b>Adjusted R Square</b>		<b>Std. Error</b>	
0.64		0.41		0.31		0.25	
	<b>Sum of Square</b>	<b>D.F.</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig. P-Value</b>		
Regression	2.46	11	0.25	4.0	0.0002		
Residual	3.64	58	0.06	-	-		
Total	6.10	69	-	-	-		
<b>Variable</b>	<b>B</b>	<b>St. Error</b>	<b>T</b>	<b>Sig.</b>	<b>Lower Bound</b>	<b>Upper Bound</b>	
Constant	0.4311	0.1827	2.2501	<b>0.0272</b>	0.0467	0.8240	
PROFIT	(0.0951)	0.1231	(0.7768)	0.4546	(0.3428)	0.1521	
COVA	(0.1531)	0.2747	(0.5747)	0.5720	(0.6928)	0.3755	
GROWTH	(0.0314)	0.1242	(0.2525)	0.8025	(0.2550)	0.2022	
SIZE	(0.0035)	0.0230	(0.1423)	0.9013	(0.0640)	(0.0501)	
DSC	(0.0052)	0.0021	(2.8959)	<b>0.0054</b>	(0.0081)	(0.0016)	
TAXR	(0.0202)	0.0290	(0.7112)	0.4801	(0.0780)	0.0370	
NDTS	7.0025	2.9891	2.3430	<b>0.0231</b>	1.0213	12.9753	



LIQ	(0.0301)	0.0133	(2.0880)	<b>0.0410</b>	(0.0551)	(0.0011)
UNIQUE	(0.1900)	0.6401	(0.2968)	0.7675	(1.4710)	1.0891
BRISK	0.1401	0.0465	2.9368	<b>0.0047</b>	0.0427	0.2309
Note: Figures in bracket indicates a negative figure						

Source: Authors SPSS Output

Independent variables of the regression model with DER as the dependent variable have a coefficient of determination of 0.41 with a standard error of the estimate of 0.25. The regression was significant with ANOVA (F= 4.0, P= 0.0002). It shows that the influence of the other independent variables on the leverage measure is significant.

The results of the study revealed that the adverse effects of the multiple regression coefficients, such as the ones related to the size, growth, and distribution of PROF, COVA, and UNIQ, were more apparent than the positive effects of the other variables, such as the ones related to the NDTs and BRISK. The study also revealed that the average values of the remaining coefficients were not significant at 5%.

The null hypotheses presented in the study, such as those related to the size, distribution, and growth of PROF, COVA, and UNIQ, did not have significant p-values. The study also rejected the null hypotheses related to the NDTs, BRISK, and DSC as they were statistically significant. The p-values of the other hypotheses were accepted in these cases as they were statistically not significant.

The study rejected the null hypothesis about LIQ due to its expected sign. It also found that the several factors that affect the capital structure of Indian pharmaceutical companies, such as the size, growth, distribution, and revenue of COVA, PROF, and UNIQ, do not significantly impact the country's pharmaceutical industry.

The significant value DSC signs, such as BRISK and NDTs, are expected to significantly affect the industry's capital structure. But their signs are in a different direction. This study analyses the factors that influence the industry's capital structure. In 1992, Venkatesan and Mittal noted a positive correlation between DSC and debt levels.

The study revealed that high DSC is linked to low debt levels. The Indian pharmaceutical industry has resorted to the equity financing mode whenever the market has been strong. This is because a highly profitable company can have a high debt service capacity, and since it is profitable, it can raise equity through initial public offerings.

Highly profitable Indian companies have also resorted to paying off their costly debts. This is because, during the 1990s, they raised their finance at high-interest rates. They then realized that the interest rates would gradually decrease in the country. As a result, they preferred to use internal accruals to settle their debts.

The debtholders of profitable companies have also preferred to reduce their debts by converting some of them into equity. This has led to a positive relationship between the DSC and the DER. According to MacKie-Mason (1990), the negative correlation between NDTs and debt ratios might be due to the existence of a negative coefficient.

The study found that the higher the tax benefits an organization receives due to the NDTs, the higher its DER will be. This is in line with the tax theory, which states that companies tend to increase their debt levels if they can benefit from tax savings.

The negative correlation between debt ratios and BRISK has been reported by Bradley and Smith (1995), Masulis and DeAngelo (1980), and other researchers. However, the findings of this study do not support the claims made by these studies. Therefore, the researchers conducted a separate analysis to examine the reasons for the opposite sign.

The theory about minimizing debt holds true for companies with high business risk. However, whenever a firm is in difficulty, it might be unable to raise the necessary capital to meet its financial obligations. This is because they fear the equity market may not meet their requirements.

Because of this, many companies in India are now resorting to debt financing instead of an equity-based capital raise. This is because debt financing can provide them with incredible tax benefits. It can also help them meet their cash flow needs.

The optimal debt level of a company is also increased rather than decreased depending on its earnings volatility. The liquidity position of a company can influence its leverage ratio. This is because having a prominent level of liquid assets helps it manage its investments.

The results of the study are consistent with the expectations of the researchers. The several factors influencing a company's capital structure in India are the DSC, LIQ, NDTs, and BRISK. Despite the different signs the first three variables presented, the last one has the exact positive correlation.

## **5. Conclusion:**

This study aims to analyse the competing arguments regarding the optimal capital structure. The Net Income theory states that there is an optimal structure, while the Net Operating Income theory claims no such thing exists. Miller and Modigliani have argued about the irrelevance of the structure.

Since the inception of the competing theories, various research works have been conducted on the subject of optimal capital structure. These studies have provided empirical proof for both the Net Income and the Net Operating Income theories. The Miller and Modigliani model's assumptions about optimal capital markets have also been modified.

Due to the numerous factors that affect the structure's relevance, many theories have been presented regarding the determinants and relevance of the capital market. This paper aims to analyse the competing arguments' relative importance.

The study utilized the Evidence and the Theory available to identify ten independent variables that influence pharmaceutical firms' capital structure in India. These variables were calculated over ten years, from 2013 to 2022. The companies included in the study trade on the National Stock Exchange (NSE) or the Bombay Stock Exchange (BSE).

The data collected during the study were used to calculate a range of factors that influence the capital structure of pharmaceutical firms. These include the debt-equity ratio, collateral value, growth, size,

debt service capacity, tax rate, liquidity, and uniqueness. Multiple regressions were then utilized to analyse the data.

The study results revealed that the independent variables, business risk, DSC, NDTs, and LIQ, have significant coefficients. These factors, therefore, emerged as the key factors that influence the capital structures of pharmaceutical firms in the country.

The results revealed that the previous studies' four independent variables, BRISK, DSC, LIQ, and NDTs, have different signs than expected. The difference between these variables and the DER is that the former has a direct relationship with the latter, while the latter has a negative relationship. Based on this, the study states that the higher the LIQ and DSC, the lower the level of debt that a company has in its capital structure. On the other hand, the higher the BRISK, NDTs, AND DSC, the more debt a company has in its capital structure.

Although the study identified four independent factors that play a significant role in the capital structure of pharmaceutical companies, further research is needed to analyse the other factors that can affect the structure's effectiveness. For instance, the definition of leverage used in the study could lead to different outcomes.

In addition, the study also analysed the relationship between the cost of capital and the capital structure of pharmaceutical firms. After the data set has been analysed, the factors that can influence a company's capital structure will be unveiled. This study contributes to understanding the complex factors influencing capital structure decisions among pharmaceutical companies in India. While certain variables exert significant influence, others exhibit less pronounced effects, highlighting the multifaceted nature of capital structure determinants. Future research should continue to explore additional factors and refine methodologies to enhance our understanding of capital structure dynamics in the pharmaceutical sector and beyond.

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