

**A STUDY OF FACTORS DETERMINING TECHNIQUES OF
ANALYSING CAPITAL STRUCTURE****SIDHANT BALAIYA**

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ABSTRACT

This study seeks to illuminate the possibilities and problems encountered by commercial managers functioning in India's capital markets via thorough analysis and empirical research.

Furthermore, it aspires to provide suggestions and insights to stakeholders such as investors, financial institutions, regulators, and lawmakers in order to improve the market ecosystem's efficiency, transparency, and resilience.

This study aims to provide a contribution to the field of commercial management within capital markets. Its ultimate goal is to help Indian decision-makers, investors, and the economy thrive sustainably.

KEYWORDS: Capital Structure, commercial managers functioning, capital markets, decision-makers

INTRODUCTION

The term "capital structure" is often used to refer to a company's method of financing its assets and investments. The success, growth, and profitability of a business depend on maintaining an appropriate level of debt in relation to its equity. Leverage or trading on equity, the company's growth, the nature and size of the business, the concept of retaining control, the

requirements of investors, the cost of floatation of new securities, the timing of issue, the corporate tax rate, and legal requirements are just a few of the factors that can affect a company's capital structure. It is difficult to rate them because of the unique nature of each component and the dynamic nature of their impact on a company.

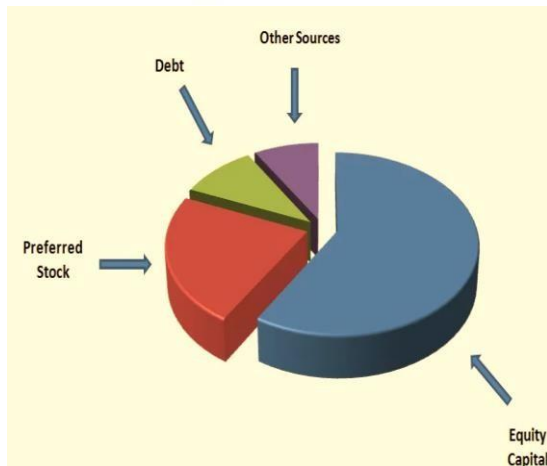


Figure 1: Components of Capital structure

Capital structure has come a long way since 1958, when Modigliani and Miller published their major study. All subsequent theories have made an effort to explain this perplexing topic by isolating the factors that play a role in determining the capital structure. Several elements have been found by researchers that may influence capital structure decisions made by organizations. Possible frauds, high transaction costs, conflicts of interest, information asymmetry, weak institutions, and so on are only some of the reasons why the system is flawed. The uniqueness of institutions lies in the fact that they serve a dual purpose: on the one hand, their existence creates imperfection, and on the other, their presence is essential to correct imperfection if it is emerging out of asymmetry of information. While the existence of a capital market regulator may

assist reduce the effects of information asymmetry in the market, one source of imperfection is the imposition of tax on people and enterprises by a government agency such a tax authority. Given that institutions can both create and remedy imperfections, and that corporations must comply with the requirements of various institutions like the tax authority, banking system, capital market, and regulatory authority, this suggests that institutional structure may explain the behavior of corporations, especially its financial behavior. More specifically, "capital structure decision is not only the product of the firm's own characteristics, but also the result of tenets of corporate governance, legal framework, and institutional environment of the countries in which the firm operates"

Whether or whether a certain capital structure is best for a given organization is a fiercely debated question. However, some argue that capital structures are becoming more significant in both the value of a company's securities and the risk involved with investing in them. Whether or whether a certain capital structure is best for a given organization is a fiercely debated question. While some maintain that a company's capital structure has no effect on the value of its securities or the risk of investing in



them, others claim that capital structures increasingly affect both value and risk. The right capital structure can only be determined after careful consideration of a broad variety of elements, such as the company and its management, the economy, government regulation and social trends, the state of capital markets, and the dynamics of the sector.

To appreciate how firms in developing economies raise money for their operations, it is necessary to analyze the factors that influence their financing or capital structure choices. The setting of business financing choices raises several policy problems. The expansion of capital markets, the determination of interest rates and the values of securities, and the implementation of appropriate laws are only a few examples of the far-reaching influence they have on macroeconomic variables. Such decisions have narrower repercussions for the capital structure, corporate governance, and development of certain companies. The majority of what we know about capital structures comes from data collected in industrialized countries with whom we share many institutional traits. Countries have vastly different tax and bankruptcy laws, markets for corporate control, bank and securities market operations, and other economic infrastructures. Disparities in

social and cultural norms, as well as economic advancement, are not universal.

Factors Determining the Capital Structure

Numerous elements influence a company's capital structure. Ranking them would be impossible due to the fact that each component is unique in its impact on a business and that impact fluctuates over time. When money is tight, a financial manager must weigh the benefits and drawbacks of available financing options in order to choose the optimal capital structure. Below, we will examine the elements that contribute to the capital structure as a whole.

Trading on Equity

Trading on Equity refers to the practice of financing a company's operations using a combination of long-term, fixed-interest debt and preference shares and equity share capital. If the return the company generates is more than the cost of debt, then using long-term debt may boost profits per share. Earnings per share rise with the usage of preference share capital as well, but the leverage effect of debt is magnified since interest may be deducted from taxable income. On the other hand, leverage might backfire if the interest rate on the company's



long-term borrowing is higher than the rate at which it expects to generate profits.

Sales stability

A corporation with steady revenue can afford to take on more debt and pay greater fixed costs than one with volatile revenue. When revenues are consistent, a company knows it won't have trouble making its regular interest payments on its debt. A company should avoid using debt financing as much as feasible in its capital structure if its revenues are very volatile or falling.

Cost of Capital

The cost of capital is the rate of return at which investors will not invest. The capital structure must be optimized to reduce the total cost of financing. Equity capital, preference share capital, and debt capital are the three most common types of corporate financing. Capital providers anticipate a return on their investment that is proportional to the risk they are taking. The total cost of capital should be kept as low as possible throughout the process of capital structure formulation.

Asset Structure

When deciding on a capital structure, it's important to think about things like liquidity and the mix of assets. A greater

capacity to issue long-term debt may be conceivable if fixed assets make up a significant share of the company's overall assets.

Growth Rate

Companies with quicker growth rates need to depend more on outside funding. In addition, the flotation costs associated with selling common stock are higher than the expenses associated with selling debt, which leads fast-growing companies to depend more on debt. However, increased unpredictability is a common reality for these businesses, and thus, they are less likely to rely on loans.

Profitability

Companies with very high IRR tend to employ minimal debt. Despite the lack of an underlying theoretical rationale, a plausible explanation is that very lucrative companies like Intel, Microsoft, and Coca-Cola do not have access to large amounts of loan funding. Their profitable rates of return allow businesses to rely mostly on their own resources when funding their operations.

Size of a company

While big corporations may arrange long-term loans on acceptable terms and even



offer stock and preference shares to the public, small businesses must rely mostly on owned capital since it is so difficult for them to obtain long-term loans at a decent rate of interest.

Cash flow ability to service Debt

A firm with a greater and more consistent capacity for cash flow generation may afford to use a higher proportion of debt in its capital structure than one with a lower capitalization base. When seeking new funding, businesses must predict and account for future cash flows to assure that fixed costs will be met..

Control

Capital structure may be affected by the impact of debt vs equity on management's ability to maintain control. Management with voting authority but limited funds to acquire more shares may choose for cheaper debt financing instead. In contrast, management could choose to employ stock if the company's finances are so precarious that taking on debt would put it at significant danger of default. Since the sort of capital that best safeguards management varies from circumstance to scenario, control concerns might lead to the usage of either debt or equity.

Management Attitude

Management is free to make up its own mind on the optimal capital structure since it is impossible to establish that one capital structure would result in better stock prices than another. While more cautious management teams employ debt at lower rates than their sector peers, more risk-taking teams borrow more money to boost profitability.

Corporate Tax

Companies with high tax rates might benefit the most from interest cost deductions. Therefore, the benefit of debt increases as a company's tax rate rises.

Age of the company

Due to the risk associated with starting a new business, raising initial funding may be challenging. However, obtaining finance is often not a problem for established businesses that have a track record of success.

Ownership Pattern

Foreign equity holders, financial institutions, body corporate, promoters, directors, and their family, and other dispersed shareholders are all examples of ownership patterns. The funding mix will be determined by the relative weight of each of these categories of equity investors,



who may have investment requirements that are at odds with one another.

Lenders and rating agency attitudes

It is common for the opinions of lenders and rating agencies to impact choices about capital structure. Typically, a business will consult with lenders and credit rating agencies about its capital structure and pay close attention to their input.

Capital Market Conditions

The state of the financial markets is never static. There might be a slump in the market one day, followed by a boom the next. It would be unwise for the firm to issue equity shares if the stock market is down. However, it makes sense to issue stock shares during prosperous times.

Firm's internal condition

The ideal capital structure of a company may also be affected by the state of the company internally. Let's say a company has recently finished some fruitful R&D efforts and expects to see increased profits soon. Investors are not yet factoring in the new results, therefore the stock price does not reflect them. Instead of issuing shares to raise capital, the corporation would rather use debt until the improved profits are reflected in the stock price.

Financial Flexibility

It's important for a company's capital structure to be adaptable so it can meet the demands of the market over time. It shouldn't be too hard or time-consuming to raise more money. It is important for a business to set up its capital structure so that it can easily switch between different types of funding.

Period of finance

When short-term financing is essential, debentures are preferable over stock. However, equity share capital is preferable if the funds are required on an ongoing basis.

Government Regulations

Government rules on security problems should be taken into account when deciding on a funding mix. The Securities and Exchange Board of India oversees all public company capital raises in the country. The capital structure may be affected by whether or not the SEBI's regulations on capital issuance are followed.

CAPITAL STRUCTURE THEORIES

A company's capital structure choice revolves on the balance between debt and



equity. The connection between a company's market value and its capital structure choice has been extensively explained by several capital structure theories. Capital structure theory is a cornerstone of contemporary finance theory and has provided useful insights into practical issues. As a result, knowing the theoretical underpinnings is crucial.

Net Income Approach

David Durand is widely credited as the creator of the Net Income Approach. The core idea behind the net income method is that debt may help a company reduce its cost of capital. This strategy is founded on the idea that the incorporation of debt does not alter the investor's perception of risk. Debt interest (k_j) and equity capitalization (k_e) are so unaffected. As a result, the total value of a business increases as the cost of capital decreases when leverage is raised. In this method, the total cost of capital (k_0) is calculated as

$$K_0 = \frac{\text{Net Operating Income}}{\text{Total value of the firm}}$$

According to the Net Income method, the best capital structure is found when the cost of capital is minimal. There is a risk, however, that if the cost of debt and equity rises to a certain level, the cost of capital will begin to rise as well.

Net Operating Income Approach

David Durand also created the Net Operating Income Approach. The capital structure is irrelevant because the business cannot influence its total cost of capital by using leverage, according to the net operating income concept. This means that the cost of capital as a whole has not changed. This is because the advantage gained from the usage of debt is nullified as the average cost stays same due to equity investors increasing their capitalization rate of profits to offset the higher financial risk. However, the cost of debt may rise over a certain degree of leverage. For the cost of capital function to remain flat, the price of equity would need to decrease. As a result, there is no sweet spot or range of values for the capital structure.

Modigliani-Miller Approach

The Modigliani-Miller hypothesis and the NOI approach are the same thing. However, the Net operating income strategy serves just as a concept and has no bearing on actual business performance. The capital structure's insignificance is not backed up by any practical reasoning on the Net operating income method. The M.M. hypothesis agrees with the NOI method in that the cost of capital remains constant regardless of the debt-equity ratio. It



explains why the total cost of capital and the value of the company may be kept constant. That is to say, the M.M. method insists that adjusting the level of leverage has no effect on the weighted average cost of capital.

There are three basic tenets that form the backbone of the M.M. theory. This includes:

Proposition I

A company's market value is calculated by taking its predicted operating income and dividing it by the risk-adjusted discount rate. It doesn't matter how much leverage you have.

Proposition II

Equity returns are calculated by adding the appropriate capitalization rate to an anticipated premium. The spread between the capitalization rate and the yield on debt represents this premium.

Proposition III

No matter how an investment is funded, the capitalization rate will always serve as the firm's investment decision-making threshold.

These hypotheses are grounded on a basic market process known as arbitrage. Buying a security at a cheaper price in one market

and selling it at a higher one in another is an example of arbitrage. According to M.M., the total values of two businesses that are otherwise similar save for the financing pattern will converge via the arbitrage process, hence the market value of these enterprises will not change. If two assets belong to the same risk class and have the same projected returns, but are selling for different prices, rational investors would use arbitrage to eliminate the discrepancy.

It's challenging to refute the M.M. thesis theoretically. However, they have been harshly attacked by various specialists who have questioned the theory's foundational assumptions. Individuals, via the application of leverage, may affect corporate leverage; this is the primary idea behind M.M. This argument fails to hold water in a real world setting since it is very unlikely that individual investors will switch from using corporate leverage to using personal leverage.

Traditional Approach

The conventional method lies somewhere in the middle of the Net Income and Net Operating methods. It incorporates aspects of each of those strategies. Ezra Solomon is a leading proponent of the conventional view. A corporation may improve its total value and minimize its overall cost of



capital by using "debt to equity propositions" wisely, according to the conventional understanding of leverage and valuation. Since interest payments on debt are lower than dividends paid on common stock, this makes sense. By increasing debt and decreasing equity, one may switch to a less expensive funding mechanism. As a result, the firm's market value drops and the cost of capital decreases. According to Solomon's take on the classic perspective, there are three separate points at which studying the effect of leverage on the cost of capital and the value of a corporation is possible.

In the first phase, the cost of equity increases when debt is added, but not quickly enough to wipe out the benefit of low-cost debt, while the cost of debt stays the same or very slightly increases. Therefore, when leverage is increased, either the firm's value rises or its cost of capital decreases.

After a certain level of leverage is achieved, further debt adds just a marginal amount to market value in the second phase. This means that the cost of capital has not changed much.

Finally, when a company's leverage exceeds a certain safe threshold, the value of the company drops or the cost of capital

rises. Because of the elevated level of perceived financial risk, equity and debt capitalization rates rise.

Optimal Capital Structure Theory

According to the Optimal Capital Structure hypothesis, a company's capital structure is determined by a balance between debt and equity. Managers of corporations strike a balance between the tax benefits of higher debt and the risk and expense of financial difficulty when making financing decisions. According to this hypothesis, either excessive or inadequate debt levels are detrimental to a company's viability. Low ROIC results from either having too little debt (which leads to underinvestment) or too much (which leads to overinvestment) Too little debt in the capital structure leads to agency expenses. Michael Jensen⁸ argues that poorly levered enterprises incur substantial agency costs. Thus, according to the theory of optimum capital structure, the value of a levered business rises because of the tax exemption on borrowings but falls because of the bankruptcy risk associated with carrying excessive levels of debt. The best capital structure is one that maximizes the company's value via the use of debt and equity.



Signalling Theory

According to the signalling hypothesis, corporate managers know more than outside investors do about their companies, and as a result, managers' financing choices send a "signal" to investors about how they value the company.⁹ If management believes their company is undervalued, they may choose to issue debt in order to attract new external financing and send a message to investors about their optimism over the company's future cash flows. Managers may choose to issue shares at the present higher price if they feel the market has now overvalued their company. Therefore, according to the idea of price signals, undervalued companies are more likely to issue debt than stock.

Pecking Order Theory

Myers proposed pecking order theory, a subset of signaling theory. He claims that while making financial choices, business leaders do not factor in the appropriate capital structure. Managers often use a common sense approach, focusing instead on securing the "cheapest value" when allocating capital. According to this idea, equity is only employed as a last option if other forms of funding, such as debt, have already been exhausted. Issuing equity has a larger information cost than other options

in the Pecking Order, hence it should be used as a last resort. Therefore, according to Myers, corporations with sizable free cash flows need to maintain a relatively modest leverage ratio.

TECHNIQUES OF ANALYSING CAPITAL STRUCTURE

Capital structure ratios are used to evaluate a company's sustainability over the long term. The following ratios are often used to evaluate a company's capital structure.

Financial Ratios

Financial statement analysis and interpretation may be done with the use of ratio analysis. Ratio analysis is the technique of calculating and analyzing ratios to aid in decision making.

Time Series Analysis / Trend Analysis

When data is collected and analyzed over time, the results are presented in the form of a time series. The statistics in this set have been gathered, recorded, and tracked throughout time. This data set consists of a succession of points in time, often recorded at regular intervals. The use of line charts to display these data is widespread. When taking temporal measurements, these series are useful in fields including statistics, signal processing, pattern identification,



econometrics, mathematical finance, meteorology, seismology, control engineering, astronomy, and communications engineering. Methods for extracting useful statistics and other properties from time series data are included in this examination. This series use a model to forecast future values from existing data. This series' useful features are:-

- Helps in understanding past behavior
- Helps in planning future operations
- Helps in evaluating current accomplishments
- Facilitates comparison

Common size Statement

This statement is often referred to as a "component percentage" or "100% statement" since each component is expressed as a percentage of the whole. Total assets, total liabilities, and total sales are shown in this statement as a percentage of 100. Changes in individual items could not be compared to overall changes, which was a weakness of the comparative statement.

Inter- Firm Analysis / Cross Section Analysis

An example of an observational study, cross-section analysis looks at a sample, or cross-section, of a population at a certain time and place. Cross-sectional regression is used in economics to determine whether or not one or more independent variables have a significant influence on a dependent variable, and how large of an effect that has. Descriptive in nature (neither longitudinal nor experimental), cross-sectional studies provide snapshots of data.

Coefficient of Variation

Dispersion may be measured objectively using the standard deviation. Coefficient of variation is the relative measurement that corresponds to this. Karl Pearson's relative dispersion index is the gold standard for such analyses. It is used in situations where comparing the dispersion of many series is of interest. The series with a larger coefficient of variation is considered to be less consistent, uniform, stable, or homogeneous than the one with a smaller coefficient of variation. Conversely, a less-variable series is described as being more uniform, steady, or homogeneous because of its lower coefficient of variation.



It should be noted that although the standard deviation and the arithmetic mean may be used in combination with any average to compute relative dispersion, statisticians almost generally employ the former. When the mathematical mean and the standard deviation are used to express the relative dispersion Coefficient of variation, sometimes written as a percentage, measures the spread of a set of numbers.

Correlation Analysis

Correlation analysis is a statistical method for gauging the closeness of a link between two or more variables. The term "correlation analysis" describes the method used to evaluate the degree of association between the variables. Thus, correlation serves as a useful statistical tool for examining the mutual fluctuations of two or more independent variables. By comparing one series of data with another series to which it may be functionally connected, a business executive may use correlation analysis to make estimates about expenses, sales, pricing, and other factors. Economic behavior can be better understood with the help of correlation analysis, which also helps pinpoint the most crucial variables upon which all others depend, may shed light on the propagation of disturbances,

and points the economist in the direction of potential avenues for redress. It is well known that the correlation coefficient is both a popular and overused statistical tool. Misuse occurs when people fail to recognize that a correlation coefficient only reflects the linear strength of a link and does not prove causation. We may use correlation analysis to learn how closely related two or more variables are. It does not provide us with any information on the causes and effects at play. However, just because two variables are highly correlated does not suggest that there is a causal link between them.

Regression Analysis

Almost every scientific field makes use of regression analysis, a subfield of statistics. The core of economic theory and economic life may be reduced to the measurement or estimation of the connection between economic variables. The average degree to which two or more variables are related, expressed in the same units as the original data, is what is known as regression. Regression analysis, as described by Morris Hamburg, is the process of estimating one variable given the values of one or more other variables, as well as the assessment of the errors associated with this estimation process. Values of the dependent variable



are estimated based on the values of the independent variable, thanks to this analysis. It is also useful to get a measure of the estimate error introduced by employing the regression line. The correlation coefficient may be calculated with its aid as well. One variable is considered dependent while the other is considered independent in regression analysis.

CONCLUSION

This analysis attempts to cost-effectively apply to the many factors, suited for optimum capital structure, in order to create an acceptable capital structure and make themselves competitive. The purpose of this research is to learn how firm size, tangibility, growth, profitability, earning risk, non-debt tax shield, business risk, net worth, equity capital, reserve and surplus, and total borrowings are connected to a corporation's capital structure (Debt Equity Ratio). Because it directly impacts the firm's value, Capital Structure is a crucial decision for any finance manager to make. The goal of any given company, after all, is to maximize shareholder wealth. In finance, "optimal capital structure" refers to a financial setup that maximizes shareholder wealth. In order to optimize returns to equity share holders, this study reveals the core areas that demand close scrutiny when

assessing profits. Management will have the information and authority to make constructive choices about the debt-to-equity ratio. In India, rivals come from all over the world. Many economists around the world believe that companies in all countries now operate in an increasingly competitive market.

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