



## **THEORETICAL FRAMEWORK ON CAPITAL STRUCTURE AND FIRM'S PERFORMANCE**

**L. Senthil Kumar**

Assistant Professor, Department of Commerce Finance, Dr. N. G. P Arts and  
Science College (Autonomous), Coimbatore, Tamilnadu

**Cite This Article:** L. Senthil Kumar, "Theoretical Framework on Capital Structure and Firm's Performance", International Journal of Interdisciplinary Research in Arts and Humanities, Volume 2, Issue 2, Page Number 155-159, 2017.

### **Abstract:**

Capital structure is the composition of debt and equity securities that are used to finance company's assets. Both debt and equity securities are used by most of the companies to raise funds. Having determined its investment policy, a company should plan the sources of finance and their mix. Companies which do not formally plan their capital structures are likely to face difficulties in raising capital on favourable terms in the long-run. Financial experts and authorities differ as to the composition of funds in capital structure. Many authors include only long-term sources of finance under the capital structure. Broadly speaking, the capital structure comprises owned funds and borrowed funds. The owned funds include the share capital and free reserves and surplus and the borrowed funds represent debentures, long-term and medium-term loans provided by various financial institutions. This paper presents the concepts relating to capital structure, Source of finance, significance and factor influencing capital structure, theoretical framework for the capital structure and relationship between the capital structure mix and the performance of the companies.

### **Introduction:**

The capital structure decision is one of the most sensitive issues for any organization because it directly relates to competitive environment. Capital structure is the mix of securities e.g. it can issue large amount of debt or little debt, arrange lease, warrants, trade bonds etc. However its main focus is to find comprehensive combination of that maximize the overall market position. There is a list of theories on capital structure which explained this in various forms. This chapter is undertaken to explore the modern theoretical foundations of capital structure.

### **Capital Structure:**

Capital structure is very vital aspect for a company for enhancing its financial performance fulfilling the investor's desire. Concepts related to capital structure are presented in this part.

### **Concept of Capital Structure:**

The term 'structure' has been associated with the term 'capital'. The term 'capital' may be defined as the long term funds of the firm. Capital is the aggregation of the items appearing on the left hand side of the balance sheet minus current liabilities. In other words capital may also be expressed as follows  $Capital = Total\ assets - Current\ Liabilities$ .

According to Kulkarni, P.V. (1988), "Capital structure is composed of a firm's finance of its assets. It is the permanent financing of a firm represented by long term debt plus preferred stock plus net worth" Essential the word structure is a term used in the science of engineering. In case of construction of a building there are some standard proportions in which various elements are integrated together. For getting a good quality construction, sand and textile are mixed in the ratio 4:1. Taking use from this analogy it is expected that business enterprises while raising the resources of capital. This is the basis for the concept of capital structure. The concept of capital is understood variously. Capital structure is defined in two ways. According to some authors capital structure refers to the relationship between the long term debts and equity. In other words it takes into consideration only the long term sources of capital. It includes short term capital from its purview. The Reserve bank of India and all Indian financial institutions also use the term in this sense. As a matter of fact, the controller of capital issues fixed a guideline for the capital structure of companies basing on the relation between long term debt and equity. On the other hand some believe that capital structure refers to the relationship among all sources of capital. They do not want to distinguish between long term and short term sources. In the opinion of Walker and Baughn (1967) Capital structure is synonymous with total capital this term refers to the make up the credit side of claims among trade creditors, bank creditors, bond holders etc. Lindsay and Sametz feel that in view of the great importance of bank credit and trade credit it seems artificial to omit short term or informal debt from capital structure problems especially for small firms where current liabilities compromise a large part of the sources of funds. In the words of Panday (2005) Capital Structure is the term known as financial plan that refers to the composition of long term sources of funds such as debentures, long term debts, preference share and ordinary shares capital including reserves and surplus. Again capital structure is frequently used to indicate the long term sources of funds employed in a business enterprise. The optimal capital structure would be the one at which the total value of the firm is greatest and the cost of capital is the lowest at the structure, the market price purchase of stock is maximized.<sup>23</sup> generally, capital denotes the proprietary equity. It includes paid up value of the share capital, reserve and surplus or that means total assets minus total external liabilities. Capital structure is the permanent by long term debt, preferred stock and net worth.

### **Sources of Capital:**

There sources of raising capital for a firm may be through External and Internal Sources. External capital include the capital raised through shareholders equity, long term loans raised from lending Industrial Financial Institutions like Industrial Finance Corporation of India, Industrial Development Bank of India, Industrial Credit and Investment Corporation of India etc. In addition to long term lending institutions even the commercial banks provide term loans ranging up to five to seven years. The internal sources of funds include earned surplus and depreciation provision. Capital structure is made up of debt and equity securities which comprise a firm's finance of its assets. It is the permanent financing of a firm represented by long – term debt, plus preferred stock, and plus net worth.

### **Significance of Capital Structure:**

Formulation of a suitable capital structure is more significant in the financing policy of a company. Capital structure represents the proportionate relationship between capital and ownership capital to the total capitalization of the company. Capital structure, sometimes known as financial plan, refers to the composition of long term sources of funds, such as debentures, long-term debt, preference share capital and equity share capital including reserves and surplus. It is therefore, a crucial task for the management to determine a proper financing mix of debt and equity in its capital structure. While a defective capital structure very often has caused the business failures, the absence of the same, however, may not guarantee the success of the enterprise in the future because its success depends on other factors also. Thus the capital structure is not static in its contents but is related to the dynamic of the company.

### **Factors Influencing the Capital Structure:**

Capital structure directly affected the financial soundness of a business enterprise. These factors can be divided in two categories. They are internal factors such as Size of Business, Nature of Business, Regularity of Income, Assets Structure, Age of Firm, Design to Control, Future of Plans, Period and Purpose of Financing, Operating Ratio and Trading on Equity etc. Internal factors also include the cost of capital, risk, dilution of value, acceptability, transferability, matching fluctuation needs against short-term sources increasing owner's profits, surrender operational control and future flexibility, character of capital requirements, Growth age and size of firm, Operational characteristics, Continuity of earnings, Flexibility, Marketability of securities.

External Factors include Capital Market Conditions, Nature of Investors, Policy of Financial Institutions, Taxation, Government Control, Cost of Capital, Seasonal Variances, Economic Fluctuations and Nature of Competition, General level of business activity, Level of interest rates, Level of stock prices, Availability of funds in the money market, e. Tax policy on interest and dividends, Government influence, Financial leverage, Market price of equity stock and Corporate taxation etc

Heavy investment in fixed assets and regularity of earning in the case of public utilities enable the firms to have larger proportion of debt capital in their structure. Hence there is no such ideal capital structure that can be adopted by all companies. Each company chooses its own capital structure as to the motives of liquidity and profitability.

### **Optimum Capital Structure:**

Ezra Solomon defined the optimum capital structure has as “Optimum leverage can be defined as that mix of debt and equity which will maximize the value of a company, i.e., the aggregate value of the claims and ownership interests represented on the credit side of the balance sheet.” Capital structure policy involves a choice between risk and expected return. The optimal capital structure strikes a balance between these risks and returns and thus examines the price of the stock. An optimum capital structure is the combination of debt and equity which achieves the goal of maximizing the company's market value. The optimum capital structure is also defined as that combination of debt and equity which minimizes the company's cost of capital. Hence, the optimum capital structure is concerned with two important factors at one time;the maximization of shareholder's wealth as well as minimization of cost of capital.In the wake of given objectives of maximization of shareholder's wealth, the requirement for an optimal capital structure cannot, therefore, be over-emphasized in the financial decision-making process, every company should try to design its own capital structure.But determination of an optimum capital structure is not an easy task. It should be clearly understood that determining the precise proportion of debt that will maximize price per share is almost impractical. It is possible, however, to ascertain the approximate share of debt to be used in the capital structure in tune with the objective of maximization of shareholder's wealth. It may be mentioned that there are certain common and conflicting considerations involved in deciding the methods of financing assets. Different companies falling under a particular industry may have much in common regarding their financial plan. But they still may exhibit different earning trends, accounting methods and practice, general future conditions and predictions about the economy and the capital market. Moreover, the management's capability to adjust the mix of debt and equity in conformity with these conditions is restricted by the availability of the various types of funds that are sought. Hence, these factors largely govern which pattern of capital structure is deemed desirable and which form of financing is chosen in a given situation. The existence of optimum capital structure is not accepted by all. A great deal of controversy has developed over this issue makes the researcher to study the pattern of capital structure.

### **Choice of Capital Structure Mix:**

A firm has the choice to raise funds for financing its investment proposed from different sources in different proportions. It can, 1) Exclusively use debt or 2) Exclusively use equity capital or 3) Exclusively use preference capital or 4) Use a combination of 1 and 2 in different proportion or 5) Use a combination of 1, 2 and 3 different proportion or 6) Use a combination of 1 and 3 different proportions. The choice of an appropriate capital structure depends on a number of factors such as the nature of the company's business, regularity of earnings, condition of the money market, attitude of the investor, etc. It is regarding the basic difference between debt and equity. Debt is a liability on which interest has to be paid irrespective of the company's profit. While equity consists of shareholders or owners fund on which payment of dividend depends upon the company's profit. A high proportion of the debt content in the capital structure increases the risk and may lead to financial insolvency of the company in adverse times. However, raising funds through debt is cheaper as compared to raising fund through shares. This is because interest on debt is allowed as an expense for tax purpose. Dividend is considered to be an appropriation of profit hence payment of dividend does not result in any tax benefit to the company.

### **Capital Structure and Firm's Performance:**

David Durand (1959), Modigliani and Miller (1958), Donaldson (1961), Alchian Kessal (1959), Schwartz and Ezra Soloman (1978) and other have made a great contribution to the development of theories at capital structure. A great deal of controversy has developed over whether the capital structure of a firm as determined by its financing decision affects its cost of capital. Traditionalists argue that the firm can lower its cost of capital and increase the market value per share by the judicious use of leverage. Modigliani & Miller (1958), on the other hand, argue that in the absence of taxes and other market imperfections, the total value of the firm and its cost of capital are independent of capital structure. There are four major theories explaining the relationship between capital structure, cost of capital and value of the firm: 1. Net Income Approach, 2. Net Operating Income Approach, 3. Traditional Approach and 4. Modigliani-Miller Approach.

#### **Net Income Approach:**

The approach has been suggested by David Durand (1959). According to this approach, the capital structure decision is relevant to the valuation of the firm, i.e., a change in the capital structure will lead to a corresponding change in the overall cost of capital as well as the total value of the firm. If the ratio of debt to equity is increased the weighted average cost of capital will decline, while the value of the firm as well as the market price of ordinary shares will increase. Conversely, a decrease in the leverage will cause an increase in cost of capital and a decline in the value of the firm as well as the market price of equity shares.

The Net Income Approach is based on three assumptions: 1. there are no taxes. 2. The cost of debt is less than the equity-capitalization rate or cost of equity. 3. The use of debt does not change the risk perception of the investors. The implication of the above assumptions is that as the degree of leverage increases, the proportion of an inexpensive source of funds, i.e., debt in the capital structure increases. As a result the weighted average cost of capital tends to decline, leading to an increase in the total value of the firm. Thus, the cost of debt and cost being constant, the increased use of debt will magnify the shareholder's earnings and thereby the market value of the ordinary shares.

With a judicious mixture of debt and equity, a firm can evolve an optimum capital structure will be the one at which value of the firm is the highest and the overall cost of capital is the lowest. At that structure the market price per share would be the maximum. If the firm uses no debt the overall cost of capital will be equal to the equity-capitalization rate. The weighted average cost of capital will decline and will approach the cost of debt as the degree of leverage reaches one. At this point the firm's overall cost of capital would be the minimum. The significant conclusion is that the firm can employ almost 100% debt to maximize its value.

#### **Net Operating Income Approach:**

This approach is also suggested by David Durand (1959). It is diametrically opposite to the Net Income Approach. The essence of this approach is that the capital structure decision of the firm is irrelevant. Any change in leverage will not lead to any change in the total value of the firm and the market price of shares, as the overall cost of capital is independent of the degree of the leverage. The Net Operating Income Approach is based on the following propositions:

- ✓ Overall cost of capital is constant: The overall cost of capital remains constant for all degrees of leverage.
- ✓ Residual value of equity: The value of equity is residual which is determined by deducting the total value of debt from the total value of the firm.
- ✓ Changes in cost of equity capital: The cost of equity increases with the degree of leverage. With the increase in the proportion of debt the financial risk of the shareholders will increase. To compensate for the increased risk, the shareholders would expect a higher rate or return.
- ✓ Cost of debt: The cost of debt has two parts: explicit and implicit cost. The explicit cost is represented by the rate of interest. Irrespective of the degree of leverage the firm is assumed to be able to borrow at a given rate of interest. This implies that the increasing proportion of debt in the financial structure

does not affect the financial risk of the lenders and they do not penalize the firm by charging higher interest. Increase in the degree of leverage causes an increase in the cost of equity.

This increase in cost of equity being attributable to the increase in debt is implicit part of cost of debt. Thus the advantage associated with the use of debt supposed to be a cheaper source of funds in terms of the explicit cost is exactly neutralized by the implicit cost represented by the increase in cost of equity. As a result the real cost of debt and the real cost of equity according to Net Operating Income are the same and equal to overall cost. No matter what the degree of leverage is, the total value of the firm will remain constant. The market price of shares will also not change with the change in the debt equity ratio. There is nothing such as an optimum capital structure. Any capital structure is optimum according to Net Operating Income Approach.

#### **Traditional Approach:**

The Traditional Approach or the Intermediate Approach is a mid-way approach between the Net Income and Net Operating Income approach. It partly contains features of both the approaches. The traditional approach accepts that the capital structure of the firm affects the cost of capital and its valuation. However, it does not subscribe to the Net Income approach that the value of the firm will necessarily increase with all degrees of leverages. It subscribes to the Net Operating Income approach that beyond a certain degree of leverage, the overall cost of capital increases resulting in decrease in the total value of the firm. However, it differs from Net Operating Income approach in the sense that the overall cost of capital will not remain constant for all the degree of leverages. The essence of the traditional approach lies in the fact that a firm through judicious use of debt-equity mix can increase its total value and thereby reduce its overall cost of capital. According to this approach, up to a point, the content of debt in the capital structure will favourably affect the value of the firm. However, beyond that point, the use of debt will adversely affect the value of the firm. At this level of debt-equity mix the capital structure will be optimum.

#### **Modigliani-Miller Approach:**

Modigliani and Miller's (1958) study gave a substantial boost to the development of a theoretical framework that has since been used by most financial studies (Abor 2005). Modigliani and Miller (1958) concluded that capital structure is irrelevant to determining a firm's value (Ebaid 2009). This is known as 'MM Proposition I'. They believed that a firm's value is not related to its mix of debt and equity. They believed that the value of a firm is determined by its real assets, and not by the amount of debt and equity available as part of its capital structure.

Modigliani and Miller's proposition is built on the assumption of a perfect market where there is no tax and bankruptcy disasters. As a response to this statement, the trade-off theory and pecking order theory were introduced. These theories were developed in opposition to the unrealistic assumption of Modigliani and Miller's proposition of perfect capital structure. These theories were developed to explain the rules of debt and equity in firms' capital structure performance in the real capital structure market founded on tax and bankruptcy disasters.

'MM Proposition II' focus on the optimal capital structure for a firm is one that totally uses debt with no equity, using more debt will reduce the tax that needs to be paid. Two propositions of 'MM-I & II' are unreasonable, as they were built on assumptions based on capital market on no taxes, bankruptcy and disclosure of information in the real world, and more theories developed in response to these two propositions.

Myers (1984) referred to this as the 'pecking order theory' of financing. This states that firms prefer to finance new investment first internally with retained earnings, second with debt, and last by issuing new equity. Pecking order theory was more suitable on description of a firm's behavior than trade-off theory. The firms consider all the financing methods available and choose the least expensive option. Smith and Morellec (2006) found that firms with consistently high growth use less debt in their capital structures. The pecking order theory explains that firms with high liquidity tend to use less debt because they are willing to use internal funds when these are available.

The 'trade-off theory' has become the most acceptable theory to explain optimal capital structure in the real world. Scott (1976) and Kim (1978), the trade-off theory report that an optimal capital structure derives from balancing the benefits of tax that has come from using debt, against the costs associated with debt, such as bankruptcy and financial distress, and agency costs. Myers (1984), theory suggests on trade-off between capital structure of the debt and costs of financial distress are expected to yield the optimal level of debt to maximize the value of firms. (Ayen & Oruas 2008), suggest achieving optimal capital structure, balance should be created between the tax savings that arise from the debt, thereby decreasing agency costs, bankruptcy threat and financial distress.

According to Berger and Bonaccorsi (2006), capital structure decisions must be taken to reduce agency costs by decreasing the costs of equity capital with high leverage levels, thus increasing the firm's market value. They found that a one per cent decrease in equity capital ratio (equity/assets) creates a 16 per cent increase in profit efficiency. The 'free cash flow (FCF) theory' considers the internal source of a firm's funds. However, FCF has costs associated with the way firms' managers' deal with FCF. The focus of the FCF theory is how to balance cash flow and the costs of FCF. Jensen (1986) introduced the FCF theory and its relationship with agency costs. He



clarified the effect of cash flow and FCF on firms' performance. He argued that even if cash flow has a positive effect on corporate performance, FCF might have a negative effect on corporate performance.

The 'market timing theory' is one of the most recent theories discussing capital structure. It suggests that managers, depending on their definition of firm value, tend to issue equity when they feel that the market overvalues their company (Boudry, Kallberg & Liu 2010). Baker and Wurgler (2002) examined the effect of market timing on capital structure and found that low leverage firms are those that raise funds when their market valuations are high, while high leverage firms are those that raise funds when their market valuations are low. Thus, firms with low leverage are expected to be of high value. Firms may use debt until the market overvalues their firm, and then will issue equity to obtain benefits from the firm's rising share price. This theory contrasts with theories such as the pecking order and trade-off theories.

**Summary of Theories Underlying Capital Structure and Firm Performance:**

<b>Theory Name</b>	<b>Theory Developers</b>	<b>Theory Statements</b>
MM propositions	Modigliani and Miller (1958)	Capital structure is irrelevant to determining a firm's value. The value of a firm is determined by its real assets, not by the amount of debt and equity available as part of its capital structure
Pecking Order Theory	Donaldson (1961)	Managers tend to finance new projects by first using internally available funds, with external funds being their last choice.
Shareholder Theory	Friedman (1962)	The primary responsibility of firm managers is to attain shareholder wealth (profit) by any legal means.
Trade-off Theory	Kraus and Litzenberger (1973)	There is an optimal capital structure that derives from balancing the benefits of tax from using debt against the costs associated with debt, such as bankruptcy or financial distress.
Agency Theory	Jensen and Meckling (1976)	Capital structure decisions must be taken to reduce agency costs by decreasing the costs of equity capital with high leverage levels, thus increasing the firm's market value. Hence, leverage is the solution to any conflict that might arise.
Cash Flow Theory	Scott (1981)	If the firm has enough cash flow to pay its expenses, especially debt, it will be able survive.
Stakeholder Theory	Freeman (1984)	Stakeholders are the drivers of a firm's success.
Free Cash Flow (FCF) Theory	Jensen (1986)	FCF might have a negative effect on corporate performance. A firm's manager might waste FCF or and invest it in negative NPV projects.
Dual-investor Theory	Schlossberger (1994)	All parties (stakeholders and stockholders) are important to ensure a firm's survival and success
Stewardship Theory	Davis, Schoorman and Donaldson (1997)	Management is personally motivated by willingness to achieve, gain satisfaction through successfully performing challenging work, and implement responsibility and authority to benefit the firm.
Market Timing Theory	Baker and Wurgler (2002)	Managers, depending on their definition of firm value, tend to issue equity when they feel that the market overvalues their company.

**Conclusion:**

Capital structure is the mix of debt and equity securities that are used to finance companies assets. It is the amount of permanent short-term debt, preferred stock, and common equity used to finance a firm. Capital Structure decision is very important for the profitability of a firm. The composition of capital structure is governed by a number of factors and no uniform standard can be prescribed for all the enterprises. Sectors of industry or trade to which a particular enterprise belongs can, however, provide a broad pattern of composition. Each enterprise will have to plan its own capital structure keeping in view both its short-term requirements and long-term expansion programmes.

**References:**

1. Baker, Malcolm, and Jeffrey Wurgler, (2002). Market timing and capital structure, *Journal of Finance* 57, 1-32.
2. Dogra, B., and Gupta, S. (2009). "An Empirical Study on Capital Structure of SMEs in Punjab", *The ICAFI Journal of Applied Finance*, 15(3) 78-82.
3. Al-Taani, Khalaf. (2013), The relationship between capital structure and firm" performance: evidence from Jordan. *Journal of Finance and Accounting*: 1(3), 41-45.
4. C. Paramasivam and T. Subaramanian, "Financial Management", New Age International (P) Ltd.