

## A View towards Determinants of Capital Structure of Banking Sector

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### Abstract

The purpose of this study was to understand the Capital Structure of Banking sector. The capital structure is the mix of equity and debt fund. Capital Structure is the Ratio of long-term sources of finance in the total capital of the firm includes 'Proprietor's Funds and 'Borrowed Funds(Proprietors Funds include equity capital, preference capital, reserves and surpluses retained earnings and Borrowed Funds include long-term debts such as loans from financial institutions, debentures etc). An optimal debt equity mix gives a healthy result of the financial wealth for the company. This is the main threshold of the capital structure forecasting and planning. Because of this, many industries recognized and reorganized their capital structure. The main aim of present study is to determinants of capital structure of banking sector. The research study is descriptive and analytical research, which is conducted based on secondary data. Lastly, some suggestions have given by the researcher, which the banks may follow. Hence, the research may contribute in providing a new way to the banks for capital structure decision.

**Keywords:** Capital structure, cost of capital, banks and EBIT

### Introduction

In order to run and manage a company, funds are needed. Right from the promotional stage up to end, financial plays an important role in a company's life. If funds are inadequate, the business suffers and if the funds are not properly managed, the entire organization suffers, it is, therefore, necessary that correct estimate of the current and future need of capital be made to have an optimum capital structure, which shall help the organization to run its work smoothly and without any stress. The term "capital structure" of an enterprise is actually a combination of equity shares, preference shares and long-term debts. The relationship between capital structure and profitability is one that received considerable attention in the finance literature. The capital structure of bank is still relatively under-explored area in the banking literature. There is no clear understanding on how banks choose their capital structure and what factors influence their corporate financing behavior. It is seen that lending of large banks is less subject to changes in cash flow and capital. It is also seen that shifts in deposit supply affect lending at small banks that do not have access to the large internal capital market. The fact that large banks tend to decrease their capital and increase their lending after merger. Due to these relevant aspect that the present study will try to provide indebt knowledge to the concepts. There are different method of analyzing capital structure of the bank are ratios, trend analysis, common size statements, comparative statements.

### Review of Literature

Some authors got positive relationship; some got negative relationship while others got mixed or no relationship between capital structure and firm's performance. Some of the major contributions in the literature on this topic have been discussed in the below.

David Durand (1963) criticized the model on the ground that the assumptions used by M-M are unrealistic. Solomon (1963) argued that the cost of debt does not always remain constant. When the leverage level exceeds the accepted level, the probability of default in interest payments increases thus raising the cost of debt.

Stiglitz (1969, 1974) proved the validity of the M-M model under relaxed assumptions whereas Smith (1972), Krause and Litzenberger (1973), Baron (1974, 1975), and Scott (1976, 1977), supported the M-M model, but only under the conditions of risk free debt and costless bankruptcy. When bankruptcy has positive costs, there exists an optimal capital structure, which is a trade-off between tax advantage of debt and bankruptcy costs.

Remmer et al (1974) suggested that certain institutional variables, earning rate seem to be more important as determinants of debt ratio internationally.

Harris, Rodney, Roenfeldt and Cooley (1983) stated that financial leverage clienteles play an important role in the determination of the capital structure.

The other work by Pandey I.M. (1992) observed that the M-M theory is not fully valid under Indian conditions. He concluded that, initially, cost of capital and value of a firm are independent of the capital structure changes, but they rise after a certain level.

Kalish (III) and Gilbert (1973) studied the impact of size and organizational form of the commercial bank on its efficiency. Cost and output of the banks were collected for this purpose. They used 898 commercial banks that took part in the Federal Reserve's Functional Cost Analysis Program in 1968. Banks were categorized into unit banks, branch banks and holding company subsidiaries based on their organizational form and the amount of assets they had. The minimum average cost (AC) at which bank of the same size and organizational form can operate is called as technical efficiency of the bank while the excess AC of the bank over minimum AC represents the operational inefficiency of the bank.

Aly (1990) analyzed technical, scale and locative efficiencies in U.S. banking by using non parametric frontier approach on a sample of 3.22 independent banks. According to them, major contributor to the low score of overall efficiency was technical inefficiency in the banking units as compared to all locative inefficiency.

Berger (1993) stated that rapid changes in financial service industries make it important to determine the efficiency of financial institutions. Banks play an important role in the financial markets of the developing countries and it is very important to evaluate whether banks operate efficiently or not. There are many research studies that try to look into the efficiency of banks operating within a country and across the countries. These studies can be differentiated based on used methodologies, considered variables, type and number of banks included in the sample.

Pasiouras (2007) used DBA to analyze the technical, allocate and cost efficiency of 16 Greek cooperative banks over the period 2000 to 2004. Following intermediation approach, fixed assets, deposits and number employees were considered as inputs of the banks while loans, liquid assets and investments were considered as outputs of the banks. Estimated yearly average cost efficiency score for cooperative banks ranged from 0.802 to 0.836 in their study. According to them, major source of cost inefficiency was allocating inefficiency present in banks.

Misra and Aspal (2013) analyzed the financial position and performance of the state bank group using camel model. They tested their hypothesis on six banks on the basis that there is no significant difference in performance using twenty financial ratios. Their findings showed that different banks obtained different rank with respect to camel ratios.

Their study also depicted that thought ranking of ratios is different for different banks in state group. However, there is no statistically significant difference between banks the camel ratios. It signifies that overall performance of state group is same.

Kumbirai and Webb (2010) investigated the performance of South Africa's commercial banking sector for the period 2005 – 2009. They use financial ratios to measure the profitability, liquidity and credit quality performance of five large South African based commercial banks. The results showed an improvement in the bank performance in terms of profitability, liquidity, and credit quality from 2005 to 2007. They also found significant differences in profitability performance for the period 2005-2006 and the period 2008-2009.

Tuna (2013) tried to measure the financial health of two banks in Indonesia for the period of 2008 – 2012, using five assessment aspects of the camel model (Capital, Asset, Management, Earnings, and Liquidity). The t-Test has been used to assess the differences between the two banks. The results in this research found no significant differences about bank soundness between the two banks.

Gupta (2014) evaluated the performance of public sector banks in India. He used camel approach for a five-year period 2009-2013. The results showed that there is a statistically significant difference between the camel ratios of all the public sector banks in India. Therefore, the overall performance of public sector banks is different.

Tarawneh (2006) analyzed the financial statement of five Omani banks for the financial period 1999-2003. In addition, he used simple regression to estimate the impact of asset management, operation efficiency, and bank size on the financial performance of these banks. The results showed that financial performance of the banks was strongly and positively influenced by the operational efficiency, asset management, and bank size.

### **Research Problem**

This study is to review the different determinants of capital structure in the banking industry as it affects the whole form of the organization. So it is very important to have a clear idea about these factors and cost of different sources in the banking industry and the problem in the study is to review the effective determinant of capital structure.

### **Methods of Collecting Data**

Since the report required studying the theoretical as well as practical aspects of Project Finance, the books have provided in the theoretical aspects of the study. To get the latest information, Internet was also used as a medium at various stages. The data for the project report has been collected from the secondary sources.

### **Need and Significance of the Study**

Capital structure decision is one of the strategic decisions taken by the financial management. Considerable attention is required to decide the mix up of various sources of finance. A judicious and right capital structure decision reduces the cost of capital and increase the value of a firm while a wrong decision can adversely affect the value of the firm. As discussed earlier, various sources of finance differ in terms of risk and cost. Hence, there is utmost need of designing an appropriate capital structure. Capital structure decisions are of great significance due to the following reasons:

- 1) Capital structure determines the risk assumed by the firm.
- 2) Capital structure determines the cost of capital of the firm.
- 3) It affects the flexibility and liquidity of the firm.
- 4) It affects the control of owners on the firm.

## **Objectives of the Study**

To review the determinants of capital structure of firms and banks in general.

## **Scope of the Study**

The research design is the conceptual structure within which research conducted. It constitutes the blue print for the collection, measurement and analysis. This research is of Explanatory & analytical in nature. In explanatory & analytical research, we have sufficient data on the concept and research material. Because many researcher have been done the work on the concept.

## **Forms/Patterns of Capital Structure**

The capital structure of a new company may consist of any of the following forms:

- a) Capital structure with Equity shares only.
- b) Capital structure with Equity and Preferences Shares
- c) Capital structure with Equity Shares and debentures
- d) Capital structure with Equity Shares, Preferences Shares and Debentures

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, conditions of the money market, attitude of the investors, 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 profits, while equity consists of shareholders or owners funds on which payment of dividend depends upon the company's profits. 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 funds through shares. This is because interest on debt is allowed as an expense for tax purpose. Dividend is considered to be an appropriate of profits hence payment of dividends does not in any tax benefit to the company. This means if a company, which is in 50% tax bracket, pays interest at 12% on its debentures; the effective cost to it comes only to 6%. While if the amount is raised by issue of 12% preference shares, the cost of raising the amount would be 12%. Thus, rising of funds by borrowing is cheaper resulting in higher availability of profits for shareholders. This increases the earnings per equity share of the company which is basic objective of the finance manager.

## **Optimal Capital Structure**

The capital structure decision can influence the value of the firm through the cost of capital and trading on equity or leverage. The optimum capital structure may be defined as "that capital structure or combination of debt and equity that leads to the maximum value of the firm Optimal capital structure 'maximizes the value of the company and hence the wealth of its owners and minimizes the company's cost of capital' (Solomon, Ezra, The Theory of Financial Management). Thus, every firm should aim at achieving the optimal capital structure and then to maintain it.

The following considerations should be kept in mind while maximizing the value of the firm in achieving the goal of optimum capital structure:

- a) If the return on investment is higher than the fixed cost of funds, The company should prefer to raise funds having a fixed cost, such as debentures, loans and preference share capital. It will increase earnings per share and market value of the firm. Thus, a company should, make maximum possible use of leverage
- b) When debt is used as sources of finance, the firm saves a considerable amount in payment of tax as interest is allowed as a deductible expense in computation of tax.

Hence, the effective cost of debt is reduced, called tax leverage. A company should, therefore, take advantage of tax leverage

c) The firm should avoid undue financial risk attached with the use of increased debt financing. If the shareholders perceive high risk in using further debt-capital, it will reduce the market price of shares.

d) The capital structure should be flexible.

### **Essential Features of a Sound Capital Mix**

A sound or an appropriate capital structure should have the following essential features:

- 1) Maximum possible use of leverage
- 2) The capital structure should be flexible
- 3) To avoid undue financial / business risk with the increase of debt
- 4) The use of debt should be within the capacity of a firm` the firm should be in a position to meet its obligations in paying the loan and interest charges as and when due
- 5) It should involve minimum possible risk of loss of control
- 6) It must avoid undue restriction in agreement of debt

### **Factors Determining the Capital Structure**

The capital structure of a concern depends upon a large number of factors such as leverage or trading on equity, growth of the company, nature and size of business, the idea of retaining control, flexibility of capital structure, requirement of investors, costs of floatation of new securities, timing of issues, corporate tax rate and the legal requirements. It is not possible to rank them because all such factors are of different importance and the influence of individual factors of a firm changes over a period of time. Every time the funds are needed, the financial manager has to study-to-study the pros and cons of the various sources of finance to select the most advantageous capital structure. The factors influencing the capital structure are discussed as follows:

**1. Financial Leverage or Trading on Equity:** The use of long-term fixed interest bearing debt and preference share capital along with equity share capital is called financial leverage or trading on equity. Effects of leverage on the shareholders return or earnings per share have already been discussed in this chapter. The use of long – term debt increases magnifies the earnings per share if the firm yields a return higher than the cost of debt. The earnings per share also increase with the use of preference share capital but due to the fact that interest is allowed to be deducted while computing tax, the leverage impact of debt is much more. However, leverage can operate adversely also if the rate of interest on long-term loans is more than the expected rate of earnings of the firm. Therefore, it needs caution to plan the capital structure of a firm.

**2. Growth and stability of sales:** the capital structure of firm is highly influenced by the growth and stability of its sales. If the sales of a firm are expected to remain fairly stable, it can raise a higher level of debt. Stability of sales ensures that the firm will not face any difficulty in meeting its fixed commitments of interest payment and repayments of debt. Similarly, the rate of growth in sales also affects the capital structure decision. Usually greater the rate of growth of sales, greater can be the use of debt in the financing of firm. On the other hand, if the sales of a firm are highly fluctuating or declining, it should not employ, as far as possible, debt financing in its capital structure.

**3. Cost of Capital:** Every rupee invested in a firm has a cost. Cost of capital refers to the minimum return expected by its suppliers. The capital structure should provide for the minimum cost of capital. The main sources of finance for a firm are equity, preference share capital and debt capital.



**4.** The return expected by the suppliers of capital depends upon the risk they have to undertake. Usually, debt is a cheaper source of finance compared to preference and equity capital due to (i) fixed rate of interest on debt; (ii) legal obligation to pay interest; (iii) repayment of loan and priority in payment at the time of winding up of the company. On the other hand, the rate of dividend is not fixed on equity capital. It is not a legal obligation to pay dividend and the equity shareholders undertake the highest risk as they cannot be paid back except at the winding up of the

Company and that too after paying all other obligations preference capital is also cheaper than equity because of lesser risk involved and a fixed rate of dividend payable to preference shareholders. However, debt is still a cheaper source of finance than even preference capital because of tax advantage due to deductibility of interest. While formulating a capital structure, an effort must be made to minimize the overall cost of capital.

**5. Cash Flow Ability to Service Debt:** A firm which shall be able to generate larger and stable cash inflows can employ more debt in its capital structure as compared to the one, which has unstable, and lesser ability to generate cash inflows. Debt financing implies burden of fixed charge due to the fixed payment of interest and the principle. Whenever a firm wants to raise additional funds, it should estimate, project its future cash inflows to ensure the coverage of fixed charges. Fixed Charges Coverage Ratio and Interest Coverage Ratio may be calculated for this purpose. These ratios have been explained in the chapter on Ratio Analysis.

**6. Nature and Size of a Firm:** Nature and size of a firm also influence its capital structure. All public utility concern has different capital structure as compared to other manufacturing concern. Public utility concerns may employ more of debt because of stability and regularity of their earnings. On the other hand, a concern which cannot provide stable earnings due to the nature of its business will have to rely mainly on equity capital; similarly, small companies have to depend mainly upon owned capital as it is very difficult for them to raise long-term loans on reasonable terms and also cannot issue equity and preference shares at easy to the public.

**7. Control:** Whenever additional funds are required by a firm, the management of the firm wants to raise the funds without any loss of control over the firm. In case the funds are raised through the issue of equity shares, the control of the existing shareholders is diluted. Hence, they might raise the additional funds by way of fixed interest bearing debt and preference share capital. Preference shareholders and debenture holders do not have the voting right. Hence, from the point of view of control, debt financing is recommended. But, depending largely upon debt financing may create other problems, such as, too much restriction imposed upon by the lenders or suppliers of finance and ultimate bankruptcy of the firm due to heavy burden of interest and fixed charges. This may results into even a complete loss of control by way of liquidation of the company.

**8. Flexibility:** capital structure of a firm should be flexible, i.e., it should be such as to be capable of being adjusted according to the needs of the changing conditions. It should be possible to raise additional funds, whenever the need be, without much of difficulty and delay. A firm should arrange its capital structure in such a manner that it can substitute one form of financing by another. Redeemable preference shares and convertible debentures may be preferred on account of flexibility. Preference shares and debentures, which can be redeemed at the discretion of the highest flexibility in the capital structure.

**9. Requirements of Investors:** The requirement of investors is another factor that influences the capital structure of a firm. It is necessary to meet the requirements of both institutional as well as private investors when debt financing is used. Investors are generally classified under three kinds, i.e. bold investors, caution investors and less caution investors.

Bold investors are willing to take all types of risk, are enterprising in nature, and prefer capital gains and control and hence equity share capital is best suited to them. Investors who are over-cautious and conservative prefer safety of investment and stability in returns and hence debentures would satisfy such overcautious investors. Investors, which are less cautious in approach, will prefer preference share capital, which provides stability in returns.

**10. Capital Market Conditions:** capital market conditions do not remain the same forever. Sometimes there may be depression while at other times there may be boom in the market. The choice of the securities is also influenced by the market conditions. If the share market is depressed and there are pessimistic business conditions, the company should not issue equity shares, as investors would prefer safety. But in case there is boom period, it would be advisable to issue equity shares.

**11. Assets Structure:** the liquidity and the composition of assets should also be kept in mind while selecting the capital structure. If fixed assets constitute a major portion of the total assets of the company, it may be possible for the company to raise more of long term debts.

**12. Purpose of Financing:** If funds are required for a productive purpose, debt financing is suitable and the company should issue debentures as interest can be paid out of the profits generated from the investment. However if the funds are required for unproductive purpose or general development on permanent basis, we should prefer equity capital.

**13. Period of Finance:** The period for which the finances are required is also an important factor to be kept in mind while selecting an appropriate capital mix. If the finances are required for a limited period of, say, seven years, debentures should be preferred to shares. Redeemable preference shares may also be used for a limited period finance, if found suitable otherwise. However, in case funds are needed on permanent basis, equity share capital is more appropriate.

**14. Cost of Floatation's:** Although not very significant, yet costs of floatation of various kinds of securities should also be considered while raising funds. The cost of floating a debt is generally less than the cost of floating equity and hence it may persuade the management to raise debt financing. The cost of floating as a percentage of total funds decrease with the increase in size of the issue.

**15. Personal Consideration:** The personal consideration and abilities of the management will have the final say on the capital structure of a firm. Management, which are experienced, and are very enterprising do not hesitate to use more of debt in their financing as compared to the less experienced and conservative management.

**16. Corporate Tax Rate:** High rate of corporate taxes on profits compel the companies to prefer debt financing, because interest is allowed to be deducted while computing taxable profits. On the other hand, dividend on shares is not an allowable expense for that purpose.

**17. Legal Requirements:** The Government has also issued certain guidelines for the issue of shares and debentures. The legal restrictions are very significant as these lay down a framework within which capital structure decision has to be made. For example, the controller of capital issues, now SBEI grants his consent for capital issue when (i) the debt-equity ratio does not exceed 2:1 ( for capital intensive projects a higher debt-equity ratio may be allowed, (ii) the ratio of preference capital to equity does not exceed 1:3 and (iii) promoters hold at least 25% of the equity capital.

**Capital Gearing:** the term 'Capital gearing' refers to the relationship between equity capital (equity shares plus reserves) and long-term debt. It may be planned or historical, the latter describing a state of affairs where the capital structure has evolved

over a period of time, but not necessarily in the most advantageous way. In simple words, capital gearing means the ratio between the various types of securities in the capital structure of the company. A company is said to be in high gear, when it has a proportionately higher/large issue of debentures and preference shares for raising the long-term resources, whereas low-gear stands for a proportionately large issue of equity shares.

### **Capital Structure Theories**

There are different viewpoints on the impact of the debt-equity mix on the shareholder's wealth. There is a viewpoint that strongly supports the argument that the financing decision has major impact on the shareholder's wealth, while according to others, the decision about the financial decision is irrelevant as regards maximization of shareholder's wealth. 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, 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
4. Modigliani-Miller Approach

There are certain underlying assumptions made in order to present the theories in a simple manner. The assumptions are as follows:

1. The firm employs only two types of capital- debt and equity.
2. There are no corporate taxes. This assumption is removed later.
3. The firm pays 100% of its earnings as dividend.
4. The firm's total assets are given and they do not change, i.e. the investment decisions are assumed to be constant.
5. The firm's total financing remains constant.
6. The operating earnings are not expected to grow.
7. The business risk remains constant and is independent of capital structure and financial risk.
8. All investors have the same subjective probability distribution of the future expected operating earnings for a given firm.
9. The firm has a perpetual life.

### **Net Income Approach**

The approach has been suggested by David Durand. 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. We can graph the relationship between the various factors with the degree of leverage. The degree of leverage is plotted along the X-axis while the percentage rates for cost of debt, equity and overall cost are on the Y-axis. Due to the assumption that cost of debt and equity are constant as the degree of leverage changes, we find that both the curves are parallel to the X-axis. But as the degree of leverage increases, the overall cost decreases and approaches the cost of debt where leverage is 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 per cent debt to maximize its value.

### **Net Operating Income Approach**

This approach is also suggested by David Durand. 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**

1. Overall cost of capital is constant: The overall cost of capital remains constant for all degrees of leverage. The value of the firm, given the level of EBIT is determined by  $V = \text{EBIT}/k_o$ .
2. 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.
3. 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.
4. 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**

The Modigliani-Miller theorem, proposed by Franco Modigliani and Merton Miller, forms the basis for modern thinking on capital structure, though it is generally viewed as a purely theoretical result since it assumes away many important factors in the capital structure decision. The theorem states that, in a perfect market, the value of a firm is irrelevant to how that firm is financed. This result provides the base with which to examine real world reasons why capital structure is relevant, that is, a company's value is affected by the capital structure it employs. If capital structure is irrelevant in a perfect market, then imperfections, which exist in the real world, must be the cause of its relevance. The theories below try to address some of the imperfections, by relaxing assumptions made in the M&M model. One of the main theories of how firms make their financing decisions is the Pecking Order Theory, which suggests that firms avoid external financing while they have internal financing available and avoid new equity financing while they can engage in new debt financing at reasonably low interest rates.<sup>8</sup> The pecking order theory is based on the assertion that managers have more information about their firms than investors. This disparity of information is referred to as asymmetric information. Other things being equal, because of asymmetric information, managers will issue debt when they are positive about their firms' future prospects and will issue equity when they are unsure. Another major theory is the Trade-Off Theory in which firms are assumed to trade-off the tax benefits of debt with the bankruptcy costs of debt when making their decisions. An emerging area in finance theory is right-financing whereby investment banks and corporations can enhance investment return and company value over time by determining the right investment objectives policy framework, institutional structure, source of financing (debt or equity) and expenditure framework within a given economy and under given market conditions. One last theory about this decision is the Market timing hypothesis, which states that firms look for the cheaper type of financing regardless of their current levels of internal resources, debt and equity. Trade-off theory allows the bankruptcy cost to exist. It states that there is an advantage to financing with debt (namely, the tax benefit of debts) and that there is a cost of financing with debt (the bankruptcy costs of debt).

The marginal benefit of further increases in debt declines as debt increase, while the marginal cost increases, so that a firm that is optimizing its overall value will focus on this trade-off when choosing how much debt and equity to use for financing. Empirically, this theory may explain differences in D/E ratios between industries, but it does not explain differences within the same industry. This theory maintains that businesses adhere to a hierarchy of financing sources and prefer internal financing when available, and debt is preferred over equity if external financing is required. Thus, the form of debt a firm chooses can act as a signal of its need for external finance. The pecking order theory is popularized by Myers(1984) when he argues that equity is a less preferred means to raise capital because when managers (who are assumed to know better about true condition of the firm than investors) issue new equity, investors believe that managers think that the firm is overvalued and managers are taking advantage of this over-valuation. As a result, investors will place a lower value to the new equity issuance.

The determination of capital structure in practice involves considerations in addition to the concerns about earning per share, value and cash flow. A firm may have enough debt servicing ability but it may not have assets to offer as collateral. Attitudes of firms with regard to financing decisions may also be quite often influenced by their desire of not losing control, maintaining operating flexibility and have convenient timing and cheaper means of raising of funds.

According to Ezra Solomon and John Pringle, financial leverage affects both the magnitude and the variability of earnings per share and return on equity. For any given level of EBIT, the effect of increase in leverage is favourable if the percentage rate of operating return on assets is greater than the interest on debt and it is unfavourable if it is less. When EBIT varies over time, financial leverage magnifies the variation in earnings per share and return on equity. A great deal of controversy has developed over whether the capital 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 market value per share by the judicious use of leverage. Modigliani and Miller, 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. This position is based on the notion that there is a conservation of investment value. No matter how you divide the pie between debt and equity claims, the total investment value of the firm stays the same. Therefore, leverage is said to be irrelevant. Hence, the proposed study makes a critical study of the capital structure of various companies over a period of a time. There are various industries like cement, pharmaceuticals, sugar, steel, petroleum, fertilizer, automobile etc. From among these, the proposed research shall study few companies in the pharmaceutical and engineering industry.

## **Conclusion**

A study of capital structure is very much needed in the present competitive globalised economic environment. Generally factors that are determining the capital structure of a firm like, Trading on Equity, Growth and Stability of Sales, Cost of Capital, Cash Flow Ability, Nature and Size of a Firm, Control, Flexibility, Requirements of Investors, Capital Market Conditions, Assets Structure, Purpose of Financing, Period of Finance, Cost of Floatation, Personal Consideration, Corporate Tax Rate and Legal Requirements. But, the nature of firm is one which decides (or) determines the capital structure which means depends upon the nature of a firm the capital structure determinants are also subject to change. Banking sector is not exempted from this. As a matter of fact, some of them are conflicting in nature. The relative weightage assigned to each of these factors shall vary widely from company to company depend upon its characteristics and the general economic conditions as well as the circumstances under which the company is operating its business. Commonly companies issue debenture and preference shares to enlarge the earnings on equity shares, while equity shares are issued to serve as a cushion

to absorb the shocks of business cycles and to afford flexibility. Of course, greater the operating risk, the less debt the firm can use, hence in spite of the fact that the debt is cheaper, the company may use it with caution. Moreover, it is be remembered that, ‘ Financial theory has not developed to the point where data related to these considerations are fed at one end of a computer and an ideal financial structure pops out of the other. The Financial position of any industry may analyzed in two different dimensions viz., short-term solvency and long-term solvency. The short-term solvency will be analyzed with the current ratio and liquidity ratio while the long-term solvency will be analyzed with the debt-equity ratio. Proper analysis of capital structure and financial performance helps the firms to increase their earning capacity, change the retained earnings process and modify various turn-over ratios. Since financial institutions and other governmental agencies like the controller of capital issues in India laid down certain norms in terms of debt-equity ratio, the financial manager has to see and ensure that the ratio of his undertaking does not violate the norms. By applying the financial tools of debt-equity ratio, the manager gets advantages like leverage benefit, tax benefit, high profitability etc. Besides the above, a financial manager may fulfill the legal requirements of the government and the financial institutions guidelines and norms. Consequently, ‘human judgment may also be used to resolve many conflicting forces in laying plans for the types of funds to be sought’.

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