CHAPTER -2 SOURCES OF CAPITAL

The required capital (finance) can be classified into two categories, eg Long term finance (fixed capital), and short –term finance (Working capital).

Long term finance is required to purchase fixed assets (like plant and machinery, land and building, furniture, vehicles etc.). These fixed assets are purchased with the objective of using for a long period more than five years; hence, investment on these assets is called fixed capital or long –term capital. On the other hand, short term finances are required to carry out day –to day operations.

Financial markets can be classified on the basis of ownership security:

--- Owned capital includes share capital, retained earnings, surpluses etc

---Borrowed Funds includes debentures, bank loans, public deposits etc.

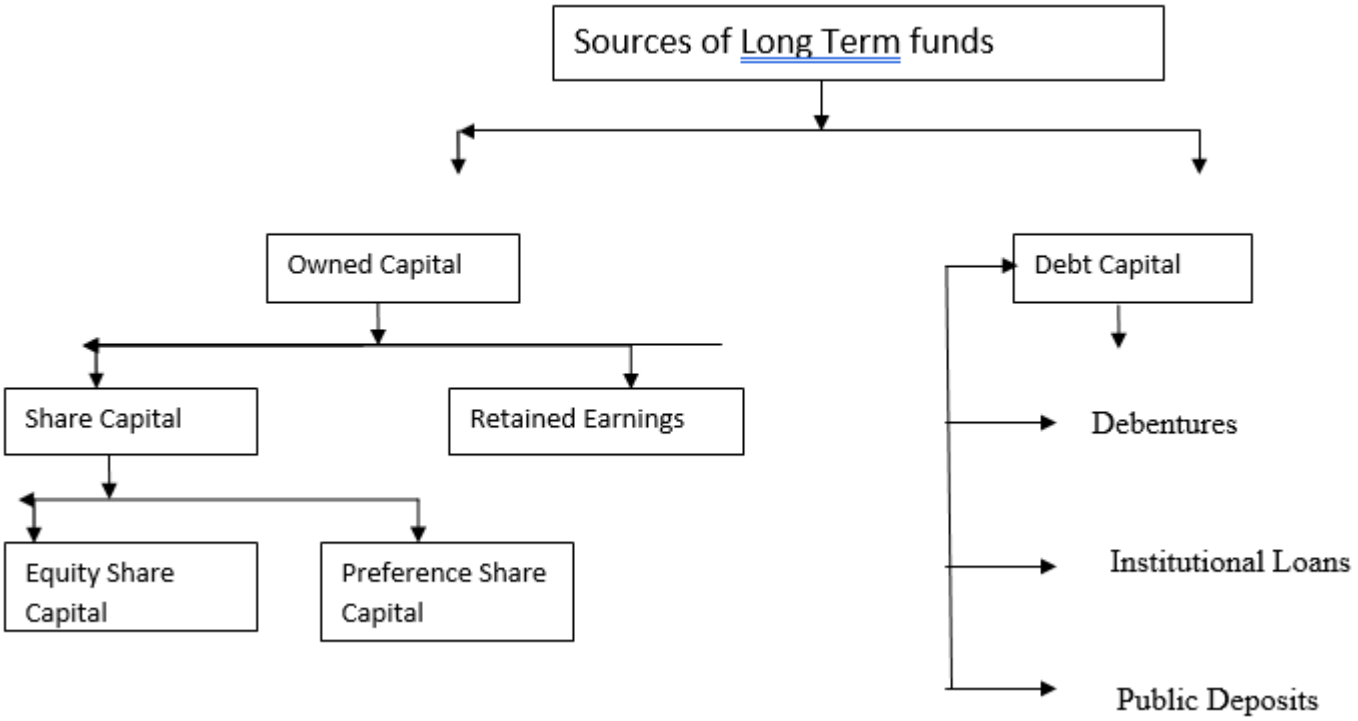
The Finance manager, while raising funds needs to keep in mind the costs and benefits of raising finance and the period for which the finance is needed. Finance manager needs to mix balanced debt and equity source.

1. Long term Sources of Finance: Long –term funds are needed for a period above five years. These funds are invested on fixed assets like plant and machinery, land and building, furniture etc, which are the main requirements of a business concern.

Long –term sources of finances of company may be broadly categorized into two:

1. Ownership capital: Ownership capital is that capital raised from the owners of the company or the company raises finance by issue of ownership securities. The ownership capital is again divided into:
a) Share capital, b) retained earnings

2. Debt capital: Debt capital is the capital which is raised from outsiders of the company , they may be creditors public etc.



Types Of Security Financing:

A firm may raise the required capital from two sources:

1. Ownership Securities (Share Capital)

2. Creditorship Securities (Debt Capital)

Ownership Securities: Ownership Securities are those securities which were bought by owners of the company. i.e The person who buys these securities becomes the owner of the company . Hence these securities are referred to as ownership securities, also known as capital stock.

SHARE: A share is a small unit of capital of a company. In other words share capital of a company is divided into number of equal parts that is known as share. According to section 2(46) of the Companies Act, 1956, defines share as " A share is the share in the share capital of the company".

KINDS OF SHARE:

According to Companies Act, there are two types of shares--- Preference shares and Equity shares.

Equity Share capital

Equity means “Equal” . Equity share is a share that gives equal rights to holders. Equity shareholders have to share the reward and risk associated with ownership of the company. It is also known as Ordinary Share Capital. Equity shareholders are the owners of the company who have control over the working of the company. They are paid dividend at the rate recommended by the Board of Directors (BODs). The dividend rate depends on the profits, more profits more dividends and vice-versa. If there are no profits, no dividends will be payable. But some companies pay dividends even if the company has no profits to maintain dividend stability. The amount required to pay dividends will be transferred from the general reserve account. The equity shareholders take more risk when compared to preference shareholders.

Features of Equity Shares:

The following are the features of Equity Shares:

1. Permanent Capital: An equity source is the main long –term or permanent source of finance. They can be redeemed or refunded only at the time of liquidation that too the residue left after meeting all the obligations. In other words there is no agreement between the equity shareholder and company regarding the refund of capital.

2. Residual Claim to income: Equity shareholders have a residual claim to the income of a company. Residual claim means income leftover after paying all outsider claims. The residual income is also known as earnings available to equity shareholders, which is equal to the profit after tax minus preference dividend. But the total residual income may or may not be paid as dividends, since the BODs have the right to decide the portion of earnings available to the shareholders that will be paid as dividends.

3. Residual Claim to Assets: Equity shareholders have a residual claim on the firms assets. In the event of liquidation of a firm , the assets are used first to settle the claims of outside creditors and preference shareholders , if anything is left that is equity shareholder’s residue.

4. Voting rights: Equity shareholders as the real owners of the company, have voting rights, in appointing Directors and Auditors of the company, participate and vote in annual general meeting, which helps to control the company. BODs have the control power because the major decisions are taken by BODs.

5. Pre- emptive Right: Equity shareholders have pre-emptive right, which means they have a legal right to buy new issues, before offering to the public. Section 81 of the Companies Act, 1956, puts the company under the legal compulsion to offer new shares to the existing

shareholders before offering to the public. Pre-emptive right is the option given to the shareholders to buy a specified number of shares at a given price.

6. limited liability: This is the prime feature of equity share. Although, equity shareholders are the owners of the company, their liability is limited to the extent to the investment in the shares.

Types of Equity Shares:

1. Sweat Equity Shares: The companies (Amendment) Act, 1999, has inserted a new section79A,that allows issue of Sweat Equity shares. Sweat equity share is defined as "equity shares issued at discount or for consideration other than cash for providing know-how or making available rights in the nature of intellectual property rights or value additions by whatever name called". Issue of sweat equity by listed company should be according to SEBI guidelines.

2. Par Value of shares: Unlike bonds, which always have a par value, equity stock may be sold with par value or without par value. Par value means the nominal value of a share in the Memorandum of Association established for legal purposes. The par value decided by promoters of first directors of company may be issued at par, at premium or at discount price to the public.

3. No- par value shares: These types of shares are without par value. In this arrangement, MOA specifies the number of shares and not the price. They will be issued to the public at the stated price decided by the BODs. Payment of dividend on these types of shares is in rupees per share.

In India Company law does not allow the Indian companies to issue no- par value of shares. But in America and Canada, no par value shares are more popular.

2. Preference Share Capital:

Preference share capital gives certain privileges to its holders on the equity shareholders. Preference shareholders have privileges in two ways:

a. A preferential privilege in payment of a fixed dividend. The fixed dividend may be in the form of fixed rate or fixed amount per share, and

b) Preferential right as to repayment of capital in case of liquidation or winding up of the company.

Preference share capital is a hybrid form of long term finance, since it has the features of equity and debentures. Preference share resembles equity in the following ways:

1. Preference dividends are payable only after tax profits (PAT),

2. Payment of preference dividend depends on the discretion of BODs.

3. Preference dividend is not a tax deductible payment.

4. Irredeemable preference shares are long term in nature.

Preference share resembles Debenture capital in the following ways:

1. It carries a fixed rate of dividend

2. It has prior claim on assets like debenture capital.

3. It normally does not have voting rights,

4. It is redeemable in nature.

5. It does not have right to share residual profits.

Sources of Internal Finance:

The Internal sources of finance are:

A. Retained Earnings: Retained are an important source of internal financing of well established companies. Retained earnings are the portion of earnings available to the equity shareholders, which are ploughed back in the company. In other words, a part of earnings available to equity shareholders that are retained for future investment. It is an accumulation of profits by a firm for financing developmental programmes.Hence the process of accumulating company profits regularly and their utilization in the business is known as retained earnings

Retained earnings may be used for expansion programs of the company, replacement of obsolete assets , modernization of plant and equipment , redemption of preference shares or debentures , loans etc.

Factors Influencing Retained Earnings:

1. Earnings capacity of a company: Ploughing back of profits arises only when the company has sufficient profits. Larger the earnings, larger the ploughing back of profits.

2. Type of dividend policy: Ploughing back of profits depends on the dividend policy of a firm. In other words, retained earnings depends on the dividend policy adopted by the top management with regard to distribution of earnings company which intended to retain more earnings , need to follow a conservative dividend policy. i.e. the shareholders who are dependent on regular income, expect more dividends i.e less retained earnings.

3. Taxation Policy of the Government: Earnings available to shareholders are the profits after taxes minus preference shareholder's dividend. When there is high tax rate , it leads to less profits after tax and less retained earnings and vice-versa.

4. Profitable Investment Opportunities: A firm has more profitable investment opportunities wants to retain profits for financing of that investment and vice-versa.

5. Other Factors: Apart from other factors, the following will also affect retained earnings:

a. Top management attitude and philosophy,'

b. Custom of the industry.

c. Economic and social environment of the country.

d. Industry life cycle.

CREDITORSHIP SECURITIES:

Creditorship securities are those securities which are raised to creditors for raising finance. Such securities are debentures or Bonds. The amount raised to issue debentures/bonds is known as debt capital. Debenture and Bond Capital is one of the cheapest sources of long term finance. A debenture or bonds are an acknowledgement given by the firm for having received a sum as debt.

Debenture and bond are issued by a corporate concern to raise long term capital, but there is difference between them. The term bond refers to a security that is secured by tangible assets of a corporate and debentures are not secured.

Debentures: The term debenture is derived from the Latin word 'Debere' which means to be a debtor. Companies Act ,1956, defines debenture as including debenture stock , bonds and other security of a company, whether constituting a charge on the assets of the company or not" . In other words "debenture is an instrument issued by the company under its common seal acknowledging a debt and setting forth the terms under which they are issued and are to be paid". A person who buys debentures is the debenture holder and creditor of the company. Debenture can be priced in the same manner as a share.

Features of Debentures:

1. Fixed rate of Interest: In general debentures are issued at a fixed rate of interest, but they may also be issued at a floating rate of interest or at zero rate of interest. The rate of interest is on the face value of the debentures that will be paid out annually or semi-annually. The interest payable on debentures is tax deductible.

2. Maturity: The debenture capital is the cheapest source of long term finance, but it should be repaid after a specific period. The period for which the debentures are issued or the period after which the debenture capital is repaid is known as maturity period. The maturity period may vary from 1 to 20years. in India non- convertible debentures are redeemed after 7-10 years.

3. Redemption: Debentures can be repaid either in installment –wise or lump sum. If it is repaid in one lump sum , it can be done by creation of debenture redemption reserve . It is compulsory for all debentures whose maturity period exceeds 18months the company should create debenture redemption reserve(DRR)

4. Call and Put option: Debenture may have "call" option, which gives the right to buy to issuing company at a certain price before the maturity period. The buyback price may be more than the face value of debenture generally 5%, which is known as premium on redemption. Debenture may also have "put" option which gives the right to the debenture holder to seek redemption at specified times and at predecided price.

5. Debenture Indenture: A debenture indenture is a legal document, which specifies the rights of both the issuing company and debenture holder. The debenture indenture includes descriptions of the amount and timing of the interest and principal amount payments. The indenture gives the responsibility to the trustee to protect the interest of the debenture holders by fulfilling all the stated descriptions.

6. Security interest: Debenture may be either secured or unsecured. In india most of the debenture are secured debentures. A secured debenture is a debenture which is secured by a charge on the company's immovable assets and a floating charge on other assets.

7. Convertibility: Companies can also issue convertible debentures. It is the debenture that is convertible into equity shares at the option of the debenture holder. The conversion ratio and the period during which conversion can be affected are specified at the time of issue of debentures.

Distinction between Equity Share and Debenture

Points	Equity share	Debentures
Nature of security	Ownership security	Creditorship security
Form of return	Dividend	Interest
Rate of return	Not fixed	Fixed
Refund of principal amount	May be refunded at the time of liquidation	Refunded at the end of maturity
Voting rights	Have voting rights	No voting rights
Exemption of return from tax	Not exempted from tax(dividend is paid after payment of tax	Exempted from tax(interest is paid before payment of tax)

Claim on assets and income	Equity holder does not have claim on assets and income	Debenture holders have claim on assets and income.

Source of Term Loan:

Apart from equity shares , preference shares, retained earnings and debentures, there is another source of finance that is term loans. The term of loan may be medium –term and long term . Medium term loans are the loans raised for the period ranging from one to five years and long term loans are raided for a period above five yearsshort term loans can be raised from commercial banks and medium and long term loans can be raised from specialized financial institution.

Term loans are sources of long term debt. Generally, they are raised for long –term investments like expansion, modernization and diversification. This long term financing is also known as project financing.

Features of Term Loans:

1. Currency: Term loans can be either domestic or in foreign currency. In India many financial institutions give rupee loans as well as foreign currency loans, but majority loans are in the form of domestic currency.

2. Maturity: There are two types of financial institutions that provide term loans , they are special financial institutions and commercial banks. The maturity period of loans granted by financial institutes range between 6-10years, whereas commercial bank advances maturity period range between 3-5years.

3. Negotiated: The term loans are the result of negotiations between the loan applicant and the lenders. The negotiations may be on the interest and principal amount payment etc. Hence the term loans are private placements.

4. Security: Term loans are 100% secured loans. Here the security is the assets which is financed by the term loans. They are known as prime security. Other present and future assets of the company serve as the collateral security.

5. Restrictive covenants: Restrictive covenants are the conditions imposed by the lender to protect his/her interest .in other words the lender dictates what the borrower should do and should not do in managing the operations of the company.

Chapter- 3 Capital structure and Firm Value

Capital Structure: A business can raise long – term finance in the form of two principle sources, they are (i) Equity and (ii) Debt. Business can raise the total capital required by opting equity source or debt source or both. The term capital structure refers to the mix of equity and debt. Capital structure indicates the following equation:

Capital Structure = Long term debt + preferred stock + Net worth

OR

Capital Structure =Total Assets – Currents Assets.

Optimum Capital structure

The level of debt equity proportion where market value of share is maximum and cost of capital is minimum.

Features:

- Profitability
- Solvency
- Flexibility
- Conservatism
- Control

Determinants of Capital structure

- Financial leverege or trading on equity
- Flexibility
- Control
- Growth and stability of sales
- Cost of capital
- Debt servicing ability
- Nature and size of firm
- Requirement of investors

- Cost of floatation
- Asset structure
- Corporate tax rate
- Period of finance
- Purpose of finance
- Legal requirements

Capital Structure Theories

There are different views on how the capital structure influences value of the firm. Some argued that other things being equal increase in financial leverage (debt) increases value of the firm.(Relevant Theory), some other opinion that there is no relationship between capital structure and value of the firm (Irrelevant Theory) and some other believe that use of debt in capital structure has positive effect on value of the firm upto a certain level and have negative effect thereafter (Neutral Theory).

The total capital structure theories may be divided into relevant and irrelevant theories.

The following are the main theories / Approaches of capital structure.

1. Net income theory Approach (Relevant)

2. Net operating income Approach (Irrelevant)

3. Modigliani and Miller Approach (Irrelevant)

4. Traditional Approach (Neutral)

ASSUMPTIONS OF CAPITAL STRUCTURE THEORIES.

To study the relationship between capital structures (use of debt) and value of the firm , the following assumptions are generally made.

(i) Firm uses only two sources of funds perceptual riskless debt and equity.
(ii) There are no corporate income or personal tax.
(iii) The dividend payout ratio is 100% (There are no retained earnings).
(iv) The firms total assets are given and do not change(Investment decision is assumed to be constant).
(v) The fims total financing remains constant.(Total capital is same , but proportion of debt and equity may be changed).
(vi) The firms operating profit are not expected to grow.

(vii) The business risk is remained constant and is independent of capital structure and financial risk.

(viii) All investors have the same subject probability distribution of the expected EBIT for the given firm.

(ix) The firm has perceptual life.

NET INCOME APPROACH

This approach has been developed by Durand . It is a relevant theory. According to this approach , capital structure decision is relevant to the valuation of the firm . In other words , a change in debt proportion in capital structure will lead to a corresponding change in cost of capital as well as total value of firm. When there is increase in value of the firm , the market value of equity share price will also increase.

Assumptions:

Net income approach is based on the following assumptions:

(i) There are no corporate taxes

(ii) Cost of debt is less than the cost of equity

(iii) Use of debt in capital structure does not change the risk perception of investors

(iv) Cost of debt and cost of equity remains constant.

Problem No 1:

Sai Ltd company expects operating profit (EBIT) of Rs 100000 . The company has raised 12 % debentures of Rs 300000. The company's equity cost is 13 % . Determine value of the firm and cost of capital.

EBIT	100000
Less : debentures (300000 x 12%)	36000
Net Income	64000

Value of the firm

Market value of equity (NI / Ke) = 492307.69

64000/0.13

Add: Market value of debt = 300000

= 792307.69

Calculation of cost of capital .

Ke = (EBIT / V)100

= (100000 / 792307.69)100

= 12.62%

NET OPERATING INCOME (NOI) APPROACH.

This is another approach, which has been suggested by Durand .it is just opposite to the net income approach. According to this approach the capital structure decisions of a firm is irrelevant. It says that any change in debt proportion in capital structure (leverage) will not lead to any change in the total value of the capital. They are independent of the financial leverage.

ASSUMPTIONS:

NOI approach is based on the following assumptions

(i) Overall Cost of capital remains unchanged for all degrees of leverage.
(ii) The market capitalizes the total value of the firm as a whole and no importance is given for split of value of firm between debt and equity.
(iii) The market value of equity is residue.(i.e total value of firm minus market value of debt).
(iv) The use of debt funds increases the received risk of equity investors.
(v) Cost of debt remains constant.
(vi) There are no corporate taxes.

Problem 2

ABC Co.Ltd expects an operating income of Rs 100000. The company has 12% debt of Rs 300000. The company's overall cost of capital is 13%. Calculate the total value of the firm and the equity capitalization rate.

Solution:

Value of the Firm = EBIT/Ke

= 100000/0.13

=769230.77

Market value of equity = V – D

= 769230.77- 300000

=469230.77

Cost of equity / Equity capitalization rate (ke)

$$Ke = \frac{EBIT - I}{V - D}$$

$$= \frac{10000 - 36000}{469230.77} \times 100$$

= 13.64%

MODIGLIANI – MILLER APPROACH (MM HYPOTHESIS)

This approach was developed by Professor Franco Modigliani and Mertan Miller . in their classic contribution on capital structure which has been called the most influential finance article ever written in economics.

MM Approach is identical to the NOI approach. In other words the total value of the firm is independent of its capital structure. However there is a basic difference between NOI and MM approach. The NOI approach is purely definitional, which does not provide operational justification for irrelevance of the capital structure in the valuation of the firm. On the other hand, MM approaches supports the NOI approach in behavioral justification for the independence of the cost of capital and value of the firm at any level of degree of leverage.

Assumptions:

MM approach is based on the following assumptions

Perfect Capital market is a capital market where,

- Information is available at free of cost
- The same information is available for all investors
- Securities are indefinitely divisible
- Investors are free to buy or sell securities
- There is no transaction cost
- There are no bankruptcy cost

ARBITRAGE PROCESS

The term arbitrage refers to an act of buying an asset or security in one market at lower price and selling it in another market at higher price. As a result of such action (buying and selling) equilibrium is restored in market price of asset or security in different markets. Arbitrage process exists where the price of security or asset is unequal in the markets. The arbitrage process involves purchase of assets or security whose prices are lower(undervalued securities) and sale of assets or securities whose prices are higher in market where prices are equilibrium . Arbitrage process is a balancing operation.

Problems 3

Two firms A and B are identical in all respects except leverage in capital structure. A ltd has 10% Rs 300000debentures. Both the firms have same EBIT of Rs 50000. The equity capitalization rate of A Ltd is 16% and B Ltd is 12.5%.You are required to calculate the total value of the each firm , and show arbitrage process assuming and investor holds 10% of the outstanding shares of the A Ltd.(Levered firm).

Solution:

Calculation of the Value of the firm

Particulars	A Ltd	B Ltd
EBIT	50000	50000
Less : Interest on debentures. 300000 x 10%	30000	-
Net Income	20000	50000
Value of the firm :		
Market value of equity = NI / Ke	125000	400000
Market value of debt	300000	-
Value of the firm	425000	400000

The above table indicates that A Ltd value is higher than the B Ltd's value due to use of leverage in capital structure.

Arbitrage Process: In the problem there is a need to show the arbitrage process, so there is a need to use three steps.

Step1
Investors current position in A Ltd with 10% investment:

- Investment on equity shares (125000x 10%) = 12500
- Dividend Income (20000x10%) = 2000

Step 2
Investor position in Firm B Ltd with 10% investment (savings in investment)

-
- **Total Funds available**
  Own funds (By sale in A Ld) = 12500

ADD : Borrowed funds = 30000
(300000 x 10%) 42500

- **Investment with 10%**
  B Ltd value 400000
  Investment outlay is (400000x10%) = Rs40000
- Rs 40000 investment include Rs 30000 borrowed funds + Rs 10000 own funds
- Savings in investment = total funds available – investment in firm B Ltd
  = 42500 – 40000
  = Rs 2500

Step 3 Investor position in firm B ltd if total funds available invested (increase in dividend income calculation)

- Investment of total funds = Rs 42500
- Total income 50000 x 42500 = Rs 5312.5
  400000

Dividend Income = Total Income – Interest on personal borrowings
=5312.5- (30000 x10%)
=2312.5

Increase in dividend income is **Rs 312.5**

Therefore investor is benefitted by selling shares in firm A Ltd and buying shares at B Ltd by use of personnel leverage .

Limitations of MM Approach

As we have read in the above that arbitrage process provides operational justification to the MM approach . The arbitrage process depends on the perfect capital market assumptions. But all the assumptions are not realistic , so arbitrage process become only theoretical approach.

- **Investor inability to borrow funds on same restrictions on the conditions and terms as corporate can:** General Financial institution put additional terms and conditions for the individual investors .hence, it may not be possible to raise funds on the same terms and conditions as firms can.
- **Personal leverage is not substitute for corporate leverage:** MM approach assumes that personal leverage is perfect substitute for corporate leverage. The perceived risk exposure in corporate leverage is less when compared to personal leverage because the

liability of an investor is limited to the proportionate shareholdings in case the company is forced to liquidation, on the other hand the risk is unlimited in personal leverage, and his /her personal assets are liable to use for payment of borrowed funds.

- **Existence of transaction costs:** Investor cannot buy and sell securities at free of cost. There exists transaction cost .the effect of existence of transaction costs, made investor to realize less amount than the actual market value. It will lead to invest a large amount in order to earn same return.
- **Institutional Restrictions:**Institutional restrictions does not allow the smooth operation of arbitrage process. Generally institutional investors eg, insurance companies, mutual funds, commercial banks etc are not allowed to raise personal leverage .Hence , for this type of institutional investors it will not possible to switch from leverage to unlevered and vise versa.

TRDITIONAL APPROACH

This Traditional approach was given by Soloman. In the preceding approaches of capital structure we have discussed that the Net Income approach and Net Operating Income (NOI) approaches represent two extreme views with regard to the relation between leverage (use of debt) and value of the firms, and cost of capital. According to NI approach , use of debt in capital structure affects both cost of capital and total value of firm , on the other hand NOI approach suggest that the use of debt in capital structure is irrelevant to the value of the firm and cost of capital. Another approach given by MM supports the NOI approach , but validity of MM approach is doubtful due to the imperfect assumptions.

Traditional approach is a mid way between the NI and NOI approaches. It is also known as “Intermediate Approach”. Traditional approach partly takes some feature of Ni approach and NOI approach.