UNIT 3 CAPITAL STRUCTURE

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★ STRUCTURE ★

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INTRODUCTION

It refers to the mix of sources from which the long term funds required by a business are raised.

PRINCIPLES OF CAPITAL STRUCTURE MANAGEMENT

For considering the suitable pattern of capital structure it is necessary to consider certain basic principles which are related to each other. It is necessary to find a golden mean by giving proper weightage to each of them. These principles are :

1. Cost principle
2. Risk principle
3. Control principle
4. Flexibility principle
5. Timing principle.

1. Cost Principle

According to this principle, ideal capital structure should minimize cost of financing and maximizing earning per share. Debt capital is a cheaper form of capital due to two reasons. First, the expectations of returns of debt capital holders are less than those of equity share holders. Secondly, interest is a deductable expenditure for tax purposes where as dividend is an appropriation.

2. Risk Principle

According to this principle, ideal capital structure should not accept unduly high risk. Debt capital is a risky form of capital as it involves contractual obligation as to the payment of interest and repayment of pricipal sum, irrespective of profits or losses of the business. If the organisation issues large

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amount of preference shares, out of the earnings of the organisation, less amount will be left out for equity share holders as dividend on preference shares are required to be paid before any dividend is paid to equity share holders. Raising the capital through equity shares involves least risk as there is no obligation as to the payment of dividend.

3. Control Principle

According to this principle, ideal capital structure should keep controlling position of owners intact. As preference share holders and holders of debt capital carry limited or no voting rights, they hardly disturb the controlling position directly as the control of the residual owners is likely to get diluted.

4. Flexibility Principle

According to this principle, ideal capital structure should be able to cater to additional requirements of funds in future if any. *For example,* if a company has already raised too heavy debt capital, by mortgaging all the assets, it will be difficult for it to get further loans inspite of good market conditions for debt capital and it will have to depend on equity shares only for raising further capital. Moreover organisation should avoid capital on such terms and conditions which limit company's ability to procure additional funds. If company accepts debt capital on the conditions that it will not accept further loan capital or dividend on equity shares will not be paid beyond a certain limit, then it looses flexibility.

5. Timing Principle

According to this principle, ideal capital structure should be able to seize market opportunities, should minimize cost of raising funds and obtain substantial savings. Accordingly, during the days of boom and prosperity, company can issue equity shares to get the benefit of investor's desire to invest and take the risk. During the days of depression, debt capital may be used to raise the capital as the investors are afraid to take the risk.

FACTORS AFFECTING CAPITAL STRUCTURE

Before deciding the mix of various long term sources of funds, it is necessary for the company to take into consideration various factors which can be broadly classified as below :

1. Internal factors
2. External factors
3. General factors.

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1. Internal Factors

Internal factors are further classified as :

(*a*) Cost factor

(*b*) Risk factor

(*c*) Control factor

(*d*) Objects of the capital structure planning.

(*a*) **Cost factor :** It is as the factor affecting the capital structure decisions refers to the cost-associated with the process of raising the various long term sources of funds which is referred to as cost of capital. While deciding the capital structure, it should be ensured that the use of capital is capable of earning enough revenue to justify the cost of capital associated with it. It should be noted that the borrowed capital is a cheaper form of capital for the company and this is due to the following reasons.

(*i*) The expectations of the lenders of borrowed funds are less than the expectations of the investors who invest in the own capital of the company. This is due to the fact that the risk on the part of lenders of borrowed funds is comparatively less than the risk on the part of investors in own funds.

(*ii*) The return which the company pays on borrowed funds, *i.e.,* interest is an income tax deductible expenditure for the company whereas the return paid on own capital *i.e.,* dividend is not an income tax deductible expenditure for a company. As such when the company pay the interest on borrowed capital, its tax liability gets reduced, where as payment of dividend does not affect the tax liability of the company as the same is paid out of profit after taxes.

(*b*) **Risk factor :** In finance, risk and return always go hand in hand, which ever capital is cheaper for the company is risky for the company. Cost associated with the borrowed funds may be less, but the borrowed capital is more risky for the company. It is due to following reasons.

(*i*) Payment of interest at the predetermined rate of interest at the predetermined time intervals irrespective of non-availability of profits is a contractual obligation for the company.

(*ii*) The company is required to repay the principal amount of borrowed capital at the predetermined maturity date.

(*iii*) Borrowed capital is usually secured capital. If the company fails to meet its contractual obligations, the lender of borrowed funds may enforces the sale of assets, offered to them as security.

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Cost associated with the own funds may be more for the company, but risk associated with them is less due to following reasons.

(*i*) As the return paid on own capital *i.e.*, dividend is the appropriation of profits the company is not bound to pay any dividend unless there are profits. There are many companies who have not paid any dividend on equity shares for years together due to non-availability of profits.

(*ii*) The company is not expected to repay the own capital during the life time of the company.

(*iii*) Own capital is an unsecured capital. As such none of the assets of the company are offered as the security to the investors in own funds.

(*c*) **Control factor :** While planning the capital structure and more particularly while raising the additional funds required by the company, the control factor essentially becomes an important factor to be considered, specifically for the closely held private limited companies.

Control factor refers to the capacity of the existing owners of the company to retain control over operations of the company. If the company decide to meet the additional requirements of funds by issuing the equity shares or preference shares, the controlling interest of the existing owners is likely to get diluted as the investors in equity shares enjoy the absolute voting right while investors in preference shares enjoy limited voting rights. If the company decides to meet the additional requirement of funds by way of borrowed capital, the controlling interest of the existing owners remain intact as the lenders of borrowed capital do not enjoy and voting rights.

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1. If the existing owners contribute to the rights shares which indicate the additional shares offered to the existing owners in the existing proportion, their controlling interests may not get affected.
2. While raising this additional requirements of funds by way of borrowed capital, the existing owners of the lending bank or financial institutions appoint their representation as Nominee director on the Board of Directors of the borrowed company.

(*d*) **Objects of capital structure planning :** While planning the capital structure, following objects of capital structure planning come into play.

(*i*) To *maximize the profits* available to the owners of the company. This can be achieved by issuing the securities carrying less cost of capital.

(*ii*) To issue *the securities which are easily transferable* and can be ensured by listing the securities on the stock exchange.

(*iii*) To issue *further securities in such* a way that the value of share holding of present owners is not adversely affected.

(*iv*) To issue *the securities which are understandable* by the investors.

(*v*) To issue *the securities which are acceptable* to the lenders or investors.

2. External Factors

Following are the external factors :

(*a*) General economic conditions (*b*) Behaviour of interest rates

(*c*) Policy of the lending institutions (*d*) Taxation policy

(*e*) Statutory restrictions.

(*a*) **General economic conditions :** While planning the capital structure, the company needs to consider the general conditions existing in the economy. If the economy is in boom and interest rates are likely to decline the company will like to raise equity capital immediately leaving the borrowed capital to the considered in future. It possible to raise more equity capital in boom as the investors may be ready to take risk and to invest.

If economy is in depression, the company will like to go for equity capital as it involves less amount of risk.

NOTE It is not possible to raise the capital by way of equity during the period of depression as the investors may not be willing to take risk. Hence, under such circumstances, the company may be required to go for borrowed capital.

(*b*) **Behaviour of interest rates :** The company may be required to take into consideration the likely behaviour of interest rates in the economy. If the interest rates in the economy are likely to decline depending more upon the long term services carrying fixed rate of return *i.e.*, debentures, preference share etc. will prove to be dangerous for the company. If the interest rates in the economy are likely to increase, the company will get benefit by issuing the long term securities carrying fixed rate of return.

(*c*) **Policy of the lending institutions :** If the policy of lending banks or financial institutions is too harsh or rigid, it will be advisable not to go for borrowed funds. Instead, the company will like to go for more convenient sources like leasing or hire, purchase, though these are more costly propositions.

(*d*) **Taxation policy :** It has to be viewed from both the angles *i.e.*, company as well as investors from company's point of view, return paid on borrowed capital *i.e.*, interest is an income tax deductible expenditure where as return paid on own capital *i.e.*, dividend is considered as the appropriation of post tax profit hence, is not an income tax deductible expenditure.

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From investor's point of view, both the interest as well as dividend received by them is considered to be taxable income for income tax purposes. Section 80L of the Income Tax Act 1961 which provides for some deductions from income on investment received by investors applies only to dividend not on interest. Interest received by the investors is fully taxable in their hands.

NOTE If the amount of dividend exceeds Rs. 1000 and if the amount of interest exceeds Rs. 2,500 the paying company is required to deduct the income tax at source at pay the same to the Central Government. As such, income received by the investors in their hands gets reduced to the extent of tax deducted at source.

(*e*) **Statutory restrictions :** The statutory restrictions prescribed by the Government and various other statutes are required to be taken into consideration before the capital structure is planned by the company. The Company has to decide the capital structure within the overall framework prescribed by Government or various other statutes.

3. General Factors

Following points, are covered in general factors :

(*a*) Constitution of the company

(*b*) Characteristics of the company

(*c*) Stability of earnings

(*d*) Attitude of the management.

(*a*) **Constitution of the company :** It also play an important role. If the company is a private limited company or a closely held company, controlled factor may play a dominant role. If the company is public limited company or a way a widely held company, cost factor may play a dominant role.

(*b*) **Characteristics of the company :** It plays a very important role in the capital structure decisions. Very small companies and the companies in their early stages of life have to depend more upon the equity capital, as these have limited bargaining capacity and do not enjoy the confidence of the investors. It is better for these companies to go for equity capital in the early years of life. Increase the capital base, increase the bargaining capacity and then go for borrowed capital in the later years of their life. Similarly, the companies have got credit standing in the market may be in the position to top the sources of their own choice, whereas the choice may not be applicate to the companies having poor credit standing in the market.

(*c*) **Stability of earnings :** If sales and earnings of the company are stable and predictable in future, the company does not mind taking the risk

and it can borrow the funds, as cost factor and control factor will play more important role. However, if the sales and earnings are not likely to be stable and predictable over a period of time and are likely to be subject to wide flotations, the risk factor plays an important role and the company will not like to have more borrowed capital in its capital structure.

(*d*) **Attitude of the management :** If the management attitude is conservative, the control factor and risk factor may play an important role in the capital structure decisions. If the management attitude is aggressive cost factor may play an important role.

SUMMARY

- Capital structure refers to the mix of sources from which the long term funds required by a business are raised.
- For considering the suitable pattern of capital structure it is necessary to consider certain basic principles which are related to each other. These principles are :
  1. Cost principle
  2. Risk principle
  3. Control principle
  4. Flexibility principle
  5. Timing principle.
- In finance, risk and return always go hand in hand, which ever capital is cheaper for the company is risky for the company.
- Control factor refers to the capacity of the existing owners of the company to retain control over operations of the company.

SELF ASSESSMENT QUESTIONS

1. What are the different principles of capital structure management? Explain them.
2. Write short note on factors effecting capital structure.
3. Enumerate the objects of capital structure planning.

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(c) Internal Rate of Return

It is that rate at which the discounted cash inflows match with discounted cash outflows. The indication given by IRR is that this is the maximum rate at which the company will be able to pay towards the interest on amounts borrowed for investing in the projects, without loosing anything. Thus IRR may be called as the "break even rate" of borrowing for the company.

In other words, IRR indicates that discounting rate at which NPV is zero. If by applying 10% as the discounting rate the resultant NPV is positive, while by applying 12% discounting rate, the resultant NPV is negative it means that IRR *i.e.*, the discounting rate at which NPV is zero, falls between 10% and 12%. Thus, by applying the trial and error method, one can find out the discounting rate at which NPV is zero.

The process to compute IRR will be to select any discounting rate should be tried and the process should be repeated till the NPV becomes zero.

NOTE The computed IRR will be compared with the cost of capital. If the IRR is more than or at least equal to the cost of capital the project is accepted and vice versa.

IRR > Cost of Capital — Accepted

IRR < Cost of Capital — Rejected

EXAMPLE 10. A project cost Rs. 1,00,000 and generates annual cash flow of Rs. 35,000, 40,000, 30,000 and Rs. 50,000 over its life of 4 years. Calculate the IRR, discounting rate, and present value of cash inflows.

SOLUTION. Using 15% discounting rate :

Year	Cash Inflows (Rs.)	PV Factor (15%)	Total PV (Rs.)
1	35,000	0.870	30,450
2	40,000	0.756	30,240
3	30,000	0.656	19,740
4	50,000	0.572	28,600
		Total	1,09,030

Using 18% discounting rate :

Year	Cash Inflows (Rs.)	PV Factor (18%)	Total PV (Rs.)
1	35,000	0.847	29,645
2	40,000	0.718	28,720
3	30,000	0.609	18,270
4	50,000	0.516	25,800
		Total	1,02,435

Using 20% discounting rate :

Year	Cash Inflows (Rs.)	PV Factor (20%)	Total PV (Rs.)
1	35,000	0.833	29,155
2	40,000	0.694	27,760
3	30,000	0.579	17,370
4	50,000	0.482	24,100
		Total	98,385

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Thus, at 18% discounting rate NPV is Rs. 2435 and at 20% discounting rate NPV is (–) negative Rs. 1615 hence, IRR is between 18% and 20% *i.e.*, more than 18% and less than 20%. Difference between PV at 18% and 20% is Rs. 4050.

$$(102435 - 98385 = 4050)$$

$$\text{IRR} = 20\% - \frac{1615 \times 2}{4050}$$

$$= 19.2\% \text{ (approx)}$$

Advantages

1. It considers time value of money.
2. It considers cash inflows from the project throughout its life.
3. It can be computed even in the absence of the knowledge about the firms' cost of capital. But in order to draw the final conclusion, the comparison with the cost of capital is a must.

Disadvantages

1. It is difficult to use, calculate and understand.
2. It pre-supposes that the cash inflows can be reinvested immediately to yield the return equivalent to the IRR. NPV method on the other hand, pre-supposes that the cash inflows can be reinvested to yield the return equivalent to the cost of capital, which is more realistic.

(d) Profitability Index (PI)/Benefit Cost Ratio (B/C ratio)

It is the ratio between total discounted cost inflows and total discounted cash outflows. Thus the profitability index can be computed as :

$$\text{PI} = \frac{\Sigma \text{ Discounted cash inflows}}{\Sigma \text{ Discounted cash outflows}}$$

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1. The PI as computed is gross in nature. To find out net PI following formula is used.

   Net PI = Gross PI – 1

2. Proposals or projects or plan have profitability under more than one are accepted and vice versa.

   Profitability index is more than one–accepted.

   Profitability index is less than one–rejected.

3. In the case of ranking of plan/projects etc., those which have highest profitability index will be ranked highest.

EXAMPLE. A project requires an outlay of Rs. 1,00,000 and earn the annual cash inflows of Rs. 35,000, 40,000, 30,000 and 50,000. Calculate PI. Assuming discounting rate of 15%.