FINANCIAL MANAGEMENT : AN OVERVIEW

Objectives

After studying this lesson, you should be able to :

☆ know the meaning of Finance and scope of Financial Management

☆ discuss the various financial objectives of a company

☆ analyse the Financial goals of a company

☆ familiarise the major decisions involved in Finance Function

☆ explain the concept of time value of money

Structure :

1.1. Introduction

Business is an economic activity which involves the use of economic resources (machine, material, money,men, etc) for the production of goods (refrigerator, tooth paste, soap, truck etc) and services (insurance, banking, communication, transport, etc). These goods and services are expected to be sold at a price which is more than the cost of producing them, resulting in a surplus or profit.

When a business enterprise plans to do any activity, it has to make a market survey to estimate the demand for the product and to estimate the life of the business.

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When a business enterprise plans to do any activity, it has to make a market survey to estimate the demand for the product and to estimate the life of the business.

The demand estimate helps in the finalisation of plant capacity (i.e; number of units a plant can manufacture in a specific period of time) or scale of operations. Once the plant capacity is finalised, the area of the site required to construct the business premises (consisting factory buildings, godowns, office building etc); number or personnel (human resource) required, raw material requirement are estimated. The enterprise finanlises its scale of operations and based on it, the capital (both permanent and working capital) requirement is estimated.

Depending upon the nature of business, the size of capital varies. A business with manufacturing activity requires more capital than what is required for a trading business or service organisations. Business of providing services like transportation, communication, banking, insurance, warehousing, etc. Involves the need for estimating the capital requirement (i.e; amount of money that is required for investment in various assets)

Once capital requirement is estimated, the enterprise has to find sources of mobilising these funds. It has to identify sources for meeting the permanent capital requirement (i.e; to acquire plant, machinery buildings, technical know-how, patents etc,) and short-term capital requirement (i.e; to buy raw material, to pay for labour etc). From among the various sources that provide long term or short term funds an enterprise has to choose.

A business enterprise strives to achieve a surplus. To achieve this goal, an enterprise invests funds in various income earning assets by obtaining funds from various sources. Thus, the financial function is all about the following activities.

☆ to determine the funds requirement

☆ to determine the assets to be acquired

☆ to determine the pattern of financing the assets.

1.2. Meaning of Finance

No activity of business can be performed without the involvement of finance. That is why 'financc' is cosidcrcd as "Life blood of busincss". Financc holds the key to all busincss activities.

The Envyclopaedia of Britannica defines finance as "the act of providing the means of payment". According to Paul G. Hasings 'finance' is the management of the monetary affairs of a company. Howard and Upton defines 'finance' as the management of the flow of cash so that the organisation will have the means to carry out its objectives and at the same time meet its obligations as they become due. Their emphasis is on the liquidity aspect of finance. John Hampton interprets finance as the management of

the flow of money. In a modern money economy finance may be defined as the provision of money at the time it is needed. Therefore, finance is concerned with every activity, which involves the use of money.

Meaning of 'financial management':

Financial management study about the process of procuring and judicious use financial resources with a view to maximise the value of a business enterprise thereby the value to the owners is maximised. Guthmann and Dougall defines financial management as "the activity concerned with the planning, raising, controlling of firm's finacial resources".

In a company form of organisation, according to James C. Van horne, financial management 'endeacours to make optimal in vestment, financing and dividend decisions'.

I.M.Pande defines financial management as "that managerial activity that is concerned with the planning and controlling of the firm's financial resources. According to him managing funds most wisely with a view to maximise the wealth of the share holders is financial management.

'Business activities concerned with the acwuisition and conservation of capital funds in meeting the financial needs and overall objectives of business enterprise come under funancial management', according Wheeler.

1.3 Scope of financial management

As wr understood from the previous section, financial management is concerned with all decisions involving finance. There fore the scope financial management encompasses all the financial decisions taken by a business enterprise. A business enterprise is established for earming income. Major decisions in any business are related to acquisition of assets for business purpose and funancing these assets bu tapping various sources of finance. The first decision is known as 'investment' decision and second decision is known as 'financing' decision.

Assets' requirements are two types

(1) Fixed assets like land, buildings, plant, machinery, furniture, technical know-how, patcnt rights, copy rights crc

(2) Current assets like inventory (raw materials, working in progress, finished goods), receivables, debtors cash etc.

Expanding the scale of operations, enteringh a new market, introduction of new products ect are some of investment decisions that involve the acwuisition of fixed assets. They provide returns for a long period. There fore these are also called long term investment decisions.

Current assets afre poerating asets, which are rewuired for smooth conduct of business. What should be the investment in thesfe current assets? or what should be the level of these currint assets? is a crucial inbestmenr decision. Because, exerss levels of currint assets cut into the profitabilityh of a business and insufficiency of currint assets tesult in loss of liquidity. These decisions are called shoret-term inbestment decisions because their impact on the business is for a short period.

☆   Takes - up internal audit to establish proper checks and controls.

☆   Decides the dividend policy of the company.

All the above mentioned functions are supposed to be discharged by a Financial Mmanager, with in the frame work of laws in force, for the ultimate achievement of wealth maximisation of shareholders.

1.5. Finance Functions.

Finance Functions are important activities in the business management irrespective of nature, size, age and structure of the organisation. A business finance function expresses the relationship between value of a business enterprise and its various determinants. Value of a business enterprise is nothing but its net worth to the owners. Net worth is the difference between the market value of assets and the value of liabilities (outsidersí claims)

Net Worth = Assets - Liabilities

If net worth of a business enterprise increases it can be interpreted that the value of a business enterprise is rising. The value of a business depends upon the following factors.

1.5.1 Internal :

☆   Investment activities

☆   financing mix

☆   distribution of profits

1.5.2 External :

☆   State of the economy

☆   Capital market conditions.

☆   Tax rates

Among these factors some are controllable and some are uncontrollable. Assuming that the uncontrollable factors are held constant, the value of a business is a function of internal or controllable factors. Therefore, value of a business is a function of investment, financial, distribution of profits.

$$V = f [I, F, D]$$

1.6. Organisation of Finance Function

Finance is an integral part of a company. All functional areas of management are related to finance function. Production, marketing, human resource etc. are related to finance. In the area of finance specific tasks are performed by specialists. The organisation of finance function can be better understood by the following figure 1.1
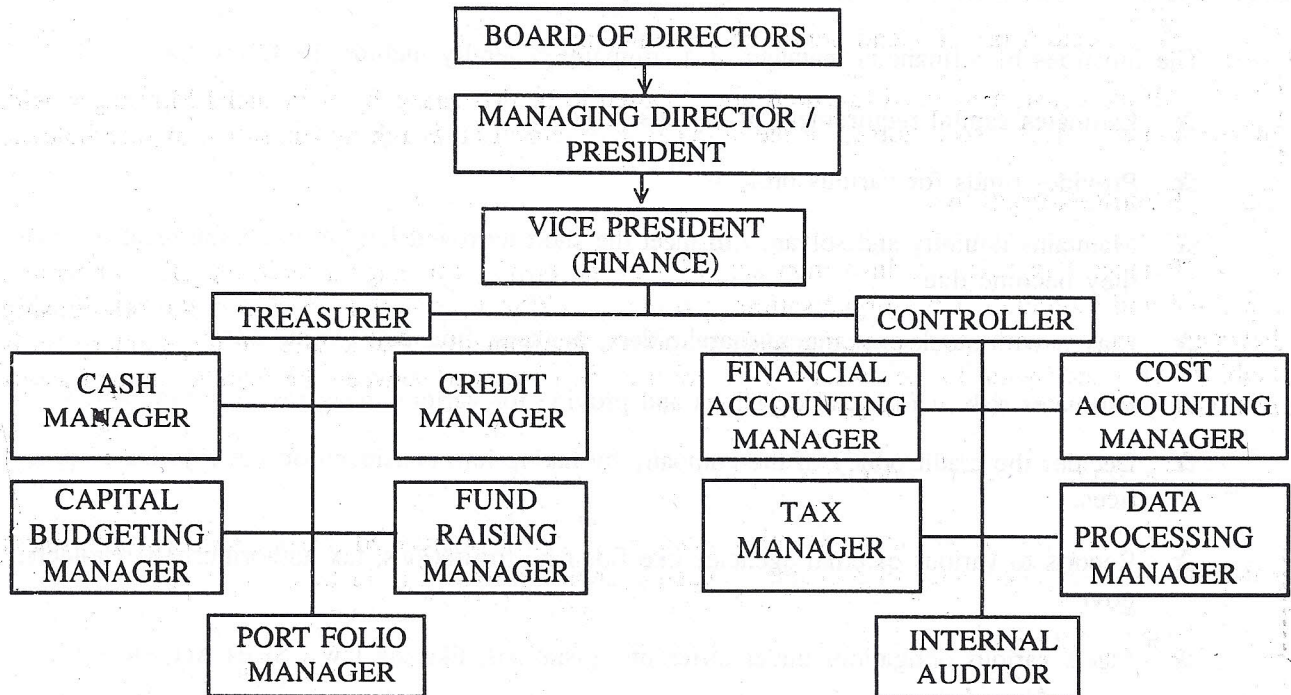
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                    ┌─────────────────────┐
                    │  BOARD OF DIRECTORS │
                    └─────────────────────┘
                              │
                    ┌─────────────────────┐
                    │ MANAGING DIRECTOR / │
                    │     PRESIDENT       │
                    └─────────────────────┘
                              │
                    ┌─────────────────────┐
                    │   VICE PRESIDENT    │
                    │     (FINANCE)       │
                    └─────────────────────┘
```

| TREASURER | | CONTROLLER |

| CASH MANAGER | CREDIT MANAGER | FINANCIAL ACCOUNTING MANAGER | COST ACCOUNTING MANAGER |

| CAPITAL BUDGETING MANAGER | FUND RAISING MANAGER | TAX MANAGER | DATA PROCESSING MANAGER |

| PORT FOLIO MANAGER | | INTERNAL AUDITOR |

Figure 1.2

Organisation of Finance Function

1.7. Financial goals of the company

Company is a form of organisation in which the ownership and management are separated. Shareholders are the owners and the board of directors are the agents of the shareholders. The team of management takes various decisions involving the profitability and perpetuity of the company. When these strategic decisions are taken, what should be the goal of the firm ? It is the fundamental question which automatically leads us to the economic benefit to the shareholders. As shareholders provide capital and face maximum risk, they expect the company the company to provide them maximum return.

There the two widely discussed approaches to achieve the above objective.

(a)   Profit maximisation

(b)   Wealth maximisation

Should be company aim at maximising profit or wealth ?

1.4. Role of a Financial Manager

The functions of a financial manager of a company generally include the following:

☆ Estimates capital requirement of various projects.

☆ Provides funds for various projects.

☆ Maintains liquidity and solvancy to meet the short-term and long term commitments, when they become due

☆ Liason with stock exchanges, shareholders, bankers, financial institutions

☆ Estimates risk in financial decisions and provide for various measures to minimise risk.

☆ Decides the credit policy of the company by taking into consideration the established practices.

☆ Reports to various external agencies like financial institutions, tax authorities, shareholders, govt.

☆ Meets various obligations under different legistations, like tax laws, SEBI Act, etc.

☆ Takes up internal audit to establish proper checks and controls.

☆ Decides the dividend policy of the company.

All the above mentioned functions are supposed to be discharged by a Financial Mmanager, with in the frame work of laws in force, for the ultimate achievement of wealth maximisation of shareholders.

1.5 FINANCIAL GOALS OF THE COMPANY

Company is a form of organisation in which the ownership and management are separated. Share holders are considered the owners where as board of directors are their agents. The separation of ownership and the owners. The objectives of management may differ from those of the shareholders. In big copanies where shares are held by a large number of share holders it is difficult to make the managemenr know the expectations of the share holders. Managers may have persomal goals that compete with shateholders wealth maximixation goalj and such conflict is known as agency conflict. The separation of ownership from management creates a situation in which the management may act in its own intcrests rather than those of the management will make optimal decisions only if appropriate incentives ate given. To teduce agency conflict, shate holders must incur agency costs, wh8ich include all costs borne by shateholders to encoutage managetrs to maximize the stock price rather than act in their own self-interest. The optimal solution lies in the situyation where executive compenasation is tied eo performance.

Presently, as majority of the shares in companies is owned by institutional investors such as insurance companies, mutual funds, pension funds, ect., and representatives of the lending agencies like development banks are being placed on the Board of Directors of companies there is a considerable scope for exercising influence over a company's operations. Another notable feature is that the belief in practicing good corporate governance is on the rise.

The team of management takes various decisions involving the prosperity and perpetuity of a company. When such strategic decisions are what goal should guide them. Obviously the economic interest of the share holders, who are taking the maximum risk, should guide the manegement.

There are two widely discussed approaches to achieve the above objective.

(a) Profit Maximisation

(b) Wealth Maximisation

Should the company aim at maximising profits of wealth?

1.5.1. Profit Maximisation :

Business is an economic activity, where scarce resources are used to produce goods and services. Business activities involve costs and revenues. The unique measure of efficiency is surplus, i.e, the excess of revenues **over costs**, which is popularly known as profit. Therefore a company should aim at profit maximisation. This goal can be justified on the following grounds.

1. Economic activity aims at utility maximisation. Utility is measured in terms of profits.

2. Profit is a measure of economic efficiency

3. Profit leads to efficient allocation of resources

4. It ensures maximum social welfare

5. It leads to efficient use of important and scarce resources.

Profit maximisation goal of a company is having the following limitations.

i) **Ambiguity :** The goal of profit maximisation is considered to be very vague and ambiguous. Profit has various connotations and amenable to different interpretations by variours persons. For example, profit may be,

short run profit	or	long run profit, total profit or rate of profit,
after tax profit	or	Before tax profit,
return on equity	or	return on total capital employed.

There will be always a dilemma as to which of these variations of profits should a company try to maximise.

ii) **It ignores the timing of benefits :** The goal of profit maximisation ignores the differences in the timing of benefits from investment. Between two alternative projects which have different time pattern of profits, the goal makes no difference. For example, project A and project B have the following profits

Implications of Wealth Maximisation :

☆   The goal aims at prosperity and perpetuity of a company.

☆   The goal helps in measuring the performance of a company

☆   The goal helps in allocation / reallocation of scarce resources

☆   It helps the company in discharging its responsibilities effectively, such as

    *   Consumer protection

    *   Payment of fair wages

    *   Provision of safe working conditions.

    *   Environmental protection.

    *   Support to social problems.

☆   It leads to efficient use of scarce and precious resources

☆   It considers risks associated

What is Wealth Maximisation ?

Wealth maximisation means maximising the net present value of a course of action. Net present value (NPV) is the difference between present value of expected benefits and present value of costs.

If the benefits at end of each each year are

$$A_1 , A_2 , A_3 , \ldots \ldots A_n$$

the present value of these benefits can be calculated by discounting the future benefits by using a dsicounting factor, i.e.,

$$\frac{A_1}{(1+K)} \; , \quad \frac{A_2}{(1+K)^2} \; , \quad \frac{A_3}{(1+K)^3} \ldots \ldots \ldots \frac{A_n}{(1+K)^n}$$

Sum of these present values is the PV of future benefits .

If costs at the end the of each year, are

$$C_o , \; C_1 , \; C_2 , \; C_3 \ldots \ldots \ldots C_n$$

Their present value the investments is calculated as under :

$$C_0 \; , \quad \frac{C_1}{(1+K)^1} \; , \quad \frac{C_2}{(1+K)^2} \; , \quad \frac{C_3}{(1+K)^3} \; , \ldots \ldots \ldots \frac{C_n}{(1+K)^n}$$

Sum of these present values is the PV of costs of investment

NPV = PV of Benefits - PV of costs

Search for high profits may result in the collapse of the company, as it involves high degree of risk. And goes against the interest of the shareholders who are bearing the maximum risk. Therefore, profit maximisation is not considered to be an appropriate goal.

The goal of EPS maximisation also suffers from the following limitations :   (i) its does not specify the time of expected returns (ii) it does not consider risk associated with future earnings, and (iii) it does not take into account the financial risk.

1.5.2. Wealth maximisation : Principle of maximisation of shareholders wealth is the rational guide for running a business. The goal of a company is to maximise the present wealth of the owners i.e. equity shareholders in a company. Company's equity shares are actively traded in the stock market. Shareholders wealth is represented by the market value of equity holdings. Market price of share acts as an index of performance of a company. Shareholders' wealth maximisation means the maximisation or market price of share (MPS). If MPS is a measure of efficiency, the goal or maximisation of wealth helps in the efficient allocation of financial resources in a society.

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Sum of these present values is the PV of costs of investment

NPV = PV of Benefits - PV of costs

$$= \left[\frac{A_1}{(1+K)} + \frac{A_2}{(1+K)^2} + \ldots\ldots \frac{A_n}{(1+K)^n} \right] - \left[C_0 + \frac{C_1}{(1+K)} + \frac{}{(1} \right]$$

$$NPV = \left[\sum_{t=1}^{n} \frac{A_t}{(1+K)^t} \right] - \left[\sum_{t=0}^{n} \frac{C_t}{(1+K)^t} \right]$$
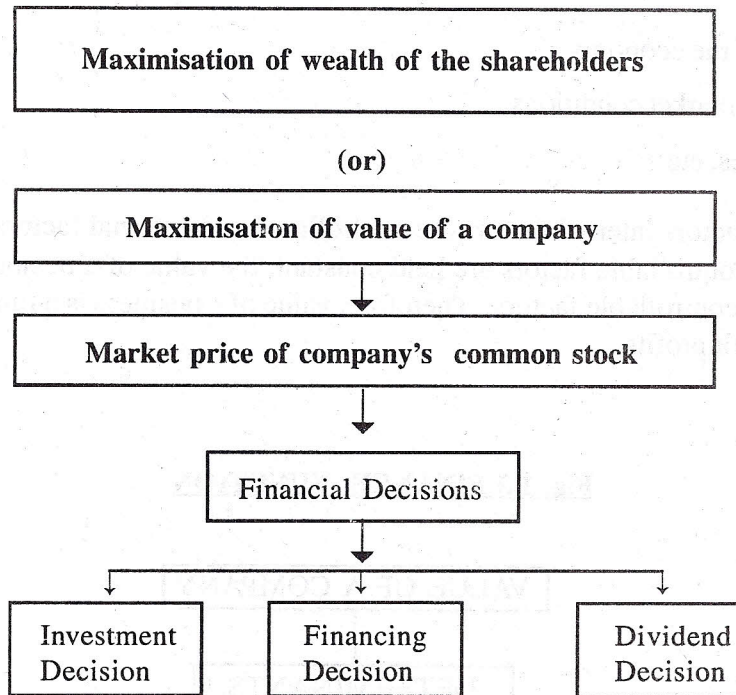
In the above equation K referes to the discount rate and t refers to the time period.

Every financial decision involves costs and benefits and also result in NPV. Maximisation of this NPV is construed as maximising wealth of financial decisions which have a long term impact on the company. They are strategic, crucial and which involve risk are

☆   Investment decision

☆   Financing decision

☆   Dividend decision

These decisions taken with an objective of maximising Net Present Value (NPV) result in value maximisation of the company and inturn wealth maximisation of shareholders.

Fig. 1.2 Goal of a company

Maximisation of wealth of the shareholders

(or)

Maximisation of value of a company

Market price of company's common stock

Financial Decisions

Investment Decision	Financing Decision	Dividend Decision

Value of a company = f [Investment, Financing, Dividend decision]

$$V = f [I, F, D]$$

1.6 Finance Functions.

1.6.1 Meaning

Finance Functions are important activites in the business management irrespective of nature, size, age and structure of the organisation. A business finance function expresses the relationship betwween value of a business enterprise and its various determinants. Value of a business enterprise is nothing but its net worth to the owners. Net worth is the difference between the market value of assets and the value of liabilities (outsiders' claims)

Net Worth = Assets - Liabilities

If net worth of a business enterprise increases it can be interpreted that the value of a business enterprise is rising. The value of a business depends upon the following factors. (Fig.1.3)

Internal :

* Investment activities

* financing mix

* distribution of profits

External :

* State of the economy

* Capital market conditions

* Tax rates, etc

Among these factors internal factors are controllable and enternal factors are uncontrollable. Assuming that the uncontrollable factors are held constant, the value of a business is a business is a function of internal or controllable factors. Therefore, value of a business is a function of investment, financing, distribution of profits.

$$V = f [I,F,D]$$

Fig. 1.3 FINANCE FUNCTION
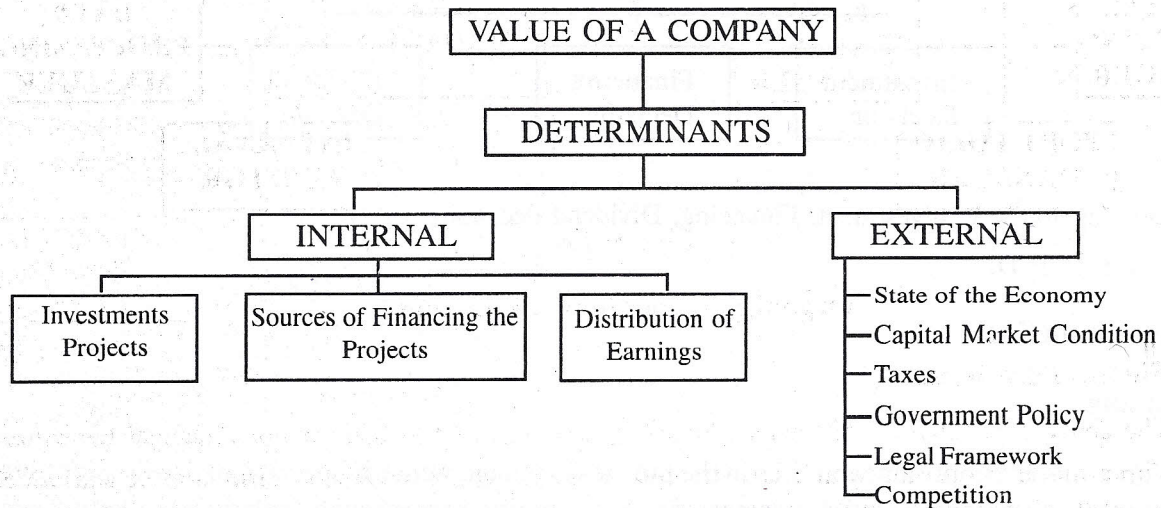
1.6.2 Organisation

Finance is an integral part of a company. All functional fareas of management are related to finance function. Production, marketing, human resource etc. are related to finance. In the area of finance specific tasks are performed by specialists. The organisation of finance function can be better understood by the following figure 1.4
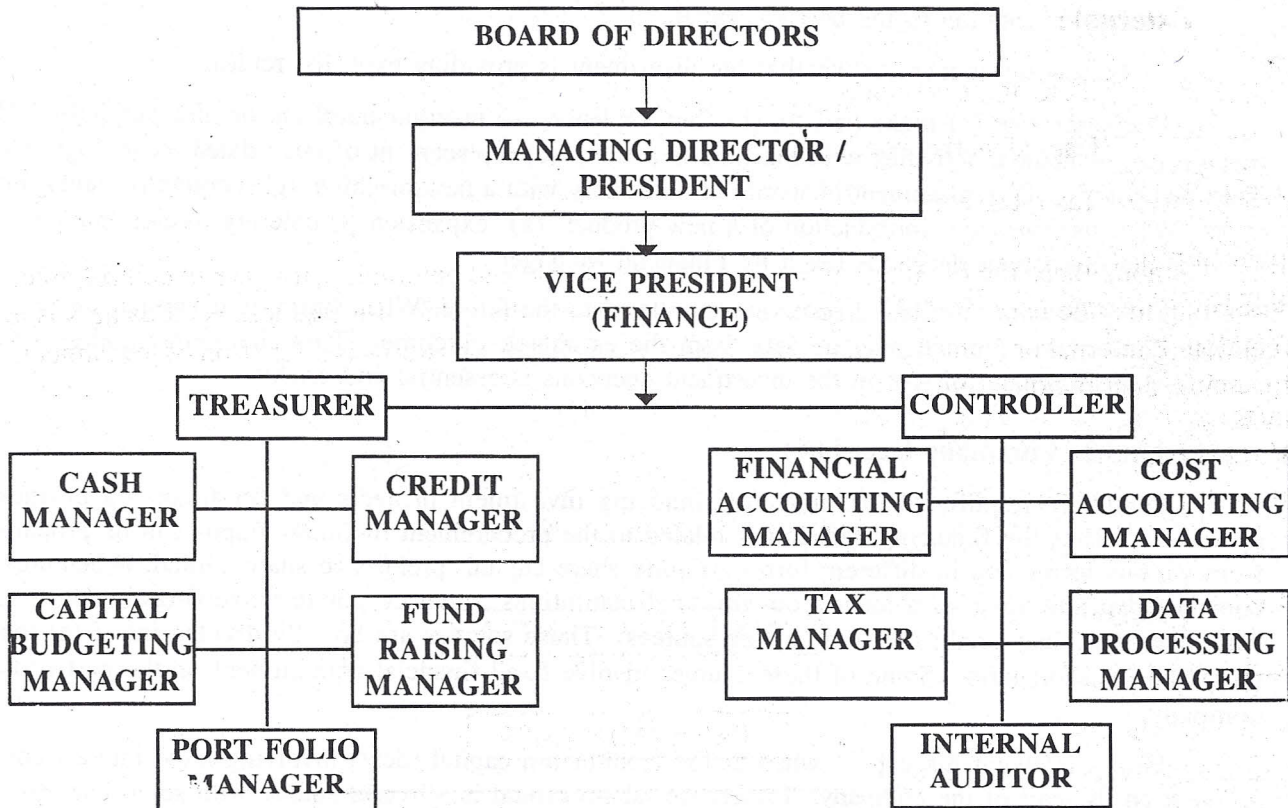
Figure 1.4

Organisation of Finance Function

1.6.3 Financial Decisions

The above said activities of Finance Functions are classified as three major Financial Decisiions.

Three major decisions, which are strategic, crucial, which have long term impact and which cannot be reversed without abnormal losses are

(a) Investment decision

(b) Financing decision

(c) Dividend decision

1.6.3.1 Investment decision : Investment decision relate to the selection of projects or investment opportunities which are financially viable. The process of investment decision involve the following steps

-- Generation of investment ideas or opportunities

-- Defining the objective in quantitative terms

-- Evaluation of each opportunity using techniques of evaluation

-- Selection of the best alternative investment

-- Implementation of the best investment

-- Follow up or monitor whether the investment is providing expected return.

Decisions like (a) make or buy, (b) buy or lease, (c) outright purchase or hire purchase, (d) replacement of manual activities with machine is action, (e) replacement of out / dated technology with latest technology (f) replacement of worn out machinery with a new machine, (g) mergers (h) amalgamation (i) acquisitions , (j) introduction of a new product (k) expansion (l) entering foreign market are some of the investment decisions taken by Financial Manager.

These decisions are based on estimates related to the future. When future is uncertain, there is a chance that actual outcome may deviate from the estimated outcome. This changeis is called risk. Therefore measurement of risk in the investment decisions is essential and crucial.

1.6.3.2 Financing Decision :

Funds are required in business for financing investment projects and for financing business operations. Thus the financing decision is related to the procurement of funds. Funds can be procured from various forms and in different forms. Equity share capital, preference share capital, debentures , company deposits, long term loans from financial institutions, inter corporate borrowings, bank loans, bank overdraft, cash credit are some of the sources. These sources are broadly divided into : (a) long term, and (b) short term. Some of these sources involve fixed financial commitment on the part of the company.

Equity is ownership capi when as the creditorship capital (debt) involving fixed interest commitment on the part of the company. Preference share capital is a hybrid source with some features of both equity and debt.

Financing decision is related to judicious mix of debt and equity. It decides the capital structure of a company. and also related to the mix of short and long term sources. When investment decision is a trade off between return and risk, financing decision is a trade off between cost and risk. Investment decision involves business or operating or investment risk. Financing decision involves financial risk.

Financial decisions are

→ Determination of degree of leverage

→ Raising funds through equity and debt and also raising funds from long term and short term sources

→ Consideration of tax benefit of usage of debt

1.6.3.3 Dividend Decision :

Dividend decision is indirectly a financing decision. If sources of funds are classified as internal and external sources, all the sources discussed under the 'financing decision' are external sources. Dividend decision relates to the distribution of profits among the equity shareholders.

No business enterprise will distribute all the profits to the owners. Some of the profits are retained for future purposes of the business. These retained profits are considered as internal source. These retained profits belong to the existing shareholders. Net worth of the shareholders is a sum of equity share capital plus retained earnings. If net worth increases the book value of share increases. It will have a favourable impact on the market price of the shares.

Dividend decision is concerned with the determination of dividend pay-out ratio (percentage earnings to be distributed by way dividends). Dividends provide current earnings to the shareholders, whereas, retained earnings increase the scope for higher future earnings. Taking into consideration the company's future investment opportunities, the company's ability to tap the capital market, tax effect, shareholder's expectations, etc, a dividend decision has to be taken.

Thus, the investment, financing and dividend decision are interrelated. Their impact on the value of the company should be taken into consideration. as they affect the market value of the share.

1.6.4 RISK-RETURN /RISK-COST TRADE-OFF:

Investment decisions involve two aspects i.e. the risk and the return. Finance managers have to select those investment projects by balancing the rerun. When fulute is uncerlain, these is a chance of variabiliiy in the expected return which is called business risk or operating risk or investmenr risk. Any attempt to increase the forces of risk element. There fore, a finance manager has to optimise the forces of risk and teturn. Selection of investment opportunities where risk and return are optimised is known as risk-return tradc-off.

Financing decisions also involve return and risk. When the decision related to the capital siruciure or debt-equity mix or financial leverage is taken, it is quite possible that a company may attempt to use more debt, as purpose. Increasing use of debt reduces the cost of capital to the company. But, it increasing the variability of the share holders' return. There fore, finance manager has by increasing risk and roturn and arrive at an optimum capital structure. Selection of optimum capital structure where return and risk are optimised is known as risk-trade-off [fig 1.5]
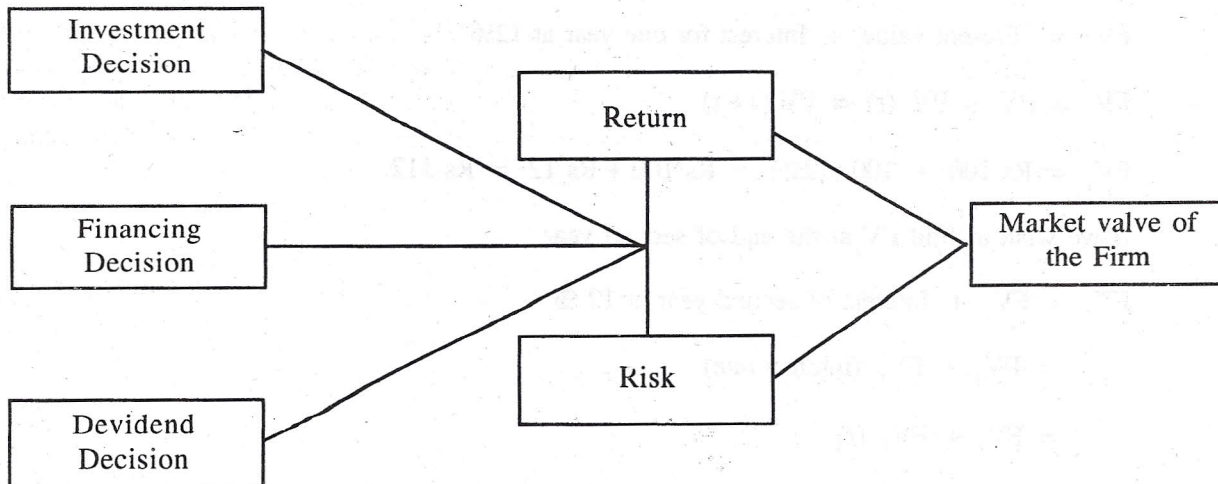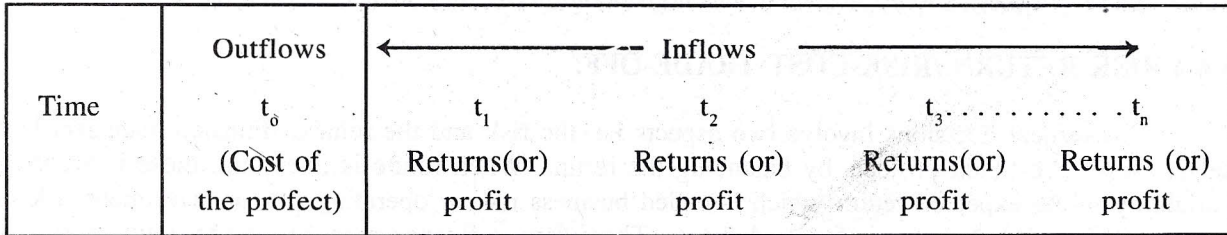

Figure 1.3. : Trade - off between Return and Risk

1.7. Time Value of Money

An important principle in finance is that the value of money is dependent on time. The value of money received today is different from the value of money received after sometime in the future. The principle is based on the fact that what we receive today can be invested and a return can be earned on it. For example, between Rs 100 now or Rs 100 after one year, Rs 100 now will have more time value

because it can be invested, for example at 10% rate of interest, and a return of Rs 10 can be earned. Rs 100 becomes Rs 110 a year after.

In business, various decisions involve outflow and inflow of funds. Outflows and the inflows do not take place at the same time. For example, in the case of investment decision outflows in the form of cost of the project takes place first and they are followed by inflows in the form of profits or returns in future.

Time	Outflows	←——————— Inflows ———————→			
	t_0	t_1	t_2	$t_3 \ldots \ldots \ldots t_n$	
	(Cost of the profect)	Returns(or) profit	Returns (or) profit	Returns(or) profit	Returns (or) profit

The difference in their timing makes it difficult to compare the costs and benefits. Therefore there is a need to equalise the time values of inflows and outflows. For this purpose Time value can be incorporated into financial decisions either by compounding or by discounting.

Let us try to understand these methods.

1.9.1. Compounding : Compounding is the process of finding the Future Value of an amount (which is called present value) at the end of a period using an interest rate. For example, if we want to find the future value of Rs 100 (PV) at the end of one year when interest rate (r) is 12 percent per annum

FV = Present value + Interest for one year at 12%

$FV_1 = PV + PV\ (r) = PV\ (1+ r)$

$FV_1 = Rs\ 100 + 100\ (12\%) = Rs\ 100 + Rs\ 12 = Rs\ 112.$

If we wish to find FV at the end of second year

$FV_2 = FV_1 + $ Interest of second year at 12 %

$= FV_1 + FV_1$ (interest rate)

$= FV_1 + FV_1\ (r)$

$= FV_1\ (1 + r)$

We know that $FV_1 = PV\ (1 + r)$

$\therefore FV_2 = PV\ (1 + r)\ (1 + r) = PV\ (1 + r)^2$

Future value at the end of n years

$FVn = PV\ (1 + r)^n$

Compounding more than once :

Twice in a year $FV = PV \left[1 + \dfrac{r}{2}\right]^{2n}$

Quarterly compounding $FV = PV \left[1 + \dfrac{r}{4}\right]^{4n}$

Yearly compounding $FV = PV \left[1 + \dfrac{r}{12}\right]^{12n}$

m times a year $FV = PV \left[1 + \dfrac{r}{m}\right]^{mn}$

As emí approaches infinity, the term

$\left[1 + \dfrac{r}{m}\right]^{mn}$ approaches e^{rn}

Where e = 2. 71828 approximately.

$FV = PV\, e^{rn}$

Where

     FV = future value

     PV = present value

     r = rate of interest

     n = number of years.

Continuous compounding results in the maximum possible future value at the end of n periods for a given rate of interest (r).

1.9.2. Discounting - Discounting is the process of finding the present value of an amount (future value) expected to be received at the end of a period (n) using a rate of interest (called the discount rate). If we want to find the present value of Rs 100 to be received at the end of one year, when the rate of interest is 12 per cent

$$PV = \frac{FV}{(1+r)} = \frac{100}{1+12\%} = \frac{100}{1.12} = Rs.\ 89.29$$

It means that the present value of Rs 100 to be received at the end of one year, when discounted at 12%, is Rs 89.29.

PV of Rs 100 to be received at the end or ní years $PV = \dfrac{FV}{(1+r)^{n}}$

You are provided with two types of Tables in the Appendix

     (a)   Compound / future / terminal value Tables

     (b)   Present value Tables.

3)

Compound value Tables :

By making use of these tables, we can find the compound value of any amount, for any period, at any rate. In these Tables compound values of Re.1 are provided.

In the compound value formula, the value of the expression $(1 + r)^n$ is given for Re. 1 for a given rate and period. For example, when

PV = Rs 1300 r = 13% n = 15 years,

What is compound value or ?

$CV = PV (1 + r)^n = Rs 1300 (1 + 0.13)^{15}$

the value of $(1 + 0.13)^{15}$ is given in the Table for Re.1. We can find the C V just multiplying Rs. 1300 with this value which is called compound factor.

CV = Rs 1300 X Compound factor (n = 15 years, r = 13%)

= Rs 1300 X 6.254

= Rs 8, 131

For any period and at any rate, we can find the compound value by using these Tables.

Present value tables :

By making use of these Tables, we can find the present value of any amount. In the present value formula, the value of the expression $[1/(1+r)^n]$ for Re.1 is given for a given discount rate and period (n).

For example :

If we wish to know the present value of Rs 5000 to be received at the end of 18 years with a discount rate 15 per cent, then

FV = Rs 5000,   r = 15% n = 18 years.

$PV = FV \left[\dfrac{1}{(1+r)^n} \right]$

the value of the expression shown in the praranthies can be found out from PV Tables for any n, r.

PV = FV x PV Factor (given r, n)

= FV x   discount factor (given r, n)

PV = Rs 5000 x PV factor (a + r = 5%, n= 18 years)

= Rs 5000 X 0.081

= Rs 405

It means that, the PV of Rs 5000 to be received at the end of 18th Year is Rs 405 when discounted at 15 per cent rate.

Annuity : An Annuity is a stream of constant cash flows (payment or receipt) occurring at regular intervals of time. When cash flows occur at the end of each period we can find the future value by compounding and present value by discounting.

Compound value of annuity : Future or compound value of an annuity (FVA) can be calculated by using the following formula.

$$FVA = \text{Annuity amount} \times \left[\frac{(1+r)^n - 1}{r} \right]$$

In the above equation, $\left[\dfrac{(1+r)^n - 1}{r} \right]$ expression is compound factor for one rupee annuity received at the end of each year for n years with 'r' compound interest rate.

Compound value Tables given in the Annexure contain CV of annuity of Re.1 for a given period and rate.

For example :

If we wish to find the compound value of Rs 1200 annuity for a period of 10 years and when the interest rate is 12 per cent. Future value of annuity at the end of 10 years will be

FV_{10} = Rs 1200 X CV of annuity of Re.1 (r = 12%, n = 10 years)

= Rs 1200 X 17.549

= Rs. 21058-80

Present value of Annuity :

Present value of an annuity (PVA) can be calculated by using the following formula.

$$PVA = \text{Annuity amount} \times \left[\frac{1 - \dfrac{1}{(1+r)^n}}{r} \right]$$

The expression $\left[\dfrac{1 - \dfrac{1}{(1+r)^n}}{r} \right]$ is given for Re.1 Annuity Table in the Annexure for given r and n.

For example, if we want to find the present value of Rs 1000 annuity for 10 years when the discount rate is 12 %, we can find the present the value of Re.1 annuity from the Table and multiply it with Rs 1000.

Annuity = Rs 1000 r = 12% n = 10 years

PVA = Rs 1000 X 5.650

       = Rs 5650

Having understood the methods of incorporating time value of money, through compounding and discounting, let us now see, how these methods are relevant in financial decision making.

1.9.3. Financial Decisions : Time value of Money

(a) **Investment Decision** : Investment decision involves current cash outlay for expected stream of cash inflows in future.

Time	t_o	t_1	t_2 . . . . t_n		
cash flows	Current Cash outlay (Co)	cash inflow	cash inflow		cash inflow

The cash flows (outflows and inflows) occur at different timings. Therefore, they are not comparable. Time value of money is taken into consideration by discounting the cash inflows to find the present value of all cash inflows. Then PV of cash inflows is compared with current cash outlay or cost of an investment project.

For example : A project costs Rs.100000. It is expected to provide cash inflows as follows for 3 years. The company's cost of capital or required rate of return is 15%. Whether the project is acceptable?

Year	1	2	3
cash Inflows	Rs 40000	Rs 50000	Rs 30000

Solution :

PV of cash inflows   = PV of Rs 40000 + PV of Rs 50000 + PV of Rs 30000

                      = [40000 X 0.870] + [50000 X 0.756] + [30000 X 0.658]

                      = Rs 34800 + Rs 37800 + Rs. 19740

                      = Rs. 92340

In this example, the present value of cash inflows is Rs 92340, whereas, the cost of the project is Rs 1 lakh. As the benefits are less than the cost, the project is not acceptable.

(b)   **Financing Decision** : When a company issues debentures, it receives cashflows now. Interest payments (cash outflows) are to be made at the end of each year. At the end of the period the debenture amount is redeemed. Therefore, the financing decision involves cash inflows first, followed by cash outflows

Time	t_0	t_1	t_2 . . . . t_n	
cash flows	Sale value of debentures	Interest	Interest	Interest and redemption value

As these cash flows takes place at different times, they cannot be compared. Time value of payment is taken into consideration by finding the discounted value (present value) of interest payments and redemption value. The present value of cash outflows is compared with sale value of debentures and financing decision is taken whether to take up the issue of debentures.

1.10. Summary

This lesson has provided you an overview of Finance in a business entity. The scope, of financial management and finance function have been covered. The primary financial objectives of a company and the broad goal of a company have been discussed. Profit maximasation vis-a-vis wealth maximisation revealed that profit maximisation goal has certain limitations, which can be overcome with wealth maximisation goal.

The organisation of finance function and role of finance manager provide an insight into organisational chart and various functions of financial manager.

There are three major financial decisions, viz., Investment, Financing and Dividend decision. Investment decision relates to the selection of viable projects and estimating capital budget. Financing decision is concerned with the ways of finding funds to meet the capital budget requirement. Dividend decision is about how the earnings of the company are to be used i.e, a break up between dividends and retention.

Finally, the time value of money has been presented.

1.11. Key words

Financial Management : Concerns the acquisition, financing, and management of assets with some overall goal.

Future Value : The value at some future time of a present amount of money, or a series of payment, evaluated at a given interest rate.

Net Present Value : The Present Value of an investment projects net cash flows minus the projects initial cash outflow.

Present Value : The current value of a future amount of money, or a series of payments, evaluated at a given interest rate.

Price / earning ratio (P / O) : The market price per share of a firm's common stock dividend by the most recent 12 months of earnings per share.

Risk : The variability of returns from those that are expected.

Capital structure : The mix of a firm's permanent long - term financing represented by debt, prefessed stock, and common stock equity.

Compount Interest : Interest paid on any previous interest earned, as well as on the principal borrowed.

Funds	:	Funds include not only cash but also the total current assets or financial resources.
Profit Maximisation	:	It is a criterion for economic efficiency as profits provide a yard stick by which economic performances can be judged under condition of perfect competition.
Wealth Maximasation	:	It stands that the management should seek to maximise the present value of the expected returns of the firm.
Discounting	:	A reduction of some future amount of money to a present value at some approprite rate in accordance with the concept of the time value of money.

1.12 Self - Assessment questions.

1. What do you mean by "Finance" ? Explain the scope of finance Function.

2. What is Financial Management ? What role a Financial Manager plays in a corporate enterprise ?

3. Do you think Wealth Maximisation, as a goal of a company, is superior to Profit Maximisation? Explain.

4. What are the major Financial Decision ? How do you trade off risk and return ?

5. How is Finance Function Organised ? What are the functions that finance officers perform in a large firm ?

6. What do you mean by Time Value of Money ? Explain its relevance in financial decision making.

1.13. Further Readings

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