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Preface

It gives me immense pleasure to present the book on Financial Management (Foundation of Finance) for the students of M.Com. Part II, Semester III. Financial management is a critical component of every organization, whether it is a large corporation, a small business, or even an individual. In a world of increasing complexity and rapid change, sound financial management ensures that resources are allocated efficiently, risks are managed appropriately, and long-term financial health is achieved. The decisions made in the realm of finance directly impact the growth, stability and sustainability of an organization.

This book is designed to offer a comprehensive guide to financial management, combining theory with practical application. It covers a wide array of topics like introduction to finance, risk and return, financial planning and capital structure. The goal is to provide a solid foundation for students, professionals, and anyone seeking a deeper understanding of the financial principles.

Throughout the chapters, authors have emphasised on the importance of strategic thinking in financial decisions. A strong financial plan does not merely react to circumstances; it anticipates future challenges, adapts to market fluctuations, and capitalizes on opportunities. Financial managers must not only be analytical but also creative in devising ways to fund growth, control costs, and maximize profitability.

This book presents a blend of theoretical knowledge and practical tools that will be valuable to readers. The concepts introduced will allow both new students of finance and experienced practitioners to enhance their ability to navigate the complexities of today's financial landscape. Readers will get conceptual understanding, examples and exercises that will bring deeper understanding of the subject.

As the readers explore the chapters ahead, it is expected that they think critically and explore the connections between financial decision-making and the broader organizational goals. I hope this book serves as a valuable resource, helping you build a strong, practical understanding of financial management that can be applied in any context or organization. I welcome the suggestions, if any, from the readers for improvement in the content. I am thankful to the authors who have contributed significantly in developing contents of this book and expect that this book is well received by the students as well as teachers in the domain of financial management.

■ **Editor** ■

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M. Com Part-II

Semester III

FINANCIAL MANAGEMENT - FOUNDATION OF FINANCE

INDEX

Each Unit begins with the section 'Objectives' -

Objectives are directive and indicative of :

1. What has been presented in the Unit and
2. What is expected from you
3. What you are expected to know pertaining to the specific Unit once you have completed working on the Unit.

The self check exercises with possible answers will help you to understand the Unit in the right perspective. Go through the possible answer only after you write your answers. These exercises are not to be submitted to us for evaluation. These are provided to you as Study Tools to help keep you in the right track as you study the Unit.

Unit-1

Introduction to Financial Management

Unit Structure

1.0 Objectives:

After studying this unit, you should be able to understand-

- Meaning, objectives and scope of financial management.
- Function of financial management.
- Importance, roles and responsibilities of finance manager
- Organizations of finance department.
- Concepts like window dressing, risk return trade off.

1.1 Introduction

Finance is essential for every business enterprise to carry out its activities, because finance is one of the basic foundations of all kinds of modern economic activities.

Finance is the master key which provides access to all the sources for being employed in manufacturing and merchandising activities. It has rightly been said that **business requires money to make more money.** That is why; finance is called the life blood of a business enterprise. It is not possible to achieve the objectives of organization without adequate finance. Therefore efficient management of business enterprise is required to efficient management of its finance.

1.2 Subject Matter

1.2.1 Meaning of business finance

Business finance means finance required for business activities. The term business finance consists of two words, viz (1) business and (2) finance

What is Business?:

Business means "State of being busy". It means every person engaged another other activities to earn income for his livelihood. In other words, all **creative human activities relating to the production and distribution of goods and service to satisfy any human wants are known as business.**

The term business means and includes trade, industry and commerce. **Trade** means buying and selling of goods.

Industry Means production of goods and service to satisfy human wants by creating form utility.

Commerce Means distribution from latin word finis. It means finance or money. Finance is defined as the provision of money as and when required. It refers to the management of flow of money through the organization. According to henry frod, finance or money or money is an arm or leg; you either use it or lose it.

Business finance is rising off and sand proper use of such funds for the purpose of making profit. Therefore business finance deals with acquisition of funds and its proper management in a business enterprise. Business finance is also called finance Function of the management. Thus the finance is the process of conversion of accumulated funds to productive use.

Definitions:

1. **R. C. Osborn defines,** "the finance function is the process of acquiring and utilizing funds by a business."

2. **Guthmann & dougall define,** "Business finance can be broadly defined as the activity concerned with planning, raising, controlling and administering off sound used in the business."

3. **Prather and wert difince,** "Business finance deals primarily with raising, administering and disbursing funds by privately owned business units operating in non-financial fields of industry".

4. **Bonneville and dewey define**, "financing consists in the raising providing, managing of all the money, capital or funds of any kind to be used in connection with the business."

5. **Paul G. Hasings define,** "finance is the management of monetary affairs of a company it includes determining what has to be paid for raising the money on the best terms available and devoting available funds to the best uses."

6. **Kenneth midgly and Ronald burns define,** "finance is the process of organizing the flow of funds, so that business can carry out its objectivities in the most efficient manner and meet its obligations as they fall due."

7. **A. L. Kignshott defines, "**Finance is the denominator for a vast rage of corporate objection and major part of any corporate plan must be expressed financial terms."

8. **George charisty and peter Roden,** States that, "Finance means to arrange payment for it. They observe that finance may be generally defined as the study of money – its nature. Behavior, regulation and problems. Finance is the study of money management."It may deal with the ways in which businessmen, investors, government, financial institutions and individuals handle their money. It is true that financial activity is largely confined to money management.

9. **The Encyclopedia Britannica** defines finance as "the act of providing the means of payment. It is thus financial aspect of corporate planning which may be described as the money management."

10. **According to the Encyclopedia of social sciences,** "Corporations finance deals with the financial problems of corporate enterprises. These problems include the financial aspects of the promotions of new enterprises and their administration during early development, the accounting problems connected with the distinction between capital and income, the administrative questions created by growth and expansion and finally, the financial adjustments required for the

boistering up or rehabilitation of a corporation which has come into financial difficulties."

Conclusion:

Corporation finance or broadly speaking business finance can be defined as the process of raising, providing and administering of all money or funds to be used in a corporate (business) enterprise.

Thus we can say that **financial management** as practiced by corporate (business) firms can be called corporation finance or business finance.

At present corporate in finance or managerial finance is studied in the form of financial management.

SCOPE OF CORPORAT IN FINANCE

The scope of corporation finance is so wide as to cover the financial activities of a business enterprise right from its inception to its growth and expansion and in some cases to its winding up also. Corporation finance usually deals with financial planning, collection of funds, use and distribution of funds and financial control.

ORIGIN OF FINANCIAL MANAGEMNET

"Business finance" or "Corporate Finance" or Managerial Finance" under traditional approach is now being studied as "Financial Management" under the modern approach.

Financial Management is an important component of general management. Financial Management signifies financial planning, procurement of finance, assets management and establishing the balance between different sources of finance.

1.2.2 MEANING OF FINANCIAL MANAGEMENT

Introduction:

Finance has become so much important for every business enterprise that all managerial activities are connected with it. Finance deal with inflow and out flow of cash with the rapid growth of complex industrial structure. The importance of importance of financial function has increased so that it has given birth to a separate subject known as "**Financial Management"**

Meaning:

Financial Management is the part of the management activity which is concerned with the planning and controlling of firm's financial resources.

It deals with finding out various sources for raising funds for the firm. The sources must be suitable and economical for the needs of the business. The proper use of funds also forms a part of financial management. Financial management is recent origin. This subject is still developing and has not yet acquired a body of knowledge of its own.

In other words, financial management is the part of the management which is concerned with rising of funds in the most economical manner and using them profitably.

Definitions:

The term financial management has been defined differently by the management scholars.

1. **Prof Ezra Solomon defines**, "Financial management is concerned with the efficient use of an important economic resource, namely capital funds".
2. **Joseph and Massle defines**, "Financial management is the operational activity of a business that is responsible for obtaining and utilizing effectively the funds necessary for efficient operations."
3. **Phillipattus define**, "Financial management is concerned with the managerial decisions that result in the acquisition and financial of long term and short –term creditors for the firm. As such it deals with the situation that requires selections of specific assets (or combination of assets) the selection of specific liability as the decisions is based on the expected inflows and out – flows of funds and their effects upon the managerial objectives."
4. **Husband and Dockery define**, " in an organism composed of number of separate activities, each working for its own end but simultaneously making a contribution to the system as a whole, some force is necessary to bring about direction and co-ordination of economic activity and facilitate its smooth operation. Financial management is the agent that produces this result."
5. **J. F. Bradley define**, "financial management is the area of business management devoted to judicious use of capital and careful selections o sources

o capital in order to enable a business firm to move in the direction of reaching its goals."

6. **Weston and Brigham define**, "Financial management is an area of financial decision making, harmonizing, individual motives and enterprise goals."
7. **Howard and Upton defines**, "it is the application of general managerial principles to the area of financial decisions- making".
8. **Raymond Chambers define** "Financial Management may be considered to be the management of the financial function. It may be described as making decision on financial matters and facility and reviewing their exaction. It may be used to designate the field of study which lies beneath these processes."
9. **Hunt, William and Donaldson** have called it Resource management."

Form the above definitions. It is clear that financial management is that specialized activity which is concerned with the collection or raising of finance and its effective utilization for the attainment of common objectives of the business enterprises. It includes financial planning, financial administration and financial control.

So, financial management guides investment where opportunity is the greatest, producing relatively uniform yardsticks for judging most of the firms' operations and projects. It is a continuous process for achieving and adequate rate of return on investment as this is necessary for survival and attracting new capital. It is excellent tools by means of which resources can be allocated to various projects, depending upon their importance and pay off capacities. Financial management provides the best guide for future resource allocation by a firm at present, financial management is the dynamic making of day – to – day financial decisions.

In short, financial management is mainly concerned with the proper management of funds.

EVOLUTION OF FINANCIAL MANAGEMENT

Financial management emerged as distinct area of study during the second half of the 20^{th}century. But even before the at some direct or indirect references to finance were made on a casual basis. The evolution of financial management may be divided into three broad phases viz.

1) The traditional phase–Finance upto1940

2) Transitional phase–finance after 1940 to 1950.

3) Modern phase–finance after 1950.

1) Traditional phase finance up to 1940:

In this phase, the finance manager was concerned with record keeping, this preparing different report and managing cash.

1) Finance function was concerned with procuring of funds.

2) Establishment of financial institutions for providing finance to industries.

3) It was considered to be the interest of the outsiders.

4) It was given more importance on long term finance.

5) There were no an analytical financial decision making.

2) Transitional phase–from 1940 to 1950:

It began around the early1940 and continued up totheearly1950. In this phase, the scope of finance function widened and day-to-day problem of finance were also incorporated. A representative work of this phase is essays on business finance by wilford J. Eitman.

3) The modern phase–finance After 1950:

It began in the middle of 1950 and has witnessed on accelerated pace of development with the infusion of ideas from economic theory and application of qualitative methods of modern theory of financial management are

1) Theory of portfolio management.

2) The theory of leverage and valuation of firm.

1) Theory of portfolio management:

This theory was developed by Harry Markowitz which deals with portfolio selection with risky investment.

2) The theory of Leverage and valuation of Firm:

These theories are developed by Modigliani and miller in 1958 they have shown by introducing analycal approach as to how the financial decision making in any firm be oriented towards maximization of the values of the firm and the maximization of the shareholders' wealth.

In innovate techniques of financial managers were introduced viz. “capital budgeting” by Joel Dean 1951

Theory of investment of firm by frieder chand

The introduction of computer for financial analysis Operation research

Powerful mathematical tools and models etc.

The above techniques helped in bringing discipline in financial analysis.

The article published by Modigliani and miller in 1958 and 1961 added one more dimension to the financial management these theories highlighted the impact of debt capital structure.

The following are the important theories of financial management of 1960 onwards. 1960 Portfolio theory by harry M. Markowitz.

1964 A Theory of market equilibrium under condition risk by William F. Sharpe. 1965 Security prices, risk and maximal gains from diversification by John Linter. 1970 Capital Asset pricing model by Sharpe

1972 The theory of finance by F. Fama and Merton H. Miller 1976 The arbitrage theory of capital asset pricing.

On account of these reasons the financial theory has shifted from its traditional approach of “Descriptive Analysis” to current thinking of “Normative Analysis”

The modern phase can be summarized

1) The scope has widened to include optimum utilization of funds.

2) The knowledge of securities.

NATURE OF FINANACIAL MANAGEMENT

The nature of financial management refers to its objectives, scope and function.

Objectives, scope and functions are explained under each head separately in succeeding pages.

1.2.3 OBJECTIVES OF FINANCIAL MANAGEMENT

The objectives of financial management can be broadly classified into two categories viz.,

1) Basic objectives or important objectives,

2) Other objectives or general objectives.

Objectives of financial Management

Basic objectives	Other objectives
1) Maintenance of Liquid Asses	1) To Protect liquidity and solvency Of the firm
2) Profit maximization	2) To utilize the available financial resources effectively
3) Wealth maximization	3) To provide social welfare.
	4) To build-up-adequate reserves for financing, growth & expansion
	5) to ensure a fair rate of return in investment of equity shareholder

A) BASIC OBJECTIVES

The following are the basic objectives of financial management:

a) Maintenance of liquid assets.

b) Profit maximization OR maximization of profit.

c) Wealth maximization OR maximization of wealth.

a) Maintenance of liquid assets:

It means that financial management ensures that there are adequate cash in hands of the firm at all times to meet its obligations.

b) Profit maximization OR maximization of profit.

A business firm is a profit seeking organization i.e. every business or manufacturing organization has profit motive. So all the organization is interested in maximizing its earning. Profit is a measure of efficiency of business enterprise. Profit also serves as a protection against risks which cannot be ensured. The accumulated profit helps a business to face risks like fallen price, competition from other units etc. thus profit maximization is the main objective of financial management.

Advantages of Profit Maximization objectives OR

Arguments in favour of profit maximization

1) It is rational as well as natural objective:

An economic activity is performed by an individual for the purpose of some benefits. The benefits expected in the field of business are measured in terms of profit. When profit earning is the aim of business then profit maximization should be the natural objective.

2) It helps for services:

Economic & business conditions do not remain the same at all the times. There may be adverse business conditions like recession, depreciation cut thought competition, etc. A business will be able to service in such unfavorable situation only if it has some post earning to rely upon. That is why a business should try to earn more and more profit when the situation is favorable

3) It helps for proper utilization of resources:

Profit maximization helps for efficient utilization of available resources. High productivity increases the profitability of enterprises. So in order to maximize profit, organization has to use the resources effectively and efficiently.

4) It helps for growth and development to for organization.

Profit is the main source of finance for the growth of a business so business should aim at maximization of profits for helping its growth and development.

5) It helps for maximizing social welfare:

An organization pursuing profit maximization objective also maximizes social welfare because efficient allocation of scarce resources of the society.

6) It is easy and simple to understand:

7) It helps the management or taking financial decisions.

Criticism of profit maximization objectives /

Disadvantages of profit maximization /

Objection against profit maximization

1) **It is vague;** profit cannot be ascertained well in advance without knowing all the relevant factors in advance. It is not possible to maximize wealth. The profit

maximization concept is not clear. It is confusing as well as ambiguous. It can be interpreted in different way by different people. For ex., which profits are to be maximized i.e. short run or long run rate of profit or profit before tax or after tax or total amount of profit or profit in relation to capital employed, share capital is owner's funds or sales.

2) It ignore esteeming factor i.e. time value of money.

An enterprise seeking to maximize the profit should also take into consideration time factor, because a rupees received today is more valuable than a rupee received after a year or a month

While selecting the investment projects, the project yielding higher benefits in the earlier period should be selecting though it's earning capacity may decline after some time.

In short, it takes into account only the total profit, earning but does not consider the length of time in earning profit.

3) It ignores uncertainly and risk factor.

An enterprise aiming at maximizing it's profit, has to bear unexpected risks and uncertainties. Every business is exposed to one or the other type of risks.

4) It neglects social responsibilities of business

It is contradictory to the concept of social welfare. An organization which interests in making more and more profit, cannot contribute anything towards the promotion of social welfare. It ignores the interests of the community on the one hand and that of workers community of the government on the other.

5) Lack of confidence

While estimation the future returns, the decision maker will have no confidence for further maximization. So that goal con not be of the profit maximization achieved. Ultimately firms should satisfy whatever the profit earned rather than to maximize.

C) WEALTH MAXIMISATION OR MAXIMASATIN OF WEALTH

It is the main objective of financial management because profit maximization has god certain limitation. So the objective of wealth maximization is introduced in order to remove the limitations of profit maximization. This objectives is also

consistent with the objective of maximizing the economic welfare of the shareholders of the company.

In other words, maximization of wealth implies that objective of a firm should be to maximize the market value of its shares. The objective of wealth maximisation well has the impact on market value of shares. Equity shareholders are considered as the owner of company. Their wealth increases when the market value of shares increases. The value of shares depends upon its net profit, which itself depends on Earning Per Share (EPS). So that wealth maximization objective is widely accepted objective of financial management.

The word "wealth" refers to the net present worth of the firm. Therefore, wealth maximization is also stated as Net present worth of the firm.

In short, net present worth means present value of expected future cash benefits ascertained by applying appropriate discount rate.

Gross present worth represents value of expected cash benefits rate.

Hence wealth maximization is usually called shareholders wealth maximization (SWM). It can be measured with the help of the formula.

Wealth maximization =Number of shares owned x market price per share (shareholders wealth)

What is meant by SWM?

Share holders wealth maximization is nothing but the net present value (NPV) algebraically, net present value or worth can be expressed as follows using Ezra Solomon's symbols and models

$$W = NPV = \frac{A_1}{(1+K)} - \frac{A_2}{(1+K)} + \text{-------} + \frac{A_n}{(1+K)^{n'}} - C$$

$$\sum = \frac{At}{(1+K)^1} - C$$

Where:-

W =Wealth or Net Present Worth NPV = Net Present Value

A_1A_2-A_n = Cash inflow i.e. Stream of benefits expected. It is measured in terms of cash

K=Discounting factor i.e. Appropriate discount rate to measure the risk and timing C = Cash outflow i.e. cost of investment.

Thus wealth maximization objective of a firm is to maximize its wealth and the value of its shares.

According to Van Horne, "value is represented by the market price of the company's common stock. The market price of a firm's stock represents the focal judgment of all market participants as to what the value is of the particular firm. It takes in to account present and prospective (future) Earnings per share (EPS), the timing and risk of their earnings, the dividend policy of the firm and many other factors that bear upon the market price of the stock. The market price serves as a performance index or report card of the firm's progress. It indicates how well management is doing on behalf of stock holders."

This value is a function of two factors:

1) Earnings per share(EPS)and

2) The capitalization rate which reflects the liking of the investors for a company. Thus we can conclude that:

Maximum utility refers to maximum stock holder's wealth that refers to maximum current stock price per share.

Steps for wealth maximization :

(Factors affecting wealth maximization)

The following factors are to be taken into account in order to maximise wealth:

1) Avoid high level risks
2) Pay dividends
3) Maintain row thin sales
4) Maintain the market price of equity shares

1) Avoid high level risks

Some projects have high profit but at the sometimes there is high degree of risk. Company should not accept such risk. The main objective is to maximize the value of the firm. For this purpose, proper balance should be maintained between risk and return.

2) Pay dividends

Payment of regular dividend on share, which (results in) increase in the goodwill of the firm and also the value of the shares in the market.

3) Maintain row thin sales

The company should have large volume of sales. It means that if there is increase in sales, there is increase in earning. More earning protects the company at the economic recession and change in customers taste and preference. On account of the above reasons, there may be reduction in the demand.

4) Maintain the market price of equity shares i.e. (Maintaining the price of equity shares at reasonable level):

Maximisation of shareholders wealth is closely related with maximization of the value of the firm's equity shares. For this purpose, firm should take number of steps to maintain the value of equity shares at reasonable level. For ex., the management can encourage the public to invest their savings in the firm's equity shares.

The investment in share: firms should create demand for shares by highlighting the firms past performance and glorious future to attract the investors to invest in shares.

Advantages of wealth maximisation:

1) Exactness i.e. Avoiding the ambiguity.
2) Quality of benefits.
3) Time value of money
4) It promotes the economic welfare of shareholders.
5) It helps for achieving other objectives
6) Payment of regular dividends.

1) Exactness i.e. Avoiding the ambiguity.

(It is clear and unambiguous)

The wealth maximisation criterion is based on the concept of cash flows generated by the decision rather that accounting profit. Cash flows (in-coming and outgoing) is a precise concept with a definite connotation. Measuring benefits in terms of cash flows avoid ambiguity associated with accounting profits.

2) Quality of benefits.

The quality of benefits depends on the certainty with which benefits are expected to be received in future.

The more certain the expected returns cash inflows) higher the value. In other words, if the benefit to be received is certain and defines it equality of benefits will be batter and the value will be higher. If there is an uncertainty for receipt of expect.

3) Time value of money

What is the time value of money?

The value of money received today has more value than the value of same amount of money received after a certain period or tomorrow.

Another words, money received in the future is not as value able as money received today. The time value of money is referred to as time preference for money.

In case of wealth maximization, money has time value. It means that the benefits received in earlier years should be valued more highly than benefits received later.

4) It promotes the economic welfare of shareholders.

When the market value of shares are increased, automatically economic welfare of the shareholders is also increased. While protecting the welfare of shareholders it also protects the interest of the parties of company, viz., creditors, customers, society as a whole and the employees.

5) It helps for achieving other objectives

Wealth maximization objective helps for increasing sales, growth of market, face competition and survival.

6) Payment of regular dividends.

Wealth maximization policy has to pay dividend regularly. Payment of regular dividend increases the market value of shares.

Disadvantages of wealth maximization:

1) Most of the shares are held by a few people. Hence equality of wealth is not maintained.

2) Firms' wealth is not considered i.e. share holders wealth V/s firm's wealth

3) The benefit of the society is not considered because wealth maximization is only to shareholders and not to society.

4) Government restrictions:

Various restrictions are imposed by the Government for establishment, expansion, closure, etc, of business firm from time to time.

It forces the management to act according to the government restrictions & manner. In such cases it is not possible to the maximization of shareholders' wealth.

5) Reduce the profitability:

The management ignores its social responsibility i.e. protecting the interest of consumers, paying fair wages to workers, maintaining, proper working conditions, providing educational and physical or medical facilities to the workers and even some social actions are adopted in the interest of the shareholders. It ultimately reduces the firm's profitability.

6) Wealth maximization is a prescriptive idea:

Not descriptive of what the firms actually do but prescriptive.

Conclusion:

The main objective of the financial management of an enterprise should be wealth maximization and not the profit maximization. **Prof. Solomon Ezra of Stanford University** has handled the issue very logically. He agrees that it is wise to make a distinction between "**Profit"** and **"Profitability"** Maximization of profit with a view to maximizing the wealth of shareholders is clearly an unreal motive, on the other hand, profitability maximization with a view to using resources to yield economic values, higher than the joint values or inputs required is a useful goal. Thus the proper goal of financial management is wealth maximization. In other words, **wealth maximization objective is considered superior to profit maximization objective.**

(B) OTHER OBJECTIVES

1) To protect liquidity and solvency of the firm.
2) To utilize the available financial resources effectively.
3) To promote social welfare
4) To build–up adequate resources for financing growth and expansion.
5) To ensure a fair rate of return on investment of equity shareholders.

Profit maximization V/s Wealth maximization

Point	Profit maximization	Wealth maximization
1) Profits	1) Calculation of profit is not clear i.e. whether short term or long term, even profit before tax or after tax.	1) Calculation of wealth is clear. It is considered to be long term. The calculation is for long term.
2) Balance	2) It is not balanced. Wide gap between expected and actual earnings.	2) It is balanced.
3) Concept	3) It is an arrow concept	3) It is a broader concept.
4) Decisions	4) Financial decisions are taken on the basis of profit maximization. It ignores the community, government, worker and other persons concerned with the organisation	4) Decisions are taken on the basis of wealth maximization.
5) Time factor	5) It considers the total profit. While calculating profit and selecting the project, the length of time in earning profit is not considered at all.	5) It considers totally the time value factor. Time in evaluation the cash flows.
6) Goal	6) The main goal is maximization of profits. So goal of maximization of profit is said to be the best criterion of decision making.	6) the main goal is wealth maximization (or value maximization). So goal of wealth maximization is also accepted criterion for financial decision making.
7) Risk and uncertainity	7) More risk and uncertainity	7) No risk and uncertainity
8) Balance between risk and	8) No balance between expected return and risk	8) Balance between expected return and risk.

expected. Return	because higher expected returns involves more risk and Uncertainity.	

1.2.4 SCOPE OF FINANCIAL MANAGEMNET

(Coverage of the study of financial management)

Scope of financial management means what exactly we study in financial management. Initially the subject of financial management was confined only to collection of fund, but at present, has vast changes in corporate sector, technological development, introduction of specified forms of financial institutions, etc. The scope of financial management has undergone radical changes.

Today, financial management as an academic discipline has undergone significant changes over the years as regards its scope and coverage.

Therefore, the scope of financial management is divided into the following categories:

a) Traditional Approach

b) Modern Approach

TRADITIONAL APPROACH:

The traditional approach was popular in the early part of this century. (i.e. between 1920 and 1949)

Under this approach the term 'Corporate finance' was used for financial management". The role of financial management was limited to raising and administering of funds required by the corporate enterprise (i.e. joint stock companies) to meet their financial needs. It converted the following three aspects:

1) Arrangement of funds from financial intuitions (it is nothing but raising of loans)

2) Arrangement of funds through financial instruments (i.e. raising of funds by issued of shares and debentures).

3) Looking after the legal and accounting relationship between a corporation (i.e. company) and suppliers of the various sources of funds.

Thus under traditional approach scope of financial management is confined to mere raising of funds by a company externally i.e. From outside, the types of funds to be raised, cost of borrowings, the timings of the borrowings and duration of the borrowings, etc. So, according to traditional approach, more importance is given to collection of funds but not financial decision. The role of the finance manager was also limited. He was expected to keep accurate financial records, prepare reports on the corporation's status and performance of the corporate enterprise and manage cash in such a way as to meet the bills in time. The term Corporation finance was used in place of the present term.

Financial Management.

The traditional approach funds its manifestation in a limited manner in 1897 in the book, corporation finance written by Thomas Greene. It was given further impetus by Edward Meade in his book corporation finance.' However, it was sanctified firmly by Authur Dewing in 1919 in his book, The Financial Policy of Corporation.

The traditional approach evolved during 1920, continued to enjoy and dominate academic thinking during 1940 and during the early 1950. However, in the later 1950.It began to be severely criticized and later, it was abandoned by the modern scholars on the following reasons:-

1) Outside looking in approach (External appearance)
2) Ignored Non-Corporate enterprise.
3) Ignored routine financial problems.
4) Ignored Working Capital Financing.
5) Ignored Allocation of funds.

1) Outside looking in approach

Under the traditional approach, the financial function was limited to mere raising of funds and the administering of the funds raised. It thus treated as the subject of finance from the view point of suppliers of funds i.e. outsiders viz bankers investors, etc. But it did not give any importance to the view point of those who had to take internal financing decision making process. Thus scope of financial management becomes one side i.e. outside looking in approach and ignored completely the inside looking out approach.

2) Ignored Non-Corporate enterprise

According to the traditional approach, attention is given only to the financial problems of corporate enterprises (i.e. joint stock companies).

It ignored completely the financial problems of non-corporate undertakings like sole trading and partnership firms.

3) Ignored routine financial problems

The traditional approach gives undue importance to the financial problems arising from episodic (i.e. non-recurring) or infrequent happenings like incorporation, merger, and re-organizations Etc. in the life of corporate body. It did not give any importance to the routine day-to-day financial problems of business undertakings.

4) Ignored Working Capital:

In the traditional approach, more attention or stress is given to the problems of only long term financing. It ignored the problems relating to financial of short- term or working capital.

5) Ignored Allocation of funds

The traditional approach restricted the financial management to issues connected with the procurement of funds. It did not consider the allocation of funds to various uses. It ignored the following central issues of financial management as pointed out by Prof. Solomon Ezra of Stanford university, New York (his book theory of financial management published by Columbia university press, in 1969 page 5).

They are:-

a) Should an enterprise commit capital funds to certain purposes?

b) Do the expected returns meet financial standards of performance?

c) How should these standards be set and what is the cost of capital funds to the enterprise?

d) How does the cost vary with mixture of financing methods used?

Thus traditional approach failed to provide answer to these questions because its scope was very narrow. However, the modern approach provides a solution to these problems.

MODERN APPROACH

As explained earlier, the traditional approach was popular till 1949.since 1950, it has lost its popularity because various changes, viz., technological improvement, widened marketing operations, and all made it imperative for the management to make optimum use of available financial resources for continued survival. On account of these reasons, from 1950 onwards popularity of traditional approach is reduced and contributed to the emergence of the modern approach.

Under the modern approach, the financial management has a vast scope or coverage. According to the modern approach, the financial management is concerned with not only the raising of funds but also their wise allocation or application of funds. Thus in order to carry out his responsibilities, it is the bounded duty of the finance manager to see that the funds available are allocated to different productive uses efficiently and wisely or effectively.

Thus, according to modern concept, financial management is concerned with both acquisitions of funds as well as allocation. The new approach observer the term financial management in a broader sense.

In this sense the central issue of financial policy is the wise use of funds and the central process involved is a rational matching of advantages of potential uses against the cost of alternative. Potential uses so as to achieve the broad financial goals which on enterprise seats for itself.

The modern approach is analytical in nature. It looks at the financial problem of an enterprise. The main issue contained in this approach is as given below:

1) What is the total volume of funds an enterprise should commit?
2) What specific assets should an enterprise be acquired? (i.e. How should the funds be employed)?
3) How should the required funds be raised?

The above questions relate to four broad decisive areas or functions of financial of financial management. In other words, that means the modern approach to financial management covers four broad decisions. These decision can also be termed as functions outlining the scope of financial management are also called managerial finance functions. (The four decision or functions of financial management

Are:-

1) Founds requirement decision
2) Financing decision
3) Investment decision
4) Dividend decision

The components of decisions are studied under the head – The functions of financial management.

1.2.5 FUNCTIONS OF FINANCIAL MANAGEMENT

The function of financial management are divided into two classes, viz., 1) managerial function and 2) incidental functions. Functions of financial management can be shown in the form of chart as below:

Functions of Financial Management

Managerial Functions (Executive Functions)	Incidental Functions (Routine Functions)
1) Fund requirement decision	1) To Supply the funds
2) Financial planning	2) To Negotiate with bankers and other financial institutions
3) Financial Decision	3) To safe guard cash balance
4) investment decision	4) Proper custody and safe keeping of documents
5) Dividend decisions cash flow and requirements	5) Record keeping and reporting
6) Appraisal of financial performance Borrowing Policy decision	6) To provide the information to top managements
7) Advise the top management make Efforts for increasing Productivity And capital Quotations.	7) To keep track of stock exchange

A) EXECUTIVE FUNCTION

These functions require administrative skill in planning, executing and control of financial activities. Executive functions include all those important financial decision which require specified administrative skill. They are as follows:

1) Fund requirement decision.
2) Financial Planning
3) Financing decision
4) Investment decision
5) Dividend decision
6) Cash flow and requirement
7) Appraisal of Financial performance.
8) Borrowing Policy decision

1) Fund requirement decision (Financial Forecasting)

The Primary function of the financial management is to estimate how as much different types of funds required i.e. short term and long term. Generally short term fund is required for working capital where as long term fund is required for fixed capital or Acquisition of fixed assets.

Usually in case of new concerns, estimation of funds required is made by the promoters but in case of going concern, estimation of funds required is made by the chief executive of finance department.

A careful estimation has to be made about the total funds required by the enterprise, taking into account both the fixed and the working capital requirements. This is done by forecasting the physical activities of the enterprise.

Such financial forecasting of various statistical mathematical and accounting techniques.

2) Financial Planning

Financial planning is done under three distinct sub-activities viz

a) Formulation of financial objectives.

b) Framing the financial policies

c) Developing financial procedure is being performed for the preparation of both short term and long term plan are prepared.

3) Financing decision

In order to meet the requirements of the firm, financial management has to decide or to take decision on:

When the fund is required? Where to acquire the funds from? How to acquire the funds?

All the business activity requires the funds and every financial manager is facing this problem. Financial management has to identify the source from which funds can be raised, how much amount can be raised, from each source and the cost and consequences involved. A proper balance has to be kept between the fixed and non-fixed cost bearing securities.

4) Investment decision

It is related to decide how much cash will be invested in fixed assets and how much in current assets which are normally convertible into cash within a year. Investment in assets is **Assets Management policy**

Investment in current assets is called working capital management. Similarly investment in fixed Assets is known as capital budgeting.

5) Dividend decision or distribution of profit:

It involves the determination of the percentage of profit earned by the enterprise which is to be paid to shareholders. While taking decision for distribution of dividend the financial management has to take into account the market price of shares and various other factors like.

The trend of earnings,

The tax positions of the shareholders.

The above mentioned factors play a very important role in the determination of dividend decision of the enterprise.

After paying all taxes the available Net Profit of the enterprise can be allocated to three purposes. They are

a) For paying dividend to the shareholder of the company as are turn for their

investment.

b) For distributing bonus to the employees and company's contribution to other profit sharing plans

c) Retention of profits for the expansion of business.

6) Cash flow and requirement

Adequate supply of cash is available at right time for smooth running of the business. Inflow of cash depends upon the sales and cash outflows or cash requirement depends upon the volume of sales. Hence the financial manager has to decide, how much cash is required to meet the current obligations, so that there would be no idle cash balance in the company. Therefore the financial manager has to maintain a balance between inflow and outflow of cash to pay his bills in time.

7) Appraisal of Financial performance.

It is the duty of financial manager to check the financial performance of the funds invested in the business enterprise. It requires the respective analysis of the operating period to evaluate the efficiency of the financial planning. An unbiased assessment of the financial performance will be of great value of the business in improving the standards, technique and procedure of financial control.

8) Borrowing policy decision

All organization plans for the expansion of the business for which it requires additional funds. Financial manager has to make necessary arrangements for such funds by borrowing either from:

Commercial bank or Financial institutions or By issuing new shares or By floating new debentures

The financial manager has to decide about the time when the funds are to be raised, form which sources the funds are to be collected, how long they are needed, cost of raising capital and from which source they will be repaid. So. ultimately financial manger has to take a decision that may carry an ideal debt equity ratio.

9) To advise the top management:

Whenever the top management faces any financial problem, financial management has to advise for best solution. So financial management diagnoses the problem, then advice the alternative solution to the problems and selection of the best solution.

10) To make efforts for increasing the productivity of the capital.

Financial manager has to make all the efforts to increase the productivity of the capital by discovering the new opportunities of investment.

B) INCIDENTAL OF ROUTINE FUNCTIONS

The financial management has to perform some incidental or routine functions. These functions do not require any specified administrative skills. Generally these functions are performed by clerical or assistant managers at lower levels. These functions are to be performed for the purpose of execution of decision taken by the executives.

They are as follows

1) To ensure the supply of funds to all parts of the organization. When the fund is provided, it helps in smooth operation of the activities of the organization.
2) To negotiate with Bankers, financial institutions and other suppliers of credit.

   These are the different sources of funds. It is necessary for the company to negotiate with them only to obtain the funds at the most favorable terms.
3) To safe guard cash balance:

   Proper supervision of cash receipts and disbursement of cash is necessary to safeguard cash balance.
4) Proper custody and safe-keeping of important, valuable papers documents, securities, insurance policies etc.
5) Record keeping and reporting
6) To provide the information to the top management of present and prospective financial conditions of enterprise.
7) To keep track of stock exchange quotations and behavior of stock market prices. This will help the finance manager to plan for finance more effectively.

Conclusion:

Form the above functions we can conclude that financial management is a tools and vigorous of analysis. Financial management area is vast i.e. procurement of funds, management of assets, allocation of capital, the valuation of the firm. So, today financial management accepts challenges of new environment.

1.2.6 IMPORTANCE OF FINANCIAL MANAGEMENT

Introduction:

The importance of financial management cannot be over emphasized in every organizations where the money is involved. Sound financial management is necessary. Finance or money is life blood of business. Every business organization requires money to make more money but money will earn more money, only when it is managed properly. It requires sound financial management. As Collins brooks has remarked "Bad production management and bad sales have slain in hundreds, but faculty financial management has slain in thousands". Finance manager must realize that when a firm makes major decision, the effects of action will be felt through the enterprise.

Sound financial management is essential for all types of organization. The financial management helps in monitoring the effective investment of funds in fixed assets and working capital. Hence the financial management has gained much importance over time.

1) Successful promotion

Efficient and effective financial management is essential to achieve the success in the promotion of business enterprise. It is found that one of the most important reasons of failures of business promotion is a defective plan. For this purpose sound financial plan is very necessary for the success of business enterprise.

2) Smooth Running of an enterprise

Finance is essential for smooth running of the organization. Finance to an enterprise is like oil to an engine. Finance is required at each stage such as promotion, incorporation, expansion, meeting day-to-day expenses. Etc.

3) Co-ordination between various activities.

Financial management provides complete co-ordination between the various department viz production department, sales department, purchase department marketing department account department to achieve the organizational objectives. The finance manager is responsible to meet the financial need of different departments timely. For example. If the finance department fails in its obligations to the purchase department for purchase of raw materials, it will affect the production department, because of shortage of raw materials; consequently there is no supply and decreases in sales. Consequently, the income of the concern will suffer. Thus

financial management occupies a central place in the business organization to control and co-ordinate all the activities of the enterprise.

4) Decision making

All the decisions are taken on the basis of profitability. Financial management supplies scientific analysis of all facts and figures, budget, financial statements, etc. these information help the financial management to calculate the profitability of the plan in given circumstances and guide for taking proper decision to minimize the risk.

5) Solution to business problem

Financial management provides various solutions to the top management problems.

6) Measures of performance:

Financial management provides the financial results. Therefore, financial results are the yard stick to measure the performance of enterprise, its size of the earnings. Financial decisions which increase the risks will reduce the value of the firm whereas financial decision which increases the profitability of the enterprise will increase value of the firm. So risk and profitability are the two essential ingredients of the business enterprise. In this context, J.F. Weston and E.F. Brigham Express that "financial decisions affect both the size of earning stream of profitability and the riskiness of the firm. Policy decisions affect risk and profitability and these two factors jointly determine the value of the firm"

1.2.7 ROLE AND RESPONSIBLITIES OF FINANCIAL MANAGER

Financial management is an integral part of over-all management rather than as a staff only. Also the raising the funds and the effective and optimum utilization of these funds. All the important financial decisions are made by the top management of financial executives

Who are involved in the process the main responsibility of the financial mangers is to provide all the necessary accounting information, analyses and discuss the various alternatives and suggest suitable solution to problems.

The following are the responsibilities of financial manager:

(A) PRIMARY RESPONSIBILITIES:

1) Financial planning:

It is the chief responsibility of the financial executive to make a sound financial forecast and then to plan for achievement.

Financial plan means planning the total financial requirements of a business enterprise. The financial management is to forecast the needs and sources of finance and ensure the adequate supply of cash at proper time for smooth running of business enterprises. So that the financial manager can see that the cash inflows and outflows are properly balanced. Hence he ties for an efficient management so that the firm might not experience financial crises and defer its payments.

2) Rising of necessary funds:

Another main responsibility of financial management is to supply adequate funds to the firm for its various activities. Financial manger has to decide about, whether finance are required for long term or for short term purpose because it decides the nature, terms and various alternative sources of finance, cost of raising funds from any particular source. Its (raising funds)impact of additional financing on the risk, control income of equity shareholders, creditors, employees and society should be evaluated in term of its costs and its impact on capital structure, etc.

3) Proper utilization of funds:

The main objective of a business enterprise is to earn profit, and earnings depend upon the efficient utilization of funds. The responsibility of the finance manger is that funds raised are properly and effectively utilized in order to earn sufficient profits. This requires sound investment, decision, proper assessment, management policies, proper depreciation, provisions and efficient management of working capital. An effective control on inflow and outflow of cash should be maintained for meeting current and future obligations. Unnecessary expenditure should be curtailed.

4) Appropriation of profit

Proper appropriations of net profit after payment of taxation other responsibility of finance manger. So finance manger must advise the top management in the following ways:

a) How much of the profit should be retained in the business in the form of reserves for the future expansion and modernization. It is called retained earnings.

b) How much profit should be used for repaying the debts

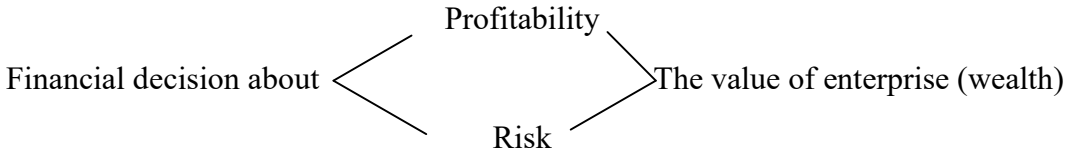
c) How much profit should be distributed to the shareholders as divided.

On the basis of advice given by the financial management, the top management has to take the decision to appropriate the profits of the organization. So that financial management should maintain the balances between the expectations of shareholders and the need to retain earning to acquire additional assets for expansion.

5) Efforts to maximize the value shares i.e. wealth maximization:

Financial management has to make continuous efforts to maximize the value of enterprise for its shareholders. It is nothing but wealth maximision.

The wealth maximization depends upon decisions taken by an enterprise. How the maximization of wealth shown in the form of chart.



(B) OTHER RESPONSIBLITIES

The financial manger has to discharges the other responsibilities to the different parties which are as follows:

1) Responsibilities to owners (i.e. Shareholder)

Equity shareholders are the real owners of the company. The financial manger has the prime responsibility of protecting the financial interest of equity shareholders i.e. owners.

a) To pay fair rate of dividend that will reward the shareholders for the risk who provides the capital. This will automatically increase the market value of shares.

b) To assure prompt and regular payment of dividend.

c) To increase or maintain the goodwill of the enterprise.

d) To protect the solvency of the business

e) To protect the managerial right of the shareholders.

d) To maintain the financial health of the enterprise.

2) Responsibilities to the employees:

The following are the responsibilities of the financial manger towards the employees:

a) To make regular and fair wages and salaries to the employees

b) To introduce the various incentive schemes for increasing their efficiency and productivity and attract the efficient and trained workers.

c) To create favorable working conditions.

d) To make the necessary for participating of the employees in management.

e) To take necessary steps to increase the morale of its employees.

f) To create proper co-operation and co-ordination between workers and management.

3) Responsibilities to customers:

The following are the responsibilities of the financial management towards the customers.

a) To supply the good quality of products at reasonable price.

b) To protect the interest of the customer.

c) To supply the good on credit

d) To introduce the prize, gift. etc. for increasing the sales.

e) To make necessary arrangement to collect more funds.

4) Responsibilities to the society:

The following are the responsibilities of the financial management towards society:

a) To take the necessary step to control the pollution.

b) To protect the interest of society.

c) To avoided the artificial shortage of goods.

5) Responsibilities to the creditors:

Ex. Of credit or so far corporate enterprise viz.

Financial Institutions

Money lenders

Trade creditors

Debenture holders

The following are the responsibility is of the finance manager towards creditors, viz.

a) To pay the bills regularly for supply of raw materials i.e. creditors bill.

b) To repay the loan within a stipulated period.

c) To maintain cordial relationship with the creditors.

d) To pay the interest and principal amount promptly without fail.

It helps to maintain a high credit standing or reputation in the eyes of the creditors.

6) Legal Responsibilities

The following are the legal responsibilities of the finance manager:

a) To know the rules and regulation framed by the government towards organization.

b) To obey the taxation laws, import and export tariff.

c) To know the company laws.

d) To know the industrial, commercial, monetary, fiscal and banking policies of the government.

1.2.8 ORGANISAITON OF FINANCE DEPARTMENT & ITS FUNCTIONS

Meaning:

Organization of finance department means the division and classification of various functions, which are to be performed by the finance department. An enterprise should be given proper attention to the structure are organization of its finance department. The roles of department, finance executives should be clearly defined in order to avoid conflict and overlapping of functions.

The titles given to different finance officials are:

Vice President (finance)

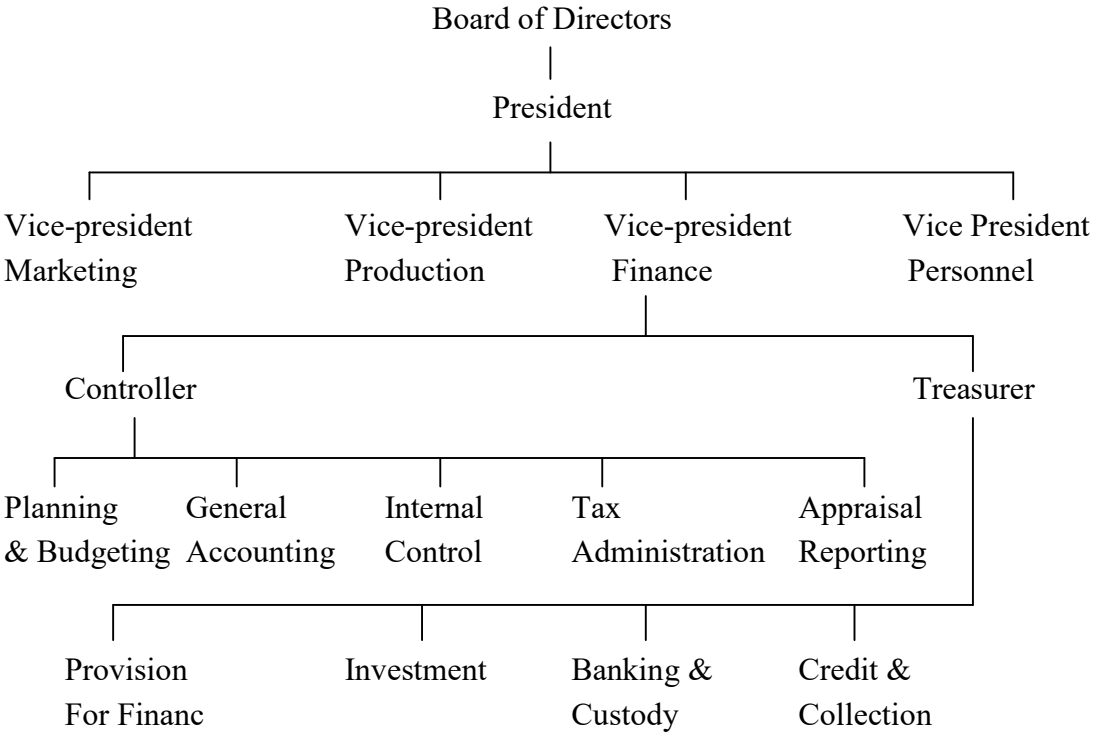
Chief Executive (Finance)

General Manager (Finance)

However, in most of the organization, vice-president (finance) has under him two officers carrying out the two important functions, viz,

The accounting (as a Treasurer)

The following chart gives an idea about the organization of the financial department.



The above chart shows that the vice-president (finance) exercises his functions through his two persons or deputies known as:

1) Controller and

2) Treasurer

CONTROLLER OR COMPTROLLER (ACCOUNTING)

He is concerned with the management and control of assets. The duties of the controller are preparing financial reports, profit planning, accounting, budgeting inventory control, taxes, etc. in short his functions relate to the Assets-side of the balance sheet.

Controllers Functions:

Controllers Institute of America has shown the following as the functions of the controller:

1) Planning and controlling:

Providing necessary information for preparing financial plans, profit planning, capital budgeting, accounting, etc. This information helps as a basis for financial control.

2) Preparation of financial reports and interpretation

Preparation of the financial statements is the first duty of the controller. Then follows the interpretation of the results by comparing actual result with budgeted result to find out any variation. Such variation and report are submitted to the top management and the government.

3) Internal control or protection of assets:

To assure protection of business assets through internal control such as

Internal Auditing

Cost control

Inventory Management

Budgeting and budgetary control and assuring proper insurance coverage

4) Tax Administration

To establish and administer tax policies and procedures

5) Economic appraisal

To appraise the economic and social forces and the influence of the government, and interpret their effects upon business

Treasurer's Functions

He is concerned with management funds. The following are the duties of functions of treasurer.

1) Provision of finance:

Proper programmer should be made in order to get the finance (i.e. provision of finance) required by the business. It includes negotiating its procurement and maintaining the required financial arrangements.

2) Investors Relations:

To establish and maintain an adequate market for companies' securities and to maintain adequate contact with investors, in making borrowing arrangements from bank and other institutions, establishing better relationship with them.

3) Short term financing:

To maintain adequate sources for the company's current borrowing from the money market.

4) Banking and custody:

To maintain banking arrangement to receive, and to have custody of securities

5) Credit and Collection

To direct the granting of credit and the collection of accounts receivable by the company.

6) Investments:

Planning the investment of the company's funds for pension and trust management

7) Insurance

To provide the insurance coverage as may be required to protect the financial interest and protecting the assets of the company.

RELATIONSHIP OF FINANCIAL MANAGEMENT WITH OTHER FUNCTIONAL AREAS OF BUSINESS

Introduction:

The financial management provides oil to the life of a firm by providing the flow of funds. This helps the firm in achieving the ultimate objectives of the firm. Finance function is related to every other functional areas of the business; wherever a policy decision is to be taken every policy decision involves some or other financial implication

The knowledge of financial implication of their decisions is important for the non-finance manager i.e. production manager, marketing manager human resources manger etc. these non – finance mangers also take investment decision implication the theories and principles of financial management. Thus the functions like

production, marketing, purchase; HR, etc. involve financial aspects also. Hence the function of all departments imply problem of finance in one form or other.

According to **Hunt** "probably no other functional area of a business is as intimately inter-related with other areas of the business as is the finance functions.

The following are the relationship between financial management and other functional areas of business:

1) Financial management and production Departments
2) Financial management and Marketing Departments
3) Financial management and Human Resources Management
4) Financial management and material Department
5) Financial management and Top management.

1) Financial management and production Departments

The financial management has a very important role to play in interaction with the production management as the cost of production is part of total cost.

Production manager can help in maximizing the profits by holding the cost of production under control. He can control the cost by making productive use of equipment, controlling the inventory of work in progress, minimizing the ideal time and worn stoppages and capacity utilization.

In addition to above, production department has to take decisions like increase in capacity utilization installation of safety device replacing machinery, etc. all the decisions have financial implications and the reform should be evaluated in the light of the objective of the maximization of the shareholders wealth

2) Financial management and Marketing Departments

Marketing manager should have a working knowledge of financial management. Because marketing manager has to take various decisions, which have the impact on the profitability of the business. The marketing department is entrusted with the responsibility financing marketing selling advertisement and other related policies to achieve the sale target. Marketing department is also required to frame credit and collection policies to maintain and increase the market share, creating a brand name, to acquire a competitive edge, pricing promotion product mix distribution policy, etc.

for all these different policy decisions all of which have financial implication are to be taken.

3) Financial management and Human Resources Department i.e. personnel Department

HRM is relating to the recruitment training and placement of the staff for the firm. This department has to work with the financial manager, while evaluating different schemes of training programs, employees' welfare, economy in manpower, computerization incentives schemes revision of pay scales, etc. The best possible option should be indentified keeping in view of both the employees and the interest of the firm while taking decisions in this case financial implication are to be considered.

4) Financial management and material Management

Material constitutes a substantial portion of cost of production which can be controlled. The inventory of any items is required to maintain an optimum level i.e. neither excessive nor inadequate. For this purpose waste can be reduced also by keeping strict vigil on the financial implications of material movement in the firm. The finance manager and material manager may come together while determining the EOQ, setting of stock levels. Thus financial management interacts with each other and the financial management has a specific role to play.

5) Financial management and Top management

Financial management has strong linkage with the functions of top management. For ex. Basis inputs such as planning and control provided by financial management to top management.

6) Financial management and Assets Management

Assets are essential resources for conducting the business purchase of assets their proper maintains involve finances. Proper utilization of assets affects the finance manger is related with purchase and utilization of assets.

7) Financial management and Cost Accounting

The cost accounting provides the information to the management to control the cost. The information supplied by cost accounting is most useful to the finance manager for control of costs and he makes suitable recommendations to keep costs under control.

8) Financial Management and Financial accounting

Financial accounting is the process of identifying measuring and recording the economic transactions with the purpose to provide information to various users for their decision making.

Financial management is concerned with the financial decision making. Its stress is laid on the optimum utilization of funds and raising the funds at on optimum cost at an appropriate time. Thus financial management is concerned with the management of funds. The finance manager is concerned with the maintenance of firm solvency and liquidity by providing cash flows to meet the requirements of the firm.

In short, financial accounting is concerned with measurement of funds, while financial management is concerned with the management of funds.

The relationship between financial accounting and financial management can be summarized as follows.

a) Financial accounting discloses the profit or loss made by the company. On the basis of profit, this helps to the finance manager to calculate EPS and further use in financing decisions.

b) Financial accounting provides the information's about the available profits (after tax and other appropriation). This information helps to the financial management for framing the dividend policy of the firm.

c) Financial accounting provides the various accounting data. This helps to the financial management for receivable management liquidity management.

d) Financial accounting's main objective is to earn more profit. This helps the financial management to maximize the shareholders' wealth.

Financial Management and Financial accounting complementary companions Difference between financial accounting and financial management

Points	Financial Accounting	Financial Management
1) Objectives	1) Its primary objective is recording of the facts and the transactions in Monetary terms. In short, it is store keeping	1) Its objective concerned with taking decisions on the basis of information for the maximization of shareholders wealth. In

		short it is aimed at value maximizing.
2) Process	2) It is information collection process	2) It is the decisions making process
3) Conclusion	3) It is amending point	3) It is the starting point
4) Reports	4) Reports are prepaid on accrual method	4) Reports are prepaid on the basis
5) Dealings	5) It deals primarily with the past. It is relatively more objective and definite	5) It is concerned mainly with the future. Its decisions are uncertain.

FINANCIAL METHODS OR TOOLS

Financial management is related to the raising of financial resources and their affective utilization towards achieving the goal of the organisation of maximization of profit. This requires application of appropriate financial methods or tools. Tools mean technique to be applied for achieving the purpose or goals.

The following are the important financial tools or methods used in financial management.

1) Cost of capital
2) Financial leverage or trading on equity
3) Capital budget in appraisal methods
4) Inventory Control
5) Ratio Analysis
6) Fund flow analysis and cash flow analysis

1) Cost of capital

This tool helps the finance manager in deciding the sources from which the funds are to be raised. There are different sources of finance, viz.

Shares,

Debentures,

Loans from the financial institutions, Loans from banks, Public deposits etc.

In such case, the finance manger has to take into account the cost of capital and select that source which is the cheapest to him. This tool helps the manager to determine the optimum capital structure.

2) **Financial leverage or trading on Equity**: this tool helps the finance manger in increasing the return to equity shareholders.

3) **Capital budgeting appraisal methods**

The various capital budgeting appraisal methods such as Payback period

Average rate of return Net present value Profitability index

Internal rate of return, etc. are commonly used by a finance manager in selecting the best among the alternative proposals of the capital investment.

4) **Inventory Control techniques:**

ABC analysis, cash management models, debtor's turnover ratio, aging schedule of inventories, etc. are some inventory control techniques. These techniques help the finance manger in effective management of current assets.

5) **Ratio Analysis**

This technique helps for evaluating different aspects of the concern. Different ratio serves different purpose.

6) **Fund flow analysis and cash flow analysis**

This technique helps the finance manger to determine whether the funds have been raised from the best available source and whether they have been utilized in the best possible way Projected fund flow analysis and projected cash flow analysis helps the finance manger in estimating the future working capital or cash requirements.

FINANCIAL MANAGEMENT IS BOTH A SCIENCE AND AN ART FINANACIAL MANAGEMENT IS A SCIENCE

Financial management takes the help of statistical techniques (standard deviation), operation research and computer technology for solving financial problem of a corporate enterprise. These problems pertain to:

Risk and uncertainty in capital budgeting decision,

Indifference point in planning capital,

Structure of a company, Dividend decisions

Hence it is stated that financial management is an applied science

Financial management is an Art

Financial management is application of value judgment in making the financial decision. Hence the application of human judgment in financial management is an art.

WINDOW DRESSING

Window dressing refers to a situation when financial statements are made to show the better state of affairs of the company. The profit & loss A/c. balance sheet do not disclose a true and fair view of the state of affairs of the company.

In case of profit and loss A/c

It can be made by inflating the amount of profit as follows.

1) Less provision for depreciation or not charging depreciation or bad debts
2) Stock i.e. inventories are valued at higher rate
3) By understating the liabilities. It means liabilities are shown less than the actual amount.
4) By charging revenue expenditure as capital expenditure.

In case of Balance Sheet

Loans are paid off just before closing or the end of the financial year to present a better financial position by improving the debt-equity ratio and current ratio.

LIQUIDITY V/S PROFITABILITY

Now a day, financial manager is facing the problems of liquidity v/s profitability. A wise financial manager has to maintain the balance between the profitability and liquidity.

What is liquidity?

It means funds of the enterprise are sound eras to yield the highest return.

Liquidity and profitability are closely related or depended. Because if one increases, the other decreases. Therefore, liquidity and profitability goals conflict in most of the decisions which the finance manager takes. For ex. If more stock is maintained in anticipation of increases in prices of raw materials, in such case profit

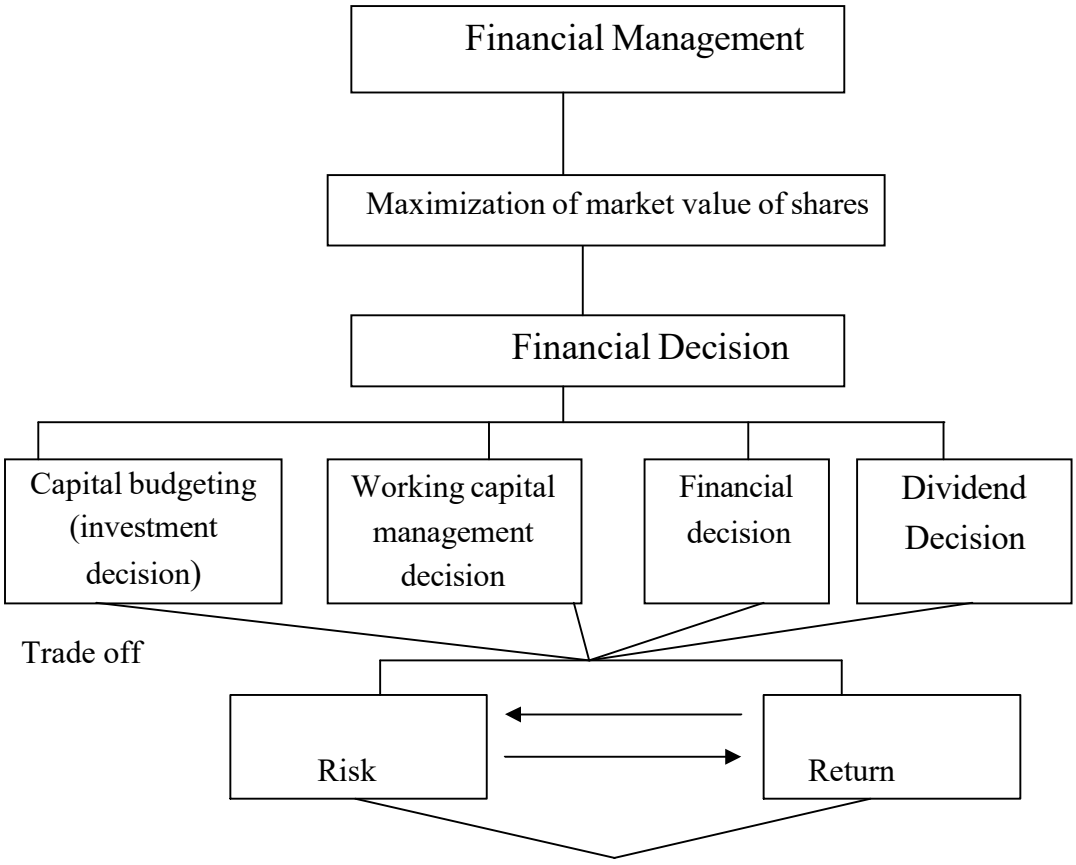
is increased i.e. profitability goal is achieved but the liquidity of the enterprise is decreased.

RISK RETURN TRADE OFF

Higher risk decreases the liquidity of the enterprise, but higher return increase the profitability of the enterprise. In every area of financial management, the finance management the finance manager is to choose between risk and return. An efficient finance manager fixes that level of operation where both return and risk are optimized.

In other words a proper balance is to be maintained between risk and return in order to maximize the market value of the share. Such balance is called risk return and trade off. Risk is to be minimized and return trade off is shown in the form of chart.

Chart showing risk return tradeoff



1.3 Exercise

A) Answer the following questions in 2 to 3 sentences each:

1. What is Finance?
2. What is business?
3. What is industry?
4. What is commerce?
5. What is business finance?
6. What is time value of money**?**
7. What is meant by wealth maximization?
8. What is profit maximization?
9. What are the additional basic objectives of financial management?
10. What is Net Present Worth?
11. What is Gross Press Worth?
12. What is SWM? Or expand the terms WM?
13. Give the formula for worth maximization?
14. What do you mean by the executive functions?
15. What is investment decision?
16. What do you mean by dividend decision?
17. What is fund requirement decision?
18. What do you mean Appraisal of Financial performance?
19. What do you mean by Routine function?

B) Answer the following question in 8 to10 sentences each:-

1) What is profit maximization objective? Explain the advantages profit maximisation.
2) What is wealth maximization objective/explain the merits of wealth maximisation.
3) Explain the disadvantages of profit maximization objectives.

4) Explain the disadvantages of wealth maximization objectives.

5) Explain the steps for wealth maximisation.

6) Distinguish between wealth maximisation and profit maximisation objectives of financial management.

7) What are the functions of finance officer as a treasurer?

8) What are the functions of finance officer as a controller?

C) Answer the following questions in 20 to 30 sentences each:

1) What is financial management? Explain the nature and scope of financial management.

2) What is financial management? Bring out its importance.

3) Explain the objectives of financial management.

4) Define financial management; explain the functions of financial management.

5) Explain the role and responsibilities of a finance manager.

6) "Profit maximisation is the basic goal of a financial manager." Do you agree? Discuss.

7) A basic rational for the objectives of maximizing the wealth position of shareholders as a primary business goal is that such an objective may reflect the optimal use of society's economic resources and thus lead to maximisation of society's economic wealth". Briefly evaluate this observation.

8) Explain the relationship of financial management with other functional areas of business.

D) MULTIPLE CHOICE TYPE QUESTIONS

CHOOSE THE CORRECT ANSWER TO EACH QUESTION

1) Business includes

a) Industry and Commerce b) Commerce

c) Trade and commerce d) Selling and buying of goods

2) Which of the following is not business activity?

a) A per sells his old TV set and earns a profit of Rs 1200

b) Transport company

c) Paan bidi selling

d) Cooking in a restaurant

3) A valid definition of a business purpose is to

a) Create customer b) Maximizethe profits

c) Serve the society d) Increase the wealth of the firm.

4) Financial management has been called some terms before as

a) Institution Finance b) Corporation finance

c) Business finance d) Both (b) and (c)

5) Financial decision involve

a) Investment, Financing and dividend decisions.

b) Investment, Financing and sales promotion

c) Investment, Financing and cash decision

d) None of the above

6) Traditional approach to finance function was involved

a) Between 1920 and 1930 b) Before1920

c) In1950 d) None of these

7) In value maximization objective value signifies

a) Market value of equity shares b) Value of net assets

c) Social welfare d) Both (a) and (b) above

8) The appropriate objective of an enterprise is

a) Maximization of sales b) maximization of owners wealth

c) maximization of profit d) Both (a) and (b) above

9) Which of the following is not the component of finance function?

a) Investment decision b) financing decision

c) Dividend decision

d) decision regarding setting up a business

10) Financing decision is related to

a) Capital structure b) Purchase of fixed assets

c) Dividend distribution d) Maintenance of accounts

11) The job of finance manager is confined to

a) Raising of funds and their effective utilization

b) Raising of funds

c) Management of cash

d) None of these

Answers:-

1	a	2.a	3.c	4.a	5.d	6.a	7.a
8.	a	9.b	10.d	11.a	12.a		

Check your progress

1) The investment decisions should aim at investment in assets only when they are expected to earn are turn greatest an a minimum acceptable return is termed as .....

a) Interest rate b) Hurdle rate

c) Growth rate d) Internal rate of return

2) The Traditional view of financial Management look at .....

a) Arrangement of short term and long term funds from financial institutions

b) Mobilization of funds through financial instruments

c) Orientation of finance function with Accounting function

d) All of the above

3) The modern approach to financial management view

a) The total funds requirement of the firm

b) The assets to be acquired

c) The pattern of financing the assets

d) All of the above

4) The financing of long term assets should be made from

a) Short term funds b) long term funds

c) Debt funds d) equity funds

5) The fund raising decisions, one should keep in view

a) Cost of various funds and financial risk

b) Advantages of disadvantages of debt component in capital mix

c) Impact on taxation on EPS

d) All of the above

6) The financial health of the firm depends on its ability to generate sufficient ..... to pay in employee, suppliers, creditors and owners.

a) Profit b) cash c) growth d) wealth

7) Liability and profitability are ..... goals for the finance manages

a) different b) separate c) competing d) finance

8) Wealth maximization means maximizing the of a course of action.

a) NPV b) IRR c) Profit d) growth

9) Maximization objective consider the risk of time value of money.

a) Profit b) wealth c) value d) growth

Ans.

1) b-Hurdle rate 2) d-All of the above

3) d-All of the above 4) b-long term funds

5) d-All of the above 6) b -cash

7) c-competing 8) a-NPV

9) b-wealth

True or False

State whether each of the following statements is TRUE or FALSE

1) Corporations finance deal exclusively with the finances accompanies form of

business organization.

2) Traditional approach confines finance function only to raising of funds.

3) Cash management is an important task of the financial manager.

4) Investment decisions are outside the preview of financial decisions.

5) Wealth maximization as a goal of financial management ignores the time value of money.

6) Risk and returns are one and the same.

7) Financial Management has no concern to non-profit making organization.

8) Traditional approach to financial management is concerned only with episodic events like mergers, takeovers etc.

9) Quality of benefits refers to the certainly of benefits.

10) Working capital management is a kind of investment decision.

Ans.

1) True	2)True	3) True	4) False
5) False	6) False	7) False	8) True
9) True	10)True		

Fill in the blanks.

1) The appropriate objective of financial decisions of an enterprise is .....

2) A decision to increase the installed capacity of plant is .....

3) Determination of proportion of debt in the capital structure is .....

4) Traditional approach of financial management dealt with.....

5) Financial decisions involve.....

Ans. Maximisation of wealth

Capital budgeting decision financing decision corporate enterprise

Investment, financial–dividend decisions.

1.4 References:-

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Financial Management- Dr. Baligar G.B. Financial Management- Prasanna Chandra Financial Management- Ravi. M. Kishore Financial Management-Dr.S.N.Maheshwari

Cost Accounting and Financial Management by Ravi M. Kishore

❑❑❑

Unit-2

Risk and Return

Unit Structure

2.0 Objectives

1. Understand the Concept of risk and uncertainty.
2. Learn types of risk and measurement of risk and return.
3. Study the relationship between risk and return.
4. Understand the general pattern of risk and return.
5. Determine the criteria for evaluating proposals to minimize risk, Methods of risk management.
6. Analyze major risk and return decision area.
7. Evaluate the risk and return by solving problems on risk and return.

2.1 Introduction:

There is always involvement of risk in business when we expects returns. There may be different meanings of risk like certainty or uncertainty of loss or injury. In a simple sense, the risk is the possibility of not getting the expected return. The basic foundation of financial management is to analyse risk and return which closely related to the financial avenues. Every company has to make investment in different avenues in the market to get better return by accepting risk associated with it. It may be systematic or unsystematic risk. It means the risk is either certain or uncertain. Hence, though the risk is denoted as uncertainty by various experts, there may be difference between risk and uncertainty. There is a need to determine and analyse the risk and return with different methods to manage the risk and minimize the risk to get optimum return. It is well said that in finance, "Low Risk, Low Return and High Risk High Return". As a result, we have to understand the relationship between risk and return. In financial management risk and return is having vital importance in capital budgeting, cost of capital, working capital management etc in decison making.

2.2 Presentation of Subject Matter

After getting the conceptual knowledge of financial management, This topic relates to risk and return associated with every business according to their pattern of investment in various avenues in the market. After learning this topic, the students will gain the knowledge of risk and return, how it is measured to minimize for better returns, general pattern of risk and return, methods of risk management to determine decision area.

2.2.1 Risk and Uncertainty:

In our daily domestic or business life, we have to suffer from various types of risks, which involves exposure to lose or danger. Risk is also treated as the potential of loss and not exactly same as uncertainty, which implies the absence of certainty of the outcome in a particular situation. The terms risk and uncertainity are explained as follows:

2.2.1.1 Meaning and Definition of Risk

Generally, risk is the consequence or outcome of an action taken or not taken, in a particular situation which may result in loss or gain. Risk is also known as a chance or loss or exposure to danger, arising out of internal or external factors. Such risk can be minimized through certain measures.

In the financial glossary, the meaning of risk is not much different. It implies the uncertainty regarding the expected returns on the investments made i.e. the probability of actual returns may not be equal to the expected returns. Such a risk may include the probability of losing the part or whole investment. Although the higher the risk, the higher is the expectation of returns, because investors are paid off for the additional risk they take on their investments. The term risk is defined as variability in return or volatility in expected return from any investment. Risk in investment is the possibility to get the actual returns which is lesser than the expected return. It is said that there is no any investment without risk. The severity of risk may be low or high, it depends on the pattern of investment in avenues and the return on investment. The risk can be varied as per investment in assets or avenues. Hence, the risk is classified into two main types i.e. Systematic risk or uncontrollable and Unsystematic risk or Controllable risk.

It can be stated as:

Total risk= Systematic Risk + Unsystematic Risk

In general,

Total risk= General Risk + Specific Risk

Total risk= Non-diversifiable Risk + Diversifiable Risk

Definition of Risk:

Risk is defined as uncertainty concerning the occurrence of a loss.

-- George E Rejda

Risk means uncertainty about future loss or, in other words, the inability to predict the occurrence or size of a loss. Risk can be classified as pure or speculative risk.

--- Frederick G. Crane

Ats its most general level, risk is used to describe any situation where there is uncertainty about what outcome will occur.

--S.E. Harrinton, G.R. Michaus

2.2.1.2 Meaning and Definition of Uncertainty:

Uncertainty means a situation where the future events are unknown or cannot be certain. It refers to a situation with multiple alternatives but not assure about certain outcome. It cannot be measured in quantitative terms.

It is very difficult to take a rational investment decision in a situation of uncertainty. Many of the cases, uncertainty is inherent, with respect to the forthcoming events. i.e. unknown about any event in the next. In other words, a futuristic situation may be risky if we know the range of outcome and its probability distribution.

2.2.1.3 Distinguish between Risk and Uncertainty

In simple sense, risk defines a situation where a chance of loss or danger where uncertainty never assure about the future outcomes. The following are some of the base points which reveals the difference between risk and uncertainty.

BASIS	**RISK**	**UNCERTAINTY**
Meaning	The probability of success or failure of something worthy is known as risk.	Uncertainty implies a situation where the future events are unknown.
Ascertainment	It can be ascertained or measured	It cannot be ascertained or measured.
Outcome	Chances of outcomes are known.	The outcome is unknown.
Control	Controllable	Uncontrollable
Minimization/ Prediction	It can minimize.	It cannot predict.
Probabilities	Assigned	Not assigned

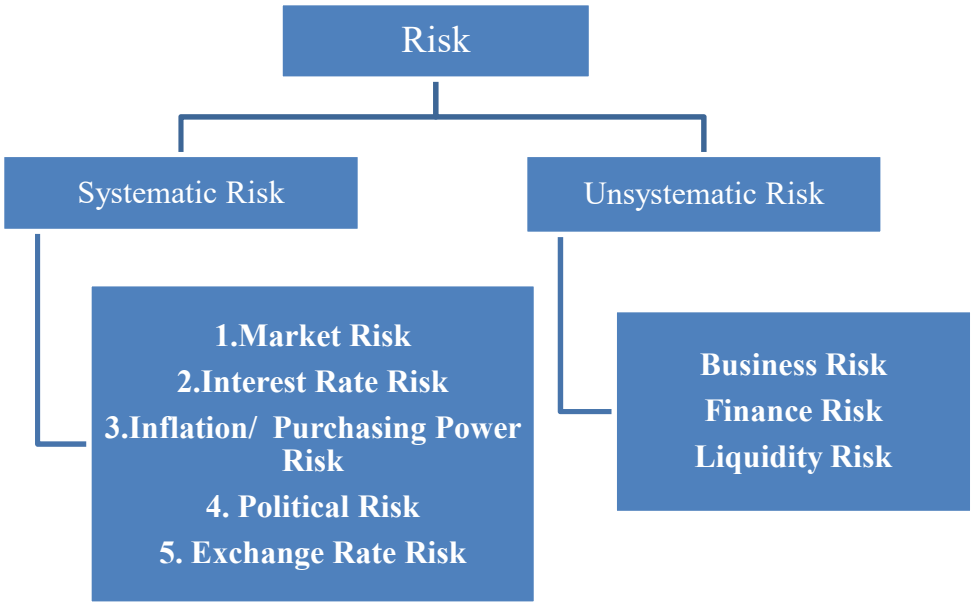
2.2.1.4 Types of Risk

There are two major types of risk :

A) Systematic or Uncontrollable or Non-diversifiable Risk

B) Unsystematic or Controllable succor Diversifiable Risk

The systematic and unsystematic risk is involved following risks:



2.2.1.4.1 Systematic Risk

Systematic risk is also known as non-diversifiable or uncontrollable risk which occurs in the company due to the external factors. These factors or forces cannot be controlled by the company. The systematic risk arises due to calamities, fluctuations in inflation rates, economic/environmental policy change, hikes in international oil prices, industrial recession, changing tax regime etc. Following are the sources and types of systematic risk-

1. Market Risk:

Market risk refers to the risk arises due to the variability or fluctuations of return on a security or asset. There may be ups and downs, bullish and bearish position in the security market, currency inflation or deflation etc. caused market risk. In a simple sense, the market can be volatile due to variability situation.

2. Interest Rate Risk:

If there is a vary in the return on security or investment due to the change in the level of interest rate, known as interest rate risk. It has an effect on returns on bond and its cost of borrowings. It happens due to the change in the price of financial instrument. The increase in the interest rate affects the profit margin as a result there is declining in the profitability of the company and earning per share.

3. Inflation Risk/Purchasing Power Risk:

Inflation risk or Purchasing power risk refers to the risk arising from declining in purchase power due to inflation or loss of purchasing power of money. In this case, the rate of inflation is more than the nominal return on investment. As a result, the investor has to suffer from risk of loss. It means, the investor should maintain nominal rate of return over inflation rate to avoid such risk.

4. Political Risk:

Due to instability of the government or political instability, the capital market suffers from heavy risk. It affects the whole economy of the nation.

5. Exchange Rate Risk:

This is also known as currency risk. Due to the variation or change in the currency or exchange rate, the investor and companies may suffer from exchange risk in the international market.

2.2.1.4.2 Unsystematic Risk-

Unsystematic risk is also known as diversifiable or controllable risk which occurs in the company due to the internal factors. These factors or forces can be controlled or diversified by the company. The unsystematic risk arises due to strike in the companies, bankruptcy, death or resignation of any officer, new arrival of market competitors, business and financial problems or liquidity problems etc.

Following are the sources and types of unsystematic risk-

1. Business Risk:

Business risk is occurred due to the operational environment of the company. The variation in the expected operating income is the basic cause of business risk. It may be internal business risk or external business risk. Internal business risk arises in the company due to fluctuation in sales, inefficiency of management, high fixed costs, obsolete product etc. Similarly, External business risk arises due to operational conditions which are beyond the control. It may occur cause of social and political

factors, monetary and fiscal policies of state, trade cycles etc. This is also known as operational risk which equals to degree of operating leverage.

Degree of operating leverage = Percentage change in operating income/ Percentage change in sales.

2. Financial Risk:

Every business or company require financial assistance to continue the business. The financial risk arises due to the use of debt capital along with equity capital. Though it is the ideal capital structure, the financial risk will arise, if the debt capital cannot return interest in time.

It can be measured with degree of financial leverage.

Degree of Financial leverage = Percentages changes in EPS/ Percentages changes in EBIT

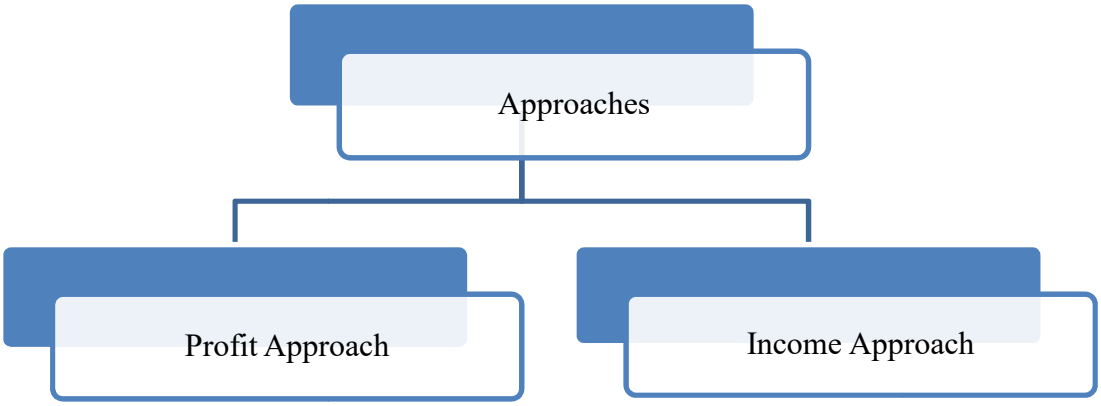
3. Liquidity Risk:

This is the risk which associated to secondary market while trading securities. The greater liquidity risk is faced by the investor when there is uncertainty in time and price concession.

2.2.1.5 MEASUREMENT OF RETURN

The finance manager has to perform several functions towards business. The functions are mainly related to the operations and returns. Hence it is the responsibility of the manager is to measure returns from various operations of the business. most of the experts have expressed different views or approaches regarding returns. The following are key approaches for measurement of returns. These approaches are as follows:

Approaches for Measurement of Returns



A) Proft Approach

Profit is the gain which is excess of the revenues over expenditures of business. Every business has aim to achieve maximum profit from its activities. Profit is the motive to the business. hence this approach is based on the measurement of return which earns by the business. though the profit does not have a specific meaning. Profit has different meanings in the eyesight of the accountant, economist, entrepreneurs etc.

Generally, Profit = Income – Expenditure.

According to the entrepreneurs, profit is the reward for bearing the risk in the business or industry. But in practical cases, every business has to consider its profit on the basis of financial statement i.e. Profit and Loss Account, which is admitted by the stakeholders of the business. Such profit is also considered for the payment of dividend to its shareholders and tax to government.

B) Income Approach

The term income is also termed as earnings from business. It is so specific and definite than the term profit. Income is defined as the accounting measurement of profits. In financial management, income can be considered with different aspects:

1. Earnings Before Interest and Tax (EBIT)

It represents the excess of the firm's operating revenues over its operating expenses. It is also termed as Operating Profit before Interest and Tax (OPBIT) since it represents the operating income of the business. EBIT shows the profitability of a company as well as measure firms operating efficiency.

EBIT = Net Income + Interest + Taxes

EBIT = Net Sales -COGS – Selling, General and Administration Expenses + Non Operating Income + Interest Income

EBIT = Revenue – COGS – Operating expenses.

EBIT = Gross Profit – Operating Expenses

Illustration No.1 Calculate EBIT from the available following information.

It shows how much the business makes from its core operations.

Earning Before Interest and Tax

Particulars	**Rs.**
Net sales	70,000
Cost of Products sold	30,000
Gross profit	40,000
Selling, General, and Administrative Expense	20,000
Operating Income	20,000
Less- Interest expense	(1000)
Add-Interest Income	500
Other Non-operating Income, net	400
Earnings from continuing operations before income taxes	19,900
Less- Income taxes on continuing operations	(4000)
Add-Net earnings (loss) from discontinued operations	600
Net earnings	16500
Less: net earnings attributable to non controlling interests	100
Net earnings attributable to Company	16400

Solution:

Method: 1

EBIT = Net Sales -COGS – Selling, General and Administration Expenses + Non Operating Income + Interest Income

EBIT = 70000 -30000-20000 +500 +400

= Rs.20900

Method 2:

EBIT = Net earnings – Net earnings from discontinued operations + Income Tax on continuing operations + Interest Expenses

= 16500 -600 + 4000 +1000

= Rs. 20900

2. Earning before Tax (EBT)

It represents the excess of the firm's total revenue and its total expenses. The revenues include both operating and non-operating incomes. Similarly, the expenses

include both operating and non-operating/financial expenses. It analyses the profitability of a company except tax.

3. Earning after Tax (EAT)

This represents excess of all revenues over all expenses and taxes paid by the firm. This approach is particularly useful for the Finance Manager while computing the profitability of two or more firms from the viewpoint of different persons interested in the firm. Earning After Tax (EAT) is calculated as under:

EAT = Sales Revenue – COGS – SG&A – Depreciation and Amortization -Tax

EAT = EBIT – Interest Expense -Tax

EAT = Net Income - Taxes

Illustration 2.

The following is the information relates to Aasha Ltd. for the year 2023-24.

Particulars	₹ in lakhs
Sales	82.50
Variable Cost	46.20
Fixed Cost	6.60
9% Debentures	50.00
Equity Shares (₹ 100 each)	60
Corporate Tax	35%

-You are required to EBIT, EBT, EAT and Capital Employed.

Solution:

Calculation of EBIT, EBT and EAT

Particulars	₹ in lakhs
Sales	82.50
Less -Variable Cost	46.20
Contribution	**36.30**
Less: Fixed Cost	6.60

Earning Before Interest and Tax (EBIT)	**29.70**
Less: Interest (50 lakhs x 9%)	4.50
Earning Before Tax (EBT)	**25.20**
Less: Tax 35 %	8.82
Earning After Tax (EAT)	**16.38**
Capital Employed	
Equity Shares (₹ 100 each)	60.00
9% Debentures	50.00
Capttal Employed Rs.	110.00

4. Cash Flow Approach

According to this approach, the return from a business is measured in terms of the cash flows generated by it due to operations during a particular period. As a matter of fact, some of the business charges e.g., depreciation, amortization of preliminary expenses, etc do not result in any outflow of cash. Hence, they are added back to the accounting profits of the business to compute the cash from operations.

In other words, cash flow represents the difference between the cash revenues and the cash payments of a firm to make a decision. If the revenues are excess over the payments, there is net cash inflow in the company. On the other hand, the payments are higher than the revenues, the company suffer from net cash outflow. This approach helps in capital budgeting decisions to the finance manager.

5. Ratios Approach

Ratio is the tool and technique in hands of finance manager to analyse financial performance. Ratio expresses the mathematical relationship between two figures. It is very easy to analyse liquidity, leverage, solvency and profitability of any business with the help of ratio.

Ratio serves as a useful yardstick for comparing and measuring performance of a firm, it is necessary that they are based on proper accounting figures and used with caution. The finance manager has to use ratios considering certain limitations of ratio technique.

Check Your Progress 1

1. …….. is also known as a chance or loss or exposure to danger, arising out of internal or external factors.
2. The term risk is defined as ……. in return or volatility in expected return from any investment.
3. **Total risk= Systematic Risk +** ……
4. ……is defined as uncertainty concerning the occurrence of a loss.
5. …… means a situation where the future events are unknown or cannot be certain.
6. …… is also known as non-diversifiable or uncontrollable risk which occurs in the company due to the external factors.
7. …… is also known as diversifiable or controllable risk which occurs in the company due to the internal factors.
8. …… is occurred due to the operational environment of the company.
9. The …… arises due to the use of debt capital along with equity capital..
10. Profit is the gain which is excess of the …… over expenditures of business.
11. According to the entrepreneurs, …… is the reward for bearing the risk in the business or industry.
12. It represents the excess of the firm's operating revenues over its …… expenses.
13. ……. = Sales Revenue – COGS – SG&A – Depreciation and Amortization -Tax
14. ……- represents the difference between the cash revenues and the cash payments of a firm to make a decision.

2.2.2 RELATIONSHIP BETWEEN RISK AND RETURN

In finance it is said that high risk -high return, Low risk -low return. The rate of return required by a firm, to a great extent, depends upon the risk involved. The firms or companies prefer higher the risk to get high returns.

The rate of return is based on following three components:

1. Return at Zero Risk

In this case, if there is no business risk or financial risk involved in any project which is accepted, the company should be expected returns at zero rate.

2. Premium for Business Risk

As the change in sales, the operating profit changes in case of business risk. If there is a normal or average risk involved in a project, the company will expect a higher rate of return than the normal rate. Therefore, the returns expected by the business will increase. On the other hand, if the project involves a lower degree of risk than the normal level, the return expected by the company will decline.

3. Premium for Financial Risk

In case of capital structure, the financial risk will arise. The term financial risk refers to the risk on account of pattern of capital structure of debt and equity mix. A firm having a higher debt content in its capital structure expects a higher rate of return as compared to a firm which has comparatively low debt content. This is because, in the former case, the firm requires higher operating profit to cover periodic interest payments and repayment of principal at the time of maturity as compared to the latter.

The above three components may be put in the form of the following equation:

Rate of Return = $T_0 + b + f$

where:

T_0 = Return as Zero Risk

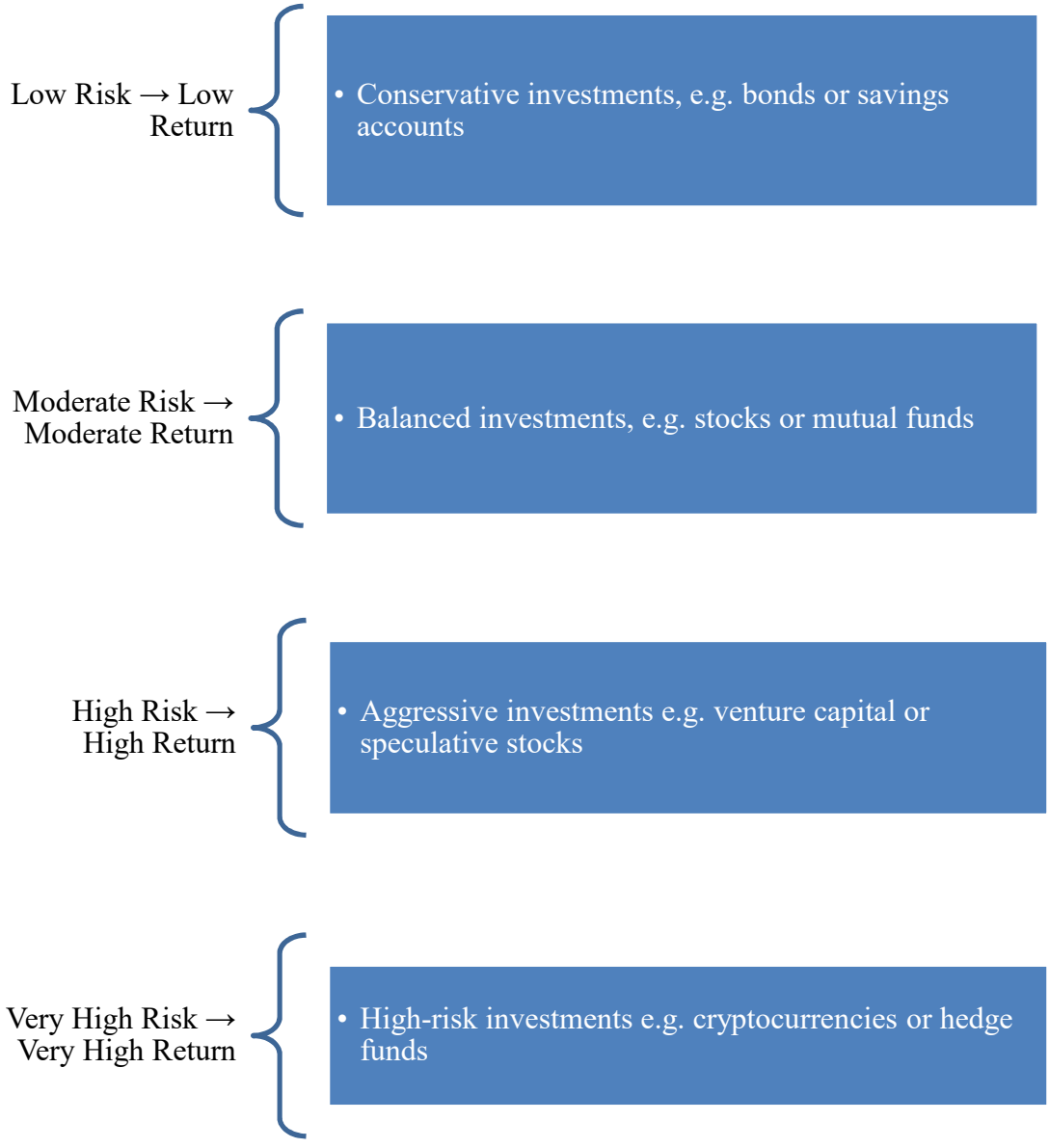
b= Premium for Business Risk

f= Premium for Financial Risk.

2.2..2.1 GENERAL PATTERN OF RISK AND RETURN

In finance, the general pattern of risk and return is a fundamental concept. It has generally been observed while evaluating capital investment proposals that there is a direct relationship between risk and return. A capital investment proposal involving low risk -low return and also high risk, high return.

The relationship between risk and return is not always linear, and higher risks may lead to disproportionately higher returns. The risk is uncertain in case of investment in risky proposals, hence it is difficult to predict outcomes.



The general risk and return pattern depends upon various factors such as market conditions, investor behavior, pattern of asset and business environment. The finance manager will understand the general pattern of risk and return, investors and

organizations can make informed decisions, balance risk and return, and achieve their financial goals.

There are many different types of investments and asset classes as physical assets and financial assets may be money market securities, bonds, public equities, private equity, private debt, and real estate etc. according to their nature, volatility, liquidity, marketability the risk and return from the investment can change. It means some investments have higher risk, moderate risk and low risk which reflects their returns as higher return, moderate return and lower return respectively. The following example shows the risk and return according to investment in asset class.

From the above graph, it is clear that the line indicate lower risk -lower return to Higher risk -higher returns from the investment 1 to 5. Hence, there is close inter-relationship between risk and return.

2.2.2.2 CRITERIA FOR EVALUATING PROPOSALS TO MINIMISE RISK

As we know the relationship between risk and return. Higher the risk, higher the returns and vice versa. Therefore, the finance manager has to determine the criteria for evaluating proposal to minimize the risk. Following are some of the steps the finance manager should follow:

1. Dermination of Degree of risk:

The finance manager has to identify and determine the risk associate with the investment proposal or asset. He should measure the degree of risk.

2. Dermination of expected return:

He should determine the expected returns from the investment in proposal and corelate with the risk.

3. Acceptance/Rejection of proposal

The finance manager has to apply the criteria of acceptance or rejection of proposal on the basis of assessment of risk and return pattern. A project with higher rate of return involves a higher degree of risk and vice versa. While selecting or accepting a proposal the firm has to decide the efficiency to bear the risk. While selecting the proposal of invement, the finance manager select the least risky proposal from the alternative proposals**.**

4. Weighted Average Approach

This approach is suitable while selection of any proposal on the basis of risk and return. Under this approach, it is possible to find out risk and return with probabilities of future conditions.

5. Expected Value (EV) of perfect information:

It is easy to determine the expected value of proposal on the basis of probabilities. Therefore, the financial analyst or research and development department has to unergo a deep research about market conditions for future demand. The futuristic information can useful to determine the expected value for the business firm.

Expected Value with perfect information = Expected Value with Infromation – Expected Value without Infromation

2.2.2.3 METHODS OF RISK MANAGEMENT

No business without risk, and no profit without risk. The businessman or a firm has to manage risk to get profit. Therefore the finance manager tackle the problem with greater confidence to avoid the risk in the business. Risk management is must to minimize the problems in the business, hence the finance manager has to manage risk with a scientific approach.

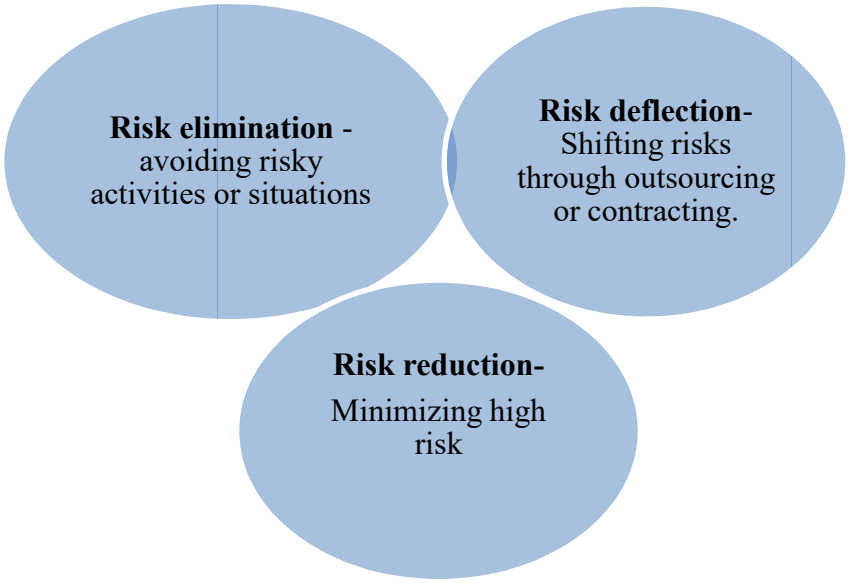
Broadly, there are five methods in general for risk management.

1. Avoidance of Risk

The finance manager should identify the problems or hurdles in the business to overcome Business A business firm can avoid risk by not accepting any assignment or any transaction which involves any type of risk whatsoever. This will naturally

mean a very low volume of business activities and losing of too many profitable activities.

It refers to the strategy of avoiding potential risks or uncertainties by stoping to do the activities, avoid situations or investments which lead to adverse outcomes. It involves identifying and side stepping risks which cannot be adequately managed or mitigated. The risk can be divided as Risk elimination, risk defletion and risk reduction.



Steps or Strategies for avoiding risk:

Following are the steps to avoid risk in investment in proposals.

1. **Risk assessment**: this is the first step in investment proposal to identify and evaluate the potential risks for assessing effectively.

2. **Risk prioritization**: the finance manager has to give priority to avoid risk from high risk to low risk.

3. **Alternative solutions**: the manager has to find out thr alternate solution and to make alter investment to avoid risk or minimize risk.

4. **Contingency planning**: the organization or finance manager should develop plans to exit or reduce exposure in case of risk materialization.

5. **Monitoring and review**: the manager has to monitor and review about for updating risk avoidance strategies.

2. Prevention of Risk

In case of this method, the business avoids risk by taking appropriate steps for prevention of business risk or avoiding loss. Such steps include adoption of safety programmes, installation of burglar alarm and extinguisher, employment of night security guard, arranging for medical care and disposal of waste material, etc.

Prevention of risk refers to the proactive measures taken to avoid or eliminate potential risks or uncertainties that could impact an organization, individual, or asset. It involves identifying and addressing potential risks before they materialize, reducing the likelihood and potential impact of adverse events. The prevention of risk is possible through risk avoidance, risk reduction and risk mitigation.

3. Retention of Risk

In case of this method, the organisation voluntarily accepts the risk since either the risk is insignificant or its acceptance will be cheaper as compared to avoiding it.

Retention of risk refers to the practice of accepting and managing potential risks or uncertainties without transferring them to another party, such as through insurance or outsourcing. It involves acknowledging and absorbing potential losses or damages, often because the cost of transferring the risk is deemed too high or because the organization believes it can manage the risk more effectively.

4. Transfer of Risk

In case of this method, risk is transferred to Some other person or organisation. In other words, under this method, a person who is subject to risk may induce another person to assume the risk. Some of the techniques used for transfer of risk are hedging, sub-contracting.

Transfer of risk refers to the practice of shifting potential risks or uncertainties to another party, often through insurance, outsourcing, or other contractual arrangements. This allows organizations to manage their risk exposure, reduce potential losses, and focus on core activities.

5. Insurance

It is the scheme introduced by the government of India and LIC of India to provide group insurance to the employees at work in various companies. It has been

done by creating a common fund out of the contribution which is trated as premium. It provides equal loss to each person who is under this scheme. This is nothing but compensating fund who suffered financial loss on account of the risks insured against.

2.2.2.4 MAJOR RISK RETURN DECISION AREAS

There is a direct relationship between risk and return. A Finance Manager has to make a decision of an investment in proposal between risk and return. It is necessary to know various decision areas of financial managemernt for maintaining liquidity, efficiency and profitability. The following are some of the major decision areas related to risk and return:

1. Financial Analysis, Control and Evaluation:

Every company has to prepare Financial Statements such as Income Statement, Balance Sheet, Funds Flow statement, Cash Flow Statement etc. as per the companies Act. It reflects an overall view of the financial position of the business. These statements makes easy to make a decision about operational and financial activities. The financial manager analyse the facts and figures to control the harmful activities in the business. The evaluation of financial statements provide liquidity, solvency, leverage, profitability etc. of business. it helps to the finance manager to corelate risk with returns.

2. Budgeting and Planning for profit:

Budgeting is plan of future action of any business. it is related with forecasting the future operating and financial performance of the firm. The finance manger can make a decision about alternative investment which gives more profit with minimum risk.

3. Capital Budgeting -Investment Decision:

Capital budgeting is one of the major decision area in financial management. It is related to the long-term planning for proposed capital outlays and their financing. It is useful technique of raising of long-term funds and their utilisation. The Finance Manager can make decisions about any proposal with pay back period, Net present value, Average rate of return, Profitability index technique of capital budgeting whether the investment proposal should accept or reject.

4. **Financial Planing :**

Every business organization has to do financial planning for future earnings. Due to financial planning, it is possible to make decision about raising of capital and investment in profitable securities. A well financial plan helps in maintaing operating and financial leverage. The finance manage has to prepare financial plan in right time to get benefits in future.

5. Working Capital Management:

Working capital is the soul of business organization to do the day to day operations after paying the dues and obligations. It is derived from the difference between current assets and current liabilities. There is inter-relationship between current assets and current liabilities. The management of working capital is needed to manage current assets and current liabilities to overcome on operational hurdles. The investment in current assets is not too beneficial as compared to investment in fixed assets. Therefore, if there is higher investment is made in current assets, it increases the working capital and decrease the risk. It results declining in the profit further. On the other hand, there is decrease in working capital if there is less investment in current assets. It results, there is an increase in risk as well as profitability. The finance manager has to determine about investment in working capital with considering risk.

6. Cost of Caplal:

The cost of capital reveals the rate of return on investment in the form of shares, debentures etc. The acceptance and rejection criterian is based on rate of return in the investment projects. It is necessary to increase the value of the firm and determine the rate of return on it. Therefore, the finance manager has to consider this area significantly.

7. Valuation Theory:

This theory focues on the determination of value of shares as well as wealth of firms. It also decides the power of acquisition of other firms. It helps in determining the firm's value which must be paid for acquisition of other firm's shares.

Check Your Progress 2

1. The term …….. refers to the risk on account of pattern of capital structure of debt and equity mix.
2. In finance, the general pattern of risk and return is a …….. concept.
3. A …… involving low risk -low return and also high risk, high return.
4. The ……. depends upon various factors such as emarket conditions, investor behavavior, pattern of asset and business environment.
5. …… is must to minimize the problems in the business, hence the finance manager has to manage risk with a scientific approach.
6. …….. is the first step in investment proposal to identify and evaluate the potential risks for assessing effectively.
7. …… refers to the proactive measures taken to avoid or eliminate potential risks or uncertainties that could impact an organization, individual, or asset.
8. ……. refers to the practice of accepting and managing potential risks or uncertainties without transferring them to another party, such as through insurance or outsourcing.
9. ……. is plan of future action of any business.
10. There is …… between current assets and current liabilities.
11. If there is higher investment is made in ……., it increases the working capital and decrease the risk.
12. The ……. reveals the rate of return on investment in the form of shares, debentures etc.
13. ……. focues on the determination of value of shares as well as wealth of firms.

2.2.2.5 Practical Problems:

Ilustration 1. Maruti Services Ltd is considering two alternative proposals for the summer season.

summner:

() Purchasing and selling Coolers.

(0) Purchasing and selling Umbrellas.

Due to the limited space in the company, it prefers only single item at a time.

From the following details, you are required to prepare a statement showing the expected returns in case of coolers and umbrellas and also identify the alternative which would be most profitable for the company.

Coolers

Weather	Probability	Net Return (Rs)
Hot Summer	0.20	30000
Normal Summer	0.55	20000
Cool Summer	0.25	(5000)

Umbrellas

Weather	Probability	Net Return (Rs)
Wet Summer	0.20	40000
Normal Summer	0.60	15000
Dry Summer	0.20	10000

Solution:

Statement Showing the Expected Returns in case of Coolers

Weather	Probability	Net Return (Rs)	Weightage Return (Rs)
Hot Summer	0.20	30000	6000
Normal Summer	0.55	20000	11000
Cool Summer	0.25	(5000)	(1250)
Total	**1.00**		**15750**

Statement showing the Expected Returns in case Umbrellas

Weather	Probability	Net Return (Rs)	Weightage Return (Rs)
Wet Summer	0.20	40000	8000
Normal Summer	0.60	15000	9000
Dry Summer	0.20	10000	2000
Total	**1.00**		**19000**

Expected returns from Umbrellas =Rs.19,000

Expected returns from Coolers = Rs.15,750

It will be advisable to the company to market Umbrellas as compared to marketing Coolers in the summer season.

Illustration 2. Sahara Ltd. has an alternative between three projects X, Y and Z. The following estimates are available about demand as below:

Projects/ Returns	**Returns from market demand (Rs)**		
	R_1	**R_2**	**R_3**
X	380000	100000	30000
Y	220000	400000	320000
Z	300000	280000	220000
Probabilities	0.6	0.2	0.2

i) Calculate expected value for each project and make a decision on which project should be preferred?

ii) Calculate expected value of perfect information.

Solution:

i) Computation of Expected Values

Projects		**Returns (Rs)**	**Probability**	**Expected Returns (Rs)**
Project X	R_1	380000	0.6	228000
	R_2	100000	0.2	20000
	R_3	30000	0.2	6000
			Expected Value	**254000**
Project Y	R_1	220000	0.6	132000
	R_2	400000	0.2	80000
	R_3	320000	0.2	64000
			Expected Value	**276000**
Project Z	R_1	300000	0.6	180000
	R_2	280000	0.2	56000
	R_3	220000	0.2	44,000
			Expected Value	**2,80,000**

As the higher expected returns for Project 'Z' i.e Rs. 2,80,000 as compared to other projects**, Project 'Z' is accepted.**

ii) Expected Value for Perfect Information

Demand	**Project Selected as hightest returns**	**Returns (Rs)**	**Probability**	**Expected Value (Rs)**
R_1	**X**	380000	0.6	228000
R_2	**Y**	400000	0.2	80000
R_3	**Y**	320000	0.2	64000
Expected Value with perfect information				372000

Therefore,

Expected Value with perfect information = Expected Value with Infromation – Expected Value without Infromation

Expected Value with perfect information = Rs 372000 – Rs. 280000

= Rs. 92000

Illustration 3. M/S. Shambhavi Ltd has three plans of product. Following is the information of budgeted revenues, probabilities and other relevant.

Budgeted Revenue	**Rs. In Lakhs**		
	Plan I	**Plan II**	**Plan III**
High	30	24	50
Medium	20	20	25
Low	5	15	00
Variable cost as % of revenue	60 %	75%	70 %
Initial Investment	25	20	24
Life in years	8	8	8
Probability	**Plan I**	**Plan II**	**Plan III**
High	0.3	0.2	0.2
Medium	0.3	0.7	0.5
Low	0.4	0.1	0.3

The company's cost of capital is 12%, the income tax is 40%. Investment in promotional programmes will be amortised by the straight line method. The company will have net taxable income in cach year, regrdless of the success or failure of the new products. The present value of an annuity of Re. l at 12% for 8 years is 4.9676.

(a) Substantiatirg with figures make a detailed analysis and find out which of the promotional plans is expected to be the most profitable.

(b) In the event the worst happened, which of the plans would result in maximising profit. (ICWA Modified)

Solution.

a) Statement Showing Profitability of different plans

	Plan I (Rs)	Plan II (Rs)	Plan III (Rs)
Budgeted Revenue weighted by Profitability			
High	900000	480000	1000000
Medium	600000	1400000	1250000
Low	200000	150000	----------
Expected Revenue	1700000	2030000	2250000
Contribution % of revenue	40%	25%	30%
Contribution	680000	507500	675000
Less : Depreciation	312500	250000	300000
Profit before tax	317500	257500	375000
Less: Tax 40 %	127000	103000	150000
Profit after tax	220500	154500	225000
Add: Depreciation	312500	250000	300000
Average annual cash inflow	533000	404500	525000
P.V. factor @12% for 8 yrs	4.9676	4.9676	4.9676
Present value of cash inflows	2647731	2009394	2607990
Initial investment	2500000	2000000	2400000
Net Present Value	147731	9394	207990
Profitability index	1.059	1.005	1.087

Plan III has the highest present value index, therefore, it is most profitable.

b) Computation of Maximum loss under different plans

	Plan I (Rs)	Plan II (Rs)	Plan III (Rs)
Revenue for low forecast	500000	1500000	Nil
Contribution % of revune	40%	25%	30%
Contribution	200000	375000	Nil
Less : Depreciation	312500	250000	300000
Profit (Loss)	112500	125000	(300000)
Add: Depreciation	312500	250000	300000
Annual cash inflow	245000	325000	120000
P.V. factor @12% for 8 yrs	4.9676	4.9676	4.9676
Present value of cash inflows	1217062	1614470	596112
Initial outlay	2500000	2000000	2400000
Initial investment	2500000	2000000	2400000
Net Present Value	(1282938)	(385530)	(1803888)

Plan II is the best as least loss as compared to other plans i.e. Rs.(385530)

2.3 Summary

Generally, risk is the consequence or outcome of an action taken or not taken, in a particular situation which may result in loss or gain. In the financial glossary, the meaning of risk is not much different. It implies the uncertainty regarding the expected returns on the investments made i.e. the probability of actual returns may not be equal to the expected returns. The risk is classified into two main types i.e. Systematic risk or uncontrollable and Unsystematic risk or Controllable risk. Uncertainty means a situation where the future events are unknown or cannot be certain. It refers to a situation with multiple alternatives but not assure about certain outcome. It cannot be measured in quantitative terms. There are two major types of risk i.e. Systematic or Uncontrollable or Non-diversifiable Risk and Unsystematic or Controllable succor Diversifiable Risk. Systematic risk includes the sources and types of systematic risk- Market Risk, Interest Rate Risk, Inflation Risk/Purchasing Power Risk, Political Risk, Exchange Rate Risk whereas Unsystematic Risk includes Business risk, Financial Risk, and Liquidity Risk.

The finance manager has to follow two approaches for measurement of returns i.e. profit approach and income approach which consist of EBIT, EBT, EAT, Cash Flow Approach and Ratios Approach.

In finance it is said that high risk -high return, Low risk -low return. The rate of return required by a firm, to a great extent, depends upon the risk involved. The firms or companies prefer higher the risk to get high returns. There is direct relationship between risk and return. The rate of return is based on following three components: Return at Zero Risk, Premium for Business Risk and Premium for Financial Risk. The general pattern of risk and return is a fundamental concept. The general risk and return pattern depend upon various factors such as market conditions, investor behaviour, pattern of asset and business environment. The finance manager will understand the general pattern of risk and return, investors and organizations can make informed decisions, balance risk and return, and achieve their financial goals.

The finance manager has to determine the criteria for evaluating proposal to minimize the risk. Some of the steps the finance manager should follow as Determination of Degree of risk. Determination of expected return, Acceptance/ Rejection of proposal, Weighted Average Approach, Expected Value of proposal. No business without risk, and no profit without risk. The businessman or a firm has to manage risk to get profit by applying 5 methods of risk management as Avoidance of Risk, Prevention of Risk, Retention of Risk, Transfer of Risk.

2.4 Terms to Remember

- **Risk-** Risk means uncertainty about future loss or, in other words, the inability to predict the occurrence or size of a loss
- **Return-** income from investment
- **Uncertainty-** a situation where the future events are unknown or cannot be certain.

2.5 Answer to Check Your Progress

CYP 1. 1- Risk 2 variability 3 Unsystematic Risk 4 Risk 5- Uncertainty 6- Systematic risk 7- Unsystematic risk 8- Business risk 9- financial risk 10- revenues 11- profit 12- operating 13- EAT 14- Cash flow

CYP 2- 1- financial risk 2- fundamental 3- capital investment proposal 4- general risk and return pattern 5- Risk management 6- Risk assessment 7- Prevention of risk

8- Retention of risk 9. Budgeting 10.inter-relationship 11. current assets 12.cost of capital 13.Valuation Theory

2.6 Exercise

Long Answer Questions:

1. Define the term Risk and Uncertainty. Distinguish between risk and uncertainty.
2. Define the term risk and Explain the types of risk.
3. Explain the measurements of return in detail.
4. What are the criteria for evaluating proposals to minimize risk? Explain.
5. What is Risk? Explain various methods of risk management.
6. Explain risk return decision areas in detail.
7. Write Short note on:

a) Relationship between Risk and Return

b) General pattern of Risk and Return

Practical Problems:

1. Atharv Services Ltd is considering two alternative proposals.
   (a) Purchasing and selling Bicycles.
   (b) Purchasing and selling Two Wheelers.

From the following details, you are required to prepare a statement showing the expected returns in case of Bicycles and Two Wheelers and also identify the alternative which would be most profitable for the company.

Bicycles

Period	Probability %	Net Return (Rs)
I	20	1,20,0000
II	55	80,000
III	25	(20,000)

Two Wheelers

Period	Probability %	Net Return (Rs)
I	20	1,60,000
II	60	60,000
III	20	40,000

2. Shahu Ltd. Kolhapur has an alternative between three projects A, B and C. The following estimates are available about demand as below:

Projects/ Returns	**Returns from market demand (Rs)**		
	R_1	**R_2**	**R_3**
A	760000	200000	60000
B	440000	800000	640000
C	600000	560000	440000
Probabilities	0.6	0.2	0.2

i) Calculate expected value for each project and make a decision on which project should be preferred?

ii) Calculate expected value of perfect information.

3. M/S. Sham Ltd has three plans of product. Following is the information of budgeted revenues, probabilities and other relevant.

Budgeted Revenue	**Rs. In Lakhs**		
	Plan A	**Plan B**	**Plan C**
High	60	48	100
Medium	40	40	50
Low	10	30	02
Variable cost as % of revenue	60 %	75%	70 %
Initial Investment	50	40	48
Life in years	10	10	10
Probability	**Plan I**	**Plan II**	**Plan III**
High	0.3	0.2	0.2
Medium	0.3	0.7	0.5
Low	0.4	0.1	0.3

The company's cost of capital is 12%, the income tax is 40%. Investment in promotional programmes will be amortised by the straight line method. The company will have net taxable income in cach year, regrdless of the success or failure of the new products. The present value of an annuity of Re. 1 at 12% for 8 years is 4.9676.

(a) Substantiatirg with figures make a detailed analysis and find out which of the promotional plans is expected to be the most profitable.

(b) In the event the worst happened, which of the plans would result in maximising profit. (ICWA Modified)

4. Calculate EBIT from the available following information about operations. Earning Before Interest and Tax

Particulars	**Rs.**
Net sales	1,40,000
Cost of Products sold	60,000
Gross profit	80,000
Selling, General, and Administrative Expense	40,000
Operating Income	40,000
Less- Interest expense	(2000)
Add-Interest Income	1000
Other Non-operating Income, net	800
Earnings from continuing operations before income taxes	39,800
Less- Income taxes on continuing operations	(8000)
Add-Net earnings (loss) from discontinued operations	1200
Net earnings	33000
Less: net earnings attributable to non controlling interests	200
Net earnings attributable to Company	32800

5. The following is the information relates to Aasha Ltd. for the year 2023-24.

Particulars	₹ in lakhs
Sales	165
Variable Cost	92.40
Fixed Cost	13.20
9% Debentures	100.00
Equity Shares (₹ 100 each)	120
Corporate Tax	40%

-You are required to EBIT, EBT, EAT and Capital Employed

2.7 Reference for further study

1. Dr. S. N. Maheshwari Fundamentals of Financial Management :, Sultan Chand & Sons, Educational Publishers, New Delhi.
2. Prasanna Chandra, Financial Management Theory and Practice, Tata Mc Graw Hill Publishing Co. Ltd New Delhi
3. I M Pandey, Financial Management, Vikas Publishing House Pvt , Ltd New Delhi.

❑❑❑

Unit-3

Financial Planning

Unit Structure

3.0 Objective –

After Studying this Unit you will be able to:

1. Understand the Meaning of Financial Planning and Financial Plan and Principles governing Financial Plan.
2. Understand the Meaning, Assessment, factors determining fixed capital and Management of fixed Capital.
3. Know the Meaning, theories of capitalization, Over and Under Capitalisation.
4. Demonstrate financial planning and able to manage fixed and working capital.

3.1 Introduction –

Financial Planning is a vital part of Financial Management. In fact, planning is the first function of management. Before embarking on any venture, the company must have a plan. Let's understand in detail what Financial Planning is.

Before initiating a new business, the organization puts an immense focus on the topic of Financial Planning. Financial planning is the plan needed for estimating the

fund requirements of a business and determining the sources for the same. It essentially includes generating a financial blueprint for company's future activities. It is typically done for 3-5 years-broad in scope and generally includes long-term investment, growth and financing decisions.

3.2 Presentation of Subject Matter.

3.2.1 Meaning of Financial Planning:

Funds requirements decision is concerned with the estimation of the total funds required for the organization while the financial decision is concerned with the sources from which the funds are to be raised. It is necessary to raise the funds a proper time and also at reasonable cost. Hence it becomes necessary for any organization to have proper financial planning.

Therefore, Financial Planning includes: -

1. Estimating the amount of capital to be raised.
2. Determining the form and proportionate amount of securities.
3. Laying down the policies as to the administration of the financial plan.

Financial planning is the process of managing your finances to achieve your financial goals. It involves assessing your current financial situation, setting goals, and developing strategies to achieve them. The goal of financial planning is to ensure financial security and stability.

Financial planning is the process of assessing the current financial situation of a business to identify future financial goals and how to achieve them. A financial plan is a document that outlines an individual's current financial situation, short-term and long-term goals, and strategies to achieve those goals.

The financial plan itself is a document that serves as a roadmap for a company's financial growth.

- **Meaning of Financial Plan**

A financial plan is a document that outlines an individual's current financial situation, short-term and long-term goals, and strategies to achieve those goals.

A financial plan made by a person or organization about their income, spending, etc.: All households should create a financial plan, including a detailed budget.

a comprehensive / detailed / long-term financial plan for comprehensive financial plan that addresses investing, taxes, estate planning, insurance and other topics.

The commission approved several financial management measures, including fi ve-year financial plans and quarterly reports.

A financial plan can help you:

- Manage your income: A financial plan can help you better manage your personal income.
- Prepare for expenses: A financial plan can help you prepare for future expenses.
- Reduce debt: A financial plan can help you reduce the risk of debt.
- Achieve goals: A financial plan can help you increase your likelihood of achieving your personal and financial goals.
- Prepare for unexpected risks: A financial plan can help you prepare for unexpected risks, such as serious illnesses, untimely death, or sudden job loss.

Some things to consider when creating a financial plan include:

- Budgeting: A financial plan can include a detailed budget.
- Investing: A financial plan can include an investment strategy.
- Taxes: A financial plan can include tax planning.
- Estate planning: A financial plan can include estate planning.
- Insurance: A financial plan can include insurance.
- Emergency expenses: A financial plan should include putting money away for emergency expenses.
- Credit: Building credit can help shockproof your budget.
- High-interest debt: A financial plan can include paying down high-interest debt.

You can create a financial plan independently or with the help of a financial planner.

➢ **Objectives of Financial Planning**

- ***Ensuring availability of funds*:** Financial planning majorly excels in the area of generating funds as well as making them available whenever they are required. This also includes estimation of the funds required for different purposes, which are, long-term assets and working capital requirements.

- ***Estimating the time and source of funds*:** Time is a game-changing factor in any business venture. Delivering the funds at the right time at the right place is very much crucial. It is as vital as the generation of the amount itself. While time is an important factor, the sources of these funds are necessary as well.
- ***Generating capital structure*:** The capital structure is the composition of the capital of a company, that is, the kind and proportion of capital required in the business. This includes planning of debt-equity ratio both short-term and long-term.
- ***Avoiding unnecessary funds:*** It is an important objective of the company to make sure that the firm does not raise unnecessary resources. Shortage of funds and the firm cannot meet its payment obligations. Whereas with a surplus of funds, the firm does not earn returns but adds to costs.

➢ **Process of Financial Planning**

- Preparation of sales conjecture.
- Decide the number of funds – fixed and working capital.
- Conclude the expected benefits and profile ts to decide the number of funds that can be provided through internal sources.
- This causes us to evaluate the requirement from external sources.
- Recognize the conceivable sources and set up the money spending plans consolidating these variables.

➢ **Importance of Financial Planning**

Financial Planning is the procedure of confining company's targets, policies, techniques, projects and budget plans with respect to the financial activities lasting for a longer duration. This guarantees viable and satisfactory financial investment policies. The importance is as follows-

- Guarantees sufficient funds.
- Planning helps in guaranteeing a harmony between outgoing and incoming of assets with the goal that stability is kept up.
- Guarantees providers of funds to effortlessly put resources into organizations which provokes financial planning.

- Financial Planning supports development and expansion programmes which support in the long-run sustenance of the organization.
- Diminishes vulnerabilities with respect to changing business sector patterns which can be confronted effortlessly through enough funds.
- Financial Planning helps in diminishing the vulnerabilities which can be a deterrent to the development of the organization. This aids in guaranteeing security and benefits of the organization.

3.2.2 Principles Governing a Financial Plan

Following Principles need to be taken note of by preparing a financial Plan

1. **Simplicity :** A Financial Plan should envisage simple structure capable of being managed easily and use minimum types of securities.
2. **Long-term View :** The management should keep in view the long term needs of the organisation for obtaining capital rather than easiest way.
3. **Foresight :** Even though difficult, Technological Improvements, demand forecast, resource availability and other secular changes in future years should be kept in view wile drafting the financial plan.
4. **Optimum Use** : The business should neither be starved of funds not it should have unnecessary spare funds. It should meet the genuine needs of the company.
5. **Contingencies :** A reserve to meet the contingencies is required. However the Capital should not be kept unnecessarily idle.
6. **Flexibility :** Flexibility helps in making changes or revising the plan according to pressure of circumstances.
7. **Liquidity :** Liquidity is to make available the ready cash whenever required. This will help in avoiding embarrassment to management and loss of goodwill to the organisation.
8. **Economy :** Cost involved in planning and execution of financial requirements should be minimum.

- **Fixed Capital**

Meaning of Fixed Capital

It means the capital which is meant for meeting the permanent or long term needs of the business. Capital is basically required for acquisition of Land, Building, Plant and Machinery, Furniture and Fittings etc. Fixed capital cannot be withdrawn from the business in normal course. Therefore it is necessary that sufficient funsa are raised for acquisition fixed assets.

- **Assessment of Fixed Capital Requirements**

The fixed capital of an industrial concern is invested in fixed assets like plant and machinery, land, buildings furniture, etc. These assets are not fixed in value; in fact, their value may record an increase of decrease in course of time.

They are fixed in the sense that without them, the business of the concern cannot be carried on. This means that the fixed capital is used for meeting the permanent or long-term needs of the concern. While making an assessment of the fixed capital requirements, a list of the fixed assets needed by the concern will have to be prepared, say, by promoter. Having compiled a list of the fixed assets which will be required, it is not difficult to estimate the amount of funds required for the purpose. The prices of land are generally known, or can be easily ascertained. A contractor can be relied upon to give a proper estimate of the cost of the building to be erected. Those who supply machinery and plant will certainly give quotations for the plant and equipment to be installed. Similarly, the amount to be paid for patents, trademarks, goodwill, etc., will not be difficult to ascertain.

The total of all these items will give the amount to be invested in fixed assets. It goes without saying that such an amount must to be raised before the company goes into production.

The amount of fixed capital requirements of a concern depends on:

(a) nature of the business, and

(b) size of the business unit. For instance, a public utility concern (say, an electricity supply company, water supply undertaking or, for that matter, a railway company) would require heavy investment in fixed assets and equipment. On the other hand, a trading concern represents the other extreme. It requires comparatively much less equipment of fixed nature. Its fixed capital requirements would, therefore, be relatively much less. The fixed nature. Its

fixed capital requirements would, therefore, be relatively much less. The fixed capital needs of a manufacturing concern would vary with the scale of production, usually, the larger the scale, the heavier would be the investment in fixed assets.

- **Factors determining fixed capital**

Fixed Capital refers to investment in fixed assets for a longer period. The fixed capital of an organisation gets its funds through long-term sources of finance like preference shares, equity shares, debentures, etc. The requirement of fixed capital in an organisation depends upon various factors. These factors are as follows:

1. Nature of Business

The first factor which helps in determining the requirement of fixed capital is the type of business in which the company is involved. A manufacturing company requires more fixed capital as compared to a trading company. It is because a trading company does not need plant, machinery, equipment, etc.

2. Scale of Operation

The companies operating at a large scale require more fixed capital as compared to the companies operating at a small scale. It is because the former requires more machinery and other assets; however, the latter requires less machinery.

3. Technique of Production

The companies that use capital-intensive techniques require more fixed capital; however, the companies that use labour-intensive techniques require less fixed capital. It is because the capital-intensive techniques use plant and machinery for which requires more fixed capital.

4. Growth Prospects

Companies aiming at expanding their business and having higher growth plans require more fixed capital for expansion of business. They have to expand their production capacity and to do so they need more plants and machinery. Hence, the companies aiming at expanding their business require more fixed capital.

5. Technology Upgradation

Industries, where technology upgradation is fast, requires more fixed capital, as whenever new technology is invented, the old machines become obsolete and the firm has to purchase new plant and machinery. However, the companies where

technological upgradation is slow, needless fixed capital, as they can easily manage with old machines.

6. Diversification

The companies which are planning to diversify their activities by including more range of products require more fixed capital. It is because, for diversification of the business, they have to produce more products for which more plants and machinery are required, ultimately increasing the need for more fixed capital.

7. Level of Collaboration/Joint Ventures

The companies that prefer collaborations or joint ventures need less fixed capital as these companies can share plants and machinery with the collaborators. However, if a company prefers to operate its business as an independent unit, then it will require more fixed capital.

8. Availability of Finance and Leasing Facility

If a company can easily arrange financial and leasing facilities, then it will require less fixed capital, as it can acquire the required assets in easy instalments and won't have to pay a huge amount at one time. Whereas, if a company cannot find financial and leasing facilities easily, then it will require more fixed capital, as it has to purchase plants and machinery by paying a huge amount at once.

- **Management of Fixed Capital**

Raising fixed capital required by the firm at minimum cost and using it effectively sums up the management of fixed capital. The decision taken by a firm to invest in fixed assets is known as **Capital Budgeting Decision.** A firm must take capital budgeting decisions carefully as it affects the profitability, growth, and risk of business in the long run. It consists of decisions related to the purchase of land, plant and machinery, building, investing in advanced techniques of production or launching a new product line.

A firm must always finance its fixed assets through long-term sources, like shares, debentures, long-term loans, etc., and not through short-term sources.

- **Meaning of Working Capital–**

Working capital refers to the difference between a company's current assets and its current liabilities. It represents the amount of cash or liquid assets that a company has available to meet its short-term obligations and fund its day-to-day operations.

Working capital is a crucial financial metric as it indicates a company's ability to operate efficiently and meet its short-term financial obligations. It is also an important measure of a company's liquidity, which is its ability to convert assets into cash to meet its financial obligations as they come due. A company's working capital is important to consider when assessing its financial health, as insufficient working capital can result in a company's inability to pay its bills, purchase inventory, or pay employees. On the other hand, excessive working capital can indicate inefficient use of resources and may suggest that a company is not maximizing its profitability. Working capital is calculated by subtracting a company's current liabilities from its current assets. If the resulting figure is positive, the company has positive working capital, which means it has more assets than liabilities to meet its short-term obligations. Conversely, if the resulting figure is negative, the company has negative working capital, which means it has more short-term liabilities than assets to meet those obligations.

- **Factors determining working capital**

Factors affecting working capital requirements can be broadly classified into two categories: internal and external.

1) Internal factors include:

a) Nature of the business: The nature of the business plays an important role in determining the working capital requirements. For example, a manufacturing company that produces goods in large quantities requires a higher amount of working capital compared to a service-oriented business that does not hold inventory.

b) Size of the business: The size of the business also affects the working capital requirements. A large business with multiple units and a diverse range of products may require more working capital than a small business.

c) Production cycle: The length of the production cycle determines the level of working capital required. For example, if a company's production cycle is long, it may need more working capital to cover the expenses during the production process.

d) Sales cycle: The sales cycle of a business is the time between the sale of a product and the receipt of payment from the customer. If the sales cycle is long, the business may require more working capital to finance its operations.

e) Inventory management: The way a company manages its inventory affects its working capital requirements. For example, if a company maintains a large inventory, it may require more working capital to finance the purchase of inventory.

2) External factors include:

a) Economic conditions: The general economic conditions in the market affect the working capital requirements. During a recession, businesses may require more working capital to manage their cash flow.

b) Competition: The level of competition in the market affects the working capital requirements. If the competition is high, businesses may need to invest more in marketing and advertising, which increases the working capital requirements.

c) Interest rates: The interest rates charged by financial institutions affect the cost of borrowing, which in turn affects the working capital requirements.

d) Government regulations: The regulations imposed by the government also affect the working capital requirements. For example, if the government imposes stricter regulations on businesses, they may need more working capital to comply with these regulations.

Thus, understanding the factors affecting working capital requirements is essential for businesses to manage their finances effectively and ensure they have the necessary funds to operate smoothly.

- **Estimation of working capital**

The estimation of working capital is crucial for the efficient management of a company's operations. There are various methods to estimate working capital requirements, including the operating cycle approach, the percent of sales approach, and the estimation of components of working capital method as follows:

1) The operating cycle approach is a method of estimating working capital needs that focuses on the time it takes to convert cash into inventory, inventory into sales, and sales back into cash. The operating cycle is the time period between the acquisition of inventory and the receipt of cash from the sale of the inventory. The longer the operating cycle, the greater the need for working capital.

The formula for estimating working capital using the operating cycle approach is as follows:

Operating cycle = Inventory conversion period + Accounts receivable collection period

Working capital = Operating cycle * Average daily sales

Where: Inventory conversion period: the time it takes to convert inventory into sales

Accounts receivable collection period: the time it takes to collect payments from customers

Average daily sales: the average daily sales of the company Example: Let's assume that ABC Company has an inventory conversion period of 30 days and an accounts receivable collection period of 45 days. The company's average daily sales are Rs. 10,000.

Operating cycle = 30 + 45 = 75 days

Working capital = 75 * Rs. 10,000 = Rs. 7,50,000

Therefore, ABC Company would need Rs.7,50,000 of working capital to fund its operating cycle based on the operating cycle approach.

It's important to note that this approach does not take into account any seasonal fluctuations in sales or inventory. Additionally, it assumes that the accounts payable period is the same as the inventory conversion period. Thus, this approach should be used in conjunction with other methods of estimating working capital needs.

2) The Percent of Sales Approach is a method of estimating working capital requirements based on the percentage of a company's sales revenue. This method assumes that as sales increase or decrease, the level of working capital required will also increase or decrease proportionally.

The steps involved in the Percent of Sales Approach are as follows:

a) Determine the historical relationship between sales and working capital: To estimate future working capital requirements, a company needs to analyze its past financial statements and determine the average percentage of working capital to sales.

b) Forecast future sales: The company needs to forecast its future sales revenue for the upcoming period based on market trends, industry forecasts, and other relevant factors.

c) Calculate the estimated working capital requirements: Using the historical relationship between sales and working capital, the company can estimate its future working capital requirements by applying the average percentage of working capital to the forecasted sales revenue.

The formula for estimating working capital requirements using the Percent of Sales Approach is as follows:

Working Capital = Percentage of Working Capital x Sales Revenue

For example, if a company has historical data showing that it requires 10% of working capital for every Rs.1,00,000 of sales revenue, and it forecasts sales revenue of Rs.50,00,000 for the upcoming period, the estimated working capital requirement would be:

Working Capital = 10% x Rs.50,00,000 = Rs.5,00,000

However, it's important to note that this method is only an estimate and should be used in conjunction with other methods to get a more accurate picture of a company's working capital needs. Additionally, changes in a company's operations, market conditions, or industry trends can significantly impact working capital requirements, making it important to regularly review and update these estimates.

3) The estimation of components of working capital method involves estimating the various components of working capital separately and then adding them up to arrive at the total working capital requirement. This method involves analyzing the various components of current assets and current liabilities, estimating the amount required for each component, and then adding them up to arrive at the total working capital requirement.

The components of working capital that are estimated using this method include inventory, accounts receivable, cash, accounts payable, and accruals. The estimation of each component is done by taking into account the past trends, current business requirements, and future expectations.

The formula for estimating the components of working capital is as follows:

Working Capital = Inventory + Accounts Receivable + Cash - Accounts Payable – Accruals where, Inventory = Raw materials + Work in progress + Finished goods + Stores and spares + Fuel, etc.

Accounts Receivable = Total credit sales × (credit period ÷ 365)

Cash = Minimum cash balance required + Operating cash expenses for one month Accounts

Payable = Total credit purchases × (credit period ÷ 365)

Accruals = Wages and salaries + Taxes + Utilities + Rent + Other expenses

Format of Estimation of working capital requirements.

I. Current Assets	Amount	Amount	Amount
Minimum Cash Balance		****	
Inventories :			
Raw Materials	****		
Work-in progress	****		
Finished Goods	****	****	
Receivables :			
Debtors	****		
Bills receivables	****	****	
Gross Working Capital (CA)		****	****
II. Current Liabilities:			
Creditors for Purchases		****	
Creditors for Wages		****	
Creditors for Overheads		****	
Total Current Liabilities (CL)		****	****
Excess of CA over CL			****
+ Safety Margin			****
Net Working Capital			****

Margin of Safety:

Occasionally, a firm may also like to have a safety margin of working capital in order to congregate any emergency. The safety margin may be expressed as a % of total current assets or total current liabilities or net working capital. The safety margin, if necessary, is included in the working capital estimates to find out the net working capital required for the firm. There is no hard and fast rule about the quant um of safety margin and depends upon the nature and uniqueness of the firm in addition to the current assets and current liabilities.

Let's take an example to understand the estimation of working capital using the components of working capital method:

ABC Ltd. is a manufacturing company. The following information is available:

Credit sales for the year:	Rs. 1,000,000
Credit period allowed to customers:	60 days
Credit purchases for the year:	Rs. 600,000
Credit period allowed by suppliers:	30 days
Operating cash expenses for one month:	Rs. 50,000
Minimum cash balance required:	Rs. 20,000
Raw materials inventory:	Rs. 80,000
Work in progress inventory:	Rs. 50,000
Finished goods inventory:	Rs. 120,000
Stores and spares inventory:	Rs. 30,000
Fuel inventory:	Rs. 10,000
Wages and salaries:	Rs. 100,000
Taxes:	Rs. 30,000
Utilities:	Rs. 20,000
Rent:	Rs. 40,000
Other expenses:	Rs. 15,000

Using the components of working capital method, we can estimate the working capital requirement as follows:

Inventory = Rs. 80,000 + Rs. 50,000 + Rs. 120,000 + Rs. 30,000 + Rs. 10,000
= Rs.2,90,000

Accounts Receivable = Rs. 1,000,000 × (60 ÷ 365) = Rs. 164,384

Cash = Rs. 20,000 + Rs. 50,000 = Rs. 70,000

Accounts Payable = Rs. 600,000 × (30 ÷ 365) = Rs. 49,315

Accruals = Rs. 100,000 + Rs. 30,000 + Rs. 20,000 + Rs. 40,000 + Rs. 15,000

= Rs. 205,000

Working Capital =

Rs. 290,000 + Rs. 164,384 + Rs. 70,000 - Rs. 49,315 - Rs. 205,000

= Rs.2,70,069

- **Practical problems**

Illustration-1

Following is the information of Anmol Industries Ltd. Kolhapur for the year 31th March, 2023. Their plan is to sell 30,000 units in the year 2022-2023. The expected cost of goods sold is as under you are required to calculate the working capital requirements.

Particulars	Rs. (Per Unit)
Raw material	100
Manufacturing expenses	30
Selling, administration and financial expenses	20
Selling price	200

The duration at various stages of the operating cycle is expected to be as follows:

Raw material stage	2 months
Work-in-progress stage	1 month
Finished goods stage	1/2 month
Debtors stage	1 month

Assuming that the monthly sales level of 2,500 units, estimate the gross working capital necessity. Expected cash balance is 5% of the gross working capital necessity, and working progress in 25% complete with respect to manufacturing expenses.

Solution-

In the books of Anmol Industries Ltd. Kolhapur

Statement showing requirements of Working Capital

For the period of 2022-23

Particulars	Amount	Amount
I. Current Assets		
Stock of Raw Material (2,500×2×100)		5,00,000
Work-in-progress		
Raw Materials (2,500×100)	2,50,000	
Manufacturing Expenses 25% of (2,500×30)	18,750	2,68,750
Finished Goods:		
Raw Materials (2,500×½×100)	1,25,000	
Manufacturing Expenses (2,500×½×30)	37,500	1,62,500
Debtors (2,500×150)		3,75,000
Total		13,06,250
Cash Balance (13,06,250×5/95)		68,750
Net Working Capital requirement		13,75,000

Note: Selling, administration and financial expenses have not been incorporated in valuation of closing stock.

Illustration-2

The cost sheet of Aditya Birla Co. Ltd. provides the following data:

	Cost per unit (Rs)
Raw materials	50
Direct labor	20
Overheads	30
Total cost	100
Profit	20
Selling price	120

Average raw material in stock is for one month.

Average materials in work-in-progress are for half month.

Credit allowed by suppliers; one month;

credit allowed to debtors; one month.

Average time lag in payment of wages; 10 days;

average time lag in payment of overheads; 30 days.

25% of the sales are on cash basis.

Cash balance expected to be Rs 1,00,000.

Finished goods lie in the warehouse for one month.

You are required to prepare a statement of the working capital needed to finance a level of the activity of 54,000 units of output. Production is carried on evenly throughout the year and wages and overheads accrue similarly.

Solution-

As the annual level of activity is given at 54,000 units, it means that the monthly turnover would be 54,000/12 = 4,500 units. The working capital requirement for this monthly turnover can now be estimated as follows:

In the books of Aditya Birla Co. Ltd.
Statement showing requirements of Working Capital
For the year ended _____.

Particulars	Amount	Amount
I. Current Assets		
Cash Balance	1,00,000	
Stock of Raw Materials (4500×Rs 50)	2,25,000	
Work-in-progress		
Raw Materials [(4500×Rs 50)/2]	1,12,500	
Wages [50% of (4500×Rs 20)/2]	22,500	
Overheads [50% of (4500×Rs 30)/2]	33,750	
Finished Goods (4500×Rs 100)	4,50,000	
Debtors (4500×Rs 100×75%)	3,37,500	
Total Current Assets	12,81,250	12,81,250
II. Current Liabilities :		
Creditors for materials (4500×Rs 50)	2,25,000	
Creditors for wages [(4500×Rs 20)/3]	30,000	

Creditors for overheads (4500×Rs 30)	1,35,000	
Total Current Liabilities	3,90,000	3,90,000
Net Working Capital (CA– CL)		8,91,250

Working Notes:

- In the calculation of WIP, the raw materials have been taken at full requirements for 15 days; but the wages and overheads have been taken only at 50% on the assumption that on an average all units in WIP are 50% complete.
- Since, the wages are paid with a time lag of 10 days, the working capital provided by wages has been taken by dividing the monthly wages by 3 (assuming a month to consist of 30 days).

Illustration-3

The following information has been extracted from the records of a Doms Company: Product cost sheet (per unit):

	Rs.
Raw Materials	45
Direct Labour	20
Overheads	40
Total	105
Profit	15
Selling price	120

- Raw materials are in stock on an average for two months.
- The materials are in process on an average for one month. The degree of completion is 50% in respect of all elements of cost.
- Finished goods stock on an average is for one month.
- Time lag in payment of wages and overheads is 1½ weeks.
- Time lag in receipt of proceeds from debtors is 2 months.
- Credit allowed by suppliers is one month.
- 20% of the output is sold against cash.

- The company expects to keep a Cash balance of Rs.1,00,000.

The Company is poised for a manufacture of 1,44,000 units in the next year.

You are required to prepare a statement showing the Working Capital requirements of the Doms Company.

Solution:

Statement showing the Working Capital requirement

Particulars	Amount	Amount
I. Current Assets		
Cash Balance	1,00,000	
Stock of Raw materials (12,000 × 2 × 45)	10,80,000	
Work-in-progress (12,000 × 1 × 105) × 50%	6,30,000	
Finished goods (12,000 × 1 × 105)	12,60,000	
Debtors (12,000 × 2 × 105 × 80%)	20,16,000	
Total Current Assets	50,86,000	50,86,000
II. Current Liabilities :		
Creditors of raw materials (12,000 × 1 × 45)	5,40,000	
Creditors for wages & overheads (12,000 × 60 ÷ 4) 1.5	2,70,000	
Total Current Liabilities	8,10,000	8,10,000
Net Working Capital (CA– CL)		42,76,000

Working Notes:

1. Finished goods and Debtors have been taken at cost.
2. Production per month has been taken at 12,000 units. For payment of wages and overheads, month is taken as consisting of 4 weeks.

Illustration-4

Prepare an estimate of net working capital requirement for the WCM Ltd. adding 10% for contingencies from the information given below:

Estimated cost per unit of production Rs. 170

includes raw materials Rs. 80

direct labour Rs. 30

and overheads (exclusive of depreciation) Rs. 60.

Selling price is Rs. 200 per unit.

Level of activity per annum 1,04,000 units.

Raw material in stock: average 4 weeks;

work-in-progress (assume 50% completion stage): average 2 weeks;

finished goods in stock: average 4 weeks;

credit allowed by suppliers: average 4 weeks;

credit allowed to debtors: average 8 weeks;

lag in payment of wages: average 1.5 weeks,

and cash at bank is expected to be 25,000.

You may assume that production is carried on evenly throughout the year (52 weeks) and wages and overheads accrue similarly.

All sales are on credit basis only. You may state your assumptions, if any.

Solution:

Statement of Net Working Capital Requirement

Particulars	Amount	Amount
I. Current Assets		
Cash at Bank	25,000	
Raw materials in stock : (1,04,000 × 80 × 4)/52	6,40,000	
Work-in-progress :		
Raw materials (1,04,000 × 80 × 2)/52	3,20,000	
Direct labour 50% of (1,04,000 × 30 × 2)/52	60,000	
Overheads 50% of (1,04,000 60 × 2)/52	1,20,000	
Finished Goods Stock (1,04,000 × 170 × 4)/52	13,60,000	
Debtors (1,04,000 × 170 × 8)/52	27,20,000	
Total Current Assets	52,45,000	52,45,000
II. Current Liabilities :		
Creditors (1,04,000 × 80 × 4)/52	6,40,000	
Wages (Lag-in-payment) (1,04,000 × 30 × 1½)/52	90,000	

Total Current Liabilities	7,30,000	7,30,000
Net Working Capital (CA– CL)		45,15,000
+10% Contingencies		4,51,500
Working Capital Requirement		49,66,500

Assumptions: Net working capital requirement has been estimated on cash cost basis. Hence, investment in debtor has been computed on cash cost.

Illustration-5

The management of Ramdev Industries has called for a statement showing the working capital to finance a level of activity of 1,80,000 units of output for the year. The cost structure for the company's product for the above mentioned activity level is detailed below:

	Cost per unit
Raw material	20
Direct labour	5
Overheads (including depreciation of 5 per unit)	15
Total	40
Profit	10
Selling price	50

Additional information:

(a) Minimum desired cash balance is 20,000.

(b) Raw materials are held in stock, on an average, for two months.

(c) Work-in-progress (assume 50% completion stage for all components) will approximate to half-a-month's production.

(d) Finished goods remain in warehouse, on an average, for a month.

(e) Suppliers of materials extend a month's credit and debtors are provided two month's credit; cash sales are 25% of total sales.

(f) There is a time-lag in payment of wages of a month; and half-a-month in the case of overheads.

From the above facts, you are required to prepare a statement showing working capital requirements.

Solution:

Statement of Total Cost

Particulars		Amount
Raw material (1,80,000 × 20)		36,00,000
Direct labour (1,80,000 × 5)		9,00,000
Overheads (excluding depreciation) (1,80,000 × 10)		18,00,000
Total cost		63,00,000

Statement of Working Capital Requirement

Particulars	Amount	Amount
I. Current Assets		
Cash balance	20,000	
Raw materials (1/6 of 36,00,000)	6,00,000	
Work-in-progress (Total cost ÷ 24 × 50%)	1,31,250	
Finished goods (Total cost ÷ 12)	5,25,000	
Debtors (75% × 63,00,000) × 1/6	7,87,500	
Total Current Assets	20,63,750	20,63,750
II. Current Liabilities :		
Creditors (36,00,000) × 1/12	3,00,000	
Direct labour (9,00,000) × 1/12	75,000	
Overheads (18,00,000) × 1/24 (excluding dep.)	75,000	
Total Current Liabilities	4,50,000	4,50,000
Net Working Capital (CA– CL)		16,13,750
+Contingencies		-
Working Capital Requirement		16,13,750

Note: Depreciation is a non-cash item, therefore, it has been excluded from total cost as well as working capital provided by overheads. Work-in-progress has been assumed to be 50% complete in respect of materials as well as labour and overheads expenses.

Illustration-6

Hitachi Ltd. plans to sell 30,000 units next year. The expected cost of goods sold is as follows:

Particular's	Rs. (Per Unit)
Raw material	100
Manufacturing expenses	30
Selling, administration and financial expenses	20
Selling price	200

The duration at various stages of the operating cycle is expected to be as follows:

Raw material stage	2 months
Work-in-progress stage	1 month
Finished stage	1/2 month
Debtors stage	1 month

Assuming the monthly sales level of 2,500 units, estimate the gross working capital requirement if the desired cash balance is 5% of the gross working capital requirement, and work-in-progress is 25% complete with respect to manufacturing expenses.

Solution:

Statement of Working Capital Requirement

Particulars	Amount	Amount
I. Current Assets		
Stock of Raw Material (2,500 × 2 × 100)		5,00,000
Work-in-progress :		
Raw Materials (2,500 × 100)	2,50,000	
Manufacturing Expense 25% of (2,500 × 30)	18,750	2,68,750

Finished Goods :		
Raw Material (2,500 × 1/2 × 100)	1,25,000	
Manufacturing Expenses (2,500 × ½ × 30)	37,500	1,62,500
Debtors (2,500 × 150)		3,75,000
		13,06,250
Cash Balance (13,06,250 × 5/95)		68,750
Working Capital Requirement		13,75,000

Note: Selling, administration and financial expenses have not been included in valuation of closing stock. However, Debtors have been valued at full cost. Alternatively, Debtors can also be valued at 30.

Illustration-7

Calculate the amount of working capital requirement for Star Cement Ltd. from the following information:

	Rs. (Per Unit)
Raw material	160
Direct labour	60
Overheads	120
Total cost	340
Profit	60
Selling price	400

Raw materials are held in stock on an average for one month.

Materials are in process on an average for half-a month.

Finished goods are in stock on an average for one month.

Credit allowed by suppliers is one month and credit allowed to debtors is two months.

Time lag in payment of wages is 1½ weeks.

Time lag in payment of overhead expenses is one month.

One fourth of the sales are made on cash basis.

Cash in hand and at the bank is expected to be 50,000:

and expected level of production amounts to 1,04,000 units for a year of 52 weeks.

You may assume that production is carried on evenly throughout the year and a time period of four weeks is equivalent to a month.

Solution-

Statement of Working Capital Requirement

Particulars	Amount	Amount
I. Current Assets		
Cash balance	50,000	
Stock of Raw Material (2,000 × 160 × 4)	12,80,000	
Work-in-progress		
Raw Materials (2,000 × 160 × 2)	6,40,000	
Labour and Overheads (2,000 × 180 × 2) × 50%	3,60,000	
Finished Goods (2,000 × 340 × 4)	27,20,000	
Debtors (2,000 × 75% × 340 × 8)	40,80,000	
Total Current Assets	91,30,000	91,30,000
II. Current Liabilities :		
Creditors (2,000 × 160 × 4)	12,80,000	
Creditors for Wages (2,000 × 60 × 1½)	1,80,000	
Creditors for Overheads (2,000 × 120 × 4)	9,60,000	
Total Current Liabilities	24,20,000	24,20,000
Net Working Capital (CA– CL)		67,10,000

Illustration-8

Following is the information of Menon & Piston Industries Ltd. Kolhapur for the year 31st Mar. 2023. You are required to calculate the working capital requirements from the following information:

Particulars	Rs.
Raw materials	160
Direct Labour	60
Overheads	120

Total cost	340
Profit	60
Selling price	400

Raw materials are held in stock on an average for 1-month period.

Materials are in process on an average for ½ month period.

Finished goods are in stock on an average for 1-month period.

Credit allowed by suppliers is 1-month period and

credit allowed to debtors is 2-month period.

Time lag in payment of wages is 1½ weeks.

Time lag in payment of overhead expenses is 1 month.

1/4th of the sales are made on cash basis.

Cash in hand and at the bank is anticipated to be Rs. 50,000.

and anticipated level of production amounts to 1,04,000 units for a year of 52 weeks.

You may assume that production is carried on evenly throughout the year and a time period of four weeks is equivalent to a month.

Solution-

In the books of Menon Industries Ltd. Kolhapur.

Statement showing requirements of Working Capital

For the period of 2022-23

Particulars	Amount	Amount
I. Current Assets		
Cash Balance		50,000
Stock of Raw Materials (2,000×160×4)		12,80,000
Work-in-progress		
Raw Materials (2,000×160×2)	6,40,000	
Labour and Overheads (2,000×180×2)×50%	3,60,000	10,00,000
Finished Goods (2,000×340×4)		27,20,000
Debtors (2,000×75%×340×8)		40,80,000

Total Current Assets		91,30,000
II. Current Liabilities :		
Creditors (2,000×Rs. 160×4)		12,80,000
Creditors for Wages (2,000×Rs. 60×1½)		1,80,000
Creditors for Overheads (2,000×Rs. 120×4)		9,60,000
Total Current Liabilities		24,20,000
Net Working Capital (CA– CL)		67,10,000

- **Capitalization –**

Capitalization is one of the most important parts of financial decision, which is related to the total amount of capital employed in the business concern. Understanding the concept of capitalization leads to solve many problems in the field of financial management. Because there is a confusion among the capital, capitalization and capital structure. The term capital refers to the total investment of the company in terms of money, and assets. It is also called as total wealth of the company. When the company is going to invest large amount of finance into the business, it is called as capital. Capital is the initial and integral part of new and existing business concern. The capital requirements of the business concern may be classified into two categories: (a) Fixed capital (b) Working capital.

- **Meaning of Capitalization**

The term, capitalization refers to the magnitude of capital employed in a firm. This includes both long-term and short-term capital. Any financing decision in respect of the capitalization is of much significance to the firm. This because any deviation from optimum capitalization may lead to unhealthy environment; and come in the way of maximization of the value of the firm. If the size of the capital is more than optimal, a part of it will remain idle, this will entail on the profitability of operations. If it is less than optimal, this will affect liquidity. This is why an estimate of the firm's capital requirements must be made very carefully, after a thorough study of the cost of the assets and the earning capacity of the firm.

- **Definition of Capitalization:**

Capitalization refers to the process of determining the quantum of funds that a firm need to run its business. Capitalization is only the par value of share capital and debenture and it does not include reserve and surplus.

Guthmann and Dougall defines the capitalization as the sum of the par value of the outstanding stocks and the bonds.

"Capitalization is the balance sheet value of stocks and bonds outstands". — **Bonneville and Dewey**

According to **Arhur. S. Dewing**, "capitalization is the sum total of the par value of all shares".

In the words of **Walker and Baughn**, "Capitalization refers only the long-term debt and capital stock, and short-term creditors do not constitute. In reality total capital is furnished by short-term creditors and long-term creditors".

- **Comparison of Capital and Capitalization**

Capital	Capitalization
The term capital refers to the total investment of a company in money.	Capitalization refers to the par value of securities.
Capital is also known as the total paid up values of shares (except debentures, bonds and other types of loans).	The term 'Capitalization' is used only in private and public limited companies.
The term capital is a Universal concept, which is used by all types of business, organization. (Private, public, partnership or proprietary concerns)	The term capitalization is not applicable to entrepreneurship and proprietary concerns.

- **Theories of capitalization**

There are two recognized theories of capitalization for new companies; (i) Cost Theory, and (ii) Earnings Theory.

- **Cost Theory**

According to this theory, the total amount of capitalization of a new company is arrived at by adding up the cost of fixed assets (such as plant, machinery, building, etc.), the amount of working capital and the cost of establishing the business (e.g., preliminary expenses, underwriting commission, expenses on issue of shares etc.). For example, if the fixed assets for a company would cost Rs.2,00,000, working capital required amounts to Rs.1,00,000, and the cost of establishing the business would amount to Rs.40,000, the amount of capitalization for the company would be

3,40,000. The company would sell securities (i.e., shares and debentures) of this amount.

Cost theory is useful in so far as it enables the promoters to know the amount of capital to be raised. However, it is unsatisfactory on account of several reasons. It fails to provide basis for ascertaining net-worth of the business in real terms since net-worth depends not on the cost of the assets but on its earning capacity. Moreover, assets might have been purchased at inflated prices or they might have become obsolete but all these aspects are ignored if capitalization of the company is determined on the basis of the original cost of the assets. The cost-based capitalization is not fair in case of companies having irregular earnings.

Illustration-1 A company estimates that the

Fixed assets would cost Rs.10,00,000,

Preliminary expenses Rs.1,20, 000,

Working capital requirements would be Rs.4,80, 000.

The amount of capitalization for

Fixed assets	10,00,000
Preliminary expenses	1,20,000
Working capital	4,80,000

Total	16,00,000

The amount of Capitalization for the company would be Rs.16,00,000. The company issue shares and debentures to raise the amount of Rs.16,00,000. The cost theory helps the promoters to find the total amount of capital needed for establishing the business. According to Husband and Doceray, cost principle may appear to give an assurance that capitalization would, at the best be representative of the value of the enterprise.

However, the cost theory has not been considered efficient base on the following grounds:

i) It takes into consideration only the cost of assets and not the early capacity of the investments.

ii) Earnings of the company fluctuate when the asset becomes obsolete or idle. This will not be detected, if capitalization is made on the basis of cost.

iii) It is not suitable for such companies where its earnings are varying.

- **Earnings Theory:**

According to this theory, the true value (capitalization) of an enterprise depends upon its earning capacity. In other words, the worth of a company is not measured by the capital raised but by the earnings made out of the productive harnessing of the capital. For this purpose, a new company will have to estimate the average annual future earnings and the normal earning rate (also termed as capitalization rate) prevalent in the same industry. For example, if a new company estimates that its annual average earnings will amount to a sum of Rs. 50,000, while the companies in the same industry are earning a return of 10% on their capital employed, the amount of capitalization for the company would be a sum of Rs.5,00,000 (i.e., 50,000 x 100/10).

This method has the advantage of correlating the value (capitalization) of a company directly with its earning capacity. However, it has a limitation. In case of new companies, it may be difficult to estimate correctly the amount of future earnings. In case earnings are not correctly estimated, the capitalization based on earnings might prove to be risky for the company.

On account of the above risk, it is advisable to adopt the cost theory of capitalization in case of new companies.

Illustration-2

If a new company estimates that its annual average earnings will amount to a sum of the Rs.2,00,000, while the companies in the same industry are earning a return of 20% on their capital employed, the amount of capitalization for the company would be:

$$\text{Capitalization} = \frac{\text{Average annual future earnings}}{\text{Capitalization rate}} \text{ X } 100$$

$$= \frac{2,00,000 \text{ X } 100}{20}$$

$$= \text{Rs.}10,00,000$$

- **Over Capitalization**

Over-capitalization occurs when a company has issued more debt and equity than its assets are worth. The market value of the company is less than the total capitalized value of the company. An overcapitalized company might be paying more in interest and dividend payments than it has the ability to sustain long-term. The heavy debt burden and associated interest payments might be a strain on profits and reduce the amount of retained funds the company has to invest in research and development or other projects. To escape the situation, the company may need to reduce its debt load or buy back shares to reduce the company's dividend payments. Restructuring the company's capital is a solution to this problem. The phrase 'over-capitalisation' has been misunderstood with abundance of capital. In actual practice, overcapitalized concerns have been found short of funds. Truly speaking, over-capitalisation is a relative term used to denote that the firm in question is not earning reasonable income on its funds.

According to Bonneville, Dewey and Kelly, "When a business is unable to earn a fair rate of return on its outstanding securities, it is over-capitalized."

Likewise, Gerstenberg opines that "a corporation is over-capitalized when its earnings are not large enough to yield a fair return on the amount of stocks and bonds that have been issued." Thus, over-capitalisation refers to that state of affairs where earnings of the corporation do not justify the amount of capital invested in the business. In other words, an over-capitalized company earns less than what it should have earned at fair rate of return on its total capital.

Example A company is earning a sum of Rs. 50,000 and the rate of return expected is 10%. This company will be said to be properly capitalized. Suppose the capital investment of the company is Rs. 60,000, it will be over capitalization to the extent of Rs. 1,00,000. The new rate of earning would be:

50,000/60,000×100=8.33% When the company has over capitalization, the rate of earnings will be reduced from 10% to 8.33%.

- **Under Capitalization**

Under-capitalization occurs when a company does not have sufficient capital to conduct normal business operations and pay creditors. This can occur when the company is not generating enough cash flow or is unable to access forms of financing such as debt or equity.

Undercapitalized companies also tend to choose high-cost sources of capital, such as short-term credit, over lower-cost forms such as equity or long-term debt. Investors want to proceed with caution if a company is undercapitalized because the chance of bankruptcy increases when a company loses the ability to service its debts.

When a company succeeds in earning abnormally large income consistently for a pretty long time, symptoms of under-capitalisation gradually develop in the company; the most important one being that market value of shares of the company exceeds their book value. Under-capitalisation is an index of effective and proper utilisation of funds employed in the enterprise.

It should be noted in this regard that if a company under exceptionally good conditions makes substantially large earnings in a year or so, it should not be considered that the company is under-capitalized. Over-capitalised concerns have always earning superiority over average concerns engaged in the same line of activity.

Thus, under-capitalisation is indicative of sound financial health and good management of the company. Bonneville and Dewey rightly observed that "Under-capitalisation is not an economic problem but a problem in adjusting the capital structure".

Under capitalization can be defined by Gerstenberg, "a corporation may be undercapitalized when the rate of profit is exceptionally high in the same industry".

Hoagland defined under capitalization as "an excess of true assets value over the aggregate of stocks and bonds outstanding".

- **Illustration-3**

Following is the Balance Sheet of A Limited:

Liabilities	Rs.	Assets	Rs.
Share Capital:			
1,000 Equity Shares of Rs.10 each	10,000	Sundry Debtors	40,000
1,000, 10% Preference Shares of Rs.10 each	10,000		
Reserves and Surplus	10,000		
Sundry Creditors	10,000		
	40,000		40,000

The normal earning rate in case of similar companies is 15%. Ascertain whether the company is properly capitalized when earnings available for equity shareholders are:

1) Rs. 1,000; 2) Rs. 5,000; 3) Rs. 3,000.

Solution

Book Value of Equity Shares of the A Limited

		Rs.
Sundry Assets		40,000
Less: Sundry Creditors	10,000	
Preference Share Capital	10,000	20,000
Net Assets available for equity shareholders		20,000

Book value of an equity share =

Book value of an equity share = $\frac{20,000}{1,000}$

= Rs.20

Real Value of equity shares of the Company

i) When earnings available are Rs. 1,000

Capitalized value of earnings is: Rs. 1,000 X 100/15 = Rs. 6,667

Real value of an equity shares = 6,667/1,000 = Rs.6.67

Since the book value of the company's equity share is more than the real value, the company is over-capitalized.

ii) When earnings available are Rs. 5,000

Capitalized value of earnings is: Rs. 5,000 X 100/15 = Rs. 33,333

Real value of an equity shares = 33,333/1,000 = Rs.33.33

Since the book value of the company's equity share is less than the real value, the company is under-capitalized.

iii) When earnings available are Rs. 3,000

Capitalized value of earnings is Rs. 3,000 X 100/15 = Rs. 20,000

Real value of an equity shares = 20,000/1,000 = Rs.20

Since the book value and real value of an equity share of the company are the same, the company is properly capitalized.

Check your progress

A. Fill in the blanks.

1. ……is a method of estimating working capital needs that focuses on the time it takes to convert cash into inventory, inventory into sales, and sales back into cash.
2. ……refers to the amount of money that a company has withdrawn from its bank account beyond the amount of money available in the account.

B. Write True or False.

3. Bills payable refers to the amount of money that the company owes to its creditors for the goods or services purchased on credit.
4. Current assets are resources that are expected to be converted into cash within a year or an operating cycle, whichever is longer.
5. Permanent working capital or fixed working capital refers to the minimum amount of current assets required by a company to carry out its daily operations smoothly over a long period of time.

C. Choose the correct alternative

6. _____ means the capital which is meant for meeting the permanent or long term needs of the business.

   a. Working capial b. Fixed Capital

   c. Variable Capital d. Personal Capital

7. The main elements of a financial plan include _____.

   a. Risk Management b. Long Term Investment

   c. Retirement Planning d. All of the above

8. Over-capitalization results from _____.

   a. Payment of excessive amount of Goodwill
   b. Underestimating the rate of capitalization
   c. Raising more money than can be profitably used
   d. Raising only the money

3.3 Summary:

Financial Planning is the process of assessing the current financial situation of a business to identify future financial goals and how to achieve them.

A financial plan is a document that outlines an individual's current financial situation, short-term and long-term goals, and strategies to achieve those goals.

Objectives of Financial Planning *a. Ensuring availability of funds b. Estimating the time and source of funds c. Generating capital structure d. Avoiding unnecessary funds.*

Fixed Capital means the capital which is meant for meeting the permanent or long term needs of the business.

Working capital management is the process of managing a company's short-term assets and liabilities to ensure that it has enough liquidity to meet its obligations and run its operations efficiently. The goal of working capital management is to strike a balance between liquidity and profitability, as having too much or too little working capital can both have negative consequences for a company.

The components of working capital include current assets such as inventory, accounts receivable, and cash, and current liabilities such as accounts payable and short-term debt. Managing these components effectively requires monitoring and forecasting cash flows, optimizing inventory levels, and managing credit and collections policies.

There are various methods for estimating working capital requirements, including the operating cycle approach, the percent of sales approach, and the estimation of components of working capital method.

Effective working capital management can lead to improved cash flow, increased profitability, and reduced financial risks. However, it requires careful planning, analysis, and decision-making, as well as effective communication and collaboration across different departments and stakeholders within a company.

3.4 Terms to Remember-

Financial planning: Financial Planning is the process of assessing the current financial situation of a business to identify future financial goals and how to achieve them.

Financial plan: A financial plan is a document that outlines an individual's current financial situation, short-term and long-term goals, and strategies to achieve those goals.

Fixed Capital: Fixed Capital means the capital which is meant for meeting the permanent or long term needs of the business.

Working Capital: Working capital is the amount of money a business has available for its day-to-day operations. It is the difference between a company's current assets and current liabilities. In simpler terms, it is the amount of funds required to meet the short-term expenses of a business.

Capitalisation: Capitalisation refers to the process of determining the quantum of funds that a firm need to run its business.

Over-capitalization: Over-capitalization occurs when a company has issued more debt and equity than its assets are worth.

Under-capitalization: Under-capitalization occurs when a company does not have sufficient capital to conduct normal business operations and pay creditors.

3.5 Answers to Check your progress –

– A 1. The operating cycle approach 2. Bank overdraft

– B 3. True. 4. True. 5. True

_ C 6. B. 7. D 8. C

3.6. Exercise-

1. What is mean by Financial Planning? Explain the Objectives of Financial Planning.

   Define Working Capital and the Components of Working Capital?

2. Explain the Factors Affecting Working Capital Requirements.

3. What is meaning of Capitalization? Explain the theories of Capitalization.

4. You are required to prepare a statement showing the working capital needed to finance a level of annual activity of 52,000 units of output. The following information are available:

Elements of cost	Rs. Per unit
Raw materials	8
Direct labour	2
Overheads	6
Total cost	16
Profit	4
Selling price	20

Raw materials are in stock, on an average for 4 weeks.

Materials are in process, on an average, for 2 weeks.

Finished goods are in stock, on an average, for 6 weeks.

Credit allowed to customers is for 8 weeks.

Credit allowed by suppliers of raw materials is for 4 weeks.

Lag in payment of wages is 1½ weeks.

It is necessary to hold cash in hand and at bank amounting to 75,000.

It may be noted that production is carried on evenly during the year and wages and overheads accrue similarly.

[Answer: Working Capital requirement for 52,000 units (i.e., 1,000 unit per week) is 3,20,000.]

5. From the following information, prepare a statement showing estimated working capital requirement:

   (i) Projected Annual sales 26,000 units.

   (ii) Selling price per unit 60.

   (iii) Analysis of selling price: Material 40%; Labour 30%; Overheads 20%; Profit 10%.

   (iv) Time lag (on average)

   Raw materials in stock 3 weeks.

   Production process 4 weeks.

   Credit to debtors 5 weeks.

Credit by suppliers 3 weeks.

Lag in payment of wages and overheads 2 weeks.

Finished goods are in stock 2 weeks.

(v) Cash in hand is expected to be 32,000.

[Answer: Working Capital requirement is 2,69,000.]

6. What do you mean by over-capitalization and under-capitalization?

Following is the Balance Sheet of A Limited:

Liabilities	Rs.	Assets	Rs.
Share Capital:			
2,000 Equity Shares of Rs.10 each	20,000	Sundry Debtors	1,00,000
2,000, 10% Preference Shares of Rs.10 each	20,000		
Reserves and Surplus	30,000		
Sundry Creditors	30,000		
	1,00,000		1,00,000

The normal earning rate in case of similar companies is 15%. Ascertain whether the company is properly capitalized when earnings available for equity shareholders are:

1) Rs. 2,500; 2) Rs. 12,500; 3) Rs. 7,500.

3.7. Reference for further study-

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Unit-4

Capital Structure

Structure

4.0 Objectives :

After going through this unit, you will be able to:

- Understand the meaning of capital structure
- Explain various components of capital structure
- Explain the approaches of capital structure decisions
- Understand the meaning and types of leverage
- Explain the relationship between capital structure and earnings per share (EBIT-EPS Analysis)

4.1 Introduction

The term capital structure differs from financial structure. Financial structure refers to the way the firm's ·assets are financed. In other words, it includes both long-term as well as short-term sources of funds. Capital structure is the permanent financing of the company represented primarily by long-term debt and shareholders' funds but excluding all short-term credit. Thus, a company's capital structure is only a part of its financial structure.

The capital structure decision is one of the important decision in respect of any business undertaking as it has long term impact on financial obligations as well as earnings of the business. If the capital structure decision goes wrong, it may affect the operations of the business in the long run and if the capital structure decision is proved to be correct, it helps to run the business smoothly.

4.2 Presentation of Subject Matter

4.2.1 Meaning of Capital Structure

According to Gerstenberg, capital structure refers to 'the makeup of a firm's capitalization'. In other words, it represents the mix of different sources of long term funds (such as equity shares, preference shares, long-term loans, retained earnings, etc.) in the total capitalization of the company. For example, a company has equity shares of Rs. 1,00,000, debentures Rs 1,00.000, preference shares of Rs. 1,00,000 and retained earnings of Rs. 50,000. The term capitalization is used for total long-term funds. In this case it is of Rs. 3,50,000. The term capital structure is used for the mix of capitalization. In this case it will be said that the capital structure of the company consists of Rs. 1,00,000 in equity shares, Rs. 1,00,000 in preference shares, Rs. 1,00,000 in debentures and Rs. 50,000 in retained earnings.

4.2.2 Patterns of Capital Structure

In case of a new company the capital structure may be of any of the following four patterns:

(i) Capital structure with equity shares only

(ii) Capital structure with both equity and preference shares

(iii) Capital structure with equity shares and debentures

(iv) Capital structure with equity shares, preference 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 investor, etc. All these factors have been discussed later in the chapter. However, we will like to emphasize only one point here. 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 purposes. Dividend is considered to be an appropriation of profits hence payment of dividend does not result in any tax benefit to the company. This means if a company, which is in the 50 per cent tax bracket, pays interest at 12 per cent on its debentures, the effective cost to it comes only to 6 per cent. While if the amount is raised by issue of 12 per cent preference shares, the cost of raising the amount would be· 12 per cent. Thus, raising 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 the basic objective of a financial manager.

Capital Structure and Financial Structure

In financial management, the terms "capital structure" and "financial structure" are often used interchangeably. In some instances, it is considered that both of these terms are same or they carry the same meaning. But fundamentally, there is a difference between these terms, though they are somewhat related to eachother.

Capital Structure

Capital structure primarily focuses on how a company finances its operations and growth by determining the mix of various sources of capital. It refers to the composition of a company's long-term financing, including equity and debt. Here are the key points related to capital structure:

Components

1. **Equity Capital**: This includes the funds raised by issuing common and preferred stock. Equity capital represents ownership in the company and entitles shareholders to a portion of profits and voting rights.
2. **Debt Capital**: Debt capital encompasses loans, bonds, and other forms of borrowed funds. These represent obligations that the company must repay over time, typically with interest.
3. **Retained Earnings**: Retained earnings are profits that the company has earned and kept for reinvestment rather than distributing them to shareholders as dividends.

Financial Structure

Financial structure encompasses a broader set of factors that influence how a company manages its financial resources, not just its long-term capital. It includes the overall arrangement of assets and liabilities on a company's balance sheet, as well as its short-term financing decisions. Here are key points related to financial structure:

Components

1. **Current Assets**: These are assets that are expected to be converted into cash or used up within one year, including cash, accounts receivable, and inventory.
2. **Current Liabilities**: Current liabilities are obligations that are due within one year, such as accounts payable, short-term loans, and accrued expenses.
3. **Non-Current Assets**: Non-current assets are long-term investments, property, plant, equipment, and other assets that are not expected to be converted into cash within one year.
4. **Long-Term Liabilities**: Long-term liabilities include obligations like long-term loans, bonds, and deferred tax liabilities that extend beyond one year.

Life cycle stages of Capital Structure

A firm’s life cycle refers to the different stages a company goes through as it grows and matures over time. The relationship between a firm life cycle and capital structure is that a firm’s capital structure tends to change as the firm progresses

through its life cycle. In general, young firms just starting out are more likely to rely heavily on equity financings, such as venture capital or angel investors, since they may not have established a track record or assets that can be used as loan collateral. Following life cycle stages are normally present in the corporate world.

1. Start-Up Stage

In the start-up stage, sales are just beginning, and operating earnings and cash flows tend to be low or negative. Risk is usually very high. Not many investors would lend to start-ups, and even if they are willing, they would demand high interest rates. Assets, both receivables and fixed assets, are typically low and therefore not available as collateral for debt. For these reasons, start-up companies usually have close to zero debt.

2. Growth Stage

When a company progresses to the growth stage, its revenue rises faster, cash flows start to improve, and risk is somewhat reduced. Some investors may be more willing to lend to the company, so debt financing costs are reduced. The company should have more substantial assets now, so the loans tend to be secured by fixed assets or accounts payable. Depending on the company, debt issuance may be as much as 20% of the firm's capital structure.

3. Maturity Stage

If a company progresses to the maturity stage, revenue growth slows, but cash flows are often positive and predictable, reducing the risk. Debt financing is widely available at relatively low cost. The debt structure can be a mix of secured and unsecured bonds, and bank loans, in amounts in excess of 20% of the firm's capital structure and sometimes significantly more than that. Over time, as a mature company earns excess income, the equity value may grow through retained earnings, causing the debt proportion to fall. If there are a lack of growth opportunities, some companies may choose to repurchase their debt using excess cash, further reducing the proportion of debt in the capital structure.

The effect of the change in debt-equity mix on EPS of the company can be understood with the help of the following illustration:

Illustration 4.1

A Ltd has a share capital of Rs. 1,00,000 divided into shares of Rs.10 each. It has a major expansion programme requiring an investment of another Rs 50,000. The management is considering the following alternatives for raising this amount:

(i) Issue of 5,000 equity shares of Rs 10 each.

(ii) Issue of 5,000, 12% preference shares of Rs.10 each.

(iii) Issue of 10% debentures of Rs 50,000.

The company's present earnings before interest and tax (EBIT) are Rs. 40,000 p.a. You are required to calculate the effect of each of the above modes on financing of the earnings per share (EPS) presuming:

(a) EBIT continues to be the same even after expansion. (b) EBIT increases by Rs 10,000.

Solution:

(a) When EBIT is Rs 40,000 p.a.

PRESENT AND PROJECTED EARNING PER SHARE

Particulars		Present capital structure all equity	Proposed capital structure		
			(i) (All Eqty.)	(ii) (Eqty.+ Pref.)	(iii) (Eqty. + Debt)
EBIT	Rs.	40,000	40,000	40,000	40,000
Less : Interest	Rs.	----	----	----	5,000
PBT	Rs.	40,000	40,000	40,000	35,000
Less : Tax	Rs.	20,000	20,000	20,000	17,500
PAT	Rs.	20,000	20,000	20,000	17,500
Less : Pref. Dividend	Rs.	-----	-----	6,000	-----
Profit for Equity Shareholders	Rs.	20,000	20,000	14,000	17,500
No. of Equity Shares		10,000	15,000	10,000	10,000
EPS	Rs.	2	1.33	1.40	1.75
Dilution against initial EPS of Rs.2	Rs.	----	0.67	0.60	0.25

The above table shows that dilution of earning per share has been the least when funds have been raised by issue of debentures.

(b) When EBIT is Rs 50,000 p.a.

PRESENT AND PROJECTED EARNING PER SHARE

Particulars		Present capital structure all equity	Proposed capital structure		
			(i) (All Eqty.)	(ii) (Eqty.+ Pref.)	(iii) (Eqty. + Debt)
EBIT	Rs.	40,000	50,000	50,000	50,000
Less : Interest	Rs.	----	----	----	5,000
PBT	Rs.	40,000	50,000	50,000	50,000
Less : Tax	Rs.	20,000	25,000	25,000	22,500
PAT	Rs.	20,000	25,000	25,000	22,500
Less : Pref. Dividend	Rs.	-----	-----	6,000	-----
Profit for Equity Shareholders	Rs.	20,000	25,000	19,000	22,500
No. of Equity Shares		10,000	15,000	10,000	10,000
EPS	Rs.	2	1.67	1.90	2.25
Changes in EPS as against initial of Rs. 2	Rs.	----	0.67	0.60	0.25

The above table indicates that EPS has gone up by Re 0.25 per share as against the present EPS when the funds are raised by issue of debentures.

4.2.3 Point of Indifference

It refers to that EBIT level at which EPS remains the same irrespective of the debt-equity mix. In other words, at this point, rate of return on capital employed is equal to the rate of interest on debt. This is also known as break-even of EBIT for alternative financial plans.

The point of indifference can be calculated with the help of the following formula:

$$= \frac{(X - 1_1)\ (1 - T)\ - PD}{S_1} = \frac{(X - I_2)\ (1 - T) - PD}{S_2}$$

where,

X = Point of Indifference or Break-even EBIT Level

I_1 = Interest under alternative 1

I_2 = Interest under alternative 2

T = Tax Rate

PD = Preference Dividend

S_1 = Number of Equity Shares (or amount of equity share capital) under alternative I

S_2 = Number of Equity Shares (or amount of equity share capital) under alternative 2

Illustration 4.2

A new project under consideration by your company requires a capital investment of Rs 150 lakh. Interest on term loan is 12 per cent and tax rate is 50 per cent. If the debt-equity ratio insisted by the financing agencies is 2:1, calculate the point of indifference for the project.

Solution:

In case of the project under consideration, the debt-equity ratio insisted by the financing agencies is 1: I.

There are two alternatives available:

(i) Raising the entire amount by issue of equity shares.

(ii) Raising Rs 100 lakh by way of debt and Rs 50 lakh by way of issue of shares. Thus, maintaining a debt-equity ratio of 2:1.

In the first case the interest amount will be zero, while in the second case it will be Rs 12 lakh.

Point of indifference.

$$= \frac{(X - I_1)\ (1 - T)\ - PD}{S_1} = \frac{(X - I_2)\ (1 - T) - PD}{S_2}$$

Or $$= \frac{(X - 0)\ (1 - 05)\ - 0}{15} = \frac{(X - 12)\ (1 - 0.5) - 0}{5}$$

Or $= \frac{15X}{15} = \frac{15X - 6}{5}$

Or $2.5X = 7.5X - 90$

Or $-5X = -90$ Lakh

Or $X = 18$ Lakh

EBIT at point of indifference is, therefore, Rs 18 lakh.

If EBIT is Rs 18 lakh, the earning on equity after tax will be 6 per cent per annum notwithstanding whether the capital investment is financed fully by equity or any other mix of equity and debt provided the rate of interest on debt is 12 per cent.

4.2.4 Optimum Capital Structure

A firm should try to maintain an optimum capital structure with a view to maintain financial stability. The optimum capital structure is obtained when the market value per equity share is the maximum. It may, therefore, be defined as that relationship of debt and equity securities which maximizes the value of a company's share in the stock exchange. In case a company borrows and this borrowing helps in increasing the value of the company's shares in the stock exchange, it can be said that the borrowing has helped the company in moving towards its optimum capital structure. In case the borrowing results in fall in the market value of the company's equity shares, it can be said that the borrowing has moved the company away from its optimum capital structure.

The objective of the firm should therefore be to select a financing or debt equity mix which will lead to maximum value of the firm. The Optimum Capital Structure and its implications have been expressed by Ezra Soloman in the following words:

'Optimum leverage can be defined as that mix of debt and equity which will maximize the market value of a company, i.e., the aggregate value of the claims and ownership interests represented on the credit side of the balance. sheet. Further, the advantages of having an optimum financial structure, if such an optimum does exist, is twofold; it minimizes the company's cost of capital which in turn increases its ability to find new wealth-creating investment opportunities. Also, by increasing the firm's opportunity to engage in future wealth-creating investment, it increases the economy's rate of investment and growth.'

4.2.5 Capital Structure Theories

In order to achieve the goal of identifying an optimum debt-equity mix, it is necessary for the finance manager to be conversant with the basic theories underlying the capital structure of corporate enterprises. In the following pages we are reviewing these major theories and trying to develop a unified theory of capital structure. However, it will be seen that the existence of optimum capital structure is not accepted by all. There exist extreme views. There is a viewpoint that strongly supports the argument that the financing or debt-equity mix has a major impact on the shareholders' wealth. While according to others, the decision about the financial structure is irrelevant as regards maximization of shareholders' wealth.

There are four major theories/approaches explaining the relationship between capital structure, cost of capital and value of the firm:

1. Net Income (NI) Approach
2. Net Operating Income (NOI) Approach
3. Modigliani-Miller (MM) Approach
4. Traditional Approach

Net Income (NI) Approach

This approach has been suggested by Durand. According to this approach, capital structure decision .is relevant to the valuation of the firm. In other words, a change in the capital structure causes a corresponding change in the overall cost of capital as well as the total value of the firm. .

According to this approach, a higher debt content in the capital structure (i.e., high financial leverage) will result in decline in the overall or weighted average. cost of the capital. This will cause increase in the value of the firm and consequently increase in the value of equity shares of the company. The opposite will happen if the situation is reversed.

Net Income approach is based. on the following three assumptions:

(i) There are no corporate taxes.

(ii) The cost of debt is less than cost of equity or equity capitalization rate.

(iii) The debt content does not change the risk perception of the investors.

The value of the firm on the basis of NI Approach' can be ascertained as follows:

V = S + B

where,

V = Value of Firm

S = Market Value of Equity

B = Market Value of Debt

Market value of Equity can be ascertained as follows:

S = NI/ke

where,

S = Market value of equity

NI = Earnings available for equity shareholders

ke = Equity Capitalization Rate

In order to examine effect of change in debt-equity mix in the capital structure

Illustration 4.3

X Ltd is expecting an annual EBIT of Rs 1 lakh. The company has Rs 4.00 lakh in 10 per cent debentures. The cost of equity capital or capitalization rate is 12.5 per cent. You are required to calculate the total value of the firm. Also state the overall cost of capital.

Solution:

STATEMENT SHOWING VALUE OF THE FIRM

	Rs.
Earnings before Interest and Tax (EBIT)	1,00,000
Less: Interest at 10 per cent on Rs 4.00 lakh	40,000
Earnings available for equity shareholders (NI)	60,000
Equity Capitalization Rate (Ke)	12.5 per cent
Market Value of Equity (S):	

$\frac{NI}{Ke} = \frac{60,000}{125} \times 100$	4,80,000
Market value of Debt (B)	4,00,000
Total value of the firm (S + B)	8,80,000

Overall cost of capital:

$$k = \frac{EBIT}{V} = \frac{1,00,000}{8,80,000,} \times 100 = 11.36 \text{ per cent}$$

The value of the firm according to the NI Approach will get increased in case the amount of equity is decreased by issue of debentures, bonds, etc., to equity shareholders.

Net Operating Income (NOI) Approach

This approach has also been suggested by Durand. This is the opposite of Net Income approach. According to this approach, the market value of the firm is not at all affected by the capital structure changes. The market value of the firm is ascertained by capitalizing the net operating income at the overall cost of capital (k), which is considered to be constant. The market value of equity is ascertained by deducting, the market value of the debt from the market value of the firm.

Value of the Firm. According the NOI Approach, the value of a firm can be determined by the following equation:

$$V = \frac{EBIT}{k}$$

where,

V = Value of firm

k = Overall cost of capital

EBIT = Earnings before interest and tax

Value of Equity. The value of equity (S) is a residual value, which is determined by deducting the total value of debt (B) from the total value of the firm (V). Thus, the value of equity (S) can be determined by the following equation:

$$S = V - B$$

where,

S = Value of equity

V = Value of firm

B = Value of debt

Optimum Capital Structure

According to Net Operating Income (NOI) Approach, the total value of the firm remains constant irrespective of the debt-equity mix or the degree of leverage, The market price of equity shares will, therefore, also not change on account of change in debt-equity mix. Hence, there is nothing like optimum capital structure. Any capital structure will be optimum according to this approach.

In those cases where corporate taxes are presumed, theoretically there will be optimum capital structure when there is 100 per cent debt content. This is because with every increase in debt content 'k ' declines and the value of the firm goes up. However, due to legal and other provisions, there has to be a minimum equity. This means that optimum capital structure will be at a level where there can be maximum possible debt content in the capital structure.

Illustration 4.4

XY Ltd, has an EBIT of Rs 1 lakh. The cost of debt is 10 per cent and the outstanding debt amounts to Rs 4.00 lakh. Presuming the overall capitalization rate as 12.5 per cent, calculate the total value of the firm and the equity capitalization rate.

Solution:

STATEMENT SHOWING THE VALUE OF THE FIRM

Earning before Interest and Tax (EBIT)	Rs 1,00,000
Overall Capitalization Rate (k)	12.5 per cent
Market Value of the Firm (V):	
$\frac{1,00,000}{12.5}$ x 100	8,00,000
Total Value of Debt (B)	4,00,000
Market Value of Equity (S)	4,00,000
(S = V - B)	

Equity Capitalization Rate (ke):

$$ke = \frac{EBIT-1}{V-B} \times 100 = \frac{1,00,000-4\ ,000}{8,00,000\quad ,00,000} \times 100 = \frac{60,000}{4,00,000} \times 100 = 15 \text{ percent}$$

The validity of the NOI approach can be verified by calculating the overall cost of capital:

where,

k = Overall cost of capital

kd = Cost of debt

B = Total debt

V = Total value of the firm

ke = Cost of equity capital

S = Market value of equity

$$k = 10\% \left(\frac{4,00,000}{8,00,000}\right) + 15\% \left(\frac{4,00,000}{8,00,000}\right)$$

= 10% (1/2) + 15% (1/2)

= 5% + 7.5%

= 12.5 per cent

In case the firm raises the debt content for reducing its equity content, the total value of the firm would remain unchanged. However the equity capitalization rate would go up.

According to the NOI approach, the market price per share remains unaffected on account of change in the debt-equity mix. For instance, if in the illustration 2.4, the total number of equity shares are 4,000, the market price of an equity share would be Rs 100 (i.e., 4,00,000/4,000). In case of illustration 7.5, the company would be in a position to redeem shares of Rs. 1 lakh, and therefore, the total number of outstanding shares would amount to 3,000. The market value of a share would continue to be Rs. 100 (i.e., 3,00,000 / 3,000).

Modigiliani-Miller Approach

The Modilgiliani-Miller (MM) approach is similar to the Net Operating Income (NOI) approach. In other words, according to this approach, the value of a firm is independent of its capital structure. However, there is a basic difference between the two. The NOI approach is purely definitional or conceptual. It does not provide operational justification for irrelevance of the capital structure in the valuation of the firm. While the MM approach supports the NOI approach providing behavioural justification for the independence of the total valuation and the cost of capital of the firm from its capital structure. In other words, the MM approach maintains that the average cost of capital does not change with change in the debt weighed equity mix or capital structure of the firm. It also gives operational justification for this and not merely states a proposition.

The following are the three basic propositions of the MM approach:

1. The overall cost of capital (k) and the value of the firm (V) are independent of the capital structure. In other words k and V are constant for all levels of the debt-equity mix. The total market value of the firm is given by capitalizing the expected net operating income (NOI) by the rate appropriate for that risk class.
2. The cost of equity (ke), is equal to the capitalization rate of a pure equity stream plus a premium for the financial risk. The financial risk increases with more debt content in the capital structure. As a result, ke increases in a manner to offset exactly the use of a less expensive source of funds represented by debt.
3. The cut-off rate for investment purposes is completely independent of the way in which an investment is financed.

Limitations of MM Hypothesis

The arbitrage process is the behavioural foundation for the MM hypothesis. However, the arbitrage process fails to bring the desired equilibrium in the capital markets on account of the following reasons:

1. **Rates of Interest Are Not the Same for the individuals and the Firms** - The assumption made under the MM hypothes is that the firms and individuals can borrow and lend at the same rate of interest does not hold good in actual practice. This is because firms have the higher credit standing as compared to the individuals on account of the firm's holding substantial fixed assets.

2. **Home-made Leverage is Not the Perfect Substitute for Corporate Leverage-** The risk to which an investor is exposed is not identical when the investor himself borrows proportionate to his share in the firm's debt and when the firm itself borrows. As a matter of fact, the risk exposure to the investor is greater in the former case as compared to the latter. When the firm borrows, the liability of the investor is limited only to the extent of his proportionate shareholding, in case the company is forced to go for its liquidation. However, when an individual borrows, he has an unlimited liability and even his personal property can be used for payment to his creditors.

3. **Transaction Costs Involved** - Buying and selling of securities involves transaction costs. It would therefore become necessary for an investor to invest a larger amount in the shares of the unlevered/levered firms than his present investment to earn the same return.

4. **Institutional Restrictions** - The switching option from unlevered to levered firm and vice-versa is not available to all investors, particularly institutional investors, viz., Life Insurance Corporation of India, Unit Trust of India. Commercial Banks, etc. Thus, the institutional restrictions stand in the way of smooth operation of the arbitrage process.

5. **Corporate Taxes** - On account of corporate taxes, it is a known fact that the cost of borrowing funds to the firm is less than the contractual rate of interest. As a result total return to the shareholders of an unlevered firm is always less than that of the levered firm. Thus, the total market value of a levered firm tends to exceed that of the unlevered firm on account of this reason.

Traditional Approach

In the preceding pages, we have explained that the Net Income (NI) Approach and Net Operating Income (NOI) Approach represent two extremes. According to the N. I approach, the debt content in the capital structure affects both the overall cost capital and total valuation of the firm, while the NOI approach suggests that capital structure is totally irrelevant so far as total valuation of the firm is concerned. The MM approach supports the NOI approach. However, the limitations of the MM approach as discussed in the previous pages show that this approach with its assumptions is of doubtful validity. The traditional approach or the intermediate

approach is a mid-way between the two approaches. It partly contains features of both the approaches as given here:

1. The traditional approach is similar to the N I Approach to the extent that it accepts that structure or leverage affects the cost of capital and its valuation. However, it does not subscribe to the NI approach that the value of the firm will necessarily increase with all degree of leverages.

2. It subscribes to the NOI 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 the NOI approach in the sense that the overall cost of capital will not remain constant for all 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. This is because debt is relatively a cheaper source of funds as compared to raising money through shares because of tax advantage. However, beyond a point raising of funds through debt may become a financial risk and would result in a higher equity capitalization rate. Thus, up to a point, the content of debt in the capital structure will favourably affect the value of a firm. However. beyond that point, the use of debt will adversely affect the value of the firm. At this level of the, debt-equity mix, the capital structure will be optimum. At this level, the average or the composite cost of capital will be the least. In other words, here the marginal real cost of equity will be equal to the marginal real cost (both implicit and explicit) of debt."

Illustration 4.5

In considering the most desirable capital structure for a company, the following estimates of the cost of debt and equity capital (after tax) have been made at various levels of debt-equity mix:

Debt as Percentage of Total Capital Employed	Cost of Debt (per cent)	Cost of Equity (per cent)
0	5.0	12.0
10	5.0	12.0
20	5.0	12.5
30	5.5	13.0

40	6.0	14.0
50	6.5	16.0
60	7.0	20.0

You are required to determine the optimal company by calculating composite cost of capital.

Solution:

STATEMENT SHOWING THE COMPANY'S COMPOSITE COST OF CAPITAL (AFTER TAX)

Debt as Percentage of Total Capital Employed	Cost of Debt (per cent)	Cost of Equity (per cent)	Composite (per cent)	Cost of Capital
0	5.0	12.0	0 x 0 + 12 x 1.00	= 12.00
10	5.0	12.0	5 x .10 + 12 x .90	= 11.30
20	5.0	12.5	5 x .20 + 12.5 x .80	= 11.00
30	5.5	13.0	5.5 x .30 + 13 x .70	= 10.75
40	6.0	14.0	6 x .40 + 14 x .60	= 10.80
50	6.5	16.0	6.5x .50 + 16 x .50	= 11.25
60	7.0	20	7 x .60 + 20 x .40	= 12.20

Optimal debt-equity mix is 30 per cent debt and 70 per cent equity, where the composite cost of capital is the least.

4.2.6 Determination of Optimum Capital Structure - A Difficult Task

It has already been stated that at optimum capital structure, the value of an equity share is the maximum while the average cost of capital is the minimum. The value of an equity share mainly depends on earning per share. So long as the 'Return on Investment' (ROI) is more than cost of borrowings, each rupee of extra borrowing pushes up the earning per equity share which in turn pushes up the market value of the share. It means the company can borrow till the interest rate on borrowings is equal to or does not exceed the return from the project. However, each extra rupee of

borrowings increases the risk and therefore, in spite of increase in the earning per equity share, the market value of the equity share may fall because of investors taking it as a more risky company. Of course, in some cases, in spite of increase in risk, the value of a company's equity shares may increase because of investors' speculation on future profits.

It is almost impossible to precisely measure the fall in the market value of an equity share on account of increase in risk due to high debt content. Market factors are highly psychological, complex and do not always follow the accepted theoretical principles since capital markets are never perfect.

Thus, it is not possible to find out the exact debt-equity mix where the capital structure would be optimum. Of course, a range can be determined on the basis of empirical study within which if the company maintains its debt-equity mix, the investors will not discount shares. For example, a company belongs to an industry where the average debt-equity ratio is of 1 : 1. Empirical studies disclosed that the investors do not discount the value of the company's shares so long as the debt-equity ratio remains within 40 per cent of the industry's average, i.e., between, 0.6: 1 and 1.4: 1.

This means that if the company maintains capital structure within this range, the value of the equity share will not decline due to more risk perceived by the investors. In order to have the maximum tax advantage on the interest payable, the company may maintain debt-equity ratio near the top of the range keeping in view other factors, such as profitability, solvency, flexibility and control.

The capital structure so arrived at may not be optimum but would be the most reasonable under the circumstances. Some people, therefore, prefer to use the term 'appropriate or sound capital structure' in place of the term 'optimum capital structure', the former being a more realistic term than the latter.

4.2.7 Features of an Appropriate Capital Structure

A capital structure will be considered to be appropriate if it possesses the following features:

1. **Profitability** - The capital structure of the company should be most profitable.

   The most profitable capital structure is one that tends to minimize cost of financing and maximize earning per equity share.

2. **Solvency** - The pattern of capital structure should be so devised as to ensure that the firm does not run the risk of becoming insolvent. Excess use of debt threatens the solvency of the company. The debt content should not, therefore, be such that it increases risk beyond manageable limits.

3. **Flexibility** - The capital structure should be such that it can be easily maneuvered to meet the requirements of changing conditions. Moreover, it should also be possible for the company to provide funds whenever needed to finance its profitable activities.

4. **Conservatism** - The capital structure should be conservative in the sense that the debt content in the total capital structure does not exceed the limit which the company can bear. In other words, it should be such as is commensurate with the company's ability to generate future cash flows.

5. **Control** - The capital structure should be so devised that it involves minimum risk of loss of control of the company.

The above principles regarding an appropriate capital structure are as a matter of fact relative to each other.· For example, raising of funds through debt is cheaper and, is therefore, in accordance with the principle of profitability, but it is risky and, therefore, goes against the principle of solvency and conservatism. The prudent financial manager should try to have the best out of the circumstances within which the company is operating. The relative importance of each of the above features will also vary from company to company. For example, one company may give more importance to flexibility as compared to conservatism while the other may consider solvency to be more important than profitability. However, the fact remains that each finance manager has to make a satisfactory compromise between the management's desire for funds and the trends in the supply of funds.

Illustration 4.6

A firm has Rs. 8 lakhs of debt at 8 per cent, an expected annual net operating earnings (EBIT) of Rs. 18 lakh and an equity capitalization rate of 10 per cent. There are no corporate income taxes.

	Rs.
Net operating earnings (EBIT)	18,00,000
Interest on Debt (Rs. 8 lakhs 8%)	64,000

Earnings Available to Common Stockholders	17,36,000
Market Value of Equity (Equity capitalization rate X earnings available to common stockholders) (17,36,000/1.10)	1,73,60,000
Market Value of Debt	8,00,000
Total Value of Firm (v)	1,81,60,000

The overall capitalization rate (also termed as overall cost of capital) in the above example is :

$$KO = \frac{O}{V}$$

Where,

KO = Capitalisation rate.

O = Net operating income.

V = Overall value of the firm.

Substituting the formula with the figures given in the example, implied capitalization rate is :

$$KO = \frac{18,00,000}{Rs.1,81,60,000} x100$$

$$= 9.9\%$$

Illustration 4.7 :

A firm increases its debt from Rs. 8 lakhs to 18 lakhs and uses the cost of debt and equity are held constant at 8 per cent and 10 per cent, respectively. The impact of the above change in capital structure on the value of the firm will be as follows :

	Rs.
Net Operating Income	18,00,000
Interest on Debt (8% of ₹16 Lakhs)	1,28,000
Earnings Available to Equity Stockholders	16,72,000
Market Value of Equity	1,67,20,000
Market Value of Debt	16,00,000

Total Value of Firm	1,83,20,000

The implied overall capitalization rate is :

$$KO = \frac{18,00,000}{Rs.1,83,20,000} \times 100$$

$$= 9.8\%$$

Illustration 4.8

NOI (EBIT)	Rs. 18,00,000
Total Value of the Firm = EBIT / Ko	Rs.18,00,000/.10
	Rs.1,80,00,000
Market Value of Debt (B)	8,00,000
Market Value of Stock (s)	1,72,00,000

Given the value of the stock, we can now calculate the cost of equity capital as below:

$$Ke = \frac{(EBIT - Interest)}{s} = \frac{Rs.18,00,000 - (Rs.8,00,000 \times 8\%))}{1,72,00,000}$$

$$= 10.1\%$$

The weighted average cost of capital or overall capitalization rate can now be calculated :

$$Ko = Ki\left(\frac{B}{V}\right) + Ke\left(\frac{S}{V}\right)$$

$$= \frac{8}{8\%\ (180)} + \frac{172}{10.1\%\ 180}$$

$$= 10\%$$

Thus, the average cost of capital or overall capitalization rate is 10 per cent, just as the NOI approach says it should be. If debt is increased from Rs.8 lakhs to Rs. 16 lakhs and proceeds are used for retiring stock, the value of the firm would remain constant at Rs. 1,80,00,000, the value of the stock would drop to Rs.1,64,00,000 and cost of equity capital would rise to 10.2 per cent.

Illustration 4.9 :

NOI (EBIT)	Rs. 18,00,000
Value of the Firm (V) (EBIT/Ko)	Rs. 1,80,00,000
Market Value of Debt (b)	Rs. 16,00,000
Market Value of Stock (s)	Rs. 1,64,00,000

Equity capitalization rate or cost of equity capital will be :

$$Ke = \frac{EBIT - F}{s} = \frac{1,80,00,000(Rs.16,00,000)}{1,64,00,000}$$

$$= 10.2\%$$

Overall cost of capital or capitalization rate will remain constant at 10 per cent as calculated below :

$$Ko = 8\%\left(\frac{16}{180}\right) + 10.2\left(\frac{164}{180}\right)$$

$$= 10\%$$

Illustration 4.10:

Following financial data available about Vijay Textiles Ltd.

Expected net operating income Rs. 6,00,000

Debt Rs. 16,00,000 @ 12%

Equity Capitalisation Rate 15%

Equity Share Capital Rs. 24,00,000

What will be the effect of the following actions on the valuation and KO?

a) If the Company raises further debt of Rs. 8,00,000 at 12% and the net operating income is expected to increase by Rs. 1,20,000 and

b) With increase in leverage, the equity capitalization rate increase to 18%.

Solution:

a) i) Valuation of the Company with existing capital structure

	Rs.
NOI	6,00,000
Less : Interest on Debt (16,00,000 x 12%	1,92,000
Earnings available to Equity Stock Holders	4,08,000
Ke	15%
Market Value of Equity Shares (4,08,000 ÷ 15%)	27,20,000
Add : Market Value of Debt	16,00,000
Total Value of Company	43,20,000
Overall Cost of Capital	6,00,000x 100
	43,20,000
	=13.89%

(ii) Valuation of the company with new capital structure

	Rs.
NOI	7,20,000
Less : Interest on Debt (24,00,000 x 12%)	2,88,000
Earning Available to Equity Stock Holders	4,32,000
Ke	15%
Market Value of Equity Stock (4,32,000 ÷ 15%)	28,80,000
Add : Market Value of Debt	24,00,000
Total Value of Company	52,80,000
Overall Cost of Capital	7,20,000 x 100
	52,80,000
	= 13.64%

(b) Valuation of the Company with increase in equity capitalization rate to 18% and debt equity ratio of 1:1.

		Rs.
NOI		7,20,000
Less : Interest on Debt		2,88,000
Earnings available to Equity Stock Holders		4,32,000
Equity Capitalisation Rate		18%
Market Value of Equity Stock (4,32,000 ÷ 18%)		24,00,000
Add : Market Value of Debt	=	24,00,000
Total Value of Company		48,00,000
Overall Cost of Capital		7,20,000 x 100
		48,00,000
		= 15 %

It may be noted from the above that with the increase in leverage from 40: 60 to 50 : 50 the total value of the Company has gone up from Rs. 43,20,000 to Rs. 52,80,000. This is because the earnings on additional funds of Rs. 8,00,000 is more than K_i, i.e., 12%.

When the financial leverage was increased and K_e was also increased the value of the company decreased from Rs. 52,80,000 to Rs. 48,00,000. Thus, with increased risk exposure, value of the company decreased even though financial leverage was favourable.

Overall cost of capital goes down with the increase in favourable financial leverage and without increase in K_e.

Overall cost of capital tends to rise with an increase in K_e.

According to the traditional model the cost of capital would tend to rise and market value of the firm to decline as the firm becomes more risky consequent upon financing operations with debt capital. Although there is no convincing empirical evidence to support the traditional model, intuition and practice, as evidenced by the behaviour of suppliers of capital as well as by finance managers, seem to. suggest

that there is indeed a limit to which firm can assume debt without increasing its cost of capital. To. exceed certain limits of debt an acceptable range tends to increase both the cost of debt and cost of common stock because the financial risks tend to rise.

Illustration 4.11:

The expected value of annual net operating income for two firms is Rs.4,000 before taxes, the corporate tax rate is 50 per cent. The after tax capitalization rate is 10 per cent for both firms and that firm A has no debt whereas firm B has Rs.16,000 in 5 per cent bonds.

		A	B
1.	Net Operating Income	4,000	4,000
2.	Taxes	2,000	2,000
3.	Profit before but after Taxes	2,000	2,000
4.	After Tax Capitalization Rate for Debt Free Firm	.10	.10
5.	Capitalized value	20,000	20,000
6.	Interest on debt	0	800
7.	(I-Tax rate) (6)	0	400
8.	Tax Saving on Interest	0	400
9.	Interest Rate	0	05
10.	Capitalised Value of (8)	0	8,000
11.	Total Value of Firm (5)+(10)	20,000	28,000

1. Joshi Engineering Company and Mehta Engineering Works are in the same risk class and are identical in all respects except that Joshi Engineering uses debt while Mehta Engineering does not resort to debt financing.

Joshi Engineering has Rs. 18,00,000 debentures, carrying coupon rate of 10 per cent. Both the firms earn 20 per cent before interest and taxes on their total assets of Rs. 30 lakhs. Assume perfect capital markets, rational investors and so on.

Corporation tax rate is 50 per cent and capitalization rate is 15 per cent for an all equity company.

You are required to compute the value of both the companies using the NI and NOI approach.

Solution :

(i) Value of Firms under NI Approach

	Joshi Engineering Company (levered firm) Rs.	Mehta Engineering Company (unlevered firm) Rs.
EBIT (20% of 30 lakhs)	6,00,000	6,00,000
Less : Interest	1,80,000	--
Earning Before Taxes	4,20,000	6,00,000
Less : Taxes	2,10,000	3,00,000
Earnings after taxes	2,10,000	3,00,000
Equity Capitalisation Rate (Ke)	0.15	0.15
Market Value of Equity (s)	14,00,000	20,00,000
Market Value of Debt (B)	18,00,000	Y
Total Value of Firm (V)	32,00,000	20,00,000

(ii) Value of Firm Under NOI Approach

Value of Jost's Engineering (levered firm) $= \frac{\text{EBIT } (1-T)}{ke}$

$= \frac{6,00,000\ (1-0.5)}{0.15}$

= Rs. 20,00,000

Value of Modern Engineering Works (uinlevered firm) = Value of levered firm + B

= Rs. 20,00,000

+ Rs. 18,00,000 (0-5)

= Rs. 29,00,000

Illustration 4.12

Eastern Hardware Ltd. and Western Hardware works are identical in every respect expect that Eastern Hardware is unlevered whereas Western Hardware is levered. Eastern Hardware has Rs.40 lakhs of 8 per cent debentures outstanding. Assume that all the M-M assumptions are fulfilled. The corporate tax rate is 50 per cent and capitalization rate for an all equity company is 10 per cent. The EBIT is Rs. 12 lakhs.

Calculate the value of both the companies according to M-M model.

Solution

Value of Eastern Hardware (inlevered firm) = $\frac{\text{EBIT } (1 - T)}{Ke}$

= $\frac{\text{Rs. } 12,00,000\ (1.05)}{0.10}$

= Rs. 60,00,000

Value of Western Hardware Works = Value of Unlevered Firm + B

= Rs. 60,00,000 + 40,00,000 (0.5)

= Rs. 80,00,000

Illustration 4.13

The following information are available for two companies according to the traditional model :

	A	B
Total Value of Firm (V)	1,00,000	1,20,000
Market Value of Debt (B)	0	60,000
Market Value of Equity (S)	1,00,000	60,000
Net Operating Income (NOI)	10,000	10,000
Cost of Debt (I)	0	3,000
Net Income (NI)	10,000	6,400

Cost of Equity (Ke)	10 %	10.70 %
Debt Equity Ratio	0	.5
Average Cost of Capital (Ke)	10.0 %	8.33 %

You are required to calculate the equilibrium value of firm A and B according to M-M approach. Assume that (i) taxes do not exist, and (ii) the equilibrium value of KO is 0.09 per cent.

Solution :

The Equilibrium Values of Firms A and B

		A	B
NOI	Rs	10,000	10,000
Cost of Debt		0	3,600
NI		10,000	6,400
Average Cost of Capital		.909	.909
Total Value of the Firm	Rs	1,10,000	1,10,000
Market Value of Debt		0	0
Market Value of Equity		1,10,000	50,000
Cost of Equity		.909	.128

Illustration 4.14

Uptron Electronics Ltd. has current operating income of Rs. 2 lakhs. The company has Rs. 5 lakhs of 10 per cent debt outstanding. The cost of equity capital is 15 per cent. Calculate the current value of the firm, using traditional model.

Solution:

EBIT	2,00,000
Less : Interest (10% of Rs.5,00,000s	50,000
Earnings for Equity Holders (NI)	1,50,000
Equity Capitalization Rate (K)	0.15
Market Value of Equity (S)	10,00,000
Market Value of Debt (B)	5,00,000
Total Value of Firm	15,00,000

Factors Determining Capital Structure

Capital structure of a company is affected by lot of factors. Some of the factors are related or existing within the company while some of these factors are external, on which a company may not have the control. The various factors which affect the capital structure, are given below:

1. Cash insolvency

Arises due to failure to pay fixed interest liabilities. Generally, the higher proportion of debt in capital structure compels the company to pay higher rate of interest on debt irrespective of the fact that the fund is available or not. The non-payment of interest charges and principal amount in time call for liquidation of the company. The sudden withdrawal of debt funds from the company can cause cash insolvency. This risk factor has an important bearing in determining the capital structure of a company and it can be avoided if the project is financed by issues equity share capital.

2. Variation in earnings

The higher the debt content in the capital structure of a company, the higher will be the risk of variation in the expected earnings available to equity shareholders. If return on investment on total capital employed (i.e., shareholders' fund plus long-term debt) exceeds the interest rate, the shareholders get a higher return. On the other hand, if interest rate exceeds return on investment, the shareholders may not get any return at all.

3. Cost of capital

Cost of capital means cost of raising the capital from different sources of funds. It is the price paid for using the capital. A business enterprise should generate enough revenue to meet its cost of capital and finance its future growth. The finance manager should consider the cost of each source of fund while designing the capital structure of a company.

4. Control

The consideration of retaining control of the business is an important factor in capital structure decisions. If the existing equity shareholders do not like to dilute the control, they may prefer debt capital to equity capital, as former has no voting rights.

5. Trading on equity

The use of fixed interest bearing securities along with owner's equity as sources of finance is known as trading on equity. It is an arrangement by which the company aims at increasing the return on equity shares by the use of fixed interest bearing securities (i.e., debenture, preference shares etc.). If the existing capital structure of the company consists mainly of the equity shares, the return on equity shares can be increased by using borrowed capital. This is so because the interest paid on debentures is a deductible expenditure for income tax assessment and the after-tax cost of debenture becomes very low.

Any excess earnings over cost of debt will be added up to the equity shareholders. If the rate of return on total capital employed exceeds the rate of interest on debt capital or rate of dividend on preference share capital, the company is said to be trading on equity.

6. Government policies

Capital structure is influenced by Government policies, rules and regulations of SEBI and lending policies of financial institutions which change the financial pattern of the company totally. Monetary and fiscal policies of the Government will also affect the capital structure decisions.

7. Size of the company

Availability of funds is greatly influenced by the size of company. A small company finds it difficult to raise debt capital. The terms of debentures and long-term loans are less favourable to such enterprises. Small companies have to depend more on the equity shares and retained earnings. On the other hand, large companies issue various types of securities despite the fact that they pay less interest because investors consider large companies less risky.

8. Needs of the investors

While deciding capital structure the financial conditions and psychology of different types of investors will have to be kept in mind. For example, a poor or middle class investor may only be able to invest in equity or preference shares which are usually of small denominations, only a financially sound investor can afford to invest in debentures of higher denominations. A cautious investor who wants his capital to grow will prefer equity shares.

9. Flexibility

The capital structures of a company should be such that it can raise funds as and when required. Flexibility provides room for expansion, both in terms of lower impact on cost and with no significant rise in risk profile.

10. Period of finance

The period for which finance is needed also influences the capital structure. When funds are needed for long-term (say 10 years), it should be raised by issuing debentures or preference shares. Funds should be raised by the issue of equity shares when it is needed permanently.

11. Nature of business

It has great influence in the capital structure of the business, companies having stable and certain earnings prefer debentures or preference shares and companies having no assured income depends on internal resources.

12. Legal requirements

The finance manager should comply with the legal provisions while designing the capital structure of a company.

13. Purpose of financing

Capital structure of a company is also affected by the purpose of financing. If the funds are required for manufacturing purposes, the company may procure it from the issue of long- term sources. When the funds are required for non-manufacturing purposes i.e., welfare facilities to workers, like school, hospital etc. the company may procure it from internal sources.

14. Corporate taxation

When corporate income is subject to taxes, debt financing is favourable. This is so because the dividend payable on equity share capital and preference share capital are not deductible for tax purposes, whereas interest paid on debt is deductible from income and reduces a firm's tax liabilities. The tax saving on interest charges reduces the cost of debt funds. Moreover, a company has to pay tax on the amount distributed as dividend to the equity shareholders. Due to this, total earnings available for both debt holders and stockholders is more when debt capital is used in capital structure.

Therefore, if the corporate tax rate is high enough, it is prudent to raise capital by issuing debentures or taking long-term loans from financial institutions.

15. Cash inflows

The selection of capital structure is also affected by the capacity of the business to generate cash inflows. It analyses solvency position and the ability of the company to meet its charges.

16. Provision for future

The provision for future requirement of capital is also to be considered while planning the capital structure of a company.

17. EBIT-EPS analysis

If the level of EBIT is low from HPS point of view, equity is preferable to debt. If the EBIT is high from EPS point of view, debt financing is preferable to equity. If ROI is less than the interest on debt, debt financing decreases ROE. When the ROI is more than the interest on debt, debt financing increases ROE.

4.3 Check your progress

Choose the correct alternative

1. Objectives of financial management include……..

   a. profit maximisation b. wealth maximization
   c. both 'a' and 'b' d. neither 'a' nor 'b'

2. Inclusion of ……in capital structure attracts tax saving benefit.

   a. equity shares b. bank loan
   c. preference shares d. all of the above

3. If operating leverage is 1, it means……..

   a. there is absence of debt in capital b. there is absence of equity in capital
   c. there is no tax d. there is absence of preference capital

4. Assumptions of MM Approach to capital structure decisions include…….

   a. there are no corporate taxes b. capital markets are perfect

c. same degree of business risk d. all of the above

5. If operating leverage is 2 and combined leverage is 3, it means financial leverage is……..

   a. 6 b. 1.5 c. 1.67 d. can't be calculated

6. Market price of shares can be calculated as ……...

   a. EPS multiplied by EBIT b. Equity multiplied by cost of capital

   c. P/E ratio multiplied by EBIT d. EPS multiplied by P/E ratio

7. The optimal capital structure is a situation where…….

   a. cost of debt is minimum

   b. cost of equity is minimum

   c. cost of retained earnings is minimum

   d. weighted average cost of capital is minimum

8. According to ……approach, value of the firm is overall cost of capital divided by EBIT.

   a. Net Operating Income b. Net Income

   c. Miller Modigliani d. Traditional

Fill in the blanks

1. Broadly, capital structure of a company consists of ……and…….
2. Financial leverage arises because of ……in capital structure
3. Earning Per Share = …….
4. If fixed costs are high, then the leverages are ……...

State whether the following statements are true or false.

1. The traditional approach towards financial management concentrates only on procurement of funds.
2. Finance functions range from financial forecasting to advising management in decision making.
3. Merger is a strategic tool for a faster growth.

4. Cost of debt and cost of equity are one and the same.

Answer the following

A. What are the reasons for mergers?

B. Explain the role of finance manager.

C. Describe the traditional approach towards capital structure.

4.4 Exercise

1. Given the following information :

Sales (10,000 units)	Rs. 10,00,000
Variable cost per unit	Rs. 60
Interest	Rs. 1,00,000
EBT	Rs. 2,00,000
DCL	2.5

Calculate operating leverage and financial leverage.

2. From the following information compute Sales. Given DOL =2, DFL=3, Interest=Rs.3,00,000 and contribution is 40% of sales.

3. Consider the following information for S Ltd.

	Rs.in Lakhs
EBIT	1,120
EBT	320
Fixed Cost	700

Calculate the percentage of changes in EPS if sales increase by 5%.

4. A firm has sales of Rs. 5,00,000, variable cost of Rs. 3,50,000 and fixed cost of Rs.1,00,000 and debt of Rs.2,50,000 at 10% rate of interest. What is combined leverage? If the firm wants to double its EBIT, how much of a rise in sales would be needed on a percentage basis?

5. Relevant information about three companies is given below :

	BIL	PIL	MIL
Annual Production Capacity (units)	1,00,000	1,50,000	2,50,000
Capacity utilization and sales	75%	75%	75%
Unit selling price (Rs)	40	40	40
Unit variable cost (Rs)	15	15	15
Fixed Cost p.a. (Rs)	2,00,000	3,00,000	5,00,000
Equity Capital (Rs)	5,00,000	7,00,000	10,00,000
(Rs.100 per share for each company)			
10% Preference share capital (Rs.)	--	50,000	1,00,000
15% Debentures	1,00,000	2,00,000	3,00,000

Calculate operating leverage, financial leverage and EPS of these three companies and comment.

4.5 References

Financial Management by I. M. Pandey

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