CHAPTER 1

Introduction to nancial Management

Chapter Outline

THIS CHAPTER CONTAINS THE FOLLOWING CONCEPTS;

- *Introduction & definition of financial management*
- *Financial management process.*
- *Finance managers' role.*
- *Goal of a firm.*
- *Profit maximization vs. wealth maximization.*
- *Discounted cash-flow analysis.*
- *Concept of opportunity cost and its role in discounted cash flow analysis.*
- *Theory of "perfect capital market"?*
- *Agency issues.*
- *Concept of market efficiency*
- *Theory of information asymmetry.*
- *Concepts of Economic Value Added (EVA) and Market Value Added (MVA).*

Chapter Objectives

AFTER READING THIS CHAPTER:

- *You will be able to define and illustrate the concept of financial management, & financial management process.*
- *You will be capable of describing the finance managers' role.*
- *You will be competent to describe different goal of the firm and also be able to compare between recognized goals of finance.*
- *You will be proficient in talking about basic finance theories as such; DCF, Agency Issues, Perfect Capital Market assumptions, Capital Market Efficiencies, Asymmetry of Information, EVA & MVA etc.*

"Increasing shareholder value over time is the bottom line of every move we make"

ROBERT GOIZUETA
Former CEO, the Coca-Cola Company

1.1 INTRODUCTION

Financial management means the entire management effort devoted to the management of finance both the sources and uses of the fund. It is concerned with the acquisition, financing, and management of assets with some overall goal in mind.

"Financial management is concerned with the acquisition, financing, and management of assets." **James C. van Horne**

"Financial management is concerned with the efficient use of an economic resource, namely, Capital Funds" **Solomon**

"Financial management is concerned with managerial decisions that result in the acquisition and financing of long – term and short – term credit for the firm." **Phillipatus**

"Financial management is an application of general managerial principles to the area of financial decision making." **Howard & Upton**

'Financial management means the entire managerial effort devoted to the management of finance – both the sources and uses of the enterprise'

'Financial management is that administrative area or set of administrative function which relates to the arrangement of cash and credit so that the organization may have the means to carry out its objectives as satisfactorily as possible.' **Anonymous**

So finally we can say that, financial management is the process of determining the required amount of fund, finding the available sources of fund, calculating the nominal and effective cost of each source of fund, conservating the collected fund, and allocating them optimally in order to achieve the goal of an organization.

1.2 FINANCIAL MANAGEMENT PROCESS

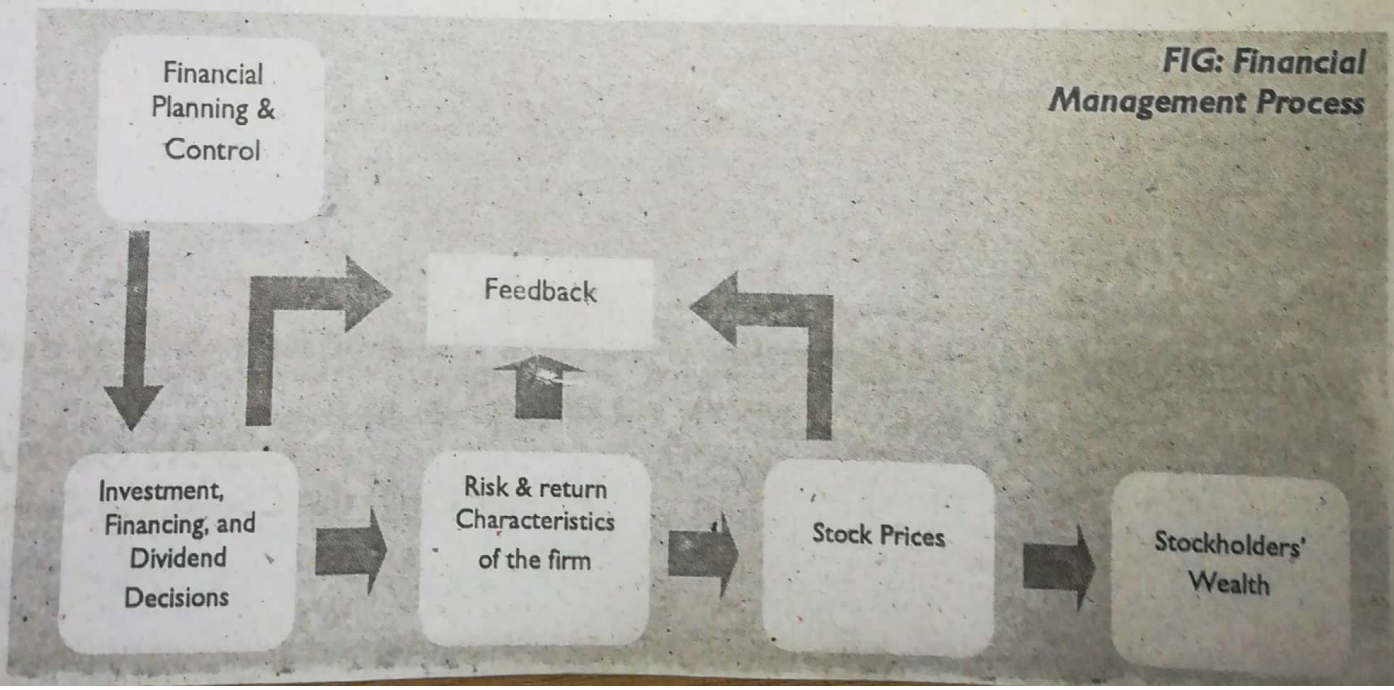
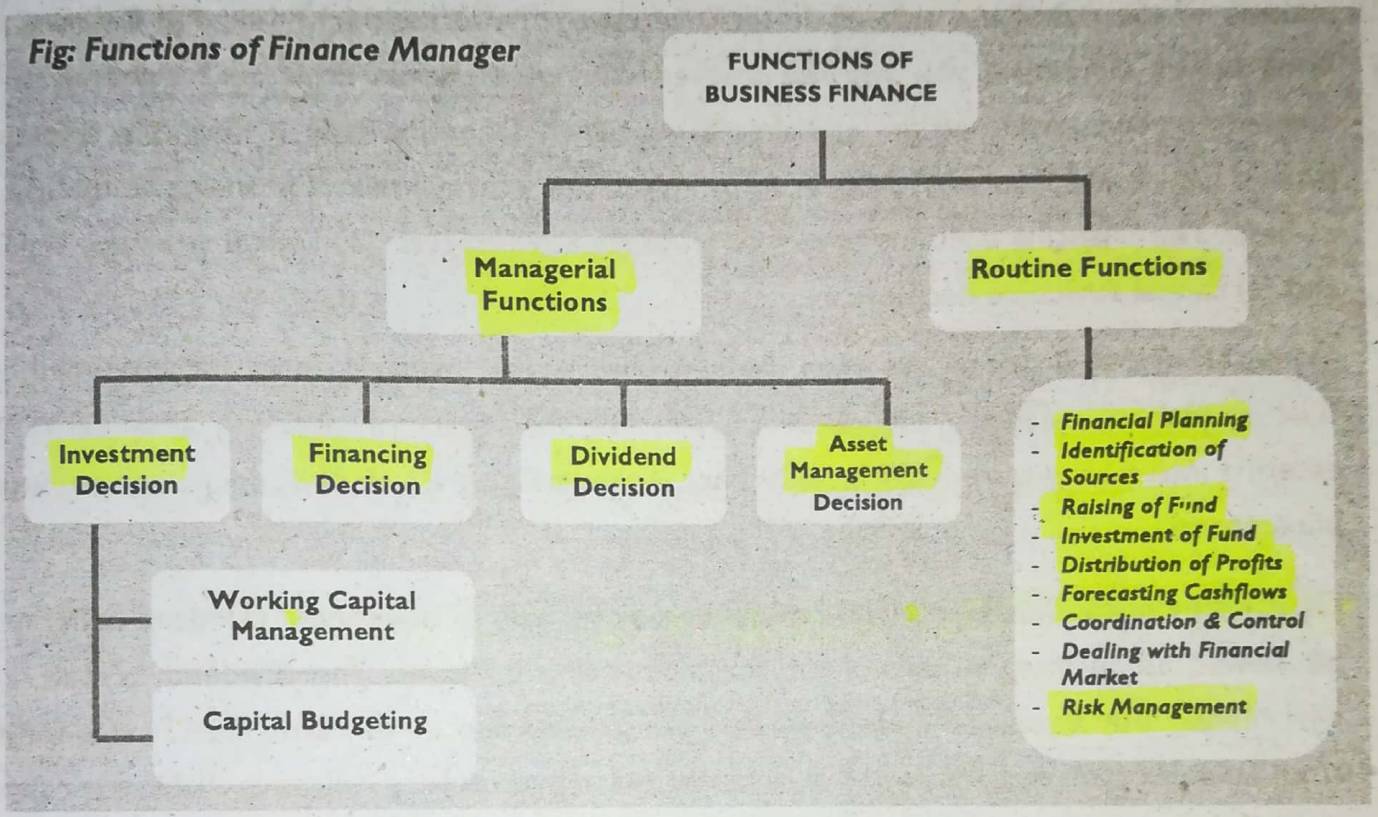


FIG: Financial Management Process

1.3 FINANCE MANAGERS ROLE

The role played by finance managers can be better depicted using the following diagram;

Fig: Functions of Finance Manager



1.3.1 MANAGERIAL FUNCTIONS

Financial management is concerned with the acquisition, financing, and management of assets with some overall goal in mind. Thus, the decision function of financial management can be broken down into three major areas: the investment, financing, and asset management decisions.

Investment Decision - ***Where to invest fund and at what amount?*** The investment decision is the most important of the firm's three major decisions. It begins with a determination of the total amount of assets needed to be held by the firm. Picture the firm's balance sheet in your mind for a moment. Imagine liabilities and owners' equity being listed on the right side of the firm's balance sheet and its assets on the left. The financial manager needs to determine the dollar amount that appears above the double lines on the left-hand side of the balance sheet—that is, the size of the firm. Even when this number is known, the composition of the assets must still be decided. For example, how much of the firm's total assets should be devoted to cash or to inventory? Also, the flip side of investment—disinvestment—must not be ignored. Assets that can no longer be economically justified may need to be reduced, eliminated, or replaced.

Financing Decision - ***Where to raise funds and at what amount?*** The second major decision of the firm is the financing decision. Here the financial manager is concerned with the makeup of the right-hand side of the balance sheet. If you look at the mix of financing for firms across industries, you will see marked differences. Some firms have relatively large amounts of debt, while others are almost debt free. Does the type of financing employed make a difference? If so why? And, in some sense, can a certain mix of financing be thought of as best? The financing decision covers two interrelated aspects: (1) capital structure theory, and (2) capital structure decision.

Once the mix of financing has been decided, the financial manager must still determine how best to physically acquire the needed funds. The mechanics of getting a short-term loan, entering into a long-term lease arrangement, or negotiating a sale of bonds or stock must be understood.

Dividend Policy Decision - ***How much to pay by way of dividends?*** Dividend policy must be viewed as an integral part of the firm's financing decision. The dividend-payout ratio determines the amount of earnings that can be retained in the firm. Retaining a greater amount of current earnings in the firm means that fewer dollars will be available for current dividend payments. The value of the dividends paid to stockholders must therefore be balanced against the opportunity cost of retained earnings lost as a means of equity financing.

Asset Management Decision – The next important decision of the firm is the asset management decision. Once assets have been acquired and appropriate financing provided, these assets must still be managed efficiently. The financial manager is charged with varying degrees of .operating responsibility over existing assets. These responsibilities require that the financial manager be more concerned with the management of current assets than with that of fixed assets. A large share of the responsibility for the management of fixed assets would reside with the operating managers who employ these assets.

1.3.2 ROUTINE FUNCTION

These are mainly day-to-day functions of a financial manager. Routine functions are subdivided into the following category:

Financial Planning: Planning is deciding future course of actions. Financial Planning is deciding financial actions and activities that are to be followed in the future course of business. Every day every moment all the activities of an organization are connected with finance. The long term planning of an organization has interconnected links with every other planning of the business. Future investments are usually backed by different financing alternative. Long-term

investments should be financed by long-term sources and short-term should be from short term sources. These matching and future activities categorically need a planning without which the organization cannot attain its pick.

Identification of Sources: A financial manager must have to decide the sources from where the organization will be financed. The followings can be the options according to the organizational activities. There are short-term, mid-term and long-term sources of fund. They are available from Banks, Financial Institutions, Specialized Financial & Investment Companies, Insurance Companies, Bonds, Shares and Personal Sources. Financial Manager has to identify the cost effective and most desirable source for its financing.

Raising of Funds: After identification and all other planning financial manager has to decide from where he will raise the funds. The financial manager should take the decision according to the financial needs and demands of the organization. At the time of raising funds he must be aware of the interest rate of the fund. The raising of fund involves very complex procedure. The financial manager should be conscious enough to handle those procedures and requirements.

Investment of Fund: The financial managers need to take decisions for the short-term investment of fund. For the proper utilization of the idle funds time to time firm goes for the shot-term investment. At the time of short-term investment a financial manager must ensure liquidity of the fund and earnings from the investment. As financial managers take decision about the investment the responsibility of protecting invested fund goes in their shoulder. By analyzing the risk of different investment managers have to find the least risk sources to ensure the protection of fund. Financial managers also have to find out the highest profitable investment at a low risk.

Distribution of Profit: Financial managers are also responsible in making decision for yearly profit payment. The financial managers make proposals for the profit payment and after passing the proposal from the AGM the financial department goes for the distribution of the yearly profit. Mainly there are three options for the distribution of the profit. Company may provide 100% profit or 100% retention or partly payment and retention.

Fore Casting of Cash Flow: A financial manager knows cash is the life blood of an organization. They also know profit of the balance sheet doesn't mean the better position of the company unless the finance department got the cash in hand. So, a financial manager needs to analyze and forecast the cash flow of a business. By forecasting he can identify the future cash requirements and cash availability in different point in time. If there is any shortage or surplus of fund the financial manager can take appropriate decision.

Coordination & Control: The financial manager must interact with other personnel to ensure that the firm is operated as efficiently as possible. All business decisions have financial implications, and all managers – financial and otherwise – need to take this into account.

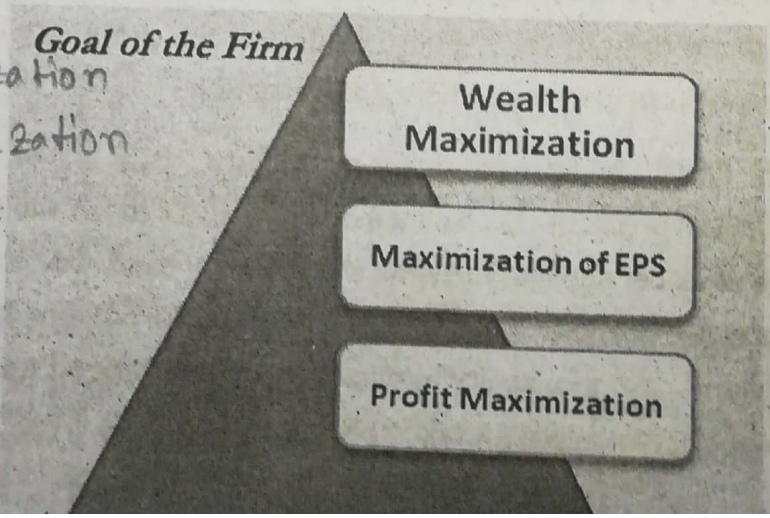
Dealing with the Financial Markets: The financial manager must deal with the money and capital markets. Each firm affects and is affected by the general financial markets where funds are raised, where the fund's securities are traded, and where investors either make or lose money.

Risk Management: All business faces risks. Many of the risks can be reduced by purchasing insurance or by hedging in the derivatives markets. The financial manager is responsible for the firm's overall risk management program, including identifying the risks that should be managed and then managing them in the most efficient manner.

1.4 THE GOAL OF A FIRM

Every firm has a goal to make the firm investment and financial decision rational. The goal or objective provides a framework to the firm for making optimum financial decision. It is generally agreed theory that the goal of the firm should be the maximization of owners' economic welfare. The goal or objective provides a framework for optimum financial decision making. It is concerned with designing a method of operating the internal investment and financing of a firm. There are three alternative approaches to the goal of a firm. Profit maximization was initially the generally accepted theoretical criterion for making efficient economic decisions. In current financial literature, it has been replaced by the maximization of earning per share and finally the wealth maximization decision criterion because of the shortcomings of the former as an operational criterion. Value maximization is simply the extension of profit maximization to a world that is uncertain and multi-period in nature.

1. Profit maximization
2. Wealth maximization



1.4.1 PROFIT MAXIMIZATION

According to this approach, actions that increase profits should be undertaken and those that decrease profits are to be avoided. In specific operational terms, the profit maximization criterion implies that the investment, financing and dividend policy decisions of a firm should be oriented to the maximization of profits.

The term 'profit' can be used in two senses: Owner oriented concept and Operational concept. As a owner oriented concept it refers to the amount and share of total income which is paid to the owners of business. In the operational concept, profitability refers to a situation where output exceeds input, that is, the value created by the use of resources is more than the total of the input resources. Used in this sense, profitability maximization would imply that a firm should be guided in financial decision making by one test: select assets, projects and decision which are profitable and reject those which are not.

Profit can be maximized in the following three ways:

- By reducing cost
- By providing quality goods and services
- By creating additional demand

Profit maximization means maximizing the income of the firm.

Rationale for profit maximization as the goal of a firm:

The rationale behind profit maximization, as a guide to financial decision making, are:

Profit is the yardstick to measure efficiency: Profit maximization is a test of economic efficiency. It provides the yardstick by which economic performance can be judged.

Proper utilization of resources: Profit maximization leads to efficient allocation of resources, as tend to be directed to uses which in terms of profitability are the most desirable.

Social welfare: Profit maximization ensures maximum social welfare. The individual search for maximum profitability provides the famous 'invisible hand' by which total economic welfare is maximized.

Criticism of profit maximization:

The profit maximization criterion has been questioned and criticized on several grounds. The main technical flaws of this criterion are:

Ambiguity: The term profit is a vague and ambiguous concept. It has no precise connotation. It is amenable to different interpretation by different people. To illustrate, profit may be short term or long term; it may be total profit or rate of profit; it may be before-tax or after-tax; it may be return on total capital employed or total assets or shareholders' equity and so on. A loose expression like profit cannot form the basis of operational criterion for financial management.

Timing of Benefits: A more important technical objection to profit maximization is that it ignores the differences in the time pattern of the benefits received from investment proposals or future courses of actions. Because the firm can earn a return on funds it receives, the receipt of funds sooner rather than later is preferred. The profit maximization criterion does not consider the distinction between returns received in different time periods and treats all benefits irrespective of the timing, as equally valuable.

Period	Profit (Tk)	
	Project - A	Project - B
1	15,00,000	–
2	10,00,000	–
3	15,00,000	40,00,000
Total	**40,00,000**	**40,00,000**

The total profits associated with the alternatives, A and B, are identical. If the profit maximization is the decision criterion, both the alternatives would be ranked equally. But alternative A provides higher returns in earlier years, the returns from alternative B are larger in later years. As a result, the two alternative courses of action are not strictly identical.

Quality of Benefits: Profit maximization ignores the risk aspect associated with a financial course of action. An uncertain and fluctuating return implies risk to the investors. Investors are risk-averters. They are expected to have a preference for a return which is more certain in the sense that it has smaller variance over the years. The problem of uncertainty renders profit maximization unsuitable as an operational criterion for financial management.

STATE OF ECONOMY	PROFIT (TK)	
	PROJECT - A	PROJECT - B
Recession (Period 1)	9,00,000	–
Normal (Period 2)	10,00,000	10,00,000
Boom (Period 3)	11,00,000	20,00,000
Total	***30,00,000***	***30,00,000***

The total return associated with the two alternatives are identical in a normal situation. But the earnings associated with alternative B are more uncertain (risky) as they fluctuate widely depending on the state of the economy. Obviously, alternative A is better in terms of risk and uncertainty. The profit maximization criterion fails to reveal this.

Thus, the profit maximization criterion is inappropriate and unsuitable as an operational objective of investment, financing and dividend decisions of a firm.

1.4.2 MAXIMISATION OF EPS

The alternative objective can be maximization of EPS. However, the concept of EPS has the following limitations:

EPS does not consider time value of money: The maximization of EPS as a goal does not consider time value of money. The nominal value of a stream of EPS will be growing in future. However, the real value or present value of that high nominal future EPS can be less than the current EPS. That is value of EPS in future cannot be understood from current EPS.

EPS does not consider the riskiness of a project: Concept of EPS maximization does not consider the riskiness of a project. The future EPS stream can be very much volatile in nature; accordingly the risk-adjusted cost of capital will be much higher for the firm. There by the discounted value of EPS may tell us a different story than a simple concept of EPS. As such maximization of EPS also cannot be considered as a goal of a firm.

EPS does not consider dividend policy of the firm: Concept of EPS maximization does not consider dividend policy of the firm. The dividend policy of the firm tells us how much profit will be retained by the firm for reinvestment as a source of internally generated capital. The growth of future EPS depends significantly upon retention of profit and its proper reinvestment.

1.4.3 WEALTH MAXIMIZATION

Wealth maximization is also known as value maximization or net present worth maximization. Wealth or net present worth is the difference between gross present worth and the amount of capital investment required to achieve the benefits.

As a decision criterion, the wealth maximization criterion involves a comparison of value to cost. Any financial action which creates wealth or which has a net present worth above zero is a desirable one and should be undertaken. Conversely, any financial action which does not meet this test should be rejected. In the case of mutually exclusive alternatives, the alternative with the greatest net present value should be selected.

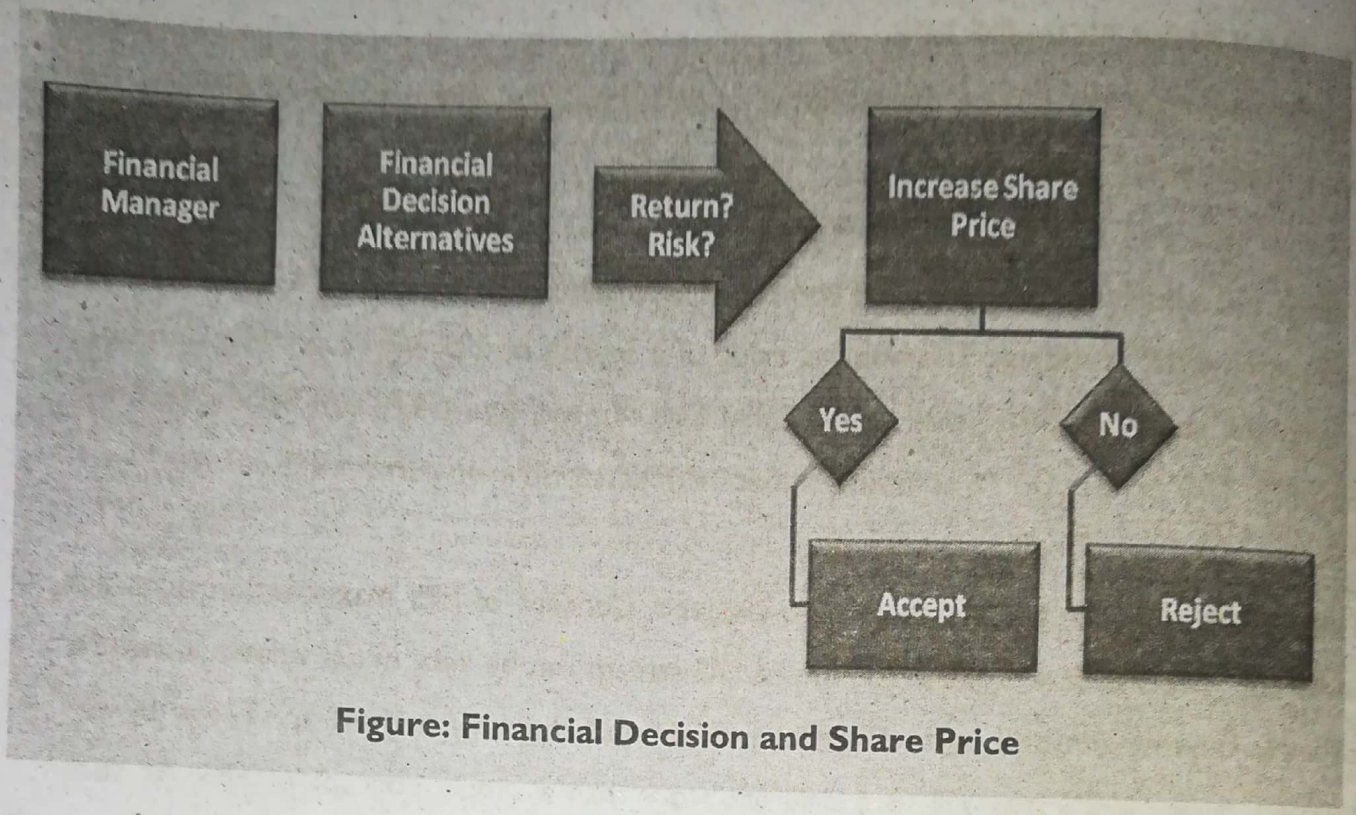


Figure: Financial Decision and Share Price

Net present value of wealth can be calculated as shown below:

$$W = NPV = \frac{A_1}{(1+k)^1} + \frac{A_2}{(1+k)^2} + \frac{A_3}{(1+k)^3} + ------ + \frac{A_n}{(1+k)^n} - C$$

Here,

W = wealth

A1, A2, A3, ... An = the stream of cash flows expected to occur from a course of action

k = cost of capital / appropriate discount rate to measure risk and timing

C = capital / initial investment

Rationale for Wealth Maximization as the Goal of a Firm:

Clear Concept: The wealth maximization criterion is based on the concept of cash flows generated by the decision rather than accounting profit which is the basis of the measurement of benefits in the case of the profit maximization. Cash flow is a precise concept with a definite connotation.

Considers risk, timing of return, and time value of money: The wealth maximization criterion considers both the quantity and quality dimensions of benefits. At the same time, it also incorporates the time value of money. The value of a stream of cash flows with value maximization criterion is calculated by discounting its element back to the present at a

capitalization rate that reflects both time and risk.

Focuses on owners' interest: The value of a course of action must be viewed in term of its worth to those providing the resources necessary for its undertaking. In applying the wealth maximization criterion, the term value is used in terms of worth to the owners, that is, ordinary shareholders.

Therefore, neither total profit maximization nor the maximization of EPS can bring about maximum welfare to the shareholders. On the other hand, the concept of wealth maximization can overcome the limitations of profit maximization. Because wealth of a shareholder is represented by the market price of an investor's stock in the firm. The price of the stock is dependent on present income as well as the present value of future income of the firm. The present value of income of the firm is determined through discounting the future income flow using the risk-adjusted cost of capital of the firm.

The dividend policy of the firm does also influence the value of the firm's stock. The distribution of current earnings between dividend and investment influence future cash flow of the firm. Thus, the concept of wealth maximization ultimately maximizes the investors' welfare in the form of maximizing the share price of the firm. That is, the more effective investment decisions the firm take up and the more appropriate financing decision the management takes up, the future cash flow will be higher and the cost of capital will be lower. Accordingly, the present value of future cash flow of all the projects of the firm will be higher. The stock market will reflect this situation through enhancing the stock price of the firm. Thus, the wealth position of the stockholders will be maximized.

1.5 PROFIT MAXIMIZATION VS WEALTH MAXIMIZATION

Points of Distinction	Profit Maximization	Wealth maximization
Definition	It refers to the maximization of the net income of a firm	Maximization of share price refers to the wealth

		maximization of a firm
Time Value of Money	It doesn't consider the time value of money	It considers the time value of money
Value of the firm	Value of the firm could not be increased by profit maximization	Through increasing the share price the total value of the firm can be increased
Risk	It does not consider the uncertainty & risk	It considers the uncertainty and risk
Cash flows	It doesn't consider the cash flows	It considers the cash flows
Exactness	It is not a clear concept	It is a clear concept

1.6 STOCK PRICE MAXIMIZATION AND SOCIAL WELFARE

If a firm attempts to maximize its stock price, is this good or bad for society? In general, it is good. Aside from such illegal actions as attempting to form monopolies, violating safety codes, and failing to meet pollution control requirements, the same actions that maximize stock prices also benefit society.

First, note that stock price maximization requires efficient, low-cost businesses that produce high-quality goods and services at the lowest possible cost.

Second, stock price maximization requires the development of products and services that consumers want and need, so the profit motive lead to new technology, to new products, and to new jobs.

Finally, stock price maximization necessitates efficient service, adequate stocks of merchandise and well located business establishments these are the factors which lead to sales, which in turn are necessary for profits. Therefore, most actions which help a firm increase the price of its stock also benefit society at large. This is why profit-motivated, free-enterprise economies have been so much more successful than socialistic and communistic economic systems. Since financial management plays a crucial role in the operations of successful firms, and since successful firms are absolutely necessary for a healthy, productive economy, it is easy to see why finance is important from a social standpoint.

SELF-TEST REVIEW QUESTIONS Concept Checkers

Q - 1.1 What do you mean by financial management? Also show the financial management

Q - 1.2 What role finance managers play in a modern enterprise? / functions of finance manager/ scope of business finance. (NU BBA – 2010)

Q - 1.3 What should be the goal of a firm?

- Why is wealth maximization considered as the ultimate goal of a company?
- "The ultimate goal of a business enterprise is to maximize wealth, not profit maximization"- why?
- Contrast between profit maximization and wealth maximization.
- 'The profit maximization is not an operationally feasible criterion'. Do you agree? Illustrate your views.
- In what ways is the wealth maximization objective superior to the profit maximization? Explain.

(NU BBA – 2008, 2010, 2013)

Q - 1.4 Distinguish between profit maximization and wealth maximization.

1.7 OVERVIEW OF CAPITAL MARKET THEORIES

1.7.1 DISCOUNTED CASH FLOW (DCF) ANALYSIS

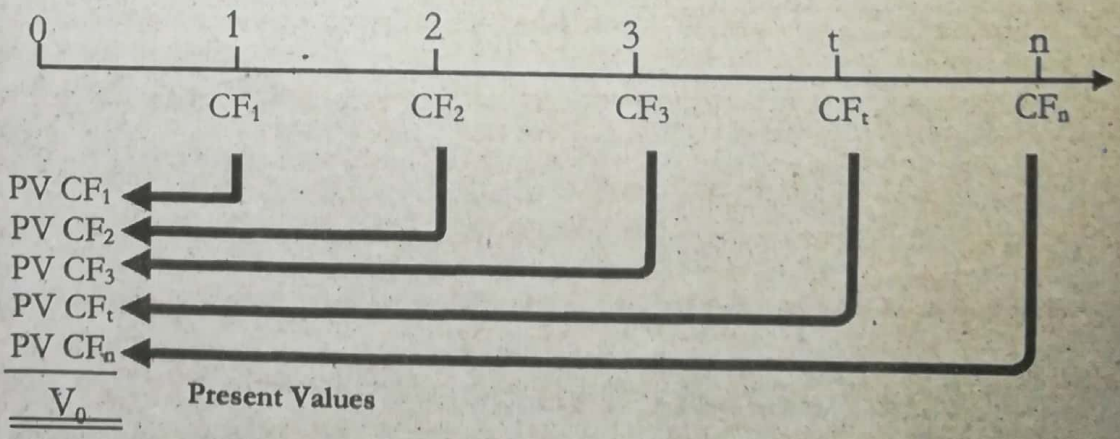
The process of valuing future cash flows is called discounted cash flow analysis. The underlying basis for discounted cash flow analysis is the time value of money. Discounted cash flows analysis can be broken down into following four steps:

1. Estimate the future cash flows: The financial manager have to estimate the future cash flows that can be generated from any particular project or assets.

2. *Assess the riskiness of the flows:* when cash flows are being estimated, the potential uncertainty inherent in the cash flows must be assessed.

3. *Incorporate the risk assessment into the analysis:* Assessed risk can be handled in two ways :i) By the certainty equivalent approach or ii) by the risk-adjusted discount rate approach.

- In the certainty equivalent approach, the expected cash flows are reduced to account for risk. The higher the risk, the lower the risk-adjusted or certainty equivalent, cash flow.
- In risk adjusted discount rate approach, the discount rate rather than the cash flow is adjusted for risk- the higher the risk, the higher the discount rate.



$$Vo = \frac{CF_1}{(1+K)^1} + \frac{CF_2}{(1+K)^2} + \frac{CF_3}{(1+K)^3} + \frac{CF_t}{(1+K)^t} + ---- + \frac{CF_n}{(1+K)^n}$$

$$= \sum_{t=1}^{n} \frac{CF_t}{(1+K)^t}$$

Fig: Discounted Cash Flow Model (DCF)

4. *Find the present value of the flows:* The final step is to find the present value of the cash flows using the appropriate discounting rate or the opportunity cost of capital.

The following time line and equation summarize the discounted cash flow approach of asset valuation.

Here Vo is the current, or present, value of the asset; CF, is the expected cash flow at Period t; k, is the required rate of return for each period's cash flow; and n is the number of periods over which cash flows are expected to be generated. If the cash flow stream exhibits certain regularities, and if the required rate of return is constant, then Equation can be reduced to a simpler form. We will examine both the general case set forth in this equation and several simpler reduced forms.

Note that the basic valuation model can be applied to physical assets as well as to direct claim securities. Physical assets include land, buildings, equipment, and even whole businesses. Direct claim securities, which are pieces of paper that represent claims against cash flows generated by physical assets, are divided into three primary classes: (1) debt, which is a contractual obligation calling for specific payments, (2) Preferred stock, which is also contractual in nature but which has a claim to income and assets after the firm's debt; and (3) common stock, which represents ownership and which, has a residual claim to all income and assets after the claims of debt holders and preferred stockholders have been satisfied.

1.7.2 OPPORTUNITY COST AND ITS ROLE IN DCF ANALYSIS

Opportunity cost refers to the cost of sacrificing the current alternative to avail the next best alternative, or in another way the most valuable current alternative that is given up. The opportunity cost concept plays an important role in DCF analysis. The discount rate applied in DCF investment analysis must reflect forgone opportunities. That means the discount rate should reflect the return that could be earned by investing the funds in the best alternative investment opportunity of similar risk. When the cash flows of an average risk project are

discounted at the firm's weighted average cost of capital to find the project's NPV, the opportunity cost principle is being applied.

In any DCF analysis it is necessary to assign an opportunity cost discount rate and that rate reflect three factors:

- **The riskiness of the flows:** The discount rate must reflect the risk inherent in the cash flows-the higher the risk, the higher the discount rate. For example, the discount rate used to evaluate corporate bonds will be higher than that used to evaluate treasury bonds.
- **The prevailing level of rates of return:** The discount rate must reflect the prevailing level of returns in the economy. For example, 3 months treasure rate can be applied to discount the cash flows having the same level of risk.
- **The timing of the cash flows:** The final consideration is the timing of the cash flows. If the cash flows occur annually, no adjustment is required with the discount rate. However, if the cash flows occur semiannually or quarterly, then the discount rate must reflect this fact.

1.7.3 PERFECT CAPITAL MARKET

A market in which there are never any arbitrage opportunities. A market is said to be a perfect capital market if holds the following assumptions (Fama and Miller 1972):

1. There are no transactions costs.
2. There are no taxes.
3. There are large number of buyers and sellers, so the actions of no one buyer or seller affect the price of the traded security.
4. Both individuals and firms have equal access to the market.
5. There is no cost to obtain information, so everyone has the same information
6. Everyone has the same expectations.
7. There are no costs associated with financial distress.

1.7.4 ROLE OF PERFECT CAPITAL MARKET ASSUMPTIONS IN FINANCE THEORY?

Nowadays the financial decision making have a fairly common coverage of theories and models. In addition to such Nobel-winning theories as the Portfolio Theory, the M&M Irrelevance Theorems, the Capital Asset Pricing Model (CAPM), and the Option Pricing Models, other theoretical works such as the Efficient Market Theory, the Dividend Discount Model (DDM), the Arbitrage Pricing Theory (APT), and the theories about agency costs and information signaling are common in the field of modern financial decision making.

Typically we say that all theories are based on a set of assumptions and they are considered to be very crucial and unrealistic as well. There is no such theory in the field of finance and economics is free of assumptions. Because assumptions help creating the atmosphere to implement any theory, which may not be unrealistic.

Assumptions holds under the perfect capital market are found to be the bench mark or in most of the cases the fundamental pillars for the development of other finance theories. So at the end we can say that perfect capital market assumptions are the guided principles based on which most of the finance theories were developed.

1.7.5 AGENCY ISSUES

Agency cost refers to the cost of resolving the conflicts of interest among stockholders, bondholders and managers. Agency cost includes all costs designed or incurred to encourage managers to maximize shareholders wealth rather than act in their own self-interest. Basically agency costs are borne by shareholders.

Most firms today use a package of economic incentives, along with some monitoring, to influence manager's performance and thus reduce the agency problem. The following incentives or factors that motivate managers are discussed below:

- **Performance-based compensation plans:** Managers compensation usually depends on the company's performance. If any organization is performing better the managers can be compensated and the compensation can be in the form of:

  1) A specified annual salary designed to cover living expenses,

  2) A bonus paid at the end of the year which depends on the company's profitability during the year and

  3) Options to buy stock, or actual shares of stock, which reward the executive for the firm's long- term performance.

- **Direct intervention by shareholders:** Although a great deal of stock is owned by individuals, an increasing percentage is owned by institutional investors such as insurance companies, pension funds, and mutual funds. This institutional investors can enforce firm's managers for improving their performance and sometimes give suggestions regarding how the business should be run.

- **The threat of firing:** The CEOs or other top executives can be forced out of office due to the company's poor performance.

- **The threat of takeover:** Hostile takeover are most likely to occur when a firm's stock is undervalued relative to its potential. In a hostile takeover, the managers of the acquired firm are generally fired. Thus, managers have a strong incentive to take actions which maximize stock prices and possible to avoid take over.

1.7.6 CAPITAL MARKET EFFICIENCY

One of the most important financial theories is the efficient market hypothesis. Efficient market refers to the market which is informationally efficient. This implies that the prices of securities fully reflect all available information. Therefore, In efficient capital market, the prices of stocks are adjusted almost immediately to reflect the new information. If the market is informationally efficient it is not possible to make any abnormal or excess return from this market. An efficient market holds the following assumptions of perfect capital market;

- Information must be costless and it must be available to all market participants at the same time.
- There can be no transaction costs, taxes or other barriers to trading
- Prices cannot be affected by the trading of a single person or institution

Based on the informational contents and efficiency a market can be divided into three forms;

Weak form of efficient market

Weak form efficiency implies that all information contained in past price movements is fully reflected in current market prices. Weak form efficient market assumes that current stock prices fully reflect all security market information, including the historical sequence of prices, rates of return, trading volume and other market segmented information such as odd-lot transactions.

Semi-strong form of efficient market

In the semi-strong form efficient market, the current market prices reflect the information that are contained in past price movements and all other publicly available information. That means if the market is semi strong form efficient then all the security market information which includes historical sequence of prices, rates of return, trading volume, odd-lot transactions and all public information which includes non market information's such as – earnings and dividend announcement, price to earnings ratios, dividend payout ratio, stock split, news about economy and political news are reflected in current market prices. In semi strong from efficient market there is no need to concern about the in formations that are published in annual report, financial magazines and financial news service- because any information inherent in this documents or publications will already be incorporated into stock prices.

Strong form of efficient market

Strong form efficient market hypothesis implies that current market prices reflect all information that is available from public and private sources. That means strong form EMH

encompasses both the weak-form and semi- strong form efficient market hypothesis. No one, even the insiders –defined as directors, officers and major shareholders would find it impossible to earn excess returns. In reality there is no existence of strong form of efficient market.

1.7.7 ASYMMETRY INFORMATION THEORY

When investors have the same information about a firm's prospects as its managers, this is called ***symmetric information*** because both those who are inside the firm (managers and employees) and those who are outside the firm (investors) have identical information. This is a condition which we believe to persist in a perfect capital market.

However, we know that in fact managers generally posses better information about their firms than do outside investors. So the situation in which managers have different (better) information about their firm's prospects than do outside investors called ***asymmetric information.***

Example: Managers of any company are insiders, and hold detailed knowledge about all facets of the firm's operations. Shareholders, on the other hand, are dependent on managers for their knowledge of the firm. As a result, managers can limit the information received by shareholders. This information asymmetry allows managers to make decisions without having to be fully accountable to the firm's owners. The manager-agents can get away with making decisions that favor their own interests at the expense of the shareholder-principals.

1.7.8 ECONOMIC VALUE ADDED (EVA) AND MARKET VALUE ADDED (MVA)

Two new analytical approaches have been developed that focus directly on management's success or failure in maximizing shareholder wealth: Market value added (MVA) and Economic value added (EVA).

MVA: MVA measures the effect of managerial actions to enhance shareholder wealth. The primary goal of any firm should be shareholder wealth maximization. Shareholder wealth is

maximized by maximizing the difference between the firm's market value of equity and the amount of equity capital that investors have supplied to the firm. This difference is called market value added.

MVA = Market value of equity - equity capital supplied.

To illustrate, consider coca-cola. In 1994, its total market value was $61 billion, while its investors had supplied only $8 billion. Thus, coca-cola's MVA was $61-$8= $53 billion. By maximizing this spread, management maximizes the wealth of its shareholders.

EVA: Economic value added focuses on managerial effectiveness in a given year. The basic formula for EVA is this:

EVA = Operating profit - Cost of all capital

= (Sales revenues – operating expenses – taxes) - (Total capital supplied*cost of capital)

To illustrate, suppose a firm in 1995 had $100 million of sales, $80 million of operating costs and $10 million of taxes, so its operating profits as defined were $10 million. Suppose further that the firm had $50 million of investor-supplied debt and equity capital, and the weighted average cost of that capital was 10 percent. The firm's 1995 EVA would thus be $5 million: EVA=$10-$50(0.10) = $10-$5= $5 million. So it can be said that EVA is an estimate of a business's true economic profit for the year.

SELF-TEST REVIEW QUESTIONS — Concept Checkers

Q - 1.5 Define and discuss discounted cash-flow analysis. (NU BBA – 2009)

Q - 1.6 Concept of opportunity cost and its role in discounted cash flow analysis.

Q - 1.7 What is meant by a "perfect capital market"? (NU BBA – 2008, 2011)

Q - 1.8 What role does the perfect capital market assumption play in financial theory? (NU BBA 2007)

Q - 1.9 Define agency costs. What mechanisms exist that encourage managers to act in the best interest of the shareholders?

Or, What is agency problem? When may this problem arise and how can this problem be solved? (NU BBA 2007, 2010, 2011,2013)

Q - 1.10 Define market efficiency. What are the different forms of market efficiency?

Q - 1.11 What is meant by symmetry and asymmetry of information? Explain the concept using proper example.

Q - 1.12 Define and discuss the concepts of Economic Value Added (EVA) and Market Value Added (MVA) with suitable example