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Odisha State Open University
Sambalpur

BCOM
BACHELOR OF
COMMERCE *(HONOURS)*

FUNDAMENTALS OF FINANCIAL MANAGEMENT

Long Term Financial Decisions

ଓଡ଼ିଶା ରାଜ୍ୟ ମୁକ୍ତ ବିଶ୍ୱବିଦ୍ୟାଳୟ, ସମ୍ବଲପୁର, ଓଡ଼ିଶା
Odisha State Open University, Sambalpur, Odisha
Established by an Act of Government of Odisha.

Bachelor of Commerce
(B.COM)

BCO 12
Fundamentals of Financial Management

Block 03: Capital Expenditure Decisions

ଓଡ଼ିଶା ରାଜ୍ୟ ମୁକ୍ତ ବିଶ୍ୱବିଦ୍ୟାଳୟ, ସମ୍ବଲପୁର, ଓଡ଼ିଶା
Odisha State Open University, Sambalpur, Odisha
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BACHELOR OF COMMERCE

BCO 12
Fundamentals of Financial Management

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UNIT 7 CAPITAL BUDGETING

Structure

7.0 LEARNING OBJECTIVES

After studying this unit, you should be able to:

- have idea about introduction & meaning of capital budgeting
- explain the significant objectives of capital budgeting
- know about various types of decision important for capital budgeting
- find out different process considered for capital budgeting decisions
- Describe the concept of cash flow applicable for capital budgeting
- describe different features significant for capital budgeting

7.1 INTRODUCTION

Capital budgeting is an important financial management tool to assess and rank the value of projects or investments that require a large capital investment to determine whether they are worth pursuing. Capital budgeting, and investment appraisal, is the planning process used to determine whether an organization's long term investments such as new machinery, replacement of machinery, new plants, new products, and research development projects are worth the funding of cash through the firm's capitalization structure (debt, equity or retained earnings). It is the process of allocating resources for major capital, or investment, expenditures. One of the primary goals of capital budgeting investments is to increase the value of the firm to the shareholders. Capital budgeting, also known as an investment appraisal, is a financial management tool to ensure for adding the expected value and continue to measure the progress of the project. It determines the number of years it takes for a project's cash flow to pay back the initial cash investment, an assessment of risk, and various other factors.

7.2 MEANING OF CAPITAL BUDGETING

Capital is the total investment of the company and budgeting is the art of building budgets. Capital budgeting is a company's formal process used for evaluating potential expenditures or investments that are significant in amount. It involves the decision to invest the current funds for addition, disposition, modification or replacement of fixed assets. The large expenditures include the purchase of fixed assets like land and building, new equipment, rebuilding or replacing existing equipment, research and development, etc. The large amounts spent for these types of projects are known as capital expenditures. Capital Budgeting is a tool for maximizing a company's future profits since most companies are able to manage only a limited number of large projects at any one time. Capital budgeting usually involves calculation of each project's future accounting profit by period, the cash flow by period, the present value of cash flows after considering time value of money, the number of years it takes for a project's cash flow to pay back the initial cash investment, an assessment of risk, and various other factors. It is used for evaluating potential expenditures or investments that are significant in amount. It involves the decision to invest the current funds for the addition, disposition, modification, or replacement of fixed assets.

7.3 OBJECTIVES OF CAPITAL BUDGETING

To know more about the necessity of capital budgeting for the companies, let us go through the following objectives:

- **Control of Capital Expenditure**

Estimating the cost of investment provides a base to the management for controlling and managing the required capital expenditure accordingly.

- **Selection of Profitable Projects**

The company has to select the most suitable project out of the multiple options available to it. For this, it has to keep in mind the various factors such as availability of funds, project's profitability, the rate of return, etc.

- **Identifying the Right Source of Funds**

Locating and selecting the most appropriate source of funds required to make a long-term capital investment is the ultimate aim of capital budgeting. The management needs to consider and compare the cost of borrowing with the expected return on investment for this purpose.

7.4 CAPITAL BUDGETING DECISIONS

Capital budgeting decision is both a financial commitment and an investment. By taking on a project, the business is making a financial commitment, but it is also investing in its longer-term direction that will likely have an influence on future projects the company considers. The crux of capital budgeting is profit maximization. There are two ways to it; either increase the revenues or reduce the costs. The increase in revenues can be achieved by expansion of operations by adding a new product line. Reducing costs means representing obsolete return on assets. The following types of decisions are very important for capital budgeting.

7.4.1 Accept / Reject decision

If a proposal is accepted, the firm invests in it and if rejected the firm does not invest. Generally, proposals that yield a rate of return greater than a certain required rate of return or cost of capital are accepted and the others are rejected. All independent projects are accepted.

Independent projects are projects that do not compete with one another in such a way that acceptance give a fair possibility of acceptance of another.

7.4.2 Mutually exclusive project decision

Mutually exclusive projects compete with other projects in such a way that the acceptance of one will exclude the acceptance of the other projects. Only one may be chosen. Mutually exclusive investment decisions gain importance when more than one proposal is acceptable under the accept / reject decision. The acceptance of the best alternative eliminates the other alternatives.

7.4.3 Capital Rationing Decision

In a situation where the firm has unlimited funds, capital budgeting becomes a very simple process. In that, independent investment proposals yielding a return greater than some predetermined level are accepted. But actual business has a different picture. They have fixed capital budget with large number of investment proposals competing for it. Capital rationing refers to the situation where the firm has more acceptable investments requiring a greater amount of finance than that is available with the firm. Ranking of the investment project is employed on the basis of some predetermined criterion such as the rate of return.

The project with highest return is ranked first and the acceptable projects are ranked thereafter.

7.4.4 Working Capital Management Decision

Working capital management is concerned with management of a firm's short-term or current assets, such as inventory, cash, receivables and short-term or current liabilities, such as creditors, bills payable. Assets and Liabilities which mature within the operating cycle of business or within one year are termed as current assets and current liabilities respectively.

7.5 CAPITAL BUDGETING PROCESS

The process of planning and managing a firm's long-term investments is called capital budgeting. In capital budgeting, the financial manager tries to identify profitable investment opportunities, i.e., assets for which value of the cash flow generated by asset exceeds the cost of that asset. Evaluating the size, timing, and risk of future cash flows (both cash inflows & outflows) is the essence of capital budgeting. The following process should be followed for suitable capital budgeting.

7.5.1 Project identification and generation

The first step towards capital budgeting is to generate a proposal for investments. There could be various reasons for taking up investments in a business. It could be addition of a new product line or expanding the existing one. It could be a proposal to either increase the production or reduce the costs of outputs. The company has various options for capital employment on a long-term basis. In the initial stage, the management needs to analyze the strengths and weaknesses of every project for foreseeing the potential of each option.

7.5.2 Project Screening and Evaluation

In the next step, the management assembles and compiles all the investment proposals on the grounds of cost, risk involvement, future profits, return on investment, etc. This step mainly involves selecting all correct criteria's to judge the desirability of a proposal. This has to match the objective of the firm to maximize its market value. The tool of time value of money comes handy in this step. Also the estimation of the benefits and the costs needs to be done. The total cash inflow and outflow along with the uncertainties and risks associated with the proposal has to be analysed thoroughly and appropriate provisioning has to be done for the same.

7.5.3 Project Selection

There is no such defined method for the selection of a proposal for investments as different businesses have different requirements. That is why, the approval of an investment proposal is done based on the selection criteria and screening process which is defined for every firm keeping in mind the objectives of the investment being undertaken. Once the proposal has been finalized, the different alternatives for raising or acquiring funds have to be explored by the finance team. This is called preparing the capital budget. The average cost of funds has to be reduced. A detailed procedure for periodical reports and tracking the project for the lifetime needs to be streamlined in the initial phase itself. The final approvals are based on profitability, Economic constituents, viability and market conditions. Once the proposal has been finalized, the different alternatives for raising or acquiring funds have to be explored by the finance team. This is called preparing the capital budget. The average cost of funds has to be reduced. A detailed procedure for periodical reports and tracking the project for the lifetime needs to be streamlined in the initial phase itself. The final approvals are based on profitability, economic constituents, viability, and market conditions.

7.5.4 Implementation

After the apportionment of long-term investment, the company comes into action for the execution of its decision. To avoid complications and excess time consumption, the management should lay out a detailed plan of the project in advance.

7.5.5 Performance review

The final stage of capital budgeting involves the comparison of actual results with the standard ones. The management needs to measure and correlate the actual performance with that of the estimated one to figure out the deviation and take corrective actions for the same.

7.6 CONCEPT OF CASH FLOW

The ability to read different financial statements becomes crucial to understand business finance. A cash flow statement is an important and essential part of keeping a record of the financial liquidity of any business. The liquidity of business matters because it often directly signals the company's ability to pay off debts and to generate money. Cash flow statement is designed to complement the balance sheet and the income statement. In most accounting systems around the world, a cash flow statement is part of the mandatory reporting. A cash flow statement is an official record of cash and cash equivalents entering and leaving a business entity. It focuses on showcasing the sources of money in the business as well as how it is spent over a specific period. It usually looks at the general accounting period, such as financial year, but cash flow statement can be created over any specific period. A cash flow statement shows where money is coming from and where it is going. If you are an investor or a potential investor in a company, this statement can provide you with valuable information, but it also has a few drawbacks. One of the advantages of the cash flow statement is that it provides you a detailed look at the changes in the amount of cash that a company holds over time. It is not a statement that provides with absolute information such as a balance sheet or an income statement. Instead, it looks at whether the company is accumulating more cash than it once did or if it is losing cash. This helps to get a broad view of the success of the company when combined with the other statements.

7.6.1 Types of Cash Flow

There are several types of Cash Flow, so it's important to have a solid understanding of what each of them is. Different types of cash flow include:

Cash from Operating Activities – Cash that is generated by a company's core business activities – does not include CF from investing. This is found on the company's Statement of Cash Flows

Free Cash Flow to Equity (FCFE) – FCFE represents the cash that's available after reinvestment back into the business (capital expenditures).

Free Cash Flow to the Firm (FCFF) – This is a measure that assumes a company has no leverage (debt). It is used in financial modelling and valuation..

Net Change in Cash – The change in the amount of cash flow from one accounting period to the next. This is found at the bottom of the Cash Flow Statement.

7.6.2 Presentation of Cash Flow Statement

A cash flow statement can be presented in either the direct or indirect format. The investing and financing sections will be the same under either format. However, the operating section will be different.

(i) Direct Method

Direct method is that method whereby major class of gross cash receipts and gross cash payment are disclosed. Enterprises that utilize the direct method should report separately the following classes of operating cash receipts and payments:

1. Cash collected from customers, including lessees, licensee, and other similar items
2. Interest and dividends received
3. Other operating cash receipts, if any
4. Cash paid to employees & suppliers of goods, services, insurance, advertising & similar expenses
5. Interest paid
6. Income taxes paid
7. Other operating cash payments, if any

Companies that use the direct method must provide a reconciliation of net income to net cash flow from operating activities in a separate schedule in the financial statements. The direct method provides information which may be useful in estimating future cash flows and which is not available under the indirect method and is, therefore, considered more appropriate than the indirect method. Under the direct method, information about major classes of gross cash receipts and gross cash payments may be obtained either:

(a) From the accounting records of the enterprise; or

(b) By adjusting sales, cost of sales (interest and similar income and interest expense and similar charges for a financial enterprise) and other items in the statement of profit and loss for: (i) Changes during the period in inventories and operating receivables and payables; (ii) Other non-cash items; and (iii) Other items for which the cash effects are investing or financing cash flows.

(ii) Indirect Method

Under the indirect method, the net cash flow from operating activities is determined by adjusting net profit or loss for the following effects.

(a) Changes during the period in inventories and operating receivables and payables;

(b) Non-cash items such as depreciation, provisions, deferred taxes, and unrealized foreign exchange gains and losses; and

(c) All other items for which the cash effects are investing or financing cash flows.

Alternatively, the net cash flow from operating activities may be presented under the indirect method by showing the operating revenues and expenses excluding non- cash items disclosed in the statement of profit and loss and the changes during the period in inventories and operating receivables and payables. The indirect method starts with net income and reconciles it to net cash flow from operating activities. The cash flow from operating activities is found by adjusting net income for:

(i) Changes in current assets and current liabilities and

(ii) Depreciation expense. Depreciation expense is not a cash flow. Because it decreases net income, it is added back to net income, in order to arrive at the operating cash flow.

7.6.3 Cash Flow Analysis

Cash Flow Analysis is a technique used by investors and businesses to determine the value of overall companies as well as the individual branches of large companies by looking at how much excess cash they produce. They typically use the statement of cash flows, a document that shows the actual cash that came in and out of the business during a certain period from investing activities, financing activities, and operational activities, as well as a few other reports. Cash flow is the term used to describe changes in how much money business has from one point to another.

7.6.4 Cash Flow Management

Cash flow management is the process of tracking how much money is coming into and out of your business. This helps you predict how much money will be available to your business in the future. It also helps you identify how much money your business needs to cover debts, like paying employees and suppliers. Cash flow management is keeping track of this flow and analysing any changes to it. This helps you spot trends, prepare for the future, and tackle any problems with your cash flow. It pays to practice cash flow management often to make sure your business has enough money to keep running. Effective cash flow management is essential. This resource will help to manage cash flow by explaining why, when, and how. Additionally, this resource provides management strategies to help in preventing non-profit cash flow shortages.

7.6.5 Causes of Cash Flow Shortages

Every organization experiences ups and downs in cash flow because the timing of when money is received often doesn't match when payments are due. The following common causes of cash flow shortages are considered.

- Timing of donations and grants
- Reimbursement-based contracts
- Timing of disbursement, such as advance payments
- Changes in revenue sources or payment schedules
- Operating with a deficit (expenses exceed revenue)
- Unexpected or unplanned events

The cost of these shortages can be very high, including:

- Late fees, penalties, and finance charges
- Damaged relationships with vendors and contractors
- Lost opportunities for new mission-building activities
- Time spent worrying about and trying to resolve cash flow problems after they occur.

7.6.6 Cash Flow Management Strategies

In order to anticipate cash flow shortfalls, there are a number of strategies that can help prevent them. As a first step, assess whether the cash flow shortfall is a problem with timing or is an indication of a deficit. The strategies used to solve the cash flow problem should match the source of the shortfall.

1. Management of timing by following activities

- Speed up receipt of income
- Negotiate earlier receipt of grants or contract revenue
- Shorten the terms you allow for accounts receivable
- Improve collection efforts for past due receivables
- Introduce new payment options, i.e. credit cards or automatic payments
- Accelerate or expand fund drives
- Slow down payments
- Delay significant expenditures
- Negotiate longer terms with vendors
- Break lump sum payments into smaller, more frequent payments
- Delay new programs or events
- Delay staff additions and/or salary increases
- Borrow on a line of credit or bridge loan

2. Management of amount activities

- Increase cash receipts
- Increase fees and prices
- Increase services that generate revenue
- Raise additional or emergency funds
- Rent out or sublet excess space
- Sell under-used assets
- Reduce cash disbursements
- Scrutinize expenses for temporary or permanent reductions
- Solicit in-kind goods and services to replace budgeted items
- Reduce staff salaries or hours, or layoff staff
- Close facilities or reduce programs or services

7.7 FEATURES OF CAPITAL BUDGETING

The important features to be considered for capital budgeting are briefly explained below.

1. **Huge Funds:** Capital budgeting involves the investment of funds currently for getting benefits in the future.
2. **High Degree of Risk:** To take decisions that involve a huge financial burden can be risky for the company.
3. **Affecting Future Competitive Strengths:** The future benefits are spread over several years. Sensible investing can improve its competitiveness, whereas a wrong investment may lead to business failure.
4. **Difficult Decision:** When the future is dependent on capital budgeting decisions, it becomes difficult for the management to grab the most appropriate investment opportunity.
5. **Estimation of Large Profits:** Each project involves a huge amount of funds with the perspective of earning desirable profits in the long term.
6. **Long Term Effect:** The effect of the decisions taken will be visible in the future or the long term.
7. **Influence Cost Structure:** For instance, it may increase the fixed cost such as insurance charges, interest, depreciation, rent, etc.
8. **Irreversible Decision:** Capital expenditure decisions are irreversible since it involves a high-value asset which may not be sold at the same price once purchased.

Capital budgeting is a predominant function of management. Right decisions taken can lead the business to great heights. However, a single wrong decision can inch the business closer to shut down due to the number of funds involved and the tenure of these projects.

Check your progress

1. Explain the significance of Accept / Reject decision relating to capital budgeting.
2. Justify the requirement of the process of Project identification and generation 3. Briefly explain various features considered by a firm for capital budgeting.

7.8 LET US SUM UP

- **Objectives of Capital Budgeting -** a) Control of Capital Expenditure b) Selection of Profitable Projects c) Identifying the Right Source of Funds
- **Capital Budgeting Decisions** - i) Accept / Reject decision ii) Mutually Exclusive Project Decision iii) Capital Rationing Decision iv) Working Capital Management Decision
- **Capital Budgeting Process** - 1. Project identification and generation, 2. Project Screening and Evaluation, 3. Project Selection, 4. Implementation and 5. Performance review
- **Features of Capital Budgeting – (**a) Huge Funds, (b) High Degree of Risk, (c) Affecting Future Competitive Strengths, (d) Difficult Decision, (e) Estimation of Large Profits, (f) Long Term Effect (g) Influence Cost Structure and (h) Irreversible Decision.

Concept of Cash Flow

A cash flow statement is an important and essential part of keeping a record of the financial liquidity of any business. This statement is designed to complement the balance sheet and the income statement. In most accounting systems around the world, a cash flow statement is part of the mandatory reporting. A cash flow statement is an official record of cash and cash equivalents entering and leaving a business entity. It focuses on showcasing the sources of money in the business as well as how it is spent over a specific period. A cash flow statement shows where money is coming from and where it is going.

7.9 KEY WORDS

- **Capital budgeting -** It is an important financial management tool to assess and rank the value of projects or investments that require a large capital investment to determine whether they are worth pursuing.

- **Capital Budgeting Decision-** Capital budgeting decision is both a financial commitment and an investment.
- **Capital Budgeting Process –** It is the process of planning and managing a firm's long-term investments is called capital budgeting.
- **Cash Flow –** In simple words, cash flow statement shows where money is coming from and where it is going.

7.10 ANSWERS TO CHECK YOUR PROGRESS

1 If a proposal is accepted, the firm invests in it and if rejected the firm does not invest. Generally, proposals that yield a rate of return greater than a certain required rate of return or cost of capital are accepted and the others are rejected. All independent projects are accepted. Independent projects are projects that do not compete with one another in such a way that acceptance give a fair possibility of acceptance of another.

2. The first step towards capital budgeting is to generate a proposal for investments. There could be various reasons for taking up investments in a business. It could be addition of a new product line or expanding the existing one. It could be a proposal to either increase the production or reduce the costs of outputs. The company has various options for capital employment on a long-term basis. In the initial stage, the management needs to analyze the strengths and weaknesses of every project for foreseeing the potential of each option.
3. The features of capital budgeting are briefly explained below:
    1. **Huge Funds**: Capital budgeting involves the investment of funds currently for getting benefits in the future.
    2. **High Degree of Risk**: To take decisions that involve a huge financial burden can be risky for the company.
    3. **Affects Future Competitive Strengths**: The future benefits are spread over several years. Sensible investing can improve its competitiveness, whereas a wrong investment may lead to business failure.
    4. **Difficult Decision**: When the future is dependent on capital budgeting decisions, it becomes difficult for the management to grab the most appropriate investment opportunity.
    5. **Estimation of Large Profits**: Each project involves a huge amount of funds with the perspective of earning desirable profits in the long term.
    6. **Long Term Effect**: The effect of the decisions taken will be visible in the future or the long term.
    7. **Affects Cost Structure**: For instance, it may increase the fixed cost such as insurance charges, interest, depreciation, rent, etc.
    8. **Irreversible Decision**: Capital expenditure decisions are irreversible since it involves a high-value asset which may not be sold at the same price once purchased.

7.11 TERMINAL QUESTIONS / EXERCISES

1. What are the important objectives of capital budgeting ?
2. Which types of decisions should be considered for capital budgeting ?
3. State essential elements of capital budgeting process ?
4. Why concept of cash flow is significant for appropriate capital budgeting ?

Note: - *These sample questions will help you to understand the unit better. Try to write Answers for them. But do not submit your answers to the University. These are for your practice only.*

UNIT 8 METHODS OF LONG TERM INVESTMENT DECISIONS

Structure

8.0 LEARNING OBJECTIVES

After reading this unit, you will be able to

- have idea about introduction and meaning of investment decision
- know various methods of long term investment decision by the firm
- identify different causes for declining market value of investments
- explain the important advantages of long-term investment decision
- describe significant strategies for long-term investment decision

8.1 INTRODUCTION

Investment decision relates to as how the funds of a firm are to be invested into different assets, so that the firm is able to earn highest possible return for the investor. Investment decision can be long-term, known as capital budgeting where the funds are committed into long-term basis. Long term investment decisions means decisions regarding purchase of assets having life more than 1 year usually Properties, Shares, Debs, Bonds and so on. These decisions are taken usually by top level management. Long-term investments are assets that an individual or company intends to hold for a period of more than three years. Instruments facilitating long-term investments include stocks, real estate, cash, etc. Long term investors take on a substantial degree of risk in pursuit of higher returns.

8.2 MEANING OF LONG TERM INVESTMENT DECISION

Investment decision relates to as how the funds of a firm are to be invested into different assets, so that the firm is able to earn highest possible return for the investors. Investment decision can be long-term, where the funds are committed on long-term basis. Long term investment decisions means decisions regarding purchase of assets having life more than 1 year usually properties, shares, debs, bonds and so on. These decisions are taken usually by top level management. The investment decisions related to investment of firms funds in long-term assets to earn the highest possible returns is called long term investment. Long term investments are not subject to any adjustments due to temporary market fluctuations. However, such investments may be written down to reflect declining market value. Long term investing is likely to lead to meaningful wealth creation in the long term. Many individuals who lack the expertise required to participate in derivative markets depend on long-term investment returns to plan their financial future. It may include dividend income from shareholding and interest received on fixed deposits.

8.3 METHODS OF LONG TERM INVESTMENT DECISION

The following methods are applicable for capital budgeting long term investment decision.

- Accounting Rate of Return
- Average Accounting Return
- Payback Period
- Net Present Value
- Profitability Index
- Internal Rate of Return
- Modified Internal Rate of Return
- Discounted Payback Period

8.3.1 Accounting Rate of Return

The Accounting Rate of Return (ARR), known as the return on investment, gives the annual accounting profits arising from an investment as a percentage of the investment made. Called the simple or average rate of return, it is an investment formula used to measure the annual earnings or profit an investment is expected to make. In other words, it calculates how much money or return an investor will make on investment. ARR is an important calculation, because it helps investors analyse the risk involved in making an investment and decided whether the earnings are high enough to accept the risk level. Accounting Rate of Return (ARR) is one of the best ways to calculate the potential profitability of an investment, making it an effective means of determining which capital asset or long-term project for investment. Accounting Rate of Return (ARR) is the percentage rate of return that is expected from an investment or asset compared to the initial cost of investment. It is based on accounting information; therefore, other special reports are not required. ARR method is easy to calculate and simple to understand. ARR method is based on accounting profit hence measures the profitability of investment. It ignores the time value of money. This method ignores the cash flow from investment. ARR method does not consider terminal value of the project.

8.3.2 Average Accounting Return

The Average Accounting Return (AAR) is the average project earnings after taxes and depreciation, divided by the average book value of the investment during its life. Approach to making capital budgeting decisions involves the average accounting return. The AAR is always defined as some measure of average accounting profit divided by some measure of average accounting value. The specific definition used is average net income divided by average book value. It is a decision rule to accept or reject the finance project. To decide about these projects value, it needs cut off rate. This rate is a kind of deadline whether this project produces net income or net loss. The average accounting return method of evaluating business investments is based on using the accounting rate of return for a specified number of years to arrive at an average rate of return for the period. Typically, the average accounting return method is used as a tool for comparing potential profitability of two or more investment opportunities. The result is used to arrive at the average accounting return rate; the accounting rate of return for each year is added together then divided by the number of years included in the calculation.

8.3.3 Payback Period

This term refers to the time taken by a business to generate enough capital to cover the initial investment value. The payback period therefore determines how long an enterprise is expected to take to recover its initial starting capital or investment. Payback period as a tool of analysis is often used because it is easy to apply and understand for most individuals, regardless of academic training or field of endeavour. When used carefully or to compare similar investments, it can be quite useful. The payback period is considered a method of analysis with serious limitations and qualifications for its use, because it does not account for the time value of money, risk, financing, or other important considerations, such as the opportunity cost. Whilst the time value of money can be rectified by applying a weighted average cost of capital discount, it is generally agreed that this tool for investment decisions should not be used in isolation. Alternative measures of "return" preferred by economists are net present value and internal rate of return. An implicit assumption in the use of payback period is that returns to the investment continue after the payback period. Payback period does not specify any required comparison to other investments or even to not making an investment. This can be used to calculate the payback period; that is, the first period after which the investment has paid for it. If the cumulative cash flow drops to a negative value sometime after it has reached a positive value, thereby changing the payback period, this cannot be applied.

8.3.4 Net present Value

The net present value is a capital approach focused on incorporation of discounts on the after-tax cash flows. This is a model that facilitates accuracy in valuation because it follows the rule that states that all positive net present values have to be accepted while negative net present values must be rejected. However, in cases where funds are limited and an enterprise cannot accept all positive values the high discounted values should be used. Net Present Value (NPV) is the difference between the present value of cash inflows and the present value of cash outflows over a period of time. This is used in capital budgeting and investment planning to analyze the profitability of a projected investment or project. NPV accounts for the time value of money and can be used to compare similar investment alternatives. It relies on a discount rate that may be derived from the cost of the capital required to make the investment, and any project or investment with a negative NPV should be avoided. One important drawback of NPV analysis is that it makes assumptions about future events that may not be reliable. The discount rate element of the NPV formula discounts the future cash flows to the present-day value. If subtracting the initial cost of the investment from the sum of the cash flows in the present-day is positive, then the investment is worthwhile.

8.3.5 Profitability Index

This is also referred to as the profit investment ratio or value invest mental ratio. It covers the ratio of pay off of an investment in a particular project. It also helps in ranking of projects by determining and quantifying the investment value of a project. The Profitability Index is determined through calculation of the ratio between current value of the future expected cash flow and the Initial investment. This method uses the incremental cash flows from each potential investment, or project. Profitability Index (PI) is very easy to calculate. So, it is common and widely used technique to evaluate different investment proposals. It assumes that money received today is far valuable than the exact amount of money of future. So, it highlights the time value of money and evaluates the present value of money of future cash flows. It is simple and easy to find out the suitable investment project with the help of profitability index method. Project with higher PI is accepted and others are rejected. Profitability index ascertains accurate rate of return of the project which is important to know the profitability of the project. Profitability Index focuses on the profitability of the firm. It also considers the risk factor. It helps to maximize the value of the firm. It is difficult to estimate cost of capital and interest rate or discount rate to determine the profitability index of the project. It is difficult to compare the projects having different estimated working life. There is a chance of drawing incorrect decision while comparing mutually exclusive capital projects.

8.3.6 Internal Rate of Return

This rate of return is also referred to as the expected return on a particular project. The inter rate of return is characterized by a discount rate that reduces the net present value to zero. The discount rate is therefore seen to be essential because its increase results in uncertainty in future cash flow reducing the value of returns. The internal rate of return on an investment or project is the "annualized effective compounded return rate" or rate of return that sets the net present value of all cash flows (both positive and negative) from the investment equal to zero. Equivalently, it is the discount rate at which the net present value of the future cash flows is equal to the initial investment, and it is also the discount rate at which the total present value of costs (negative cash flows) equals the total present value of the benefits (positive cash flows). IRR accounts for the time preference of money and investments. A given return on investment received at a given time is worth more than the same return received at a later time, so the latter would yield a lower IRR than the former, if all other factors are equal. A fixed income investment in which money is deposited once, interest on this deposit is paid to the investor at a specified interest rate every time period, and the original deposit neither increases nor decreases, would have an IRR equal to the specified interest rate. An investment which has the same total returns as the preceding investment, but delays returns for one or more time period would have a lower IRR.

8.3.7 Modified Internal Rate of Return

This is a financial valuation model that measures the attractiveness of an investment. According to this model, the positive cash flow registered is re-invested at the firms current capital costs while the outlays use the firm's financial cost. The modified internal rate of return (commonly denoted as MIRR) is a financial measure that helps to determine the attractiveness of an investment and that can be used to compare different investments. Essentially, the modified internal rate of return is a modification of the internal rate of return (IRR) formula, which resolves some issues associated with that financial measure. The modified internal rate of return (MIRR) assumes that positive cash flows are reinvested at the firm's cost of capital and that the initial outlays are financed at the firm's financing cost. By contrast, the traditional internal rate of return (IRR) assumes the cash flows from a project are reinvested at the IRR itself. The MIRR, therefore, more accurately reflects the cost and profitability of a project.

8.3.8 Discounted Payback Period

The discounted payback period covers calculation of time required to recover the original investment. This method of payback calculations incorporates the time value of money in its calculations helping alleviate drawbacks in budgeting decisions that are associated with determination of payback period. This allows a discounted cash flow basis on calculation of payback period. Discounted payback period refers to the time period required to recover its initial cash outlay and it is calculated by discounting the cash flows that are to be generated in future and then totalling the present value of future cash flows where discounting is done by the weighted average cost of capital or internal rate of return. Payback period merit includes the fact that it is very simple method to calculate the period required and because of its simplicity it does not involve much complexity and helps to analyze the reliability of project. The demerit of payback period includes the fact that it completely ignores the time value of money, fails to depict the detailed picture and ignore other factors too.

8.4 DECLINING MARKET VALUE

Long-term investments are not subject to any adjustments due to temporary market fluctuations. However, such investments may be written down to reflect declining market value.

1. Capital investment decisions are long-term, strategic decisions, such as building a new factory.
2. Capital investment decisions involve initial cash outflows and then subsequent cash inflows.
3. Many assumptions underpin these cash inflows and outflows.
4. There are five main capital investment techniques. Two (payback and accounting rate of return) do not take into account the time value of money. Three do (net present value, profitability index and internal rate of return).

5. Payback is the simplest method. It measures how long it takes for a company to recover its initial investment.
6. The accounting rate of return uses profit not cash flow and measures the annual profit over the initial capital investment.
7. The profitability index is similar to NPV. It compares the total NPV cash flows with the initial investment.

8.5. ADVANTAGES OF LONG-TERM INVESTING

The following advantages should be considered for analysing different investing decisions.

8.5.1 Long-term investing

It is likely to lead to meaningful wealth creation in the long term. Many individuals who lack the expertise required to participate in derivative markets depend on long-term investment returns to plan their financial future. It may include dividend income from shareholding and interest received on fixed deposits.

8.5.2 Less time-consuming

Long term investing is less time-consuming as investors need not monitor markets for small fluctuations on a daily basis.

8.5.3 Lower transaction fees

Brokerage fees and capital gains taxes form a majority of the costs of investing, excluding the risk factor. Long-term investors are subject to transaction fees less frequently, if not at a lower rate, than short-term investors. Many investors are able to allow returns to compound in their bank accounts while deferring capital gains taxes. Capital gains taxes are also charged at a lower rate than short-term profits.

8.6 STRATEGIES FOR LONG-TERM INVESTMENTS

Before going for any type of long term investment decision, the following strategies should be considered.

8.6.1. Current Income Strategy

The current income strategy includes a range of allocation decisions aimed at identifying established entities that provide above-average distributions without the r.isk of default, such as large-cap and blue-chip equities. It is best suited for an investor looking for a relatively steady and consistent strategy. To identify suitable companies, the investor must focus on the major drivers of long-term shareholder returns. They include competitive advantage of business, its growth prospects, and the competency of its management team rather than quarterly reports and stock prices. Characteristic symptomatic of a good investment opportunity include:

1. **Companies with substantial history of steady/consistently increasing dividend**

Rare events often cause temporary downturns in a company's stock prices. Such occurrences are common in the oil industry, which is extremely sensitive to changes in geopolitical situations. It, however, does not impact the company's dividend-paying capacity permanently. Contrarily, it presents a buying opportunity rather than a threat to long-term investors.

2. Firms operating in low changing industries with growing income prosperity

It means that as incomes and populations grow, people are more likely to spend on goods in such industries. They include industries in consumer staples, such as food and beverages and healthcare. **8.6.2. Capital Growth Strategy**

The capital growth strategy aims to maximize the appreciation of all the securities in the portfolio over a period of 10 years or more. Such portfolios may comprise equities and packaged products such as exchange-traded funds and mutual funds. Such a strategy can include a diverse mix of securities depending on the risk appetite of individuals.

8.6.3. Balanced Investment Strategy

The balanced investment strategy is aimed at combining investments in a portfolio such that the risks and returns are evened out. Typically, stocks and bonds make up equal percentages of the holding of such a portfolio. Such a strategy is most suited to investors with medium risk appetite. On the capital preservation side, they include low yielding but safe instruments such as high-grade bonds and stocks that pay steady dividends. On the other hand, riskier but higher-paying stocks, such as preference shares, and equities in companies with low market capitalization and credit ratings, are included. They represent the aggressive capital growth aspect of balanced strategies.

Check your progress

1. State the meaning of long term investment decision.
2. Explain different methods considered for long term investment decision
3. Describe important strategies to be followed for long term investment decision
4. Discuss various advantages of long term investment decision

8.7 LET US SUM UP

- **Methods of Long Term Investment Decision -** The methods applicable for long term investment decision are (a) Accounting Rate of Return (b) Average Accounting Return (c) Payback Period (d) Net Present Value (e) Profitability Index (f) Internal Rate of Return (g) Modified Internal Rate of Return (h) Discounted Payback Period
- **Advantages of Long-Term Investment** – (i) Lower transaction fees (ii) Less time consuming and (iii) Long-term investing.
- **Strategies for Long-Term Investments -** (a) Current Income Strategy, (b) Capital Growth Strategy and (c) Balanced Investment Strategy

8.8 KEY WORDS

- **Long Term Investment Decision -** Long term investment decisions means decisions regarding purchase of assets having life more than 1 year usually properties, shares, debs, bonds and so on.
- **Accounting Rate of Return** - The Accounting Rate of Return (ARR), known as the return on investment, gives the annual accounting profits arising from an investment as a percentage of the investment made.
- **Average Accounting Return** - The Average Accounting Return (AAR) is the average project earnings after taxes and depreciation, divided by the average book value of the investment during its life.
- **Payback Period** - This term refers to the time taken by a business to generate enough capital to cover the initial investment value.
- **Net present Value** - The net present value is a capital approach focused on incorporation of discounts on the after-tax cash flows.
- **Profitability Index** - This is also referred to as the profit investment ratio or value invest mental ratio. It covers the ratio of pay off of an investment in a particular project.
- **Internal Rate of Return -** This rate of return is also referred to as the expected return on a particular project. The inter rate of return is characterized by a discount rate that reduces the net present value to zero.
- **Modified Internal Rate of Return -** The modified internal rate of return (commonly denoted as MIRR) is a financial measure that helps to determine the attractiveness of an investment and that can be used to compare different investments.
- **Discounted Payback Period** - The discounted payback period covers calculation of time required to recover the original investment.

8.9 ANSWERS TO CHECK YOUR PROGRESS

1. Long term investment decisions means decisions regarding purchase of assets having life more than 1 year usually properties, shares, debs, bonds and so on. These decisions are taken usually by top level management.
2. Long term investment decision methods are explained as (a) Accounting Rate of Return (b) Average Accounting Return (c) Payback Period (d) Net Present Value (e) Profitability Index (f) Internal Rate of Return (g) Modified Internal Rate of Return and (h) Discounted Payback Period.
3. Strategies for Long-Term Investments can be described as (a) Current Income Strategy, (b) Capital Growth Strategy and (c) Balanced Investment Strategy.
4. Various advantages of long term investment decision are (i) Lower transaction fees (ii) Less time-consuming and (iii) Long-term investing.

8.10 TERMINAL QUESTIONS / EXERCISES

1. Find out the differences between the following methods of long term decision.

(a) Accounting Rate of Return and Average Accounting Return
(b) Net Present Value and Profitability Index
(c) Internal Rate of Return and Modified Internal Rate of Return
(d) Payback Period and Discounted Payback Period

2. Explain the following strategies considered for long term investment decision.

(a) Current Income Strategy
(b) Capital Growth Strategy
(c) Balanced Investment Strategy

Note: - *These sample questions will help you to understand the unit better. Try to write answers for them. But do not submit your answers to the University. These are for your practice only.*

UNIT 9 DIVIDEND DECISIONS

Structure

9.0 LEARNING OBJECTIVES

After the study of this unit you should be able to

- be introduced with meaning of dividend decisions important for payment
- know about different objectives important for dividend decisions
- explain the justification and rationale for paying dividends by the company
- describe significant types of dividend decision for payment to shareholders
- state relationship between dividend policy & value of firm for dividend decision
- identify types of dividends considered for distribution among different shareholders
- discuss important advantages and disadvantages of paying dividends by a company
- basic dividend decisions which firms generally take significant for shareholders

9.1 INTRODUCTION

Dividend refers to that part of the profit which is distributed to shareholders. The decision regarding dividend should be taken keeping in view the overall objective of maximizing shareholder s wealth. The dividend is one of the important ways in which the companies communicate the financial health and the shareholder value. Through a distribution from their earnings, companies indicate a positive future and a strong performance. The ability and the willingness of a company, to pay stable dividends over a good period of time and to increase them steadily gives a good picture about the fundamentals of the company. A dividend is a distribution of part of the earnings of the company to its equity shareholders. The board of directors of the company decides the dividend amount to be paid out to the shareholders. Dividend is that part of earnings of a company which is distributed by the company among its shareholders. Dividend policy determines how those earnings of a company are to be distributed. Earnings are either retained and reinvested in the company or are paid out to shareholders. Retained earnings are the most important source of equity. Retained earnings can be used to stimulate growth in future earnings and as a result can influence future share values. On the other hand, dividends provide stockholders with tangible current returns.

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can be used to stimulate growth in future earnings and as a result can influence future share values. On the other hand, dividends provide stockholders with tangible current returns.

9.2 RATIONALE FOR PAYING DIVIDENDS

Paying a dividend is not an obligation. A company that wants to maximize shareholder wealth in theory invests in all projects that give a higher return than shareholders could make investing the money elsewhere. If that investment amount is less than company earnings, it distributes the rest, either via buybacks or dividends. If that investment amount is more than company earnings, it raises new capital via borrowing or selling new shares. Proponents of dividends point out that a high dividend payout is important for investors because dividends provide certainty about the company's financial well-being. Typically, companies that have consistently paid dividends are some of the most stable companies over the past several decades. As a result, a company that pays out a dividend attracts investors and creates demand for their stock. From the investors' perspective, there are drawbacks to receiving dividends as well such as having to pay tax on those dividends or different investors having different income requirements. Hence, dividends are attractive for investors looking to generate income.

However, a decrease or increase in dividend distributions can affect the price of a security. The stock prices of companies that have a long-standing history of dividend payouts would be negatively affected if they reduced their dividend distributions. Conversely, companies that increased their dividend payouts or companies that instituted a new dividend policy would likely see appreciation in their stocks. Hence, dividend payout works as a signalling effect regarding performance of the company and also takes care of the sentiments of its investors. Also, a company that pays dividend or has a strong dividend history has a certain discipline imposed on them which means they are probably less likely to waste the money on power grabbing projects, or acquisition or buybacks they have overpaid for. There is also plenty of evidence that dividend stocks have outperformed non-dividend stocks over long periods of time.

9.3 OBJECTIVES OF DIVIDEND DECISIONS

In order to take appropriate decision for distribution of dividend, the following objectives should be considered.

a) Cash Requirement

The financial manager must take into account the capital fund requirements while framing a dividend policy. Generous distribution of dividends in capital-intensive periods may put the company in financial distress.

b) Evaluation of Price Sensitivity

Companies chosen by investors for its regularity of dividend must have a more stringent dividend policy than others. It becomes essential for such companies to take effective dividend decisions for maintaining stock prices. **c) Stage of Growth**

Dividend decision must be in line with the stage of the company- infancy, growth, maturity & decline. Each stage undergoes different conditions and therefore calls for different dividend decisions.

9.4 TYPES OF DIVIDEND DECISION

Various types of dividend decisions considered very important are mentioned below.

9.4.1 Stable Dividend Decision

Same amounts of dividends are paid out every year irrespective of the profitability. Shareholders remain immune to fluctuations and volatility faced by the company. Only long-standing and established companies with steady cash flows can afford to follow this policy. Investors those buy into these companies have a low risk appetite.

9.4.2 Constant Dividend Decision

Dividends are paid at a fixed percentage of the profits. The brunt of recession is as much borne them as much they reap benefits of the boom. This objective is suitable for companies in their infancy stage as well as those prone to volatility. Investors of these companies are risk-taking. They prefer to swing with the company in its earnings.

9.4.3 Alternate Dividend Decisions

A company may not always issue the dividend in cash. A stock dividend is a significant option with the management for recourse to non-cash options. It is a handy tool to which management may resort to when it wants to balance both, shortage of cash and shareholder expectations. Such decisions are only made in exceptional circumstances.

9.5 RELATIONSHIP BETWEEN DIVIDEND POLICY & VALUE OF FIRM

One of the major decision areas of financial management in which the shareholders are also actively interested is the formulation of dividend policy. This decision involves the choice between distributing the earnings between the shareholders and retention by the company of such earnings. Since the principal objective of corporate financial management is to maximize the shareholders' wealth or the market value of shares, the choice would be influenced by its effect on this objective. A vital question would arise at this stage, whether dividend policy pursued by a company has bearing on the market value of its equity shares. There is no clear cut answer to this question. In fact, it is one of the most controversial and unresolved issues in corporate finance. On this issue the opinions of the academicians are sharply divided into two schools of thought. One school of thought considers the extent of earnings distributed as dividends among equity shareholders as relevant to the market value of equity shares. The other school of thought argues that dividend policy is not a factor of enhancing the market value of equity shares.

9.6 TYPES OF DIVIDEND

There are various types of dividends which are considered for distribution among different shareholders. **9.6.1 Cash Dividend**

A Cash dividend is the most common form of the dividend. The shareholders are paid in cash per share. The board of directors announces the dividend payment on the date of declaration. The dividends are assigned to the shareholders on the date of record. The dividends are issued on the date of payment. But for distributing cash dividend, the company needs to have positive retained earnings and enough cash for the payment of dividends. **9.6.2 Bonus Share**

Bonus share is also called as the stock dividend. These are issued by the company when they have low operating cash, but still want to keep the investors happy. Each equity shareholder receives a certain number of additional shares depending on the number of shares originally owned by the shareholder. In this case company shall retain earning and at the same time shareholder gets dividend. An investor, who desires cash return, can sell investment in secondary market. It is also called capitalization of earning.

9.6.3. Share Repurchase

Share repurchase occurs when a company buys back its own shares from the market and reduces the number of shares outstanding. This is considered as an alternative to the dividend payment as cash is returned to the investors through another way.

9.6.4 Property Dividend

The company makes the payment in the form of assets in the property dividend. The asset could be any of this equipment, inventory, vehicle or any other asset. The value of the asset has to be restated at the fair value while issuing a property dividend.

9.6.5 Scrip Dividend

Scrip dividend is a promissory note to pay the shareholders later. This type of dividend is used when the company does not have sufficient funds for the issuance of dividends.

9.6.6 Liquidating Dividend

When the company returns the original capital contributed by the equity shareholders as a dividend, it is termed as liquidating dividend. It is often seen as a sign of closing down the company.

9.6.7 Interim Dividend

It is the dividend which is paid to the shareholders before the preparation of final accounts. Alternatively, it can be stated as dividend payment between two annual general meetings of the company. Interim dividend can be paid only when the board of directors is authorized by the articles of association to do so. A shareholders meeting is not necessary for declaration of interim dividend. At the middle of the financial year a company is in a position to estimate the profitability for the year. Based on the estimate, the company pays the interim dividend.

9.6.8 Final Dividend

After the determination of divisible profit at the end of the financial year, the dividend declared as per provisions of the articles of association of the company is known as final dividend. The articles of association impart full authority to the directors to declare dividend. It is the discretion of the directors whether to declare dividend or not and if dividend is declared the rate at which such dividend is to be paid. The shareholders have no power to declare dividend or to fix up the rate unless the board has any such recommendation.

9.7 ADVANTAGES OF PAYING DIVIDENDS

Payment of dividends to investors has several advantages, both for the investors and the company.

9.7.1 Investor Preference for Dividends

The investors are more interested in a company that pays stable dividends. This assures them of a reliable source of earnings, even if the market price of the share dips.

9.7.2 Bird-in-hand Fallacy

This theory states that the shareholders prefer the certainty of dividends in comparison to the possibility of higher capital gains in future.

9.7.3 Stability

Investors prefer companies that have a track record of paying dividends as it reflects positively on its stability. This indicates predictable earnings to investors and thus, makes the company a good investment.

9.7.4 Benefits without Selling

Investors invested in dividend-paying stocks do not have to sell their shares to participate in the growth of the stock. They reap the monetary benefits without selling the stock.

9.7.5 Temporary Excess Cash

A mature company may not have attractive avenues to reinvest the cash or may have fewer expenses related to R&D and expansion. In such a scenario, investors prefer that a company distributes the excess cash so that they can reinvest the money for higher returns somewhere else.

9.7.6 Information Signaling

When a company announces the dividend payments, it gives a strong signal about the future prospects of the company. Companies can also take advantage of the additional publicity they get during this time.

9.8 DISADVANTAGES OF PAYING DIVIDENDS

Payment of dividends has the following several disadvantages for consideration by the investors and companies.

9.8.1 Clientele Effect

If a dividend-paying company is unable to pay dividends for a certain period of time, it may result in loss of old clientele who preferred regular dividends. These investors may sell-off the stock in short term.

9.8.2 Decreased Retained Earnings

When a company pays dividends, it decreases its retained earnings. Debt obligations and unexpected expenses can rise if the company does not have enough cash.

9.8.3 Limits Growth of Company

Paying dividends result in the reduction of usable cash which may limit the company's growth. The company will have less money to invest in the business growth.

9.8.4 Logistics

The payment of dividends requires a lot of record-keeping at the company's end. The company has to ensure that the right owner of the share receives the dividend.

9.9 SIGNIFICANCE OF DIVIDEND DECISION

Dividend decisions, as the very name suggests, refers to the decision-making mechanism of the management to declare dividends. It is crucial for the top management to determine the portion of earnings distributable as the dividend at the end of every reporting period. A company's ultimate objective is the maximization of shareholders wealth. It must, therefore, be very vigilant about its profit-sharing policies to retain the faith of the shareholders. Dividend payout policies derive enormous importance by virtue of being a bridge between the company and shareholders for profit-sharing. Without an organized dividend policy, it would be difficult for the investors to judge the intentions of the management. Moreover, the dividend policies of an organization have a significant bearing on the market value of stocks. Dividends must be distributed in line with the industry standards. The shareholders will otherwise perceive this variability negatively. It casts a suspicion on the financial health and motives of the management. In aggregate, an inefficient dividend decision mechanism would adversely impact the valuation of the company.

9.10 BASIS FOR GOOD DIVIDEND DECISION

There no single dividend decision policy that works for every organization. A decision suitable for one company may prove fatal for another company. For example, businesses with a consistent order book such as telecom and banking are expected to pay regular dividends. It may impact the stock prices if they do not pay dividends regularly. To the contrary, sectors of pharmaceutical and technology are highly research oriented. Huge cash expenses are required to further their operations. Therefore they cannot afford to pay a regular dividend. Investors of such stocks earn income mainly through capital appreciation. In real life, a firm may practice any dividend policy based on the basic dividend policies. A dividend policy that a firm follows depends on a number of factors. Each firm must formulate its own dividend policy as per its needs. A few basic dividend policies which firms generally pursue are mentioned below.

9.10.1. Constant Rate of Dividend

As per this policy, the firm pays a dividend at a fixed rate on the paid up share capital. If this policy is pursued, the shareholders are more or less sure on the earnings on their investment. This policy of paying dividend at a constant rate will not create any problem in those years in which the company is making steady profit. But paying dividend at a constant rate may face the trouble in the year when the company fails to earn the steady profit. Therefore, some of the experts opine that the rate of dividend should be maintained at a lower level if thus policy is followed.

9.10.2. Constant Percentage of Earnings

A firm may pay dividend at a constant rate on earnings. Since payment of dividend depends on the current earnings, the payment of dividend will rise in the year the firm is earning higher profit and the dividend payment will be lower in the year in which the profit falls. Since fluctuations in profits lead to fluctuations in dividends, the principle adversely affects the price of the shares. As a result, the firm will find it difficult to raise capital from the external source.

9.10.3. Stable Rupee Dividend plus Extra Dividend

Under this policy, a firm pays fixed dividend to the shareholders. In the year the firm is earning higher profits it pays extra dividend over and above the regular dividend. When the normal condition returns, the firm begins to pay normal dividend by cutting down the extra dividend.

Since dividends are important for keeping the investors happy, a company should decide upon the time and the form of dividends diligently. Its top executives should also keep in the mind the advantages and the disadvantages of the dividends before framing a dividend policy for payment of dividend.

Check your progress

1. What is Cash Dividend considered for payment to shareholders?
2. Why Constant Rate of Dividend is significant for shareholders?
3. How Constant Percentage of Earnings is justified for the benefit of company?
4. When Information Signalling is considered important for dividend payment?

9.11 LET US SUM UP

- **Objectives of Dividend Decisions –** (a) Cash Requirement, (b)Evaluation of Price Sensitivity and (c) Stage of Growth
- **Rationale for Paying Dividends -** A company that wants to maximize shareholder wealth in theory invests in all projects that give a higher return than shareholders could make investing the money elsewhere.
- **Types of Dividend Decision -** (i) Stable Dividend Decision (ii) Constant Dividend Decision and (iii) Alternate Dividend Decisions
- **Types of Dividend –** (a) Cash Dividend (b) Bonus Share (c) Share Repurchase (d) Property Dividend (e) Scrip Dividend (f) Final Dividend (g) Interim Dividend and (h) Liquidating Dividend.
- **Advantages of Paying Dividends –** Investor Preference for Dividends 2. Bird-inhand Fallacy 3. Stability 4. Benefits without Selling 5. Temporary Excess Cash 6. Information Signalling
- **Disadvantages of Paying Dividends –** Clientele Effect 2. Decreased Retained Earnings 3. Limits Growth of Company 4. Logistics
- **Basis for Good Dividend Decision**- Constant Rate of Dividend. Constant Percentage of Earnings 3. Stable Rupee Dividend plus Extra Dividend

9.12 KEY WORDS

- **Constant Dividend Decision -** Dividends are paid at a fixed percentage of the profits.
- **Stage of Growth -** Dividend decision must be in line with the stage of the company-infancy, growth, maturity & decline.
- **Clientele Effect -** If a dividend-paying company is unable to pay dividends for a certain period of time, it may result in loss of old clientele who preferred regular dividends.
- **Decreased Retained Earnings -** When a company pays dividends, it decreases its retained earnings.

- **Final Dividend -** After the determination of divisible profit at the end of the financial year, the dividend declared as per provisions of the articles of association of the company.
- **Stability -** Investors prefer companies that have a track record of paying dividends as it reflects positively on its stability.

9.13 ANSWERS TO CHECK YOUR PROGRESS

Depends on the current earnings, the payment of dividend will rise in the year the firm is earning higher profit and the dividend payment will be lower in the year in which the profit falls. When a company announces the dividend payments, it gives a strong signal about the future prospects of the company.

9.14 TERM END QUESTIONS / EXERCISES

1. Explain different types of decision to be considered for payment of dividend.
2. Describe various types of dividend significant for payment by the company.
3. Identify important dividend policies found to be good for the shareholders.
4. Discuss the specific disadvantages of paying dividends by the companies.
5. State the advantages for which dividends are paid to the shareholders.

Note: - *These sample questions will help you to understand the unit better. Try to write answers for them. But do not submit your answers to the University. These are for your practice only.*

UNIT 10 DIVIDEND THEORIES

Structure

10.0 LEARNING OBJECTIVES

- After study of this unit you should be able to
- know the meaning of Irrelevance Theory and Relevance Theory of dividend
- identify the models and approaches of Relevance theory to pay dividend
- state the concept and meaning of dividend policy considered by companies
- describe different types of dividend policies followed for dividend decision
- discuss various determinants applicable for suitable dividend policy

10.1 INTRODUCTION

Dividend is a part of profits, which are available for distribution to equity shareholders. Payment of dividends should be analysed in relation to the financial decision of a firm. There are two options available in dealing with net profits of a firm, viz., distribution of profits as dividends to the ordinary shareholders where there is no need of retention of earnings or they can be retained in the firm itself if they are required for financing of any business activity. But distribution of dividends or retaining should be determined in terms of its impact on the shareholders' wealth.

10.2 DIVIDEND THEORIES

Financial manager should determine the optimum dividend policy on the basis of suitable theory, which maximises market value of the share thereby market value of the firm. The factors to be referred while determining dividends, other aspects of dividend theories should be considered. In essence, there are a lot of theories affecting dividend policy or decision. The dividend theories relates with the impact of dividend on the value of the firm. According to one school of thought the dividends are irrelevant and the amount of dividends paid does not affect the value of the firm while the other theory considers that the dividend decision is relevant to the value of the firm. Thus there are different conflicting theories on dividends.

1. *Irrelevance Theory*
2. *Relevance Theory*

10.3 IRRELEVANCE THEORY OF DIVIDEND

The advocates of this school of thought argue that the dividends have no impact on the share price or market value of the firm. The argue that the shareholders do not differentiate between the present dividend and the future capital gains and are basically interested in higher returns either earned by the firm by investing the profits in future profitable investments. They believe that the profits are distributed as dividends only if no adequate investment opportunities available for investments for the business. The various theories supporting this thought are as follows.

(a) Residual Theory of Dividends

(b) Modigliani and Millers Approach

10.3.1 Residuals theory of Dividends

The theory is based upon the assumptions that since the external financing has excessive costs and may not be available to the firm. The firm finances its investment by retained earnings or by retaining earnings. The retaining earnings are that portion of profits that is not distributed to the investors. The residual theory of dividend policy is that the firm will only pay dividends from residual earnings, that is, from earnings left over after all suitable investment opportunities have been financed. With the residual dividend policy, the primary focus of the firm's management is indeed on investment, not dividends. The firm's decision to pay the dividends is influenced by the investment opportunities available to the business and the availability of the internal funds. If the internal funds are excess and all the investments are financed, the residual is paid as dividends. Thus, the divided policy is totally passive in nature and has no influence on the market price of the firm.

10.3.2 Modigliani and Miller Theory

This theory was proposed by Franco Modigliani and Merton Miller in 1961 who argued that the value of the firm is determined by the basic earning power, the firm's risk and not by the distribution of earnings. The value of the firm therefore depends on the investment decisions and not the dividend decision. However, their arguments were mostly based on the following important assumptions.

- The capital markets are perfect and all the investors behave rationally and no transaction costs are associated with share floatation.
- There are no taxes and flotation costs and if the taxes are there then there is no difference between the dividends tax and capital gains tax.
- The firm's investment policy is independent of the dividend policy. The effect of this assumption is that the new investments out of retained earnings will not change and there will not change in the required rate of return of the firm.

- There is perfect certainty by every investor as to future investments and profits of the firm. Thus investors are able to forecast earnings and dividends with certainty.

This hypothesis is based upon the arbitrage theory. The arbitrage process involves switching and balancing the operations. Arbitrage leads to entering into two transactions which exactly balance or completely offset the effect of each other. The two transactions are paying of dividends and raising external capital. Since the firm uses retained earnings to finance new investments, the paying of dividends will require the firm to raise the capital externally. The arbitrage theory suggests that the dividend effect will be exactly offset by the effect of raising additional share capital. At the time of dividends paid to the shareholders, the market price of share decreases, due to external financing. Thus what is gained by the shareholders as a result of dividends is completely neutralized by the reduction in the market value of the shares. The investors will thus be indifferent between dividends and retained earnings. The market value of the shares will depend entirely on the expected future earnings of the firm.

10.4 RELEVANCE THEORY OF DIVIDEND

The relevance theory of dividend argues that dividend decision affects the market value of the firm and therefore dividend matters. This theory suggests that investors are generally risk averse and would rather have dividends today than possible share appreciation and dividends tomorrow. The relevance theory of dividend proposes that dividend policy affect the share price. Therefore, according to this theory, optimal dividend policy should be determined which will ensure maximization of the wealth of the shareholders. Relevance theory can discussed with following models:

(a) Walter model

(b) Gordon model

(c) Dividend discount model

(d) Dividend signalling model

10.4.1 Walter Model

The Walter model was given by James E Walter and is based on a simple argument that where the reinvestment rate, that is, rate of return that the company may earn on retained earnings, is higher than cost of equity (rate of return of the shareholders), then it would be in the interest of the firm to retain the earnings. If the company's reinvestment rate on retained earnings is the less than shareholders' rate of return, the company should not retain earnings. If the two rates are the same, then the company should be indifferent between retaining and distributing.

The Walter's model is based on the following assumptions:

1. The firm finances its entire investments by means of retained earnings only.
2. Internal rate of return and cost of capital of the firm remains constant.

3. The firms’ earnings are either distributed as dividends or reinvested internally.
4. The earnings and dividends of the firm will never change.
5. The firm has a very long or infinite life.

10.4.2 Gordon Model

The essence of the Gordon Approach model of dividend policy is that shareholders are risk-averse and prefer to receive dividend payments rather than future capital gains. Shareholders consider dividend payments to be more certain than future capital gains. Gordon contended that the payment of current dividends resolves investor uncertainty. Investors have a preference for a certain level of income now rather that the prospect of a higher, but less certain, income at some time in the future. Gordon Model implies that because of the less risky nature dividends, shareholders and investors will discount the firm’s dividend stream at a lower rate of return, thus increasing the value of the firm’s shares. The Gordon’s Model is based on the following assumptions: the firm is an all equity firm.

- There is no outside financing and all investments are financed exclusively by retained earnings.
- Internal rate of return of the firm remains constant.
- Cost of capital of the firm also remains same regardless of the change in the risk complexion of the firm.
- The firm derives its earnings in perpetuity.
- The retention ratio once decided upon is constant & growth rate is also constant Corporate tax does not exist.

10.4.3 Dividend Discount Model

The Dividend Discount Model (DDM) is a quantitative method used for predicting stock price of one of companies based on the theory, that its present-day price is worth the sum of all of its future dividend payments when discounted back to their present value. It attempts to calculate the fair value of a stock irrespective of the prevailing market conditions and takes into consideration the dividend payout factors and the market expected returns. If the value obtained from the DDM is higher than the current trading price of shares, then the stock is undervalued and qualifies for a buy, and vice versa. A company produces goods or offers services to earn profits. The cash flow earned from such business activities determines its profits, which gets reflected in the company’s stock prices. Companies also make dividend payments to stockholders, which usually originates from business profits. The DDM model is based on the theory that the value of a company is the present worth of the sum of all of its future dividend payments.

10.5 TYPES OF DIVIDEND POLICY

Management must decide on the dividend amount, timing, and various other factors that influence dividend payments. There are three types of dividend policies, (a) Stable dividend policy, (b) Constant dividend policy and (c) residual dividend policy.

A stable dividend policy is the easiest and most commonly used. The goal of the policy is a steady and predictable dividend pay-out each year, which is what most investors seek. Whether earnings are up or down, investors receive a dividend. The goal is to align the dividend policy with the long-term growth of the company rather than with quarterly volatility. This approach gives the shareholder more certainty concerning the amount and timing of the dividend.

10.5.2 Constant Dividend Policy

The primary drawback of the stable dividend policy is that investors may not see a dividend increase in boom years. Under the constant dividend policy, a company pays a percentage of its earnings as dividends every year. In this way, investors experience the full volatility of company earnings. If earnings are up, investors get a larger; if earnings are down, investors may not receive a dividend. The primary drawback to the method is the volatility of earnings and dividends. It is difficult to plan financially when dividend income is highly volatile.

10.5.3 Residual Dividend Policy

Residual dividend policy is also highly volatile, but some investors see it as the only acceptable dividend policy. With a residual dividend policy, the company pays out what dividends remain after the company has paid for and. This approach is volatile, but it makes the most sense in terms of business operations. Investors do not want to invest in a company that justifies its increased debt with the need to pay dividends.

10.6 DETERMINANTS OF DIVIDEND POLICY

The important determinants considered for selecting appropriate dividend policy by large number of companies to make payment of dividend are (a) Legal Constraints, (b) Tax Considerations, Liquidity and Cash Flow Considerations

10.6.1 Legal Constraints

Most states have laws that regulate the dividend payments a firm can make. These laws basically state the following:

(a) A firm’s capital cannot be used to make dividend payments.

(b) Dividends must be paid out of a firm's present and past net earnings. (c) Dividends cannot be paid when the firm is insolvent.

The first restriction is termed the capital impairment restriction. In some states, capital is defined as including only the par value of common stock; in others, capital is more broadly defined to also include the contributed capital in excess of par account sometimes called capital surplus. The second restriction, called the net earnings restriction, requires that a firm have generated earnings before it is permitted to pay any cash dividends. This prevents the equity owners from withdrawing their initial investment in the firm and impairing the security position of any of the firm's creditors. The third restriction, termed the insolvency restriction, states that an insolvent company may not pay cash dividends. When a company is insolvent, its liabilities exceed its assets. Payment of dividends would interfere with the creditors' prior claims on the firm's assets and therefore is prohibited.

10.6.2 Tax Considerations

The tax rate on dividend income is generally higher than the tax rates on long -term capital gains income. The two tax rates might be even equal. But, in spite of this equalization of tax rates on dividend and capital gains income, a tax disadvantage of dividends versus capital gains exists in that dividend income is taxed immediately (in the year it is received), but capital gains income and corresponding taxes can be deferred into the future. If a corporation decides to retain its earnings in anticipation of providing growth and future capital appreciation for its investors, the investors are not taxed until their shares are sold. Consequently, for most investors, the present value of the taxes on future capital gains income is less than the taxes on an equivalent amount of current dividend income. The deferral of taxes on capital gains can be viewed as an interest-free loan to the investor from the government.

10.6.3 Liquidity and Cash Flow Considerations

Free cash flow represents the portion of a firm's cash flows available to service new debt, make dividend payments to shareholders, and invest in other projects. Since, dividend payments represent cash outflows, the more liquid a firm is, the more able it is to pay dividends. Even if a firm has a past record of high earnings that have been reinvested, resulting in a large retained earnings balance, it may not be able to pay dividends unless it has sufficient liquid assets, primarily cash. Liquidity is likely to be a problem during a long business downturn, when both earnings and cash flows often decline. Rapidly growing firms with many profitable investment opportunities also often find it difficult to maintain adequate liquidity and pay dividends at the same time.

10.6.4 Borrowing Capacity and Access to the Capital Markets

Liquidity is desirable for a number of reasons. Specifically, it provides protection in the event of a financial crisis. It also provides the flexibility needed to take advantage of unusual financial and investment opportunities. There are other ways of achieving this flexibility and security, however. For example, companies frequently establish lines of credit and revolving credit agreements with banks, allowing them to borrow on short notice. Large well - established firms are usually able to go directly to credit markets with either a bond issue or a sale of commercial paper. The more access a firm has to these external sources of funds, the better it will be to make dividend payments. A small firm whose stock is closely held and infrequently traded often finds it difficult to sell new equity shares in the markets. As a result, retained earnings are the only source of new equity. When a firm of this type is faced with desirable investment opportunities, the payment of dividends is often inconsistent with the objective of maximizing the value of the firm.

10.6.5 Earnings Stability

Most large widely held firms are reluctant to lower their dividend payments, even in times of financial stress. Therefore, a firm with a history of stable earnings is usually more willing to pay a higher dividend than a firm with erratic earnings. A firm whose cash flows have been more or less constant over the years can be fairly confident about its future and frequently reflects this confidence in higher dividend payments.

10.6.6 Growth Prospects

A rapidly growing firm usually has a substantial need for funds to finance the abundance of attractive investment opportunities. Instead of paying large dividends and then attempting to sell new shares to raise the equity investment capital it needs, this type of firm usually retains larger portions of its earnings and avoids the expense and inconvenience of public stock offerings. The companies with the highest dividend payout ratios tend to have the lowest growth rates and vice versa.

10.6.7 Inflation

In an inflationary environment, funds generated by depreciation often are not sufficient to replace a firm's assets as they become obsolete. Under these circumstances, a firm may be forced to retain a higher percentage of earnings to maintain the earning power of its asset base. Inflation also has an impact on a firm's working capital needs. In an atmosphere of rising prices, actual amount invested in inventories and accounts receivable tend to increase to support the same physical volume of business. And, because the amounts of accounts payable and other payables requiring cash outlays are higher with rising prices, transaction cash balances normally have to be increased. Thus, inflation can force a firm to retain more earnings as it attempts to maintain its same relative pre-inflation working capital position.

10.6.8 Shareholder Preferences

In a closely held corporation with relatively few stockholders, management may be able to set dividends according to the preferences of its stockholders. For example, assume that the majority of a firm's stockholders are in high marginal tax brackets. They probably favor a policy of high earnings retention, resulting in eventual price appreciation, over a high payout dividend policy. However, high earnings retention implies that the firm has enough acceptable capital investment opportunities to justify the low payout dividend policy. Also, a policy of high retention when investment opportunities are not available is inconsistent with the objective of maximizing shareholder wealth. In a large corporation whose shares are widely held, it is nearly impossible for a financial manager to take individual shareholders' preferences into account when setting dividend policy. Some wealthy stockholders who are in high marginal income tax brackets may prefer that a company reinvest its earnings to generate long term capital gains. Other shareholders, such as retired individuals and those living on fixed incomes may prefer a high dividend rate.

10.6.9 Protection against Dilution

If a firm adopts a policy of paying out a large percentage of its annual earnings as dividends, it may need to sell new shares of stock from time to time to raise the equity capital needed to invest in potentially profitable projects. If existing investors do not or cannot acquire a proportionate share of the new issue, their percentage ownership interest in the firm is diluted. Some firms choose to retain more of their earnings and pay out lower dividends rather than risk dilution. One of the alternatives to high earnings retention, however, involves raising external capital in the form of debt. This increases the financial risk of the firm, ultimately raising the cost of equity capital and at some point lowering share prices. If the firm feels that it already has an optimal capital structure, a policy of obtaining all external capital in the form of debt is likely to be counter-productive, unless sufficient new equity capital is retained or acquired in the capital markets to offset the increased debt.

Management must choose the form of the dividend distribution, generally as cash dividend or via a treasury stock. Various factors may be taken into consideration: where shareholders must pay dividend tax, firms may elect to retain earnings or to perform a stock buyback, in both cases increasing the value of shares outstanding. Alternatively, some companies will pay dividends from Treasury stock rather than in cash. Financial theory suggests that the dividend policy should be set based upon the type of company and what management determines is the best use of those dividend resources for the firm to its shareholders. As a general rule, shareholders of growth companies would prefer managers to have a share buyback program, whereas shareholders of value or secondary stocks would prefer the management of these companies to pay-out surplus earnings in the form of cash dividends.

Check your progress

1. What are different conflicting theories on dividends?
2. Which are supporting theories of Irrelevance Theory of Dividend?
3. How dividend is paid according to Residuals theory of Dividend?
4. Why Liquidity and Cash Flow Considerations are important for payment of dividend?
5. When Borrowing Capacity and Access to the Capital Markets should be considered for dividend?

10.7 LET US SUM UP

- **Dividend Theories -** Financial manager should determine the optimum dividend policy on the basis of suitable theory, which maximises market value of the share thereby market value of the firm. Thus different conflicting theories on dividends are Irrelevance Theory and Relevance Theory
- **Irrelevance Theory of Dividend -** The advocates of this school of thought argue that the dividends have no impact on the share price or market value of the firm. The various theories supporting this thought are (a) Residual Theory of Dividend and (b) Modigliani and Millers Approach

- **Relevance Theory of Dividend** - The relevance theory of dividend proposes that dividend policy affect the share price. For this theory, the important models considered are (a) Walter model (b) Gordon model (c) Dividend capitalization model and (d) Dividend signalling model
- **Types of Dividend Policy -** Management must have policy on the dividend amount, timing, and various other factors that influence dividend payments. There are three types of dividend policies, (a) stable dividend policy, (b) constant dividend policy and (c) residual dividend policy.
- **Determinants of Dividend Policy** - The determinants to be considered for selecting appropriate policy to make payment of dividend are, 1. Legal Constraints 2. Tax Considerations 3. Liquidity and Cash Flow Considerations 4. Borrowing Capacity and Access to the Capital Markets 5. Earnings Stability 6. Growth Prospects 7. Inflation 8. Shareholder Preferences and 9. Protection against Dilution.

10.8 KEY WORDS

- **Legal Constraints -** Most states have laws that regulate the dividend payments a firm can make.
- **Dividend Signalling -** This asserts that announcement of increased dividend payments by a company gives strong signals about the bright future prospects of the company
- **Stable Dividend -** A stable dividend is a steady and predictable dividend payout each year, which is what most investors seek.
- **Tax Considerations -** The tax rate on dividend income is generally considered for dividend payment to the shareholders.
- **Liquidity** - Liquidity is likely to be a problem during a long business downturn, when both earnings and cash flows often decline
- **Earnings Stability - A** firm with a history of stable earnings is usually more willing to pay a higher dividend than a firm with erratic earnings.

10.9 ANSWERS TO CHECK YOUR PROGRESS

1. The conflicting theories on dividends are Irrelevance Theory & Relevance Theory

2. The advocates of this school of thought argue that the dividends have no impact on the share price or market value of the firm. The various theories supporting this thought are (a) Residual Theory of Dividend (b) Modigliani and Millers Approach.

3. According to the residual theory of dividend the firm will only pay dividends from residual earnings, that is, from earnings left over after all suitable investment opportunities have been financed. With the residual dividend policy, the primary focus of the firm's management is indeed on investment, not dividends.

4. Liquidity and Cash Flow Considerations are important because, free cash flow represents the portion of a firm's cash flows available to service new debt, make dividend payments to shareholders, and invest in other projects. Since, dividend payments represent cash outflows, the more liquid a firm is, and the more able it is to pay dividends.

5. Borrowing Capacity and Access to the Capital Markets should be considered when firm more access has to these external sources of funds and capital to make dividend payments.

10.10 TERMINAL QUESTIONS/EXERCISES

1. Explain suitable theories financial manager should determine the optimum dividend policy on the basis of which maximizes market value of the share thereby market value of the firm.
2. Describe types of policies to be considered by management for the dividend amount, timing, and various other factors that influence dividend payments.
3. Discuss important determinants considered by the companies for selecting appropriate policy to make payment of dividend.
4. State the models relating to Irrelevance Theory of Dividend and Relevance Theory of Dividend.

Note: - *These sample questions will help you to understand the unit better. Try to write answers for them. But do not submit your answers to the University. These are for your practice only.*

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