FINANCIAL MANAGEMENT

BBA Semester 2 – Calicut University

MODULE 1: TIME VALUE OF MONEY & SOURCES OF FINANCING

Time Value of Money (TVM)

1. Money today is worth more than the same amount in the future.
2. Reason: earning capacity, inflation and risk.
3. Fundamental concept in investment and financing decisions.

Future Value (FV)

1. Value of money at a future date after earning interest.

> ***Formula:***
> $FV = PV(1+r)^n$
> *Where:*
> *PV = Present Value*
> *r = Interest Rate*
> *n = Number of years*

Present Value (PV)

1. Current value of a future amount.

> ***Formula:***
> $PV = FV / (1+r)^n$

Importance of TVM

1. Investment decisions.
2. Loan calculations.
3. Capital budgeting.
4. Retirement planning.

Annuity, Perpetuity, Interest, Capital Recovery and Loan Amortization

Annuity

1. Equal payments made at regular intervals.
2. Examples: Rent, EMI, Insurance premiums.

Future Value of Annuity

1. Value of all future payments accumulated with interest.

Present Value of Annuity

1. Current worth of future periodic payments.

Perpetuity

1. An annuity that continues forever.
2. Example: Certain government securities.

Simple Interest

1. Interest calculated only on principal amount.

> ***Formula:*** $SI = (P \times R \times T) / 100$

Compound Interest

1. Interest calculated on principal plus accumulated interest.

> ***Formula:*** *CI = Amount – Principal*

Capital Recovery

1. Recovery of invested capital through periodic payments.

Loan Amortization

1. Gradual repayment of loan through regular instalments.
2. Each instalment contains principal and interest.

Sources of Financing

Shares

1. Ownership capital raised from shareholders.

Equity Shares

1. Voting rights.
2. Variable dividend.

Preference Shares

1. Fixed dividend.
2. Priority in dividend payment.

Debentures

1. Long-term borrowed funds.
2. Fixed interest payment.

Term Loans

1. Loans obtained from banks and financial institutions.

Lease Financing

1. Use of an asset without purchasing it.
2. Periodic lease payments are made.

Hybrid Financing

1. Combines features of debt and equity.

Venture Capital

1. Funds provided to high-growth startups.
2. Higher risk and higher return.

Angel Investing

1. Investment by wealthy individuals in early-stage businesses.

Private Equity

1. Investment in private companies to improve growth and profitability.

Warrants

1. Right to purchase shares at a future date at a fixed price.

Convertibles

1. Securities that can later be converted into shares.

MODULE 2: CAPITAL STRUCTURE

Cost of Capital

1. Minimum return required by investors for providing funds.
2. Used as a benchmark for investment decisions.

Cost of Debenture Capital

1. Cost of funds raised through debentures.
2. Interest is tax deductible.

Cost of Preference Capital

1. Cost of funds raised through preference shares.
2. Fixed dividend obligation.

Cost of Term Loans

1. Cost associated with long-term borrowing.

Cost of Equity Capital

1. Return expected by equity shareholders.

Dividend Discount Model (DDM)

1. Values shares based on future dividends.

CAPM (Capital Asset Pricing Model)

1. Used to estimate cost of equity.
2. Factors: Risk-free rate, Market return, Risk (Beta).

Cost of Retained Earnings

1. Opportunity cost of profits retained in the business instead of distributed as dividends.

WACC and Marginal Cost of Capital

Weighted Average Cost of Capital (WACC)

1. Average cost of all sources of finance weighted by their proportion.

Importance

1. Used as discount rate in investment decisions.
2. Helps evaluate project feasibility.

Factors Affecting WACC

1. Debt-equity mix.
2. Cost of individual sources.
3. Market conditions.

Marginal Cost of Capital

1. Cost of raising one additional unit of capital.

Case Study Focus

1. Selecting the financing mix that minimizes cost and maximizes firm value.

Capital Structure and Market Value of Firm

Capital Structure

1. Combination of debt and equity used by a company.

Objective

1. Achieve optimum capital structure.
2. Minimize cost of capital.
3. Maximize firm value.

NI Approach (Net Income Approach)

1. Capital structure affects firm value.
2. More debt can increase firm value.

NOI Approach (Net Operating Income Approach)

1. Capital structure does not affect firm value.
2. Overall cost of capital remains constant.

Traditional Approach

1. Moderate debt improves firm value.
2. Excess debt increases risk.

Modigliani-Miller (MM) Approach

1. In a perfect market, capital structure is irrelevant to firm value.
2. Firm value depends on earning capacity and business risk.

EBIT-EPS Analysis, ROI and ROE

EBIT

1. Earnings Before Interest and Taxes.

EPS

1. Earnings available per equity share.

> ***Formula:*** *EPS = Profit Available to Equity Shareholders ÷ Number of Equity Shares*

EBIT-EPS Analysis

1. Helps select the best financing alternative.
2. Compares effect of debt and equity financing on EPS.

ROI (Return on Investment)

1. Measures return generated from investment.

> ***Formula:*** *ROI = (Profit ÷ Investment) × 100*

ROE (Return on Equity)

1. Measures return earned on shareholders' funds.

> ***Formula:*** *ROE = (Net Profit ÷ Shareholders' Equity) × 100*

Importance

1. Evaluates profitability.
2. Assists financing decisions.

MODULE 3: INVESTMENT DECISIONS

Capital Budgeting and Investment Evaluation

Capital Budgeting

1. Process of evaluating long-term investment projects.
2. Examples: New factory, New machinery, Expansion project.

Capital Budgeting Process

1. Identify investment opportunity.
2. Estimate cash flows.
3. Evaluate alternatives.
4. Select project.
5. Implement project.
6. Monitor performance.

Importance

1. Efficient use of resources.
2. Long-term profitability.
3. Risk reduction.

Net Present Value (NPV)

1. Difference between present value of inflows and present value of outflows.

Decision Rule

1. NPV > 0 → Accept project.
2. NPV < 0 → Reject project.

Advantages

1. Considers time value of money.
2. Uses all cash flows.

Profitability Index (PI)

1. Ratio of present value of inflows to initial investment.

Decision Rule

1. PI > 1 → Accept.
2. PI < 1 → Reject.

Advantage

1. Useful when capital is limited.

Internal Rate of Return (IRR)

1. Discount rate at which NPV becomes zero.

Decision Rule

1. IRR > Required Return → Accept.
2. IRR < Required Return → Reject.

Advantage

1. Easy interpretation as percentage return.

Modified Internal Rate of Return (MIRR)

1. Improved version of IRR.
2. Assumes reinvestment at cost of capital instead of IRR.

Advantages

1. More realistic.
2. Avoids multiple IRR problems.

Payback Period, Discounted Payback Period and ARR

Payback Period

1. Time required to recover initial investment.

Advantages

1. Simple.
2. Focuses on liquidity.

Limitation

1. Ignores time value of money.

Discounted Payback Period

1. Similar to payback period but considers time value of money.

Accounting Rate of Return (ARR)

1. Measures average accounting profit as a percentage of investment.

Advantage

1. Simple to calculate.

Limitation

1. Ignores time value of money.

Risk Analysis in Capital Budgeting

Sensitivity Analysis

1. Examines impact of changing one variable at a time.

Scenario Analysis

1. Evaluates best-case, worst-case and expected situations.

Monte Carlo Simulation

1. Uses repeated simulations to estimate possible outcomes.

Importance

1. Measures project risk.
2. Improves decision quality.

Working Capital

1. Funds required for daily business operations.

> ***Formula:*** *Working Capital = Current Assets – Current Liabilities*

Importance

1. Maintains liquidity.
2. Supports smooth operations.
3. Ensures timely payment of obligations.

Factors Affecting Working Capital

1. Nature of business.
2. Production cycle.
3. Credit policy.
4. Seasonal demand.
5. Business growth.

MODULE 4: DIVIDEND DECISIONS

Dividend Policy

1. Policy regarding distribution of profits to shareholders.

Types

1. **Stable Dividend Policy:** Fixed dividend every year.
2. **Constant Payout Ratio:** Fixed percentage of profit distributed.
3. **Residual Dividend Policy:** Dividends paid after funding investment needs.

Factors Affecting Dividend Decision

1. Profitability.
2. Liquidity.
3. Growth opportunities.
4. Legal restrictions.
5. Shareholder expectations.

Relevance Theory of Dividend

1. Dividend policy affects share value and shareholder wealth.
2. Investors prefer current dividends because they are less risky.

Main Idea

1. Higher dividends can increase market value of shares.

Irrelevance Theory of Dividend

1. Dividend policy does not affect firm value.
2. Investors are concerned with total returns, not dividend form.

Main Idea

1. Investment decisions are more important than dividend decisions.

Walter's Model

1. Supports relevance theory.
2. Relationship between return on investment (r) and cost of capital (k) determines dividend policy.

Situations

1. **r > k:** Retain earnings. Firm value increases.
2. **r < k:** Pay dividends. Firm value increases.
3. **r = k:** Dividend policy has no effect.

Gordon's Model

1. Supports relevance theory.
2. Investors prefer certain dividends over uncertain future gains.

Assumptions

1. Firm financed only through retained earnings.
2. Constant return and growth rate.
3. No external financing.

Conclusion

1. Dividend policy affects share value.

Modigliani and Miller (MM) Approach

1. Supports dividend irrelevance theory.
2. Dividend policy does not affect market value of firm.

Assumptions

1. Perfect capital market.
2. No taxes.
3. Rational investors.
4. No transaction costs.

Conclusion

1. Firm value depends on earning power and investment decisions, not dividend policy.