

E-Content Module

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## **Title: Financial Management: Capital Budgeting, Cost of Capital, and Leverage**

Introduction:

Financial management is a critical aspect of business decision-making. In this module, we will explore three key concepts: capital budgeting, cost of capital, and operating and financial leverage. These concepts are essential for businesses to make informed investment decisions and maximize shareholder value.

Learning Objectives:

- Understand the concept of capital budgeting and its importance in financial decision-making
- Calculate the cost of capital and its components
- Analyze operating and financial leverage and their impact on business decisions

Main Content:

### Capital Budgeting

Capital budgeting is the process of evaluating and selecting long-term investments that align with a company's strategic objectives. It involves identifying, analyzing, and selecting projects that generate returns greater than the cost of capital.

- Types of Capital Budgeting Decisions:

- Expansion projects

- Replacement projects
- New product launches
- Techniques:
  - Net Present Value (NPV)
  - Internal Rate of Return (IRR)
  - Payback Period

### Cost of Capital

The cost of capital is the minimum return a company must earn on its investments to satisfy its investors. It is a critical component of capital budgeting decisions.

- Components:
  - Cost of Debt
  - Cost of Equity
  - Weighted Average Cost of Capital (WACC)
- Calculation:

$$\text{WACC} = (E/V \times Re) + (D/V \times Rd \times (1-T))$$

### Operating and Financial Leverage

Operating leverage refers to the use of fixed operating costs to magnify the effects of changes in sales on EBIT. Financial leverage refers to the use of debt financing to amplify returns on equity.

- Operating Leverage:
  - Degree of Operating Leverage (DOL) = % change in EBIT / % change in Sales
- Financial Leverage:
  - Degree of Financial Leverage (DFL) = % change in EPS / % change in EBIT

### Examples:

1. A company is considering investing in a new project with an initial investment of ₹10 lakhs. The expected cash flows are ₹3 lakhs, ₹4 lakhs, and ₹5 lakhs for the next three years. Calculate the NPV using a discount rate of 10%.
2. A company has a WACC of 12% and is considering two projects with different risk profiles. Project A has an expected return of 15%, while Project B has an expected return of 18%. Which project should the company choose?

### Activities:

1. Calculate the WACC for a company with the following capital structure: Debt ₹20 lakhs, Equity ₹30 lakhs, Cost of Debt 8%, Cost of Equity 14%, Tax Rate 25%.
2. Analyze the operating leverage of a company with a sales revenue of ₹100 lakhs, variable costs of ₹60 lakhs, and fixed operating costs of ₹20 lakhs.

### Assessment:

1. What is capital budgeting, and why is it important for businesses?
2. Calculate the cost of equity for a company with a beta of 1.2, risk-free rate of 6%, and market risk premium of 8%.
3. Explain the concept of operating leverage and its impact on business decisions.

### Summary:

- Capital budgeting is a critical process for evaluating long-term investments.
- Cost of capital is the minimum return a company must earn on its investments.

- Operating and financial leverage can amplify returns, but also increase risk.

References:

1. Financial Management: Theory and Practice by Prasanna Chandra