DIGITAL ASSIGNMENT - 2

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MODULE - 3 [MGT1063]

1) Explain briefly the various methods of capital budgeting bringing out the merits and demerits of each

Capital Budgeting refers to the process of evaluating and selection long term investment projects that align with an organization's strategic goals.

1) Payback Period Method:-

$$\text{Payback Period} = \frac{\text{Initial Investment}}{\text{Annual Cash Flow}}$$

MERITS

* Simple and easy to calculate

DEMERITS

* Ignores the time value of money

2) Accounting Rate of Return

$$\text{ARR} = \frac{\text{Average Annual Accounting}}{\text{Initial Investment}} \times 100$$

MERITS

* Easy to understand and compute

3) Net Present Value

$$NPV = \sum \frac{CF_t}{(1+r)^t} - C_0$$

MERITS

* Considers the time value of money

DEMERITS

* Complex to compute

4) Internal Rate of Return

* IRR is the discount rate that makes the NPV n cash flow zero

MERITS :-

* Accounts for time value of money

DEMERITS :-

* Difficult to calculate manually

5) Profitability Index (PI)

* PI is ratio of present value of future cash inflows to intial investment-

$$PI = \frac{PV \text{ of Future Cash Flows}}{\text{Initial Investment}}$$

CAPITAL BUDGETING DECISION

- ~~Proj~~
- Project Generater
- Project Evaluation
  - Cash Outcome
    - Actual cash outflows
    - Expected Cash Inflows
  - Project Appraisal Method
    - Traditional Cashflow Method
      - 1 Sto impression method
      - Urgency Method
      - Pay Back Period
    - Discount Cash flow
      - Net present value
      - IRR
      - Account Rate
      - Profitable Trade
- Project Selection
- Project Implementation
- Project Execution
- Analysis of Result
- Feedback

Risk
Return
Trade off
Market Value of Shares

MERITS
* Considers the time value of money

DEMERITS
* Requires accurate discount rate estimation

2) Discuss the various standalone risk analysis techniques of capital budgeting

* Standalone risk analysis techniques asses the risk of a project in isolation without considering its effect on the overall portfolio of company

TECHNIQUES

1) Sensitivity Analysis

* Technique measures how sensitive a project Net Present value on Internet Rate of Returns is do change in key variable such as sales volume.

PROCESS

* Identify critical variable affect cash flow

MERIT

Helps in identifying the most crucial risk factors

DEMERIT

Ignores interrelationship between variable

2) Scenario Analysis

* Evaluates the impact of multiple variable changing simultaneously under different possible scenarios

PROCESS

* Develop different scenarios

MERIT

* Accounts for interdependencies among variable

DEMERIT

* Requires extensive data and assumption

3) Monte Carlo Simulation

* It is advanced risk assessment techniques that uses probability distribution to model uncertainty in cash flows

PROCESS

* Identify key risk factor and assign probability distribution

MERIT

* Provides comprehensive risk assesment

DEMERIT

Complex & Time consuming to implement

4) DECISION TREE ANALYSIS

A graph representation of possible project decision and their consequences ons time

PROCESS

Assign probabilities to various outcome

MERITS

Provides a visual representation of risk

DEMERITS

Can be highly complex for large project

MODULE - 4

3) Explain the meaning of term capital structure and mention the factor affecting capital structure:

MEANING:-

It refers to mix of a firm's long term source of financing, which typically includes equity and debt

Definition of Prasana Chandra

"The composition of a firm's financing consist of equity, preference and debt"

DETERMINANTS OF CAPITAL STRUCTURE DECISION

- Financial Leverage of Trading on Equity
- Operating Leverage
- EBI / EPS Analysis
- Cost of Capital
- Growth and Stability of Sales
- Nature and Size of Firm
- Flexibility
- Cash Flow Analysis
- Control
- Marketability
- Floatation Costs
- Legal Constraints
- Capital Market Condition
- Assest Structure
- Purpose of Financing
- Period of Finance

FACTORS AFFECTING CAPITAL STRUCTURE

1) Financing Leverage or Trading on Equity

* Using debt can enhance returns for equity shareholder if the firm's return on investment is higher than the cost of debt

2) Operating Leverage

If a firm has high fixed operating cost, it should maintain a lower debt level to avoid excessive financial risk

3) EBIT / EPS Analysis

Companies choose a capital structure that maximizes earning per share at different level of Earning before Interest

4) Cost of Capital

The Overall cost of raising fund influences capital structure decision

5) Growth and Stability of Sales :-

Firms with stable sales can afford higher debt levels.

6) Nature and Size of Firm

Capital intensive industries often have high debt levels, while technology firms may rely more on equity financing

7) Flexibility

Flexibility capital allows companies to raise additional funds without major restructuring

8) Cash Flow Analysis :-

A company with strong and predictable cash flows can afford more debt compared to one with fluctuating revenues

9) Control Consideration

Issuing more equity may dilute ownership and control making debt a preferred options

12) Legal Constraints

Government regulations and legal restrictions on borrowing affect structure decision

13) Capital Market Condition

Invest sentiment, economic trends and stock market performance impact a firm

14) Asset structure

Firms with a to higer proportion of tangible assets can secure more debt

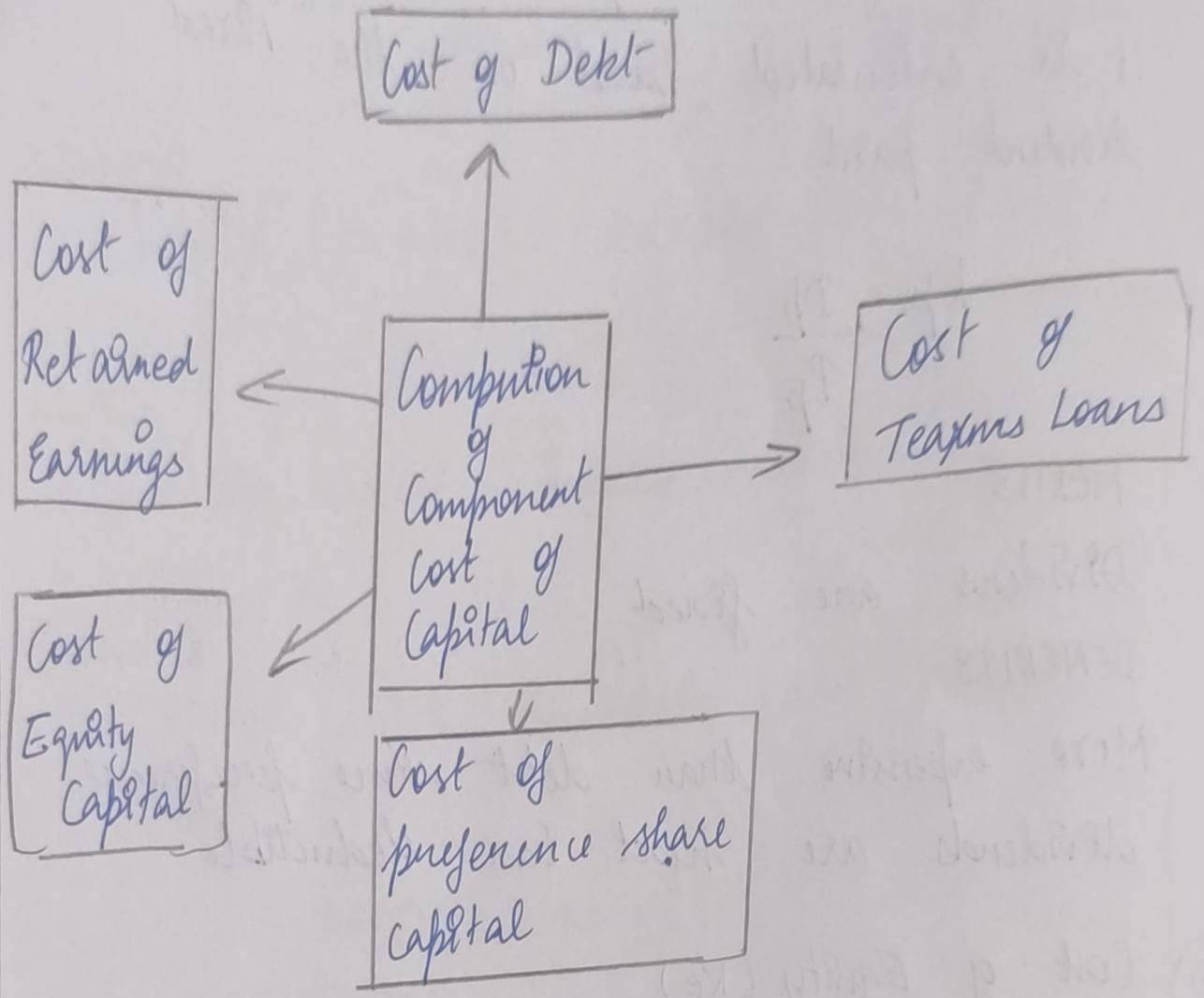
15) Purpose of Financing

If funds are required for expansion and long term growth, easily may be preferred while debt may be used for short term needs

16) Period of Finance

If funds are needed for a short period debt is preferrable, for long term financing, equity may be more suitable

explain the different approaches to calculate cost of capital?



1) COST OF DEBT

$$K_d = r(1-t)$$

The cost of debt is effective interest rate a company pays its borrowed fund

2) Cost of Preference Capital (Kp)

It is calculated based on the fixed dividend paid

$$Kp = \frac{Dp}{Pp}$$

MERITS

Dividens are fixed

DEMERITS

More expensive than debt since preference dividends are not tax deductible

3) Cost of Equity (Ke)

It is return required by shareholders

$$Ke = \frac{Di}{P_0} + g$$

Merits

Simple to use for companies

Demerits

Not applicable to companies not paying dividents

Weighted Average Cost of Capital (WACC)

* WACC represents overall cost of capital from all sources

Formula

* $WACC = (Ke + We) + (Kd \times Wd * (1-t)) + (Kp \times Wp)$

Merits

* Useful for capital budgeting decisions

Demerits

* Can change with financial and market conditions

MODULE - 5

5) Distinguish between operating leverage and financial leverage. Do you think that they are related to capital structure?

Feature	Operating Leverage	Financial Leverage
DEFINITION	The use of fixed operating cost to magnify the impact of sales changes on EBIT	The use of debt to magnify the impact of EBIT changes on EPS
Key Compounds	Fixed operating costs	Fixed Financial cost
Risk Involved	Bussiness risk	Financial risk
Effect on Profits	A higher proportion of fixed costs can increase profit when sales rise	More debt increases potential returns to share holders but also raise financial distress risk
Degree	DOL = $\frac{\%\text{ change in EBIT}}{\%\text{ change in sales revenue}}$	DEL = $\frac{\%\text{ change in taxable income}}{\%\text{ change in operating income}}$
Decision	Concered with investment decision	Concered with financial decision

ge	It is described as 1st stage leverage	It is described as second stage leverage

RELATION TO CAPITAL STRUCTURE

It refers to the mix of debt and equity used by company for financing

1) Walter's Model

The firm's investment decision and dividend policies

Formula

$$P = \frac{D + \frac{\gamma (E - D)}{Ke}}{Ke}$$

LIMITATION

* Assume no external financing

ASSUMPTIONS

* Infinite time horizon
* 100 % payout Retentions

2) Gordon's Model :-

It is a stock valuation approch emphasing the relevance of dividends

Formula

$$P = \frac{E(1-b)}{K-br}$$

KEY INSIGHTS

* A firm that plays higher dividends will have higher stock

LIMITATION

* Assumes a constant growth rate, which is unrealistic