JECRC Foundation

JAIPUR ENGINEERING COLLEGE AND RESEARCH CENTER

Class – B.Tech Civil (IV SEM)
Subject –Manegerial Economics & Financial Accounting (MEFA)
Unit – 5
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VISION AND MISSION OF INSTITUTE

VISION OF INSTITUTE

To became a renowned centre of outcome based learning and work towards academic professional ,cultural and social enrichment of the lives of indivisuals and communities

MISSION OF INSTITUTE

Focus on evaluation of learining ,outcomes and motivate students to research apptitude by project based learning.

- Identify based on informed perception of indian ,regional and global needs ,the area of focus and provide plateform to gain knowledge and solutions.
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- Offer oppurtunites for interaction between academic and industry .
- Develop human potential to its fullest extent so that intellectually capable and imaginatively gifted leaders may emerge.

VISION AND MISSION OF DEPARTMENT

Vision

To become a role model in the field of Civil Engineering for the sustainable development of the society.

Mission

1)To provide outcome base education.

2)To create a learning environment conducive for achieving academic excellence.

3)To prepare civil engineers for the society with high ethical values.

Introduction, Objective and Outcome of MEFA

Objective:

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The primary purpose of the study of Fluid mechanics is to develop the capacity to understand important basic terms used in fluid mechanics, understand hydrostatics and buoyancy with practice of solving problems. Student could be able to understand Kinematics of flow and fluid dynamics, Bernoulli's equation and laminar flow with practice of solving problems in practical life for the benefit of society and mankind.

Outcomes

- To understand the basic concepts of economics.
- To understand the relation between demand and supply.
- To learn the concepts of production, cost analysis and market supply strategies.
- To understand financial statement analysis.

Definition of Budget

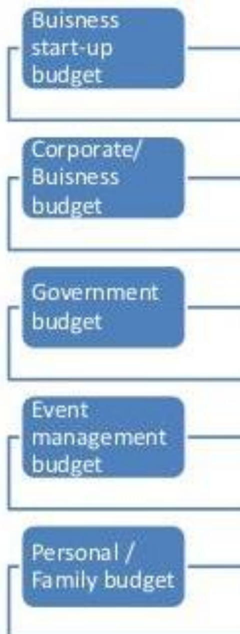
•**Budgeting** is a management tool for planning and controlling future activity.

Financial Buzz Words: A plan for saving, borrowing and spending.

•**Budget** is a financial plan and a list of all planned expenses and revenues.

Budget Sector

Budget Types



Basis of Flexibility : Fixed and Variable Budget

Basis of Time Period : Short-Term and Long –Term Budget

Basis of Functionality: Sales budget, Production budget , Marketing budget, Project budget, Revenue budget, Cash flow/cash budget etc.

Govt. Budget in India Prepared by:
Budget division of Economics Department of Ministry of Finance

Capital Budgeting

Capital: Operating assets used for production.

Budget: A plan that details projected cash flows during some period.

Capital Budgeting: Process of analyzing projects and deciding which ones to include in capital budget.

Importance of Capital Budgeting

- Growth
- Large Amount
- Irreversibility
- Complexity
- Risk
- Long term implications

Benefits of Capital Budgeting Decision:

Capital Budgeting decisions evaluate a proposed project to forecast return from the project and determine whether return from the Project is adequate.

Capital Budgeting decisions evaluate expenditure decisions which involve current outflow of funds but are likely to produce benefits over a period of time more than one year.

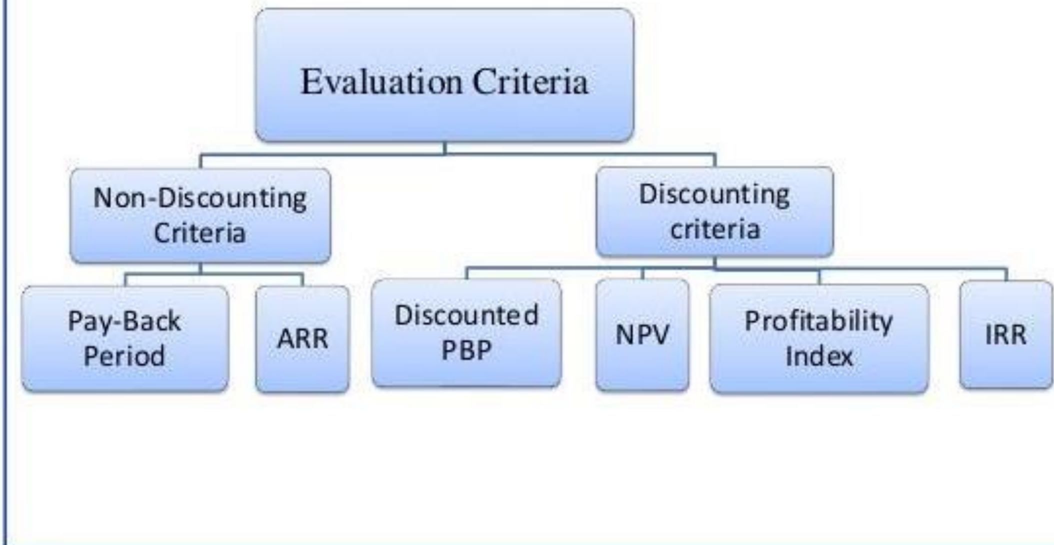
Capital Budgeting: Project Categorization

- Establishment of New Products & Services
- Replacement Projects: Maintenance or Cost Reduction
- Expansion of Existing Projects
- Research and Development Projects
- Long Term Cotracts
- Safety and/or Environmental Projects

Broad Prospective

Capital Budgeting is the planning process used to determine a firm's long term investments such as new machinery, replacement machinery, new plants, new products and research & development projects.

Evaluation Criteria: Capital Investment Proposal



Non discounting: Pay-Back Period

1. **Pay-Back Period Method-** It is defined as the number of years required to recover original cost invested in a project. It has two conditions

- **When cash inflow is constant every year**

  PBP= Cash outflow/cash inflow (p.a.)

- **When cash inflow are not constant every year**

$$PBP = \text{Completed years} + \frac{\text{Required inflow}}{\text{In flow of next year}} * 12$$

Non discounting Criteria: Annual Rate of Return

2. **Average Rate of Return Method** - ARR means the average annual earning on the project. Under this method, profit after tax and depreciation is considered. The average rate of return can be calculated in the following two ways.

$$\text{ARR on Average investment} = \frac{\text{Average Profit After Tax}}{\text{Average Investment}} * 100$$

$$\text{ARR on Initial investment} = \frac{\text{Average Profit After Tax}}{\text{Initial Investment}} * 100$$

Discounting Criteria: Pay-Back Period

3. **Discounted Pay-Back Period Method** - In discounted pay- back period method, the cash inflows are discounted by applying the present value factors for different time periods. For this, discounted cash inflows are calculated by multiplying the P.V. factors into cash inflows.

$$\text{Dis. PBP} = \text{Completed years} + \frac{\text{Required inflow}}{\text{In flow of next year}} * 12$$

Discounting Criteria: Net Present Value

4. **Net Present Value Method:-** It is the best method for evaluation of investment proposal. This method takes into account time value of money.

NPV= PV of inflows- PV of outflows

- **Evaluation of Net Present Value Method:-** Project with the higher NPV should be selected.

Accept if	NPV>0
Reject	NPV<0
May or may not accept	NPV=0

Discounting Criteria: Internal Rate of Return

5. **Internal Rate of Return Method:-** IRR is the rate of return that a project earns. The rate of discount calculated by trial and error , where the present value of future cash flows is equal to the present value of outflows, is known as the Internal Rate of Return.

$$\text{IRR} = \text{Higher Rate} - \frac{\text{NPV of Higher Rate}}{\text{Difference in cash flows}} * \text{Difference in Rate}$$

$$\text{IRR} = \text{Lower Rate} + \frac{\text{NPV of Lower Rate}}{\text{Difference in cash flows}} * \text{Difference in Rate}$$

Example

The expected cash flows of a project are:-

Year	Cash Flows (Rs.)
1	20,000
2	30,000
3	40,000
4	50,000
5	30,000

The cash outflow is Rs. 1,00,000

The cost of capital is 10%

Calculate the following:

a) NPV b) Profitability Index

c) IRR

d) Pay-back period e) Discounted Pay-back Period

Computation of NPV and PI

Year	Cash Flows (Rs.)	PV Factors@10%	PV of Cash Flows (Rs.)
1	20,000	.909	18,180
2	30,000	.826	24,780
3	40,000	.751	30,040
4	50,000	.683	34,150
5	30,000	.620	18,600
	Total Cash Inflow		1,25,750
	Less: Cash Outflows		1,00,000
	NPV		25,750
	P.I.		1.2575

Computation of IRR

Year	Cash Flows (Rs.)	PV Factors @19%	PV of Cash Flows (Rs.)	PV Factors @18%	PV of Cash Flows (Rs.)
1	20,000	.84	16,800	.847	16,940
2	30,000	.706	21,180	.718	21,540
3	40,000	.593	23,720	.609	24,360
4	50,000	.499	24,950	.516	25,800
5	30,000	.42	12,600	.437	13,110
Total Cash Inflow			99,250		1,01,750
Less Cash Outflows			1,00,000		1,00,000
NPV			(-)750		(+)1750

Computation of IRR Contd..

$$IRR = \text{Higher Rate} - \frac{\text{NPV of Higher Rate}}{\text{Difference in cash flows}} * \text{Difference in Rate}$$

$$IRR = 19 - \frac{750}{2500} * 1 = 18.7\,\%$$

Computation of discounted pay-back period

Year	Cash Flows (Rs.)	PV Factors@10%	PV of Cash Flows (Rs.)	Cumulative Cash Flows
1	20,000	.909	18,180	18,180
2	30,000	.826	24,780	42,960
3	40,000	.751	30,040	73,000
4	50,000	.683	34,150	1,07,150
5	30,000	.620	18,600	1,25,750

$$PBP = \text{Completed years} + \frac{\text{Required inflow}}{\text{Inflow of Next year}} * 12$$

$$= 3\text{years} + \frac{(1{,}00{,}000-73{,}000)*12}{34150}$$

$$= 12.48 \text{ years}$$

Conclusions

We have Studied various evaluation criteria for Capital Budgeting.

❖Generally an impression created that the firm should use NPV method for decision making.

❖Most of the large companies consider all the measures because each one provides somewhat different piece of relevant information to the decision maker.

Profit and Loss (P&L)

Definition - What does *Profit and Loss (P&L)* mean?

A profit and loss (P&L) statement is an accounting statement prepared at the end of a financial quarter or year which comprises revenue and expense items to indicate an accounting net profit or loss.

A profit and loss statement needs to be studied, along with the balance sheet and statement of cash flows, to get a comprehensive idea of the firm's financial position. Because P&L statements are based on accounting rules which can vary or be subject to estimates, investors need to fully understand how different estimates would affect the company's performance particularly if aggressive estimates have been used to show better profit.

A profit and loss statement is an indicator of the overall financial health of a firm. It summarizes the revenue costs and expenses incurred over a specific, fixed period of time. It discloses gains and losses that arise from commercial transactions. The cost of running the business — that is, the cost of goods sold, operating expenses, interest, tax, etc. — is subtracted from the revenue generated to arrive at profit and loss.

In order to assess the cash flow available, to repay existing debt, to finance additional debt for business expansion, or to reinvest in the company, a careful analysis of the components of a profit and loss statement is necessary. In many merger and acquisition transactions, these statements may be prepared to comply with buyers' requirements. In some cases, firms looking to dispose of only a portion of their operations prepare separate financial statements, called carve-out financial statements, of the section being sold.

In practice when assessing a business for sale, three to five year historical P&L statements are a minimum requirement. Buyers often attempt to estimate recurring EBITDA or EBIT from these statements. However, more important is estimated cash flows from these statements (which necessitates the balance sheets as well) and also figuring out what future performance would look like. In stable industries, the historical P&L may be a good proxy for future performance, but in growing businesses, projected P&L statements are often required.

Features of Profit and Loss Account:

1. This account is prepared on the last day of an account year in order to determine the net result of the business.
2. It is second stage of the final accounts.
3. Only indirect expenses and indirect revenues are shown in this account.
4. It starts with the closing balance of the trading account i.e. gross profit or gross loss.
5. All items of revenue concerning current year - whether received in cash or not - and all items of expenses - whether paid in cash or not - are considered in this account. But no item relating to past or next year is included in it.

the assets less any debts with a pledge against those assets. This meaning is encapsulated in the fundamental accounting equation, which defines the owner's equity in the business as equal to Assets minus Liabilities.

How does a business grow its Net Worth or Equity?

Businesses grow through building their Net Worth or Equity. A main goal of every business is to see this growth. There are various ways a business can grow their Net Worth, most evident is to decrease debt. This means a business will have more ownership in the businesses assets, since less of the assets will be pledged to debt. The greatest contributor to the growth in a business's equity or net worth is retained earnings. The earnings of the business become equity in the business in the form of retained earnings, which is listed as such under the equity section of the Balance Sheet. Another way to grow a business's net worth is through an outside capital injection. This is most often money put into the business by ownership or by outside investors. This normally shows as Capital under the equity section of the businesses Balance Sheet.

This represents a general overview and is not considered accounting advice. Please seek direction from an accounting professional for detailed information regarding your business financials.