



UNIT 13: MANAGING FINANCIAL PRINCIPLES AND TECHNIQUES

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- LO 4 : Be able to recommend cost reduction and management processes for an organisation.

THE BASIC SYLLABUS

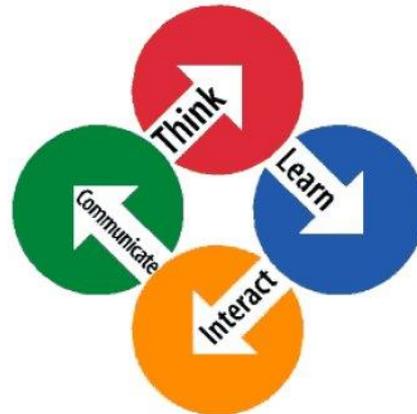


- 1. Be able to apply cost concepts to the decision making process.
- 2. Be able to apply forecasting techniques to obtain information for decision making.
- 3. Be able to participate in the budgetary process of an organisation.
- 4. Be able to recommend cost reduction and management processes for an organisation.
- 5. Be able to use financial appraisal techniques to make strategic investment decisions for an organisation.
- 6. Be able to interpret financial statements for planning and decision making.

LEARNING OBJECTIVES



- Be able to participate in the budgetary process of an organisation



- At the end of the class the students should be able to:-
- Be able to use financial appraisal techniques to make strategic investment decisions for an organisation.

OVERVIEW



- Before committing to high levels of capital spend, companies normally undertake investment appraisal.
- Investment appraisal has the following features:
- assessment of the level of expected returns earned for the level of expenditure made estimates of future costs and benefits over the project's life.
- When a proposed capital project is evaluated, the costs and benefits of the project should be evaluated over its foreseeable life.

ACCOUNTING RATE OF RETURN



- When you are considering new investments or business projects, calculating the accounting rate of return is a simple and fast method of estimating profitability. Also called simple rate of return, ARR allows you to compare the profit potential of different investment opportunities. The usefulness of ARR is limited because it does not take into account things like inflation or the tax implications of different projects. ARR also doesn't factor in the time value of money or the impact cash flow has on a project's viability.

- The formula is:-

$$\text{ARR} = \frac{\text{Average annual profit}}{\text{Initial investment}}$$

PAYBACK PERIOD



- The payback period is the time required for the amount invested in an asset to be repaid by the net cash outflow generated by the asset. It is a simple way to evaluate the risk associated with a proposed project.
- The payback period is expressed in years and fractions of years. For example, if a company invests \$300,000 in a new production line, and the production line then produces cash flow of \$100,000 per year, then the payback period is 3.0 years ($\$300,000$ initial investment / $\$100,000$ annual payback). An investment with a shorter payback period is considered to be better, since the investor's initial outlay is at risk for a shorter period of time. The calculation used to derive the payback period is called the payback method.



Cash flows

- The difference between the available cash at the beginning of an accounting period and that at the end of the period. Cash comes in from sales, loan proceeds, investments and the sale of assets and goes out to pay for operating and direct expenses, principal debt service, and the purchase of asset.



Discounted cash flow

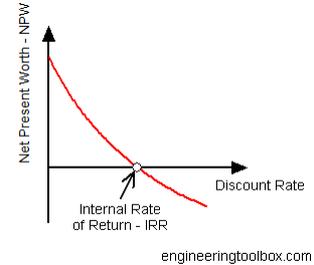
- Discounted cash flow tries to work out the value of a company today, based on projections of how much money it's going to make in the future. DCF analysis says that a company is worth all of the cash that it could make available to investors in the future. It is described as "discounted" cash flow because cash in the future is worth less than cash today.



Net present value

- Net present value is the present value of net cash inflows generated by a project including salvage value, if any, less the initial investment on the project. It is one of the most reliable measures used in capital budgeting because it accounts for time value of money by using discounted cash inflows.

Internal rate of return



- The IRR can be defined as the discount rate which, when applied to the cash flows of a project, produces a net present value (NPV) of nil. This discount rate can then be thought of as the forecast return for the project. If the IRR is greater than a preset percentage target, the project is accepted. If the IRR is less than the target, the project is rejected.
- Considering the definition leads us to the calculation. The IRR uses cash flows (not profits) and more specifically, relevant cash flows for a project. To perform the calculation, we need to take the cash flows of a project and calculate the discount factor that would produce a NPV of zero.

Time value of money and allowances for inflation in money and real rates of discounts



- Time value of money is the concept that the value of a dollar to be received in future is less than the value of a dollar on hand today. One reason is that money received today can be invested thus generating more money. Another reason is that when a person opts to receive a sum of money in future rather than today, he is effectively lending the money and there are risks involved in lending such as default risk and inflation. Default risk arises when the borrower does not pay the money back to the lender. Inflation is the rise in general level of prices.

Time value of money and allowances for inflation in money and real rates of discounts



- Inflation is a general increase in prices leading to a general decline in the real value of money.
- **Impact of inflation on interest rates.**
- In times of inflation, the fund providers will require a return made up of two elements:
- -real return for the use of their funds (i.e. the return they would want if there were no inflation in the economy)
- - additional return to compensate for inflation.
- The overall required return is called the money or nominal rate of return.

Time value of money and allowances for inflation in money and real rates of discounts



- Where cash flows have not been increased for expected inflation they are known as **current cash flows**, or **real cash flows**.
- Where cash flows have been increased to take account of expected inflation they are known as **money cash flows**, or **nominal cash flows**. Remember, if they do take inflation into account, they represent expected flows of money, hence the term 'money cash flows'.

Time value of money and allowances for inflation in money and real rates of discounts

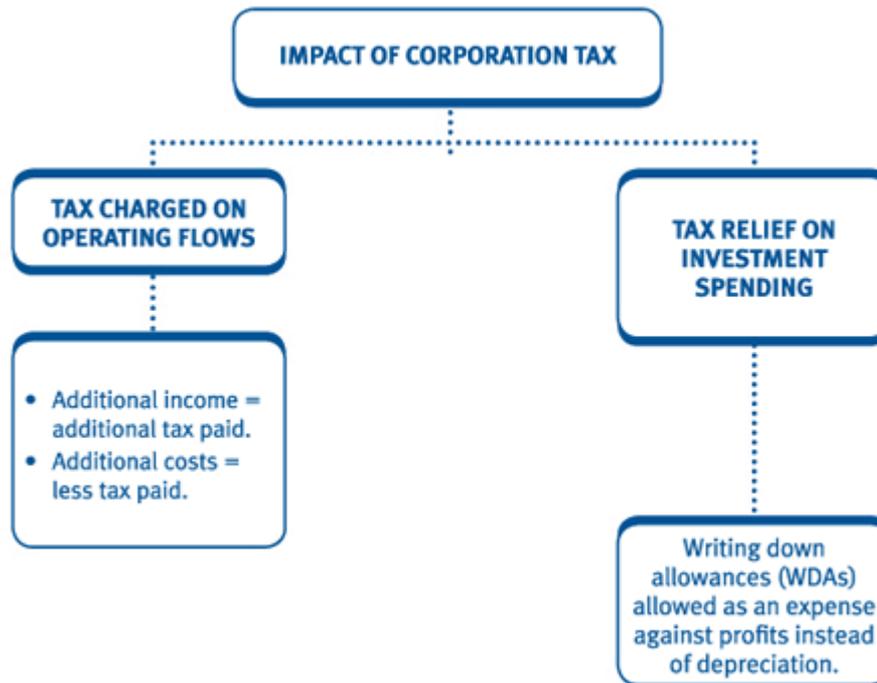


- The discount rate is the rate used in a discounted cash flow analysis to compute present values.
- When solving for the future value of money set aside today, we compound our investment at a particular rate of interest. When solving for the present value, the problem is one of discounting, rather than growing, and the required expected return acts as the discount rate. In other words, discounting is merely the inverse of growing.

Taxation and project appraisal



- Since most companies pay tax, the impact of corporation tax must be considered in any investment appraisal.



Corporation tax charged on a company's profits is a relevant cash flow for NPV purposes

Post audit



- After an investment project has been approved and implemented, a post audit should be conducted. A post audit involves checking whether or not expected results are actually realized.
- This is a key part of the capital budgeting process. It helps to keep managers honest in their investment proposals. Any tendency to inflate the benefits or downplay the costs in a proposal should become evident after a few post audits have been conducted. The post audit also provides an opportunity to reinforce and possibly expand successful projects and to cut losses on floundering projects.

Post audit



- The same technique should be used in the post audit as was used in the original approval process. That is, if a project was approved on the basis of a net present value analysis, than same procedure should be used in performing the post audit. However, the data used in the post audit analysis should be actual observed data rather than estimated data.

Post audit



- This affords management with an opportunity to make a side-by-side comparison to see how well the project has worked out. It also helps assure that estimated date received on future proposals will be carefully prepared, since the persons submitting the data will know that their estimates will be given careful security in the postaudit process. Actual result that are far out of line with original estimates should be carefully reviewed.

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