Capital Budgeting

Capital budgeting refers to the process we use to make decisions concerning investments in the long-term assets of the firm. The general idea is that the capital, or long-term funds, raised by the firms are used to invest in assets that will enable the firm to generate revenues several years into the future.

Importance:

Capital budgeting decisions impact the firm for several years, they must be carefully planned. A bad decision can have a significant effect on the firm’s future operations. In addition, the timing of the decisions is important. Many capital budgeting projects take years to implement. If firms do not plan accordingly, they might find that the timing of the capital budgeting decision is too late, thus costly with respect to competition.

Generating Ideas for Capital Budgeting

Ideas for capital budgeting projects usually are generated by employees, customers, suppliers, and so forth, and are based on the needs and experiences of the firm and of these groups. For example, a sales representative might continue to hear from some of his or her customers that there is a need for products with particular characteristics that the firm’s existing products do not possess. The sales representative presents the idea to management, who in turn evaluates the viability of the idea by consulting with engineers, production personnel, and perhaps by conducting a feasibility study.

After the idea is confirmed to be viable in the sense it is saleable to customers, the financial manager must conduct a capital budgeting analysis to ensure the project will be beneficial to the firm with respect to its value.

Project Classifications

* Replacement decision
* Expansion decision
* Independent project

Capital Budgeting Evaluation Techniques

* Payback Period
* NPV ( Net Present Value)
* IRR (Internal Rate of Return)

Payback Period:

Help us to evaluate the project whether to invest in the project or not

How soon can we get back our money?

Like if we invest 5lacs and the project return that money in 3 years so the PBP is 3 year

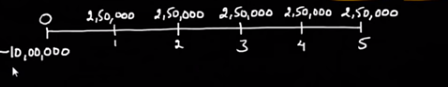
So if the PB < Required time to get money back = project accepted

Also in selecting 2 or more project the lowest PB is accepted

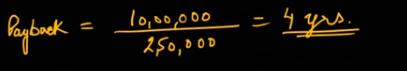
Example :

Mr XYZ owns a car rental company planning to start a new route. XYZ think the project should have PBP of 5 years

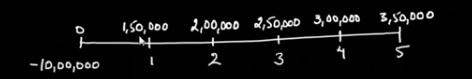
Let he buy a car at RS 1000000

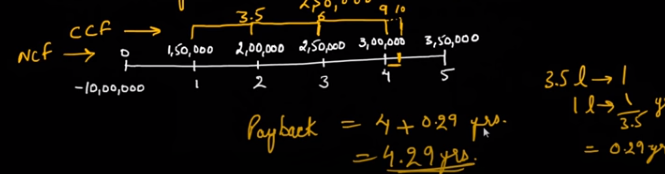


In this case the cash flows are uniform so we can simply calculate the PBP



In case CF are not uniform then i-e





Pros: very simple and quick to calculate

Cons: Ignoring the Time Value of Money

What should we do Now

We Go for NPV

Why NPV???  
Require information

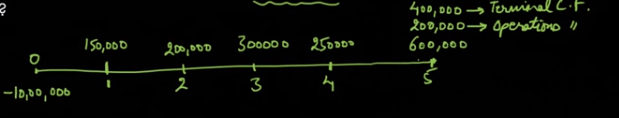
* Cash Out flows (initial investment)
* Net Cash inflows in future
* Terminal cash flow (selloff value after some years)
* Discounted Rate, Expected Rate of Return

Example:

A company is evaluating whether to start a new route, whether it will give expected returns?

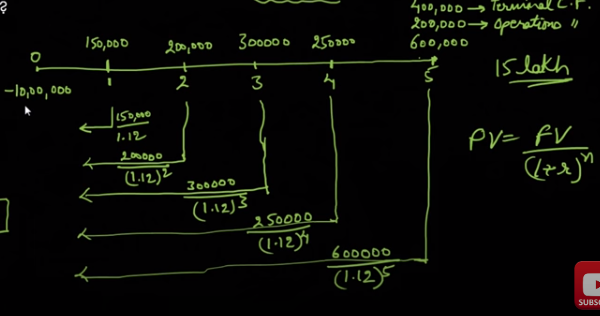
Let assume the company wants to buy a car @ Rs 10 Lakh

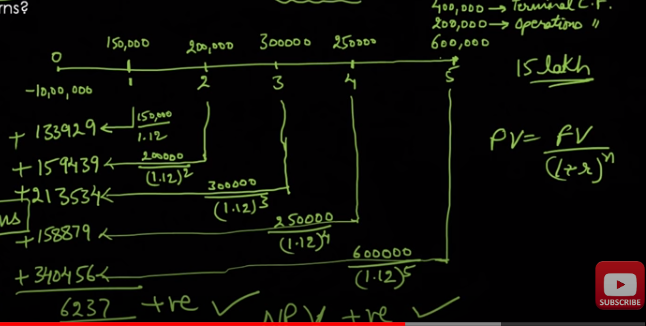
The expected Net cash flows are;



It seems that at the end of year 5 the company is getting 15 lakh, showing 5 lakh profit but what about time value of money?

Let the discounted rate or expected rate of return is 12%





Formula for NPV is

NPV