Daffodil Institute of Information Technology (DIIT)

Third Year, Sixth Semester

BBA (Honors) in Tourism and Hospitality Management (THM)

Fundamentals of Finance

Chapter-5
INTRODUCTION TO CAPITAL BUDGETING

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1. What do you mean by capital budgeting?

Capital Budgeting: The investment decisions of a firm are generally known as the capital budgeting or capital expenditure decisions. A capital budgeting decision may be defined as the firm's decision to invest its current fund most efficiently in the long term assets which will give benefit over a series of years.

According to Benton-"Capital budgeting is the evaluating long term investment proposals usually for plant & equipment".

2. Discuss the importance/objectives/of capital budgeting.
Or. Why are capital budgeting decisions so important to the success of a firm?
Or. Explain the importance of capital budgeting decision.

Capital budgeting plays a vital role in the future investment of a firm. Capital budgeting is the most important decision because of the following reasons:

a) **Long term investment decision:** Capital budgeting decision is made for long term investment decision. It is very important to a firm because it has long term effect on future cash flows.
b) **Unchangeable decision:** The capital budgeting decision is made for purchasing of fixed assets. If decision is taken one time it is no possible to change for next time because assets have been purchased. So firm cannot change decision frequently.
c) **Expansion of business:** Capital budgeting is made to expand the business through purchasing of fixed asset. Capital budgeting decision affects the firm growth. If funds invest in bad sector it will hamper the firm growth.
d) **Involves large amount of funds:** Capital budgeting decision is made for purchasing fixed assets or taking new projects which involves large amount of funds. The investment decisions must be thoughtful, wise and correct. Because an incorrect decision would result in losses.

3. What do you mean by project? Explain the types of project.

Project: Planned set of interrelate task to be executed over a fixed period & within certain cost & other limitation is called project.

Types of project: There are two projects:

1. Independent project
2. Mutually exclusive project

Independent project: Independent project is the project which never ever affects of other projects. A project whose acceptance or rejection does not prevent to accept other projects is called independent project.

Mutually exclusive project: Mutually exclusive project means the project where two or more projects are involved & those affects each other. A project whose acceptance or rejection prevents to accept other projects is called mutually project.

4. **What are the areas of a business enterprise where capital budgeting techniques are applicable?**
   Or. Discuss the steps to be followed in the capital budgeting process.
   Or. Write down the basic steps to be followed in capital budgeting process.

Project innovation: This is the first step of capital budgeting. From top to level officers to lower level employees of a firm submit project proposal.
Forecasting cash flow: In this step the probable amount of investment, possible future expected cash flows are trying to estimate.
Project selection: In this step the following techniques are followed to select & identify the project. The techniques are:
1. Payback period (PB)
2. Average rate of return (ARR)
3. Net present value (NPV)
4. Internal rate of return (IRR)
5. Profitability Index (PI)

Using all those techniques the project, which PBP will be lower than the maturity, ARR will be higher than the cost of capital, the NPV will be positive, the IRR will be higher than the cost of capital, & the value of PI will be equal to 1 or more than 1 that project should be selected.
Projected implementation: After identifying& selecting a right project, the firm takes necessary steps to implement the project. In this step may prepare budgets, submission of a budget, invest in the project etc.
Flow-up: Results are monitored actual costs & benefits are compared with those are expected. Action may be required if actual outcomes differ from projected ones.

5. **What are the techniques of capital budgeting?**

There are different techniques of capital budgeting through the techniques a firm can take investment decisions. There are given below:
Not discounting techniques/traditional method: Non-discounting technique is a technique which does not consider time value of money.

a) **Payback period (PBP):** Payback period means, how many years is required to recover the initial investment.
b) **Average rate of return (ARR):** This techniques helps to measure the average rate of return of a project within its time period.

Discounting techniques/modern method: Discounting technique is a technique which considers the time value of money.

a) **Net present value (NPV):** NPV is the difference between present value of cash inflows and present value of cash outflows at a discounted rate.
b) **Internal rate of return (IRR):** IRR is a rate which equates present value of cash inflows & present value of cash outflows. The internal rate of return is a discount rate that makes the net present value (NPV) of all cash flows equal to zero in a discounted cash flow analysis.
c) **Profitability index (PI):** The profitability index (PI) is a measure of a project's or investment's attractiveness. It is a technique where profit is measured as the present value of cash inflow divided by present value of cash out flows.

d) **Discounted payback period (DPBP):** One kind of payback period, which consider the discount rate. A discounted payback period gives the number of years it takes to break even from undertaking the initial expenditure, by discounting future cash flows and recognizing the time value of money.

6. How are the investment decision taken according to capital budgeting techniques?

In case of independent project:

1) If the PBP is equal or lower than the company's required PBP or standard PBP the project will be accepted & vice-versa.
2) If calculated ARR is higher than the cost of capital or company's required ARR project will be accepted & vice-versa.
3) The positive NPV project will be accepted & negative NPV project will be rejected.
4) If calculated IRR is equal or higher than the cost of capital the project will be accepted & vice-versa.
5) If calculated value of PI is equal to 1 or more than 1 the project will be accepted & vice-versa.
6) If the DPBP is equal or lower than the company's required DPBP or standard DPBP the project will be accepted & vice-versa.

In case of mutually exclusive project:

1) Low pay back (PB) project will be accepted vice-versa.
2) Higher ARR project will be accepted & vice-versa.
3) Higher positive NPV project will be accepted & vice-versa.
4) Higher IRR project will be accepted & vice-versa.
5) Higher PI project will be accepted & vice-versa. But it should be more than 1.
6) Higher DPBP project will be accepted.

7. What do you mean by profitability index capital rationing?

Profitability index: Profitability index is a financial tool which tells us whether an investment should be accepted or rejected. PI greater than one indicates that present value of future cash inflows from the investment is more than the initial investment, thereby indicating that it will earn profits. Profitability index (PI) is a measure of a project's or investment's attractiveness. The PI is calculated by dividing the present value of future expected cash flows by the initial investment amount in the project.

According to Van Horne- "PI shows the dollars of present value divided by the initial cost, so it measures relative profitability".

Capital rationing: When the amount of capital available for investment project is limited. The firm cannot maximize its value, because it must forget profitable projects. Capital rationing occurs when the investable capital for the projects that can be spent on investments are limited. The financial situation in which a firm has only a fixed amount of taka available for capital expenditure is called capital rationing.

According to Benton- "Capital rationing occurs when funds that can be spent on investment are limited".