Capital Budgeting

Capital Budget is also known as "Investment Decision Making or Capital Expenditure Decisions" or "Planning Capital Expenditure" etc. Normally such decisions where investment of money and expected benefits arising therefrom are spread over more than one year, it includes both raising long-term funds as well as their utilization.

Capital budgeting is the process of evaluating long-term investment project to decide whether a particular should be accepted or not and also to select a particular project/projects out of many investment project.

According to I.M Pandey, "capital budgeting may be defined as the firm's decision to invest its current funds most efficiently in long term activities in anticipation of an expected flows of future benefits over a series of year."

According to L. J. Gitman, "Capital budgeting is the process of evaluating and selecting long term investment consistent with the firm's goal of owner's wealth maximization".

According to John J. Hampton, "capital budgeting may be defined as the decision making process by which firms evaluate the purchase fixed assets including premises, machinery and equipment".

From the above definitions, it may be concluded that capital budgeting relates to the evaluation of several alternative capital projects for the purpose of assessing those which have the highest rate of return on investment.

Importance of Capital Budgeting

Capital expenditures can be very large and have a significant impact on the firm's financial performance. Besides, the investments take time to mature and capital assets are long-term, therefore, if a mistake were done in the capital budgeting process, it will affect the firm for a long period of time. Basically, the importance of capital budgeting are as follow:

Avoid forecast error: The future success of a business largely depends on the investment decisions that corporate managers make today. Investment decisions may result in a major departure from what the company has been doing in the past. Through making capital investments, firm acquires the long-lived fixed assets that generate the firm's future cash flows and determine its level of profitability. Thus, this decision greatly influences a firm's ability to achieve its financial objectives.

For example, if the firm invests too much it will cause higher depreciation and expenses. On the other hand, if the firm does not invest enough, the firm will face a problem of inadequate capacity and thus, lose its market share to its competitors.

Helps firm to plan its financing: Proper capital budgeting analysis is critical to a firm's successful performance because capital investment decisions can improve cash flows and lead to higher stock prices. Yet, poor decisions can lead to financial distress and even to bankruptcy. Although a tactical investment decision generally involves a relatively small amount of funds, strategic investment decisions may require large.

Long-term Implications: A capital budgeting decision has its effect over a long time span and inevitably affects the company's future cost structure and growth. A wrong decision can prove disastrous for the long-term survival of firm. On the other hand, lack of investment in asset would influence the competitive position of the firm. So the capital budgeting decisions determine the future destiny of the company.

Involvement of large amount of funds: Capital budgeting decisions need substantial amount of capital outlay. This underlines the need for thoughtful, wise and correct decisions as an incorrect decision would not only result in losses but also prevent the firm from earning profit from other investments which could not be undertaken.

Irreversible decisions: Capital budgeting decisions in most of the cases are irreversible because it is difficult to find a market for such assets. The only way out will be scrap the capital assets so acquired and incur heavy losses.

Risk and uncertainty: Capital budgeting decision is surrounded by great number of uncertainties. Investment is present and investment is future. The future is uncertain and full of risks. Longer the period of project, greater may be the risk and uncertainty. The estimates about cost, revenues and profits may not come true.

Comparative Study of Alternative Projects: Capital budgeting makes a comparative study of the alternative projects for the replacement of assets which are wearing out or are in danger of becoming obsolete so as to make the best possible investment in the replacement of assets. For this purpose, the profitability of each project is estimated.

Difficult to make: Capital budgeting decision making is a difficult and complicated exercise for the management. These decisions require an overall assessment of future events which are uncertain. It is really a marathon job to estimate the future benefits and cost correctly in quantitative terms subject to the uncertainties caused by economic-political social and technological factors.

Worth-Maximization of Shareholders: The impact of long-term capital investment decisions is far reaching. It protects the interests of the shareholders and of the enterprise because it avoids over-investment and under-investment in fixed assets. By selecting the most profitable projects, the management facilitates the wealth maximization of equity share-holders.

Application of capital budgeting

1. Starting a new business
2. Expansion of existing business
3. Purchasing a particular fixed assets
4. Introduction of a new product/operation
5. Replacement of old assets
6. Modernization of production/operation method

Steps in capital budgeting

1. Identification of Investment project
2. Estimating Cash flow (out flow & inflow)
3. Evaluating the project
4. Selection and Implementation of the project
5. Continuous monitoring of the project

Procedure of Capital Budgeting

Capital investment decision of the firm have a pervasive influence on the entire spectrum of entrepreneurial activities so the careful consideration should be regarded to all aspects of financial management.

In capital budgeting process, main points to be borne in mind how much money will be needed of implementing immediate plans, how much money is available for its completion and how are the available funds going to be assigned tote various capital projects under consideration. The financial policy and risk policy of the management should be clear in mind before proceeding to the capital budgeting process. The following procedure may be adopted in preparing capital budget:-

(1) Organization of Investment Proposal: The first step in capital budgeting process is the conception of a profit making idea. The proposals may come from rank and file worker of any department or from any line officer. The department head collects all the investment proposals and reviews them in the light of financial and risk policies of the organization in order to send them to the capital expenditure planning committee for consideration.

(2) Screening the Proposals: In large organizations, a capital expenditure planning committee is established for the screening of various proposals received by it from the heads of various departments and the line officers of the company. The committee screens the various proposals within the long-range policy-frame work of the organization. It is to be ascertained by the committee whether the proposals are within the selection criterion of the firm, or they do no lead to department imbalances or they are profitable.

(3) Evaluation of Projects: The next step in capital budgeting process is to evaluate the different proposals in term of the cost of capital, the expected returns from alternative investment opportunities and the life of the assets with any of the following evaluation techniques:-

- Degree of Urgency Method (Accounting Rate of return Method)
- Pay-back Method
- Return on investment Method
- Discounted Cash Flow Method.

(4) Establishing Priorities: After proper screening of the proposals, uneconomic or unprofitable proposals are dropped. The profitable projects or in other words accepted projects are then put in priority. It facilitates their acquisition or construction according to the sources available and avoids unnecessary and costly delays and serious cot-overruns. Generally, priority is fixed in the following order.

- Current and incomplete projects are given first priority.
- Safety projects ad projects necessary to carry on the legislative requirements.
- Projects of maintaining the present efficiency of the firm.
- Projects for supplementing the income
- Projects for the expansion of new product.

(5) Final Approval: Proposals finally recommended by the committee are sent to the top management along with the detailed report, both of the capital expenditure and of sources of funds to meet them. The management affirms its final seal to proposals taking in view the urgency, profitability of the projects and the available financial resources. Projects are then sent to the budget committee for incorporating them in the capital budget.

(6) Evaluation: Last but not the least important step in the capital budgeting process is an evaluation of the program after it has been fully implemented. Budget proposals and the net investment in the projects are compared periodically and on the basis of such evaluation, the budget figures may be reviewer and presented in a more realistic way.

Types of capital budgeting decision

Generally the business firms are confronted with three types of capital budgeting decisions.

(i) Accept-reject decisions.

(ii) Mutually exclusive decisions.

(iii) Capital rationing decisions.

Accept-reject decisions: Business firm is confronted with alternative investment proposals. If the proposal is accepted, the firm incur the investment and not otherwise. Broadly, all those investment proposals which yield a rate of return greater than cost of capital are accepted and the others are rejected. Under this criterion, all the independent proposals are accepted.

Mutually exclusive decisions: It includes all those projects which compete with each other in a way that acceptance of one excludes the acceptance of other or others. Thus, some technique has to be used for selecting the best among all and eliminates other alternatives.

Capital rationing decisions: Capital budgeting decision is a simple process in those firms where fund is not the constraint, but in majority of the cases, firms have fixed capital budget. So, large amount of projects compete for these limited budgets. So the firm rations them in a manner so as to maximize the long run returns. Thus, capital rationing refers to the situations where the firm has more acceptable investment requiring greater amount of finance than is available with the firm. It is concerned with the selection of a group of investment out of many investment proposals ranked in the descending order of the rate or return.

Some important concept in capital budgeting

Net cash outflow/Net cash outlay/Initial investment: It includes the cash required to acquire the new equipment or build the new plant less any net cash proceeds from the disposal of the replaced equipment. The initial outlay also includes any additional working capital related to the new equipment. Only changes that occur at the beginning of the project are included as part of the initial investment outlay. Any additional working capital needed or no longer needed in a future period is accounted for as a cash outflow or cash inflow during that period.

Net cash inflow/Net cash benefit: Net cash benefit means-total cost of the project that will have to invest in starting a project.

Life of the project:

Salvage value/Residual value: The estimated value that an asset will realize upon its sale at the end of its useful life. The value is used in accounting to determine depreciation amounts and in the tax system to determine deductions.

Discounting rate/Cost of capital/Opportunity cost: Cost of capital means- minimum rate of return expected by the investor/Opportunity cost is the cost of foregoing (not to attain or sacrifices) an opportunity

Capital gain or loss: A capital gain is a profit that results from investments into a capital asset, such as *stocks*, *bonds* or *real estate*, which exceeds the purchase price. It is the difference between a higher selling price and a lower purchase price, resulting in a financial gain for the investor. Conversely, a capital loss arises if the proceeds from the sale of a capital asset are less than the purchase price.