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SUSTAINABLE INVESTMENT APPRAISAL INCORPORATING ENVIRONMENTAL AND SOCIAL FACTORS INTO CAPITAL BUDGETING DECISIONS WITH REFERENCE TO ULTRATECH CEMENT

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ABSTRACT

This area is devoted only to large-scale investment plans, which are often seen as long-term endeavours that fall under the category of market opportunities.

Investment decisions in capital expenditures are made via capital budgeting. The term "capital expenditure" may be used to describe any kind of purchase whose projected return on investment (ROI) is more than a year away. A capital expenditure is defined as an outlay of funds with the expectation of future rewards at various points in time, rather than all at once. For several reasons, a company's success hinges on its capital budgeting choices. To begin, substantial sums of money are usually needed for capital expenses. Second, businesses need to figure out how to get the money and pay it back the most efficient method. Thirdly, a long-term commitment is usually necessary for capital budgeting choices. Lastly, it's critical to consider the timeliness of choices about capital budgets. Companies need to keep a careful eye on the financial markets when they raise a lot of money since interest rates determine how much it costs to borrow money.

Techniques for capital budgeting, payback time, and cash expenditures are the main terms.

I. INTRODUCTION

Capital budgeting is one of the most important decisions that face the financial manager. Prior studies spanning the past four decades show financial managers prefer methods such as internal rate of return or non-discounted payback models over net present value; the model academics consider superior. 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. Often the funds raised to invest in such assets are not unrestricted, or infinitely available; thus the firm must budget how these funds are invested.

The term Capital Budgeting refers to the long-term planning for proposed capital outlays or expenditure for the purpose of maximizing return on investments.

The capital expenditure may be:

1) Cost of mechanization, automation and replacement.

2) Cost of acquisition of fixed assets. e.g., land, building and machinery etc.

3) Investment on research and development.

4) Cost of development and expansion of existing and new projects

According to “I.M. PANDEY” has defined “capital budgeting- is the decision making

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process by which a firm evaluates the purchase of major fixed assets including building, machinery and equipment"

According to "Hampton-John"."Capital budgeting is concerned with the firm's formal process for the acquisition and investment of capital."

Capital budgeting uses the concept of present value to select the projects. Capital budgeting uses tools such as Pay Back Period, Average Rate of Return Method, Net Present Value, Internal Rate of Return and Profitability Index to select projects.

II. LITERATURE REVIEW:

Capital budgeting decisions are extremely important and complex and have inspired many research studies. In an in-depth study of the capital budgeting evaluations, Marc Ross found in 1972, that although techniques that incorporated discounted cash flow were used to some extent, firms relied rather heavily on the simplistic payback model, especially for smaller projects. In addition, when discounted cash flow techniques were used, they were often simplified. For example, some firms' simplifying assumptions include the use of the same economic life for all projects even though the actual lives might be different. Further, firms often did not adjust their analysis for risk (Ross, 1986).

In 1972 Thomas P. Klammer surveyed a sample of 369 firms from the 1969 Compustat listing of manufacturing firms that appeared in significant industry groups and made at least $1 million of capital expenditures in each of the five years 1963- 1967. Respondents were asked to identify the capital budgeting techniques in use in 1959, 1964, and 1970. The results indicated an increased use of techniques that incorporated the present value (Klammer, 1984).

Although other functions of finance like the capital structure, dividend policy, working capital management are equally important to the financial manager but it is the fixed assets that define the business of the firm (Pandey 2004).

Capital budgeting is primarily concerned with sizable investment in long term assets Brealey and Myers (2004) these assets may be tangible such as property, plant and equipment or intangible such as new technology, patent, research and development, design and trademark. Capital budgeting decision have long term range impact on the strategic performance of the organization and are a key to the success or the failure of the organization. If the company does not invest in capital projects it may not be able to compete effectively and therefore it may be competed out of the market.

Objectives of Capital Budgeting

The following are the important objectives of capital budgeting

To ensure the selection of the possible profitable capital projects

To ensure the effective control of capital expenditure in order to achieve by forecasting the Long - term financial requirements

To make estimation of capital expenditure during the budget period and to see that the benefits and costs may be measured in terms of cash flow

Determining the required quantum takes place as per authorization and sanctions

To facilitate co-ordination of interdepartmental project funds among the competing capital projects

To ensure maximization of profit by allocating the available investible.

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III. METHODS AND TECHNIQUES OF CAPITAL BUDGETING DECISIONS:

The methods of capital budgeting is classified into two types.

1. Traditional methods

2. Modern methods

TRADITIONAL METHODS: are the methods which are used in the olden days. The methods

which ignore the time value of money in the preparation of capital budgeting proposals are called traditional methods. They are sub divided into two types. Which are

a. Pay-back-period method

b. Average rate of return method

1.Pay-back Period Method: Pay-back period is also termed as "Pay-out period" (or) “Pay-off period”. Payout Period Method is one of the most popular and widely recognized traditional method of evaluating investment proposals. It is defined as the number of years required to recover the initial investment in full with the help of the stream of annual cash flows generated by the project.

Calculation of Pay-back Period: Pay-back period can be calculated into the following two different Situations

A. In the case of constant annual cash inflows: If the project generates constant cash flow the Payback period can be computed by dividing cash outlays (original investment) by annual cash inflows. The following formula can be used to ascertain payback period.

$$\text{PAYBACK PERIOD} = \frac{\text{CASH OUTLAYS}}{\text{ANNUAL CASH INFLOWS}}$$

B. In the case of Uneven or Unequal Cash Inflows: In the case of uneven or unequal cash inflows, the Pay-back period is determined with the help of cumulative cash inflow. It can be calculated by adding up the cash inflows until the total is equal to the initial investment.

Advantages:

Easy to calculate and understand: calculation of payback period does not involveany complicated formulae. It is easy to calculate and understand.

Liquidity is emphasized: it emphasizes on the earlier cash flows which are more likely to be accurate than later cash inflows.

Reliable technique in volatile business situations: It is a reliable technique for project appraisal particularly in the areas of volatile business conditions such as change in technology, changing fashions and customers taste and preferences.

2. Average Rate of Return method: also called as Accounting Rate of Return method. Accounting Rate of Return refers to the ratio of annual profits after taxes to the average investment. The average investment is equal to half of the original investment. It is assumed that the asset is depreciated as per straight line method. Usually it is expressed in terms of percentage. The higher the ARR, the better is the profitability and hence the projects with higher accounting rate of return are shortlisted for implementation.

$$\text{ARR} = \frac{\text{Average Annual Profits After Taxes}}{\text{Average Investment}}$$

Advantages:

- It is easy to understand and calculate

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- It can be compared with the cut-off point of return and hence the decision to accept or reject is made easier
- It considers all the cash inflows during the life of the project, not like payback period method.
- It is a reliable measure because it considers net earnings that is ,earnings after depreciation, interest and taxes.

MODERN METHODS: Discounted cash flow methods are the improved methods over the traditional methods. These consider the time value of money. They consider the whole earnings of the proposal and the cost of the project. Because of these reasons , these methods are also called modern methods of investment appraisal. Discounted cash inflow methods can be classified into three types. They are,

- Net present value method
- internal rate of return method
- Profitability index method

Modern Methods (or) Discounted Cash Inflows Methods. Discounted cash flow methods are the improved methods over the traditional methods. These consider the time value of money. They consider the whole earnings of the proposal and the cost of the project. Because of these reasons , these methods are also called modern methods of investment appraisal. Discounted cash inflow methods can be classified into three types. They are,

A. Net Present Value method: Net present value refers to the excess of present value of future cash inflows over and above the cost of original investment.

NPV =present value of future cash inflows after taxes -present value of original investment

The concept of NPV is logical extension to the concept of present value. Here the decision is based on the size of net present value. The projects with higher NPV are selected. if the NPV is negative, that means the project is not profitable.

Procedure for calculation of NPV:

1.From the PV factor table, identify the PV factors of rs1 for the given discount rate.

2. Multiply the cash flows (both inflows and outflows) with the corresponding PV factor to find the products.

3. Find the sum of the products.

4. If the sum is positive, that means the project is profitable. Incase of projects with different NPV's choose the project with the highest NPV. Because, the higher the NPV, the better the profitability.

B. Internal Rate of Return Method: Internal rate of return method is that of rate of return at which the present values of expected cash flows of a project exactly equals the original amount. In other words, it equates the present value of a given project with its outlay. This is the cutoff point at which the income equals the expenditure (or) the investment breaks even.

At IRR, the net present value of a project is zero. The net present value refers to the excess of the present value of future cash flows over and above the original amount. The internal rate of return is denoted by (r) .it is computed as shown below:

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$$\text{Lower Interest Rate} + \frac{\text{NPV of Lower Rate}}{\text{NPV Lower Rate (-) NPV Higher Rate}} \times (\text{Higher Rate} - \text{Lower Rate})$$

Advantages:

IRR is based on the time value

It is based on the earnings of all the years of the project.

It is a valuable tool to compare the projects with different cash inflows and different life span.

C. PROFITABILITY INDEX: is the ratio between the present value of cash inflows and the present value of cash outflows. It is used to indicate the profitability at a glance. Where the projects differ in their duration and the cash inflows, these can be compared based on their Profitability Index. The profitability index is more than one for the profitable projects. The higher the index , the more profitable the proposal is. The following formula is used to calculate the Profitability Index.

$$\text{profitability index} = \frac{\text{sum of present value of cash inflows}}{\text{sum of present value of cash outflows}}$$

Advantages:

It is easy to calculate, given the present values of cash flows.

Projects of different magnitude in terms of duration and cash flows can be shortlisted on the basis of their profitability.

It is recommended for use particularly when there is shortage of funds, because it correctly ranks the proposals.

IV. RESEARCH METHODOLOGY

Data collection:

Primary data: -

The primary data is the data which is collected, by interviewing directly with the organizations concerned executives. This is the direct information gathered from the organization.

Secondary data: -

The secondary data is the data which is gathered from publications and websites.

V. CONCLUSION

The capital budgeting process gives financial managers a lot of leeway to assess the potential investment feasibility of various projects. It aids in preventing excessive or insufficient investment while revealing the risk and unpredictability of various enterprises. An organization's success or failure hinges on its ability to make the most efficient use of its resources, and this tool helps management keep capital expenditure projects under control. The purpose of this article is to argue for the importance of capital budgeting in ensuring prudent financial decision-making.

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