PROCESS OF DECISION MAKING FOR CHOOSING INVESTMENT STRATEGIES IN CAPITAL MANAGEMENT IN INDIA

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Abstract
The concept of capital budgeting is crucial for every business firm as it aims in the maximization of the shareholders' value. In this research article, the main aim was to study process, techniques involved in analyzing the investment decisions, weaknesses and solutions related to capital budgeting. The study was conducted in order to know the various levels of decision making adopted by the manufacturing companies of India involved in capital budgeting process. Further, various methods were evaluated in order to know which one was the most suitable, being preferred by them. For achieving the stated objectives, 10 manufacturing companies of Ludhiana were taken as sample. Surveys were conducted by visiting the selected companies personally in order to obtain the required information. It was found out that Indian companies mostly followed pay-back method and accounting rate of return in order to appraise the capital budgeting proposals.

Keywords
Capital Budgeting, Payback Period, Capital Expenditure.

JEL Classification
M10, M12, M20, M21, M50, M51

Introduction

Financial decisions refer to decisions related to the financial matters of a business firm. These can be classified into three categories namely investment decisions, dividend decisions and financing decisions. Investment decisions are the decisions which are related to the determination of total amount of assets to be held by the firm. These decisions can either be capital budgeting decisions which is long-term investment decision or working capital budgeting which is short-term investment decision. Capital budgeting is the process of making investment decisions in the capital expenditure. The expenditure which is incurred once, but the benefits of the same are realized at different points of time is called capital expenditure. Capital investments can be tangible, monetary or intangible. Investment can be mandatory if the capital expenditure to be incurred has to comply with statutory requirements. Investment can be replaceable if a worn out equipment has to be replaced by a new equipment. An expansion investment is meant to increase the existing operations of the business. A diversification investment is the one in which new products and services are developed. Capital budgeting is the process of making investment decisions in the capital expenditure. The consideration of investment opportunities involves

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the comparison of the expected future earnings with the immediate earnings from the project. Capital budgeting decisions involve huge investments of funds and are irreversible in nature. They have a long term effect on the profitability of a firm. As these decisions can not be reversed once taken, they involve a higher degree of risk.

Objectives

The basic objective of a capital budgeting decision is to maximize the shareholders' wealth of the respective company. A capital budgeting decision is said to be reliable if it pays back the company in the long run. This present study aims:

1. To know the process being adopted by the companies for the purpose of investment in capital budgeting projects.
2. To analyze various techniques being followed by the companies.
3. To know the factors which affect the capital budgeting decisions the most.

Process Followed By Indian Companies To Evaluate Capital Budgeting Decisions

Capital budgeting is considered to be a complex process as it involves decisions relating to the investment of existing funds for the benefit to be achieved in the future. Following process is adopted by the Indian Manufacturing Companies for the evaluation of capital budgeting decision:

1. Identification of Investment Proposals

The first step involved in the process of capital budgeting is to identify investment proposals. Either the top management or the respective officer initiates the investment proposal. After effective analysis, the proposal is submitted to the Capital Expenditure Planning Committee or to the officers which make long-term investment decisions.

2. Screening of the Proposals

The Capital Expenditure Planning Committee screens the initiated proposals from every aspect and examines whether they are linked with corporate strategies or selection criterion of the firm.

3. Evaluation of the various proposals

The proposals which are short-listed, are evaluated by the business firms in order to know whether they prove to be profitable for the firm in the future. For this purpose, various techniques like Pay Back, Internal Rate of Return, Net Present Value, Profitability Index are used as per their choice of selection.

4. Final approval

After evaluating the pros and cons of each proposal, the one being the most profitable or economic project is approved to be included in the Capital Expenditure Budget. This budget records the estimated expenditure to be incurred on fixed assets during the specific budget period.

5. Implementation

If the project is not properly implemented, even a profitable project will turn into an unprofitable one. Therefore, it is better to assign responsibilities for the successful completion and implementation of a project.

6. Performance Review

The last step is to evaluate the performance of the project. It can be done either by comparing the actual performance of the project with the budgeted performance or by comparing the actual returns with the estimated ones.

Levels Of Decision Making

1. Operating decisions are related to the lower level management. These are decisions which have to be taken on day-to-day basis with the minor requirement of resources.

2. Administrative decisions are related to the middle level management. These decisions are semi-structured and require moderate level of resources.

3. Strategic decisions are concerned with the top level management. These decisions are unstructured and require major commitment of resources.

Techniques Mostly Followed By The Indian Companies To Evaluate Investment Decisions Regarging Capital Management

There have been many criteria that have been developed by economists to judge the competitiveness of proposals, considering the economic and non-economic factors. Some of the techniques mostly used by companies are given below:

1. Pay-Back Period Method

It represents the period in which the total investment made in the fixed assets pays back itself. In this method, various investments are ranked according to the duration of the pay-back period i.e. shorter the pay-back period of the proposal, more preferable it will be. Pay back period can be calculated in the following manner:

a) Ascertain annual cash flows i.e. Annual net earnings before depreciation and after taxes

b) Divide the initial cash outlay of the project by annual cash flows, where the project generates equal cash inflows.

c) Where the project generates unequal cash inflows, the pay-back period can be ascertained by adding the cash inflows until the total is equal to the initial cash outlay of the project.

Most of the Indian companies rely on this method as it is easy to calculate and simple to understand. It reduces the loss through obsolescence, as the project with the shorter pay-back period is preferred over the one with longer pay-back period.

2. Net Present Value Method

It is the sum of present values of all the cash flows- positive as well as negative which are expected to occur over the life of the project. This method assumes that the intermediate cash flows of a project i.e. cash flows that occur between the initiation and termination of the project, are reinvested at a rate of return equal to the cost of capital. Its drawback is when mutually exclusive projects with different lives are being considered, NPV method is partial in the favour of long term proposal.

3. Accounting Rate of Return Method

It is a method to measure profitability, which relates income to investment, both measured in accounting terms. This method is also known as average rate of return on investment. The measures that are employed commonly used by Indian companies are:

a) Average income after tax / Initial Investment

b) Average income after tax / Average Investment

c) Average income after tax but before interest / Initial Investment

d) Average income after tax but before interest / Average Investment

e) Average income before interest and taxes / Initial Investment

f) Average income before interest and taxes / Average Investment

4 Profitability Index Method

It is the relationship between present value of cash inflows and present value of cash outflows. It is also known as 'benefit-cost ratio' method. The projects are ranked in respect of their profitability index. The project whose profitability index is more than 1 is accepted. This method suffers from the drawback that it becomes difficult to rank projects when the costs of the projects differ significantly.

Research Methodology

Below you can see the analysis of primary data collected from 10 manufacturing companies prevailing in Ludhiana. The data was collected by the way of conducting surveys in order to analyze the techniques being used to analyze capital budgeting decisions and to examine the factors which affect the decisions related to capital budgeting the most. The responses were obtained by visiting the sampled companies personally. From the Table 1 - Factor that affects the capital budgeting decisions the most, it is found that most of the manufacturing companies considered future earnings while making capital budgeting decision, followed by 30% of the companies which considered the cost factor for the same. 10% of the companies said that availability of the funds was the major factor that affected their capital budgeting decision. From the Table 2 - The most commonly used technique to appraise capital budgeting projects, it is found that 40% each of the companies relied on accounting rate of return and pay-back period the most. While each of the 10% of the companies relied on net present value and profitability index the most for the purpose of assessing their capital budgeting proposals.

Table no. 1: Factor that affects the capital budgeting decision the most

	Frequency	**Percentage (%)**
Urgency	2	20%
Availability of funds	1	10%
Future earnings	4	40%
Cost considerations	3	30%
TOTAL	10	100%

Table no. 2: The most commonly used technique to appraise capital budgeting projects

	Frequency	**Percentage (%)**
Pay-Back Period	4	40%
Net Present Value	1	10%
Accounting Rate of Return	4	40%
Profitability Index	1	10%
TOTAL	10	100%

Investment Practicies Followed By Indian Companies

A survey of capital budgeting practices in India was conducted in order to know the practices being followed by the companies:
1. Firms typically use multiple evaluation methods depending upon the nature of the project.
2. Accounting rate of return and pay-back period are mostly used in order to evaluate the long-term investment decisions.
3. The most common methods being followed by the companies to adjust the risk involved are reducing the pay-back period and increasing the required rate of return.
4. Weighted average cost of capital is the most commonly used discount rate.

Common weaknesses observed in making capital budgeting decision

1. Poor alignment between strategy and capital budgeting

Every company has a mission and vision statement for the purpose of achieving their goals. However, there can be improper alignment between the capital budgeting decisions and strategic management.

Example: If a company wants to diversify its business operations by entering into a new product line, there can be erosion of revenues of old products due to the introduction of new ones.

2. Deficiencies in analytical techniques case

Sometimes, the companies often don’t specify the base case of the project. The base case says what would happen to the firm without the respective project. While analyzing capital projects, companies fail to treat the risk in an adequate manner which result in the failure of capital budgeting decisions.

3. Reverse Financial engineering
This involves manipulating the figures of the project to fulfill the certain criteria laid down by the firm.
Example: If it is stated that a project will be accepted only if internal rate of return is more than 10% or pay-back period is less than three years, financial manager will manipulate the figures in order to get it approved and included in the capital budget.
4. Poor integration between capital budgeting and expense budgeting
Capital budgeting and expense budgeting are done in an independent manner. Example: the estimated profitability of a capital project may be based on the assumption that firm would incur certain outlays on marketing activities, which form part of expense budget. Even if both the budgets are developed in a mutually consistent manner, the pressure to perform in short run may lead to cutback of the expense budget.
Solutions
1. Risk management
Every capital budgeting decision involves short, medium and high risks depending upon the nature of the project. As future is uncertain, all the elements of uncertainty should be considered while taking a decision related to long-term investment proposal. Indian companies rely on sensitivity analysis, decision tree analysis and standard deviation method in order to analyze how risky the project is.
2. Options should be evaluated effectively
The valuable options like option to expand, option to modify the inputs and outputs involved in the project, option to contract the project should be taken into consideration as they give flexibility to the managers to increase their profits or reduce losses.
3. Financing mix
A proper financing mix should be considered while financing a long term project. This can be achieved by investing in a project with a low cost of capital but at the same time, being flexible and profitable in future as well.

Next Research Direction
This research article covered the process of decision making in selecting the feasible capital budgeting proposals, techniques being followed by the companies for analyzing their decisions and the reasons behind their reliance on the respective techniques, levels of decisions being made in the process and the weaknesses involved in the capital budgeting decisions. The following aspects which remain uncovered in this article, can be considered in the next research:
Impact of inflation on investment decisions
Detailed study of risk analysis techniques involved in capital budgeting

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References
Maroyi V and Margaretha H(2012) A survey of capital budgeting techniques used by listed mining companies in South Africa.
African Journal of Business Management.
Nyaga N G & Ambrose J(2013) Capital Budgeting Procedures and Practices in Public Secondary Schools In Kenya.
International Journal of Humanities and Social Science.