NPV, IRR, and Contemporary Evaluation Methods in Capital Budgeting Project Financial Decision Making

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Abstract:

The practice of allocating available cash to different long-term assets is called capital budgeting. It will have an impact on future business expansion and earnings. Capital budgeting is about how businesses should decide which projects to fund and how much money to spend on them. There are a lot of things that go into making and carrying out a company's investment policy.

Capital budgeting is mostly about buying and improving fixed assets, which are long-term investments. It costs a lot and is part of the long-term decision that upper management makes. Businesses need to plan their capital spending in the future, and capital planning is a big part of that. It is planning for the long term to make and pay for big long-term projects.

Need for the study:

• The project study aims to analyse and comprehend the capital budgeting process in any manufacturing sector, providing average exposure to the application of theoretical knowledge.

• To understand how the business uses different capital budgeting strategies.

• To understand how the business obtains funding from different sources.

Objectives of the study:

• To research the importance of capital budgeting when assessing a project for funding.

• Examine capital budgeting as a decision-making technique. to determine the present value of the invested rupee.

• To calculate the invested rupee's present value.

• To comprehend an item-by-item analysis of the business's financial performance.

• To offer recommendations, if any, for strengthening the company's financial situation.

• To comprehend how capital budgeting methods are actually used.

• To comprehend the nature of uncertainty and risk.

Review of the Literature:

- **Chandrasekaran.m (2019)** *"A STUDY ON CAPITAL BUDGETING IN THE INDIA CEMENTS LIMITED AT DALAVOI, ARIYALUR"*. The study was set out to determine the capital budgeting techniques used in investment appraisal decisions. This study suggested that the company wants to reduce their borrowings for increasing their profit and also It is suggested that the company can improve their efficiency through technology upgradation. It is suggested to the India Cement limited, to issue debentures because it will increase the profit of the company than shares.
- **Abhishek Jha-May 2019-** *Literature Review of Capital Budgeting Practices with Special Reference to Capital Intensive Industries of India*- The following literature review dealt with a review of past studies conducted on capital budgeting and its related aspects. Both foreign and Indian studies on capital budgeting were included as part of the study. The review tried to critically analyse each and every aspect of every individual study from methodology to statistical tools being applied and findings.
- **Pragya Sharma, (2025)** *Capital Budgeting Techniques: Learn the Methods Businesses Use to Evaluate Potential Investments. Advances in Consumer Research, 2 (2), 519-530-* This research paper demonstrates important findings about capital budgeting techniques in current use. Multiple traditional evaluation methods have been heavily utilized by businesses for years to review potential investment projects including Net Present Value (NPV) and Internal Rate of Return (IRR) and Payback Period.
- **Dipen Roy Dhruba Charan Hota**: **An Empirical Study-Volume 40 Dec 2014** Capital *Budgeting Practices of Corporate Enterprises in India:* in this paper the Financing and capital budgeting decisions, being interlinked and inter-dependent, have been simultaneously studied in this paper to trace the presence of any link between sources of finance and choice of appraisal methods.
- **Lingesiya Kengatharan- Vol. 3, No. 2; May 2016**- *Capital Budgeting Theory and Practice: A Review and Agenda for Future Research*- This research was well thought out in its design and contributed by stating the known and unknown arena of capital budgeting during the last two decades.

Research Methodology: The following approach has been used to accomplish the forementioned goal. Examine capital budgeting as a decision-making technique to determine the value of a rupee.
The information for this research was gathered solely from secondary sources. Secondary sources: A range of financial books, periodicals, pamphlets, and websites provided the secondary data.

The limitations of the Study:

• Time is the primary constraint.

for example, an independent study on capital budgeting cannot be finished in the allotted eight weeks.

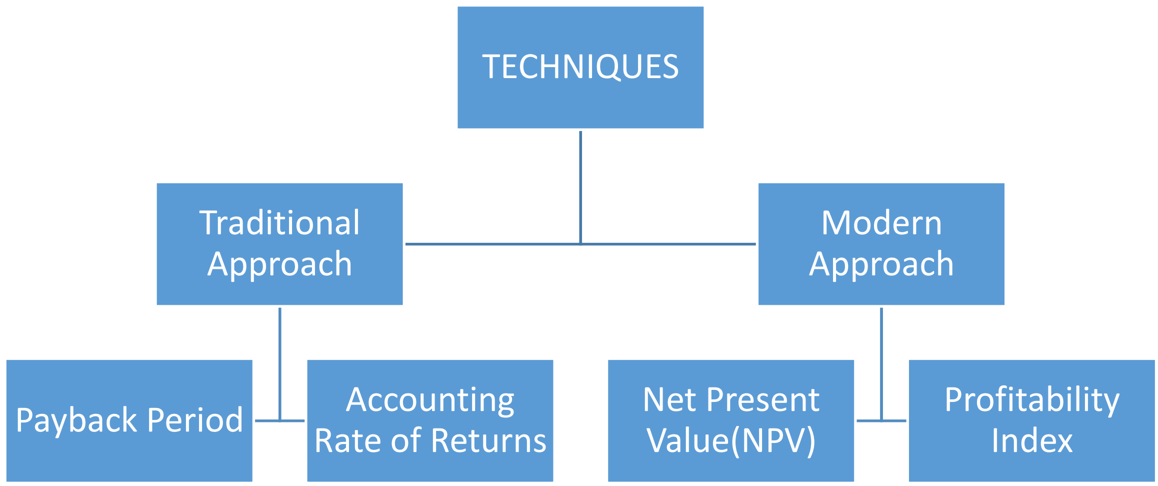
• There is no access to private financial data.

• The study was hurriedly finished and lacked sufficient detail.

• Not all organizations employ all capital budgeting strategies.

Consequently, only a few methods of capital budgeting could be described.

Capital Budgeting techniques:



The following steps are involved in the calculation of NPV:

- Cash flows of the investment project should be forecasted based on realistic assumptions.
- An appropriate rate of interest should be selected to discount the cash flows, generally this will be the "Cost of capital rate" of the company.
- The present value of inflows and out flows of an investment proposal, has to be computed by discounting them with an appropriate cost of capital rate.
- The Net Present value is the difference between the "Present Value of Cash inflows" and the present value of cash outflows.
- Net present value should be found out by subtracting present value of cash outflows from present value of cash inflows. The project should be accepted if NPV is positive.

NPV = Present Value of Cash inflow – Present value of the cash outflow.

Acceptance Rule:

Accept if NPV > 0
Reject if NPV < 0
May accept if NPV = 0
One with higher NPV is selected.

Payback period:

• The time needed for the proposal's total cash flows to match its cash outflows is known as the payback period. Typically, the payback period is expressed in terms of years.

• The amount of years it takes the company to recoup its initial investment through net returns before depreciation but after taxes is known as the payback time. The payback period is finished as follows if the project consistently generates yearly cash inflows:

$$\textbf{Pay Back} = \frac{\textbf{Initial Investment}}{\textbf{Annual cash inflow}}$$

Acceptance Rule: • If a project's calculated payback term is less than the maximum payback period established by the organization, it can be accepted; if it is less than the standard set by management, it is rejected.

Acceptance Rule: • If PI > 1, accept; if PI < 1, reject; if PI = 1, accept.

• As a ranking technique, it assigns the lowest rank to a project with the longest payback duration and the highest rank to one with the shortest payback period.

Index of Profitability (PI):

It is the ratio of the initial cash expenditure of the investment to the present value of future net cash inflows at the necessary rate of return.

Discounted Payback Period:

• The payback method's failure to discount cash flows is one of its main criticisms. As a result, the discounted payback period was created.

• The discounted payback period is the amount of time needed to repay the investment expenditure based on present value.

• Because it discounts the cash flows until the outlay is recovered, the discounted payback rule is preferable.

Suggestions and Conclusion:

• Every firm has predetermined goals and objectives, but achieving them requires careful planning and cost-effective plan execution.

• The power plant achieved its initial objective of installing all of its capacity, and it continued to perform exceptionally well in electricity generation.

• The organization needs the capable persons as management to lead to organization successfully.

• The management creates and carries out the plans

• The company rarely employs special budgets like long-term, research and development, and consistency budgets; instead, long-term investment choices are employed to describe these strategies

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