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A STUDY ON CAPITAL BUDGETING IN RELIANCE - A DETAILED REVIEW

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Abstract:

Capital Budgeting is the process of identifying, analyzing and selecting investment projects whose cash flows are expected beyond one year. It is also called as investment appraisal. It is the planning process used to determine whether organization's long-term investments, major capital, or expenditures are worth pursuing. Capital Budgeting project i.e. potential long-term investments, are expected to generate cash flows over several years. The decision to accept or reject a capital budgeting project depends on an analysis of the cash flows generated by the project and its cost.

Management must allocate the form's limited resources between competing opportunities (projects), which is one of the main focuses of capital budgeting. Capital budgeting is also concerned with the setting of criteria about which project should receive investment funding to increase the value of the firm, and whether to finance that investment with equity or debt capital. Capital budgeting projects may include a wide variety of different types of investments.This study is mainly focusing on the capital budgeting of the RELIANCE INDUSTRIES LIMITED company from 2014-2019 with various ratios like ARR, IRR, PAYBACK RATIO, & PROFITABILITY INDEX.

Keywords: Capital Budgeting, expenditures investment

INTRODUCTION

CAPITAL BUDGTING:

An efficient allocation of capital is the most important finance function in modern times. It involves decisions to commit firm's funds to long-term assets. Such decisions are tend to determine the value of company/firm by influencing its growth, profitability & risk.

Investment decisions are generally known as capital budgeting or capital expenditure decisions. It is clever decisions to invest current in long term assets expecting long-term benefits firm's investment decisions would generally include expansion, acquisition, modernization and replacement of long-term assets.

Such decisions can be investment decisions, financing decisions or operating decisions. Investment decisions deal with investment of organization's resources in Long tern (fixed) Assets and / or Short term (Current) Assets. Decisions pertaining to investment in Short term Assets fall under "Working Capital Management". Decisions pertaining to investment in Long term Assets are classified as "Capital Budgeting" decisions.

Capital budgeting decisions are related to allocation of investible funds to different long-term assets. They have long-term implications and affect the future growth and profitability of the firm.

In evaluating such investment proposals, it is important to carefully consider the expected benefits of investment against the expenses associated with it.Organizations are frequently faced with Capital Budgeting decisions. Any decision that requires the use of resources is a capital budgeting decisions. Capital budgeting is more or less a continuous process in any growing concern.

REVIEW OF LITERATURE

Prasanna Chandra (1975) conducted a survey of twenty firms to examine the importance assigned to economic analysis of capital expenditures, methods used and its rationale for analyzing capital expenditures and ways to improve economic analysis of capital expenditures. The findings of the study reveals that the nature of economic analysis of capital expenditures varies from project to project but in most of the firms surveyed the analysis is done in sketchy terms. The most commonly used method for evaluating investments of small size is the PBP and for large size investments the ARR is used as the principal criterion and the PBP is used as a supplementary criterion. DCF techniques are gaining importance particularly in the evaluation of large investments. Several other criterias such as profit per rupee invested, cost saving per unit of product, investment required to replace a worker are used for evaluating investments. Most of the firms do not have fixed standards for acceptance/rejection of projects. The most common methods used for incorporating the risk factor into the capital expenditure analysis are conservative estimation of revenues, safety margin in cost figures, flexible investment yardsticks, acceptable overall certainty index and judgement on three point estimates of rate of return.

Porwal L S (1976) had done an empirical study of the organizational, quantitative, qualitative, and behavioural and control aspects of capital budgeting in large manufacturing public limited companies in the private sector in India. He had selected 118 companies out of which 52 companies (44%) provided usable responses. The majority of the companies studied give more importance to earning more profits or achieving a higher accounting rate of return on investment in assets. The final authority to make a capital expenditure decision rests with the Board of Directors (BOD) in case of four-fifths of the companies. Important key stages in the capital expenditure process are(i) initiation, (ii) evaluation, (iii) approval and (iv) control. Though 44% of the respondents ranked first preference for DCF techniques, however, most companies were using combination of traditional and 'theoretically correct' economic evaluation techniques of capital expenditure proposals. IRR is favoured for new product lines whereas ARR is most favoured in case of existing product lines but PBP continues to be the next favoured technique. Competitive position is the main non-financial factor that is given due consideration for the capital budgeting decision. High profitability companies prefer 'cost of funds used to finance the expenditure' more than the WACC for determining the cut-off point. Capital rationing is not much of a problem in Indian industries. So far as risk in the capital budgeting is concerned, uncertainty in the availability of inputs, inability to predict key factors and uncertainty in government policy are reasons of project risk. Most companies in India are using one or more methods for incorporating risk. The shorter payback period and higher cut-off rate are the popular techniques used by companies in India. Priorities and higher rate of return are the two main criteria for minimizing disappointment and perceived conflict among the departments of a firm. For controlling capital expenditures, about two-thirds of the companies under study have reported that they adopt post-audit.

Pandey I M (1989) In a study of the capital budgeting practices of fourteen medium to large size companies in India, it was found that all companies, except one, used payback. With payback and/or other techniques about two-thirds of companies used IRR and about two-fifths NPV. IRR was found to be the second most popular method. The reasons for the popularity of payback in order of significance were stated to be its simplicity to use and understand, its emphasis on the early recovery of investment and focus on risk. It was found that one-third of companies always insisted on the computation of payback for all projects, one-third for majority of projects and remaining for some of the projects. For about two-thirds of companies' standard payback ranged between 3 and 5 years. According to his survey, reasons for the secondary role of DCF techniques in India included difficulty in understanding and using these techniques, lack of qualified professionals and unwillingness of top management to use DCF techniques. For capital rationing it is found that most companies do not reject projects on account of capital shortage. They face the problem of shortage of funds due to the management's desire to limit capital expenditure to internally generated funds or the reluctance to raise capital from outside. But generally companies do not reject profitable projects under capital rationing; they postpone them till funds become available. The most commonly used methods of risk analysis in practice are sensitivity analysis and conservative forecasts. Except a few companies most companies do not use the statistical and other sophisticated techniques for analyzing risk in investment decisions.

Sahu P K (1989) has done a study on Capital budgeting in corporate sector in the state of Orissa. He made an attempt to study the trends in fixed investment and its financing between 1960-61 to 1973-74. He took a sample of 15 companies. It was observed that routine investments were financed through internal sources of funds while investments for the growth purpose are financed through the external sources of funds. Short term financing is generally used for financing fixed investments only during growth periods and that too for short periods. It was observed that PBP and ARR were the methods generally preferred by firms followed by discounting methods NPV and IRR.

Dhankar R S (1995) examined methods of evaluating investments and uncertainty in Indian companies. He selected a sample of 75 firms. His findings revealed that 33% of firms used non-discounted methods like PBP and ARR whereas 16% of companies were using modern DCF techniques. Moreover, almost 50% of the companies incorporated risk by 'Adjusting the Discount Rate' and 'Capital Asset Pricing Model'.

U. Rao Cherukuri's (1996) survey of 74 Indian companies revealed that 51% use IRR as project appraisal criterion. Firms typically use (92% or more) multiple evaluation methods. ARR and PBP are widely used as supplementary decision criteria. WACC is the discount rate used by 35% of the sample firms. The most widely used discount rate is 15%, and over 50% use an after-tax rate. About three-fifths of the respondents explicitly consider risk in capital project analysis and mostly use sensitivity analysis for purposes of risk assessment. The most popular method used by respondents to adjust for risk is shortening the PBP followed by increasing the required rate of return. 35% of the respondents included leasing in the capital budgeting process. A few Indian firms in his survey also used none of the methods listed on questionnaire. They were using profitability and cash flow analysis for assessing capital expenditure. Apart from the formal budgeting techniques due weightage is given to qualitative aspects like quality improvement expected from the capital expenditure, capital expenditure for enhanced safely and capital expenditure to meet statutory requirements and for benefit to the company's personnel from health considerations and social benefits like housing. The favorite capital budgeting methods of earlier years, ARR (about 19%) and PBP (about 38%) have been used as primary methods.

C Prabhakara Babu & Aradhana Sharma (1996) had done an empirical study on capital budgeting practices in Indian Industry. The authors have conducted a survey of 73 companies in and around Delhi and Chandigarh. They used personal interview method. It has been found by them that 90% of companies have been using capital budgeting methods. Around 73% of the companies have been using DCF methods. The popular investment appraisal methods are the 'IRR' and the 'PBP', used either individually or jointly. Around 70% executives felt that it is possible to estimate accurately the cash flows associated with each capital investment separately. They have

observed that capital investment proposals are prepared by the concerned departments and the final decision is vested with other personnel/committee. The popular discount rate used by the firms is 'the term lending rate of financial institutions' closely followed by 'cost of capital'. The most often used method to resolve the uncertainty in the future returns seems to be 'inflating or deflating the future cash flows'-and it is followed by the use of 'sensitivity analysis'. Most of the executives (around 75%) appreciate the suitability of the DCF technique in our country.

Jain P K and Kumar M (1998) has done a comparative study of capital budgeting practices in Indian context and observed that 25% of sample companies invested for expansion and diversification and firms were making regular investments for replacement and maintenance. The selected sample companies preference for evaluating capital budgeting projects were PBP, due to its simplicity, easy understanding, less cost and less time, followed by NPV and IRR. Companies preferred WACC followed by 'Arbitrary rate' and 'Marginal cost of additional funds' as cutoff rate for discounting the projects. For adjusting risk, the 'sensitivity analysis' was preferred followed by 'Higher cut off rate' and 'Shorter Pay Back Period'.

RESULTS AND DISCUSSION

EVALUTION OF INVESTMENT PROPOSAL:

At eachpoint of time a business firm has a number of proposals regarding various projects in which it can invest funds. But the funds available with the firm are always limited and it is not possible to invest funds in all the proposals at a time. Hence, it is very essential to select from amongst the various competing proposals, those which give the highest benefits. The crux of the capital budgeting is the allocation of available non-economic, which influence the capital budgeting decisions. The crucial factor that influences the capital budgeting decision is the profitability of the prospective investment. Yet the risk involved in the proposal cannot be ignored because profitability and risk are directly related, i.e. higher profitability, the risk and vice-versa.

There are many evaluating profitability of capital investment proposals. The various commonly used methods are as follows:

Non DCF criteria

(a) Pay back period

The pay back period one of the most popular and widely recognized traditional methods of evaluation investment proposals. Pay back period is the number of years required to recover the original cash outlay invested in a project.

If the project generates constant annual cash flows, the pay back period can be computed by dividing cash outlay by the annual cash inflows.

$$\text{Pay back period} = \frac{\text{Initial investment}}{\text{Annual cash inflows}}\left(\frac{C_o}{C}\right)$$

C_o = Initial investment

C = Annual cash inflows

In the case of un equal cash inflows, the pay back period can be found out by adding up the cash inflow until the total is equal to the initial cash outlay.

(b) Accounting Rate of Return (ARR)

The accounting rate of return (ARR) also known as the return on investment (ROI) uses accounting information, as revealed by financial statements, to measure to profitability of an investment. The accounting rate of return is the ratio of the average after fax profit divided by the average investment. The average investment would be equal to half of the original investment if it were depreciated constantly.

$$A\ R\ R = \frac{\text{Average Income}}{\text{Average investment}} \times 100$$

DFC Criteria

(a) Net Present value (NPV)

The NPV present value (NPV) method is the classic method of evaluating the investment proposals. If is a DCF technique that explicitly recognizes the time value at different time periods differ in value and comparable only when their equipment present values – are found out.

$$N.P.V = \frac{C_1}{(1+k)} + \frac{C_2}{(1+k)^2} + \frac{C_3}{(1+k)^3} + \ldots\ldots\ldots \frac{+C_n}{(1+k)^n} - C_0$$

$$NPV = \sum_{i=0}^{n} \frac{C_1}{(1+k)^1} - C_o$$

Where

NPV = Net present value

C_{fi} = Cash flows occurring at time

k = The discount rate

n = life of the project in years

C_0 = Cash outlay

(b) Internal Rate of Return (IRR)

The internal rate of return (IRR) method is another discounted cash flow technique which takes account of the magnitude and thing of cash flows, other terms used to describe the IRR method are yield on an investment, marginal efficiency of capital, rate of return over cost, time – adjusted rate of internal return and soon.

$$\text{NPV} = \sum_{i=0}^{n} \frac{C_{fi}}{(1+k)^1} + \frac{SV + WC}{(1+k)^n}$$

Where

C_{fi} = Cash flows occurring at different point of time

k = the discount rate

n = life of the project in year

C_0 = Cash out lay

SV & WC = Salvage value and working capital at the end of the n years.

$$\text{IRP} = L + \frac{A}{(a-b)}(H-L)$$

Where

L = Lower discount rate at which NPV is positive

H = Higher discount rate at which NPV is negative

A = NPV at lower discount rate, L

B = NPV at higher discount rate, H

(C) Profitability index (PI)

Yet another time – adjusted method of evaluating the investment proposals is the benefit – cost (B/C.) ratio or profitability index (PI) Profitability index is the ratio of the present valued of cash inflows, at the required rate of return, to the initial cash out of the investment.

$$PI = \frac{PV\ of\ Cash\ inflow}{Intial\ Cash\ outlay}$$

Where PV = Present Value

CONCLUSION:

Based on the study in Reliance Industries Limited there is forecasting project cash flow involves numerous estimates and many individuals and departments participate in this exercise. The role of the finance manager in to coordinate the efforts of various departments and obtain information from them, ensure that the forecasts are based on a set of consistent economic assumptions, keep to the exercise focused on relevant variables and minimize the bias is inherent in cash flow forecasting .

In the study I know that the company is following pay back period. Based on the data shows that the company can use any criteria to get return on the investment.

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