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Case Study On Capital Budgeting With Special Reference To Walchand Nagar Industries LTD

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Abstract: Capital investment refers to the investment in projects whose results would be available after a year for the maximization profit of the company, the company should take right investment decision or accept right investment proposal which will help in achieving expected flow of benefits at the right time. The methodology for carrying out the project was mainly through personal interaction. Secondary data obtained through various media like fact sheets, internet, business magazines, news papers, books of various authors etc.

This paper involves the concept of capital investment decisions followed by every large manufacturing companies like Walchandnagar Industries Limited.

Keyword: Capital Investment, Capital Budgeting, Tolls of Capital Budgeting and Role in manufacturing company.

INTRODUCTION:

The worldwide business trends dictate that all organizations set a vision for the future and follow a business strategy to meet continuous growth with success. The 21st century has ushers capital budgeting as a recognized part of business management that organization starts incorporate to gain success in meeting the business goal.

An efficient allocation of capital is the most important finance function in the modern time. A business organization has to quite often face the problem of capital investment decisions. The investment decisions of a firm are generally known as the CAPITAL BUDGETING or capital expenditure decisions. Capital budgeting includes analysis of various proposals regarding capital expenditure to evaluate their impact on the financial situation of the company and to choice the best out of the various alternatives. The various techniques of the capital budgeting for evaluating investment proposals are used in practice.

OBJECTIVES OF STUDY

1.To study & understand the capital budgeting process.
2.To study and understand on what basis investment decision are taken.
3.To analyze the capital budgeting proposal

SCOPE OF THE STUDY

This research Paper is based on "Capital Budgeting with special reference to Walchandnagar Industries Ltd." The company has been manufacturing competitive product such as Machinery for sugar Plants, Machinery for Power plants and Machinery for Defence etc. As per the demand of customer, company has to fulfill the requirement of them therefore they need to increase efficiency of Industry by adopting modern technology but same time the decision should be favor to company in terms of quality, cost etc. for that purpose they should analyze the investment proposal by using different techniques in that one of capital budgeting. Company has decided to increase the capacity of existing plant for that purpose company has been demanded project (Machinery) proposals from VHS mechatronics and Maxis motion. In this paper researcher will analyze both the proposals by using different capital budgeting techniques and suggest the best proposals to company.

THEORETICAL BACKGROUND:

'Capital Budgeting'

The process in which a business determines whether projects such as building a new plant or investing in a long-term venture are worth pursuing. Oftentimes, a prospective project's lifetime cash inflows and outflows are assessed in order to determine whether the returns generated meet a sufficient target benchmark.
Also known as "investment appraisal."

Capital Budgeting Techniques:

Capital budgeting decision is broadly divided into two categories. They are discounted and non-discounted techniques.

1)Discounted Cash Flow (DCF) Criteria
a)Net Present Value (NPV)

The cash inflows in different years are discounted to their present value by applying the appropriate discount factor or rate and the gross or total present value of cash flow of different years are ascertained. The total present value of cash inflows are compared with present value of cash outflows i.e. cost of the project and the net present value or

excess present value of the project is ascertained and on this basis various investment proposals are ranked.

Cash inflows = profit of investment after taxes but before depreciation.

Present value of cash outflows = initial cost of investment and the commencement of the project at various points of time.

$$N.P.V \quad \text{Pr}esent \quad value \quad of \quad cash \quad \text{inf}lows \quad Initial \quad Cash \quad Outflows$$

DECISION RULE:

After Ranking Various Investment Proposals On Basis Of Net Present Value ,Projects With Negative Net Present Value Are Rejected And Projects With Positive Net Present Value Are Accepted .In Case Of Mutually Exclusive Alternative Projects ,Projects With Higher Net Present Value Are Selected.

a)Internal Rate Of Return (IRR)

The technique is also known as yield on investment ,marginal efficiency value of capital ,rate of return ,time adjusted rate of return and so on .like net present value internal rate of return also considers the time value of money for discounting the cash streams .in the net present value method, the discount rate is the required rate of return and being a predetermined rate ,usually cost of capital and it's determinants are external to the proposal under consideration . The I.R.R is based on facts which are internal to the proposal.

The IRR is usually; the rate of return that a project earns .it is defined as the discount rate which equates the aggregate present value of net cash inflows with the aggregate present value of cash outflows of a project. In other words it is that rate which gives the net present value zero. IRR is the rate at which the total of discounted cash inflows equal the total of discounted cash outflows (i.e. initial cost of project)

$$I.R.R \quad lower \quad rate \quad \frac{N.P.V \quad at \quad lower \quad rate}{Difference \quad in \quad the \quad \text{Pr}esentValue} * Difference \quad in \quad the \quad rate$$

DECISION RULE:

The use of I.R.R as a criterion to accept capital investment decision involves a comparison of actual I.R.R with required rate of return also known as cut off rate or hurdle rate. If the I.R.R exceeds the cut off rate then project is accepted. In case of mutually exclusive or alternative projects, the project which has the highest IRR will be selected.

a) Profitability Index (PI)

Profitability index is the ratio of present value of cash inflows, at required rate of return, to the initial cash outflow of the investment. PI ratio is recognizes the time value of money .it is consist with the shareholder value maximization principle. It is a relative measure of projects profitability.

$$profitability \quad index \quad \frac{presentValueOfCashInflows}{InitialCashOutFlows}$$

DECISION RULE:

i.Accept the project when PI is greater than one PI > 1
ii.Reject the project when PI is less than one PI < 1
iii.May accept the project when PI is equal to one PI = 1

The project with positive NPV will have PI greater than one. PI less than one means that the projects NPV negative.

a)Discounted Payback Period.

2)Non-discounted Cash flow criteria

a)Payback Period (PB)

It is traditional method of capital budgeting .it is simplest and most widely employed quantitative method for appraising capital expenditure decisions. this method answers the question How many years will it take for cash benefit to pay the original cost of an investment normally disregarding salvage value. The payback period is the time required for the net cash flow to equal the amounts invested.

$$Payback \quad Period \quad \frac{Initial \quad Investment}{Annual \quad Cash \quad Inflow}$$

DECISION RULE:

The payback period can be used as a decision criterion to accept or reject an investment proposal. One application of this technique is to compare the actual payback period with predetermine pay back .i.e. the pay back set up by management. If the actual pay back is less than the predetermine pay back the project will be accepted. If not, it will be rejected.

a) Accounting (Average) Rate Of Return (ARR)

The return on investment is estimated i.e. earning or profits estimated from an investment proposal during its economic life, after providing for depreciation and taxes. It means net profit from estimation is as per the accounting principles.

The average rate of return method facilitates the decision maker to decide to accept or reject the proposal. Based on the ARR method to accept or reject actual ARR is compared with a predetermined or minimum required rate of return, A project is accepted when the actual ARR is higher than the minimum desired rate of return, otherwise the project is rejected.

$$A.R.R \quad \frac{Average \quad Annual \quad Income}{Average \quad Investment} * 100$$

CAPITAL BUDGETING PROCESS

A.Project Generation-

The generation of the proposals may fall under any of the following categories.

a) Additions to the present product line.
b) Expand the capacity of the existing product line.
c) Proposals to reduce costs of the existing product line without affecting the scale of operations.

The generation of the projects may take place at the levels of top management or at the level of workers also. E.g. proposal to replace an old machine or to improve the production techniques may originate at the workers level also.

B. Project evaluation-

It is necessary that the evaluation of the projects is done by impartial group and experts in the field. Care must be taken to choose the criteria to judge the desirability of the projects and it should be consistent with the company's basic objective to maximize the wealth.

C. Project selection –

There is no fixed and laid down procedure to select the final criteria among the various available alternatives. Generally, the selection of the final project is done by the top management though it may be scrutinized at various levels. In many cases, top management may delegate the authority to approve certain projects to lower management also.

D. Project execution-

After the final selection of the project is made, the funds are appropriated and the execution of the project is carried on. However, there has to be a proper system to check that execution of the project is being made as per the pre-decided plans and schedules.

RISK ANALYSIS IN PRACTICE IN INDIA-

Most companies in India account for risk while evaluating the capital expenditure decisions. The following factors are considered to influence the riskiness of investment projects.

1.Price of raw material and other inputs
2.Price of product
3.Product demand
4.Government policies
5.Technological changes
6.Project life
7.Inflation

DATA ANALYSIS AND INTERPRETATION

Proposal A:

Company Name: VHS MECHATRONICS

Total Cost of the Project: A total price of Rs.910 lakhs for 8 inch Horizontal Boring Machine

Particulars	Rs.
Material (electrical ,mechanical & CNC system) net of taxes	6,40,00,000
Spares and other accessories	80,00,000
Civil, Installation and commissioning	1,90,00,000
Total cost	9,10,00,000

Terms and Conditions:
Delivery =5-6 month from the date of receipt of order with advance for materials. Labor work will be done simultaneously and whole project will be completed in 8 months time.
Guarantee: 1 year from the date of commissioning at your works for our scope of works.
Excise –duty: 10.30% (or as applicable at the time of invoicing) to be paid before dispatch of material from our works.
Service tax: 12.5% on labor charges.
Advance for supplies: 25% and balance against dispatch document on COD basis and of LC. The goods can be inspected by your personnel at our works to ensure the completeness of supplies.
Labor charges: fortnightly payments on pro rata basis.
Insurance: extra 1% octroi if any will be extra.
Packing and forwarding : 1% extra (proper storage of our materials at your site will have to be ensured by you)
Transportation: to be borne by you.
Cost Benefit Analysis:

A) Annual incremental cost:

PARTICULAR	RATE	Rs. in lakhs
INVESTMENT		910.00
DEPRECITATION	10.34%	94.10
INTEREST	10%	91.00
MAINTENCE	2%	18.20
POWER		21.30
MANPOWER		9.00
ANNUAL INCREMENTAL COST		**233.60**

B) Annual Incremental Benefit:

The W.I.L special product division is expecting orders for the following jobs in the immediate future .The likely business from the following mentioned customer is as under in next 6 years.

1)	M/S NPCIL (740 MWe POWER PLANTS)	
	Calandries worth	Rs.40 Crores
	End Shields	Rs.95 Crores
2)	M/S ATVP Containers and cradles worth	Rs.150 Crores
3)	OTHER JOBS worth	Rs.15 Crores
	Expected business in next 6 years	Rs.300 Crores
	Every year, the business **the** business would be	Rs.50 Crores
	Assuming material content of 50%, the added value would be	Rs.25 Crores
	Attributing 25% added value to due to HBM, added value Generated would be Rs.625 Crores	
	Annual incremental benefits	**Rs.625 Crores**

c) Net annual incremental benefits: = B –A
= (Rs 625 Lakhs - Rs 233.60 Lakhs)
= Rs 391.40 Lakhs
Profit after tax: = (Rs391.40 –Rs 129.16)
Net profit after tax of proposal A = Rs 262.23 lakhs.

Proposal B :

Company Name: MAXIS MOTION COMPANY

Total Cost of the Project = A total price of Rs.884 lakhs of 8 inch Horizontal Boring Machine

Particulars	Amount (Rs.)
Material (electrical ,mechanical & CNC system) net of taxes	6,47,20,000
Spares and other accessories	80,00,000
Civil, Installation and commissioning	1,41,80,000
Transportation cost	15,00,000
Total cost	**8,84,00,000**

Cost Benefit Analysis:

A) Annual incremental cost:

PARTICULAR	RATE	Rs. in lakhs
INVESTMENT		884.00
DEPRECIATION	10.34%	91.40
INTEREST	10%	88.40
MAINTENANCE	2%	17.68
POWER		20.70
MANPOWER		8.78
ANNUAL INCREMENTAL COST		**227.05**

B) Annual Incremental Benefit:

The WIL special product division is expecting orders for the following jobs in the immediate future. The likely business from the following mentioned customer is as under in next 6 years.

1)	M/S NPCIL (740 MWe POWER PLANTS)	
	Calandries worth	Rs.30 Crores
	End Shields	Rs.100 Crores
2)	M/S ATVP Containers and cradles worth	Rs.130 Crores
3)	OTHER JOBS worth	Rs.10 Crores
	Expected business in next 6 years	Rs.270 Crores
	Every year, the business **the** business would be	Rs.45 Crores
	Assuming material content of 50%, the added value would be	Rs.22.5 Crores
	Attributing 25% added value to due to HBM, added value Generated would be Rs.625 Crores	
	Annual incremental benefits	**Rs.562.50 Crores**

c) Net annual incremental benefits: =B –A
= (562.50 lakhs - 227.05 lakhs)
=Rs.335.45 lakhs

Profit after tax: = (Rs335.45 –Rs110.69)

Net profit after tax of proposal B =Rs.224.76 lakhs

Comparative Analysis Statement of Proposal 'A' and 'B'

Financial Indicators	Proposal 'A'	Proposal 'B'
1. Return on Investment	28.81%	25.42%
2. Pay Back period	2 years & 5months	2 years & 7 months
3. Net Present Value	Rs.273.69 lacs	Rs.166.26 lacs

CONCLUSION

The capital budgeting helps management to choose the best alternative for long term investment purpose .The capital budgeting proposal is found to be clear and comprehensive. Walchandnagar Industries emphasizes on high quality of the product and consider various factors such like cash outlay of the projects, rate of return, risk, forecasting errors for the purpose of investment decision. Walchandnagar Industries uses the cost benefit analysis for investment decision. The rate of return on investment and payback period of Walchandnagar Industries in V.H.S Mechatronics is outstanding.

After the analyzing both proposal 'A' and 'B' conclusion is that; the Net Present Value & Return on Investment of V.H.S. Mechatronics Company is more than the Maxis Motion Company therefore W.I.L accept the offer of V.H.S. Mechatronics Company based on the Net Present Value & Return on Investment.

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