

A Study on Capital Budgeting with Particular Reference to Hindustan Petroleum Corporation Limited, Visakhapatnam

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Abstract: *Capital Budgeting is the process of making financial decisions regarding investing in long - term assets for a business. It involves conducting a thorough evaluation of risks and returns before approving or rejecting a prospective investment decision. This process is also known as investment appraisal.*

Keywords: Traditional Method, Payback Period, Average Rate of Return, Modern Method, Net Present Value, Profitability Index, Internal Rate of Return

1. Overview of the Capital Budgeting

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.

1.1 Overview of the Hindustan Petroleum Corporation Limited, Visakhapatnam:

HPCL also owns and operates the largest Lube Refinery in India producing Lube Base Oils of international standards. With a capacity of 335 TMT. This Lube Refinery accounts for over 40% of the India's total Lube Base Oil production. Presently HPCL produces over 300+ grades of Lubes, Specialties and Greases. The marketing network of HPCL consists of 13 Zonal offices in major cities and 101 Regional offices facilitated by a Supply & Distribution infrastructure comprising Terminals, Aviation Service Facilities, LPG Bottling Plants, Lube filling plants, Inland Relay Depots, Retail Outlets (Petrol Pumps) and LPG & Lube Distributorships. HPCL has state of art in formation technology infrastructure to support its core business. The data center is located at Hi - tech city in Hyderabad.

1.2 Objectives of the Study

1) To study the relevance of capital budgeting in

- evaluating the project for project finance
- 2) To study the technique of capital budgeting for decision - making.
- 3) To measure the present value of rupee invested.
- 4) To understand an item wise study of the company financial performance of the company.
- 5) To make suggestion if any for improving the financial position in the company.
- 6) To understand the practical usage of capital budgeting techniques
- 7) To understand the nature of risk and uncertainty.

2. Methodology of the Study

It is also called as first handed information; the data is collected through the observation in the organization and interview with officials. By asking question with the accounts and other persons in the financial department. A part from this some information is collected through the seminars, which were held by HPCL. Secondary data are the data's that are developed for some purpose other than helping to solve the problem at hand. The secondary data have been collected through the various books, magazines, brochures & websites. The data collection method in this project is of by using secondary sources of data such as company's annual reports, balance sheets, and profit & loss account. The present study is confirmed to 5years i. e.2017 - 18 to 2021 - 2022.

3. Data Analysis and Interpretation

1) Payback Method:

Formula

Payback Period = Years before full recovery + Unrecovered cost at the start of the year / Cash flow during the year

Year	Cash Inflow	Depreciation	CIF after Depr	Tax rate @ 25%	CFAT after Depreciation	PAV @ 12%	DCFAT	Cum. DCFAT
1	56	24	32	24	48	40.992	42.86	42.86
2	61.6	24	37.6	28.2	52.2	38.158	41.60	84.47
3	67.76	24	43.76	32.82	56.82	34.455	40.46	124.92
4	74.54	24	50.54	37.91	61.91	33.059	39.37	164.30
5	82	24	58	43.5	67.5	30.78	38.27	202.57
6	90.19	24	66.19	49.64	73.64	28.645	37.26	239.83
7	99.21	24	75.21	56.41	80.41	26.776	36.34	276.18
8	109.13	24	85.13	63.85	87.85	24.949	35.49	311.67
9	120.05	24	96.05	72.04	96.04	23.337	34.67	346.34
10	132.05	24	108.05	81.04	105.04	21.848	33.82	380.16

Payback period= $124.92 + \frac{160-124.92}{74.54}$
 = 3 years+ 0.47
 = 3.47 years

Interpretation

The payback period of this project is 3.47 years. If using this payback method project would be accepted, if company is looking for a project which returns the initial cash flow in the shortest period of the company.

2) Accounting Rate of Return Method (ARR)

Formulae

Average rate of return= Average Profit/ Average Investment

Where,

Average Profit= Total Cash inflow/ no. of years

Average Investment is (cost of investment- Scrap Value)/ 2

Average Profit= $380.16 / 10$
 = 38.02 cr

Average capital employed= $(160-0) / 2$
 = 80cr

Average rate of return= $38.02 / 80$
 = 47.52%

Interpretation

The average rate of return of project is higher in percentage 47.52%. If company uses the above evaluation technique then we accept the project

3) Net Present Value

Formulae

Net Present Value= Total Present value of cash inflow - Total outlay

Year	CFAT after Dep	PV @12%	DCFAT	Cum. DCFAT
1	48	0.893	42.86	42.86
2	52.2	0.797	41.60	84.47
3	56.82	0.712	40.46	124.92
4	61.91	0.636	39.37	164.30
5	67.5	0.567	38.27	202.57
6	73.64	0.506	37.26	239.83
7	80.41	0.452	36.35	276.18
8	87.85	0.404	35.49	311.67
9	96.04	0.361	34.67	346.34
10	105.04	0.322	33.82	380.16

Net Present Value = 380.16 cr – 160 cr
 = 220.16 cr

Interpretation

The Net Present Value (NPV) of project is 220.16cr. The proposal with higher NPV is by large opted. Hence the company is likely to accept the project.

4) Profitability Index (PI) or Benefit Cost ratio

PI= Present value of cash inflow ÷ Present value of cash outflow

Profitability Index= $380.16 / 160$
 = 2.376 times

Interpretation

The above method shows the profitability index of the project is 2.63. As the profitability index of the project is greater than 1 we accept the project

5) Internal Rate of Return Method (IPR)

Formulae: $IRR = L + \frac{A-Cash\ Outlay \times (H-L)}{A-B}$

Year	PV @12%	CFAT after Dep	DCFAT	PV @17%	CFAT after Dep	DCFAT
1	0.893	48	42.86	0.854	48	40.992
2	0.797	52.2	41.6	0.731	52.2	38.158
3	0.712	56.82	40.46	0.624	56.82	34.455
4	0.636	61.91	39.37	0.534	61.91	33.059
5	0.567	67.5	38.27	0.456	67.5	30.78
6	0.506	73.64	37.26	0.389	73.64	28.645
7	0.452	80.41	36.34	0.333	80.41	26.776
8	0.404	87.85	35.49	0.284	87.85	24.949
9	0.361	96.04	34.67	0.243	96.04	23.337
10	0.322	105.04	33.82	0.208	105.04	21.848

Interpretation

It is seen that the internal rate of return (IPR) is higher than 12% similarly if the company has a higher IPR than rate set as a cut off by the company, the company proposal is accepted. It is likely that the project can be accepted. Hence the internal rate of return lies between 8% - 13%

Method	Obtained Results
Payback period	3.47 years
Average rate of return	47.52%
Net Present Value	220.16cr
Profitability Index	2.376 times
Internal rate of return	8% - 13%

Conclusion: Hence, it is seen that inspite of having lesser cost of investment, higher depreciation rate, longer life and cash flows.

4. Findings of the Study

- 1) The project completion cost is estimated to be Rs.8692. Cr.
- 2) The payback period of the project in VSP is 3 years and 10 months. The pay back period is less than the target period so the project may be accepted.
- 3) The NPV of the project is positive than the value of the capital.
- 4) The Internal rate of return is 31.85% it is greater than the cost of capital i. e., 19% so the project accepted.
- 5) The profitability index is also more than 3 times returns on investment so the project is accepted.
- 6) The estimated cash flows of the project include interest and tax.
- 7) For expansion project the mix of Capital structure (6: 4) is also best for the company, but equity to be raised and debt to be lowered.
- 8) The capital budgeting decisions (evaluation techniques) of the company are favorable for the expansion program.
- 9) Company follows only Internal Rate of Return method as a Capital Budgeting Technique to select and make Capital Budgeting Decisions
- 10) As far as expansion program is concerned the company is very professional.

5. Suggestions of the Study

- 1) The NPV method can be used as it considers the present value factor associated with cash flows.
- 2) The PBP method is useful apart from measuring liquidity, in making calculation in certain situations. For instance the IRR can be computed easily by PBP. The PBP method is a good approximation of IRR which otherwise requires a trial approach. So along with IRR, PBP should also be adopted.
- 3) The company should maintain optimum level of working capital from time to time.
- 4) Debtors and creditors should be reduced but at the same time the sales should not be
- 5) affected.
- 6) The company must strive to achieve better utilization of resources. Cash balance
- 7) should also be maintained as per the requirements.

- 8) Visakha refinery has huge amount of resources in order to meet the growing demand of petroleum product the company should expand the refining capacity.
- 9) Due to crude oil import and export business, Visakhapatnam is the best place for establishing one more new refinery.

6. Conclusion of the Study

As per my observation during my project period, organization having highly qualified experts to analyses investment proposals of organization, by using capital budgeting techniques among all capital budgeting techniques. Discounting Cash Flow are very useful in their investment decision. According to investment proposal they are using Discounting Cash Flow Techniques or Non Discounting Cash Flow techniques based on situation. Budgets are an important tool of profit planning. Budgeting, as a tool of planning, is closely related to the broader system of planning in an organization. Capital Budgeting helps in evaluating and selecting the long - term investments that are consistent with the goal of shareholders wealth maximization. Hence Capital Budgeting decisions are of paramount importance in financial decision making.

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