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A Study On Capital Budgeting In HAVC Industry.

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ABSTRACT:

This study delves into the capital budgeting process within Epack Durable Pvt Ltd, aiming to analyze the organization's current and past positions preceding project implementation. By scrutinizing financial data, the study offers insights into enhancing the company's financial performance. Through comprehensive expenditure estimation and strategic analysis, actionable suggestions are proposed to optimize financial outcomes.

Keywords: Net present value, internal rate of return, profitability index.

Introduction:

Capital budgeting is a required managerial tool One duty of a financial manager is to choose investment with satisfaction cash flow and rates of return. Therefore, a financial manager must be act to decide whether an investment is worth understand and be able to choose intelligently between two or more alternative to do this sound procedure to evaluate, compare and select project is needed This procedure is called capital budgeting.
Capital budgeting is the planning process used to determine whether a firm long-term investment such as new machinery, replacement machinery. new plant. new product, and research development project are worthier pursuing It is budget for major capital or investment expenditure.
The information of recent economic policies and fiscal policies has further eroded changes in competitiveness of Indian industry.

Definition:
According to T. HORN GREEN:
“Capital budgeting is long-term planning for making and financing proposed capital outlays”.
According to George R. Terry:
“A budget is an estimate of future needs arranged according to at an orderly basis covering some or all the activities of an enterprise for a definite period of time.”

Types of Capital Budgeting: -
The Capital Budgeting admits the following broad classifications:

1. Payback Period.
2. Net present value.
3. Average rate of return.
4. Internal rate of return.
5. Profitability index.

1. Payback Period:

The payback period refers to the amount of time it takes to recover the cost of an investment. In simpler terms, it represents the length of time an investment needs to reach a breakeven point. When evaluating investments, shorter payback periods are more attractive, while longer payback periods are less desirable.
To calculate the payback period, you can use the following formula:

Payback period= Cost of investment / Average annual cash flows

2. Net present value:

Net Present Value method is the wildly used and more sophisticated project Evaluation methods under discounted cash flow method. It is a superior method because the value of cash inflow are taken at discounted value of one rupee. Net present value is calculated by sub stating present value of cash inflow from present value of cash out flows. It recognizes the importance of time value of money.

Net Present Value (N.P.V) = Present Value of Cash in Flows -Present Value of Cash Out Flows.

According to Ezra Solomon, "It is a present value of future returns, discounted at the required rate of return, minus the present value of the investment". Net present value method can be calculated with the help of the following formula.

Review Of Literature:

Review 1: **Gilbert, E** (1995)

To surveyed firms enlisted in 1990 Fortune Magazine Directory and observed that the firms were resorting to apply multiple project evaluation techniques for capital investment decision making. The authors also noted that the firms developed a trend of greater use of NPV and IRR.

Review 2: **Kaplan, Robert S and Atkinson, Anthony A** (2000)

Noted the mistakes committed in appraisal of new technology investments. They observed that as new technology is risky, the managers, at the time of appraisal, either set a very low payback period or discount the future cash inflows at an abnormally high rate of discounting, which renders future inflows redundant or unnecessary for evaluation purpose.

Review 3: **Brigham**, E F (1975)

Surveyed 33 large US firms having sizeable investment in plants and equipments. He observed that that 94% of the responding firms used to apply DCF methods such as NPV, IRR and PI criteria for financial appraisal of long-terms investments. Instead of using multiple hurdle rates, firms preferred WACC for discounting purpose.

Review 4: **Bierman, H J** (1993)

Made a study on Capital Budgeting of Fortune 100 Companies. He observed that 73 of 74 responding Fortune 100 companies used Discounted Cash Flow techniques. IRR was the most preferred method compared to NPV. Although Payback Period method was used extensively (84% of respondent firms), it was not used as a primary measure. 93% of the responding companies used WACC for deciding the discounting rate.

Review 5**: Purohit Lall and Panda** (1994)

Conducted a study on 100 non-financial companies listed on BSE. For financial appraisal four methods such as Payback Period, ARR, IRR and NPV were prevalent. However, they found that PBP and ARR were the preferred methods due to their simplicity. They also noticed that firms used internal finances for routine investments, while for growth and new project they used external finances.

Review 6: **Jain, Jain and Tarde** (1995)

Conducted a study on 64 non-financial companies listed on BSE. They noticed nearly fifty percent companies to rely on traditional non-DCF techniques such Payback period ad ARR. While asking the reason for using traditional methods, the respondents expressed preference for these methods due their simplicity. They observed only 10% of the companies to use DCF techniques like NPV and IRR.

Review 7**: Jain P K and Kumar M** (1998)

Said in their study on 'Capital Budgeting Practices in Indian Context' analyzed the capital budgeting practices of selected enterprise in private sector and compared them with those followed by companies in other countries of South East Asia (SEA). The study covered 96 non-financial, non-government manufacturing companies and 5 companies from SEA (i.e. Japan, Malaysia and Singapore).

Review 8: **Yadav Vinod Kumar** (2013)

Stated finds that firms in small-scale industries mainly use traditional payback period and Accounting Rate of Return instead of scientific evaluation methods like IRR and NPV.

Objectives of the study:

To study the capital budgeting process in Epack Durable Pvt Ltd.
To analyze the present & previous position of the organization before implementing the project.
To offer suggestion to the Epack Durable Pvt Ltd to improve its financial performance.
To estimate the expenditure involved.

Scope of the study:

To understanding the importance of the capital budgeting in Epack Durable Pvt Ltd.
To evaluating an investment proposal of setting up facility at Epack Durable Pvt Ltd.
To highlighting the necessity of current of assets and current liabilities.
To explain the principles of the current assets, investment and financing.
To suggest the need of establishing a sound credit policy.

Need of the Study:

It is a significant to emphasize that expenditures and benefits of an investment should be measured in cash. In the investment analysis it is cash flow which is important not the accounting profit. It may also be pointed out that investment decisions affect the firm's value. The firms value will increase if investments are profitable and to the shareholders wealth. That investment should be evaluated on the basis of criterion which is compatible with the objective of the shareholders wealth maximization. An investment will add to the shareholders wealth. If it yields benefits in a excess of the minimum benefits as for the opportunity part of capital.

Limitations of the study

The study was conducted with the data available and analysis was made accordingly.
Detailed analysis could not be carried for the project work because of the limited time span.
Since the study is based on the financial data that are obtained from the company's financial statements, the limitations of financial statements shall be equally applicable.

Research methodology and design:

Methodology refers to systematic procedure of collecting information in order to analyze and verify phenomena.
Primary Data:
The Primary Data was collected through interacted with the finance manager and accounts officer.
Secondary Data:
The secondary data was collected manuals, journals and internet. Data about the company profile and other details collected from company records, websites and through personal discussion with various executives and other employees of the company.

Data analysis and interpretation:

1. PAYBACK PERIOD METHOD:

Payback period in capital budgeting refers to the period of time required for the return on an investment to repay the sum of the original investment. Payback period is widely used because of its case of use despite recognized limitations, described below. Payback period as a tool of analysis is often used because it is easy to apply and easy to understand for most individuals, regardless of academic training or field of endeavor. One of the oldest and most widely used methods to evaluate a capital investment proposal is the Payback Period, as the name implies it refers to the time required to recover the initial investment or the initial cash outlay as it is called in financial terms.

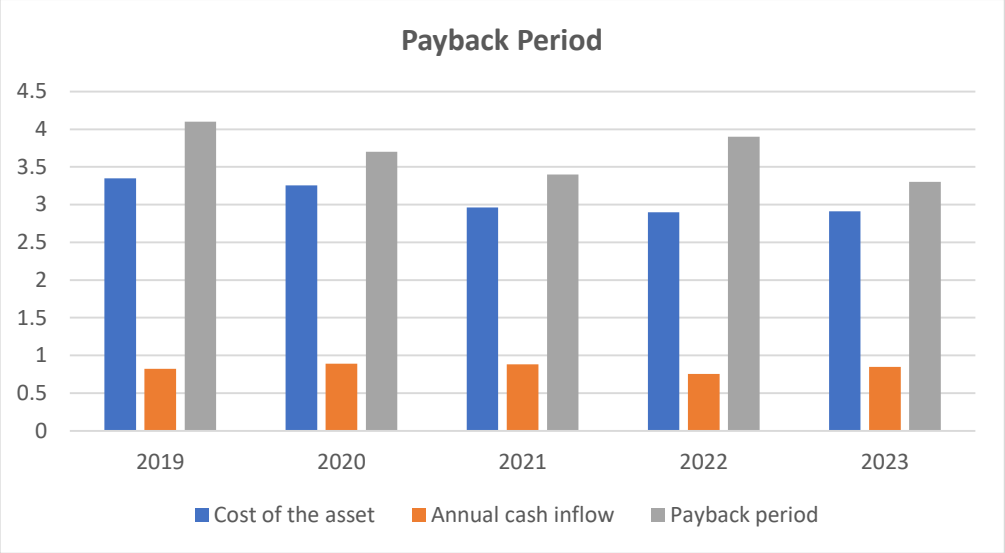
Formula

Payback period = Cash outlay of the project / Annual cash inflows.

Table 4:1 PAYBACK PERIOD

Year	Cost of the asset (Rs. In Crore)	Annual cash inflow (Rs. In Crore)	Payback period
2019	**3.347**	**0.821**	**4.1**
2020	**3.255**	**0.889**	**3.7**
2021	**2.962**	**0.883**	**3.4**
2022	**2.899**	**0.753**	**3.9**
2023	**2.91**	**0.849**	**3.3**

4:1 PAYBACK PERIOD



INFERENCE:

The above table clearly shows that the payback period differs according to the amount Invested in particular years. The X axis denotes first 5 years from 2019. The Y' axis denotes time period. In the first year 2019, annual cash inflow is .821 crores and the Payback period 4.1 and the payback period for fifth year 2023 are 3.3. Comparatively payback period for the year 2023 is less.

2. NET PRESENT VALUE METHOD:

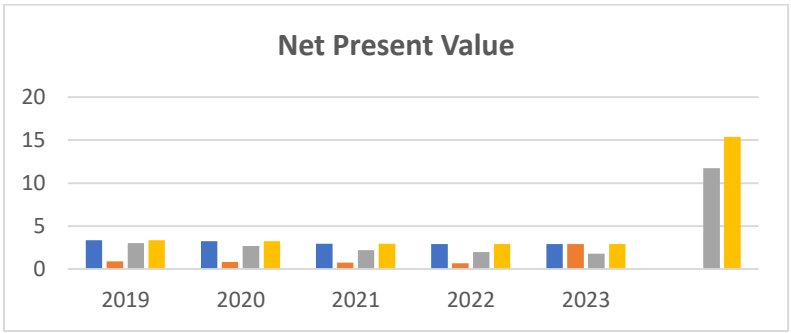
The net present value or net present worth (NPW) of a time series of cash flows, both incoming and outgoing, is defined as the sum of the present values of the individual cash flows. The net present value method is a modern method of evaluating investment proposals. This method takes into consideration the time value of money and attempts to calculate the return on investments by introducing the factor of time element. The net present values of a inflows and outflows of cash occurring during the entire life of the project is determined separately for each year by discounting these flows by the firms cost of capital or predetermined rate.

Net Present Value = Present value of all cash inflows - present value of initial investment

Table 4:2 NET PRESENT VALUE

Year	Cash outflows (Rs. In Crores)	Discounting present value table (present value of Re.1@10%)	Present value of net cash flows	Cash inflow
2019	**3.347**	**0.909**	**3.042423**	**3.347**
2020	**3.255**	**0.826**	**2.68863**	**3.255**
2021	**2.962**	**0.751**	**2.224462**	**2.962**
2022	**2.899**	**0.683**	**1.980017**	**2.899**
2023	**2.91**	**2.91**	**1.80711**	**2.91**
		TOTAL=	**11.742642**	**15.373**

Graph 4. :2 NET PRESENT VALUE



INFERENCE:

The acceptance rule using the Net Present Value method is to accept the investment project if its net present value is positive and to reject if it's NPV is negative. Positive contributes to the net wealth of the shareholders, which should result in the increased price of a firm's share. The positive net present value will result only if the project generates cash inflows at a rate higher than the opportunity cost of capital.

- Accept the project when NPV > 0
- Reject the project when NPV < 0
- May of may not accept the project when NPV = 0.

Above table clearly indicates that the Net Present Value for the 5 years from 2019 to 2023 is 3, 63, 03,580

3. AVERAGE RATE OF RETURN METHOD:

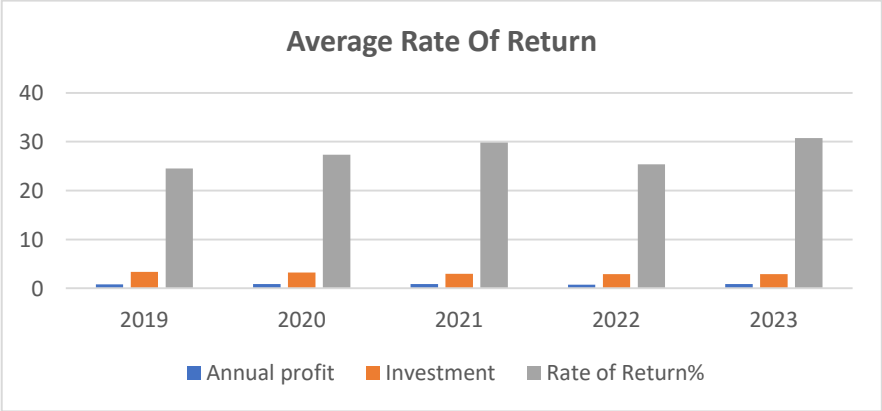
The accounting rate of return uses accounting information, as revealed by financial statements, to measure the profitability of an investment. The accounting rate of return is the ratio of the average after tax profit divided by the average investment. The average investment would be equal to I half of the original investment if it were depreciated constantly. Alternatively, it can be found out by dividing the total of the investment's book values after depreciation by the life of the project. The accounting rate of return, thus, is an average rate and can be determined by the following equation.

ARR=Average Income/Average Investment

Table 4:3 AVERAGE RATE OF RETURN:

Year	Annual profit	Investment	Rate of Return%
2019	**0.821**	**3.347**	**24.52943**
2020	**0.889**	**3.255**	**27.31183**
2021	**0.883**	**2.962**	**29.81094**
2022	**0.735**	**2.899**	**25.35357**
2023	**0.894**	**2.91**	**30.72165**

Graph 4:3 AVERAGE RATE OF RETURN



INFERENCE:

The chart shows that, in the year 2019 and in the year 2023 the company had lower expected rate of return than the minimum rate so the investment on the particular project can be reduced. In the year 2019, 2020, 2021, 2022 the project has a higher rate of return than the minimum rate. Higher rate of return indicates that Investment made in the particular year has higher cash inflow in the future.

4. INTERNAL RATE OF RETURN METHOD:

Computation of IRR is based on the cash flow after taxes. IRR is mathematically represented as s 'r'. It can be found out by trial-and-error method. In this method the elevator selects any discount rate (by calculating fake PBP) to compute the present value of the cash inflows.

If the present value of cash inflow is lower than the present value of cash outflows then the elevator has to try lower discounting factor. This process will be repeated till the present value of cash inflows equals to the present value of cash outflows. Generally, IRR may lie between two discounting factors; in that case the analyst has to use interpolation formula for calculation of IRR.

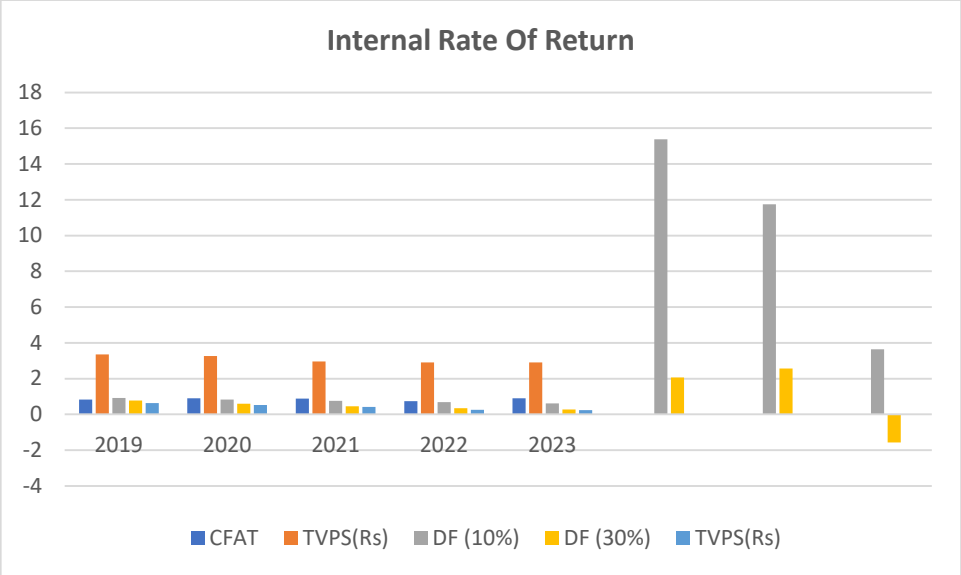
Formula

IRR = LDF% + DF (PVLDF- COF/ PVLDF-PVHDF)

Table 4:4 Internal Rate of Return

Year	CFAT	TVPS(Rs)	DF (10%)	DF (30%)	TVPS(Rs)
2019	0.821	3.347	0.909	0.769	0.631
2020	0.899	3.255	0.826	0.592	0.526
2021	0.883	2.962	0.751	0.455	0.420
2022	0.735	2.899	0.683	0.350	0.257
2023	0.894	2.91	0.621	0.269	0.240
	PV of Ca	Cash inflows	15.373	2.056	
	Less: PV of	Cash outflows	11.742	2.56	
	Net Present Value		3.631	-1.575	

Graph 4:4 INTERNAL RATE OF RETURN



INFERENCE:

The chart shows that, in the year 2019 and in the year 2023 the company had lower expected internal rate of return than the minimum rate so the investment on the particular project can be reduced. In the year 2019, 2020, 2021, 2022 the project has a higher internal rate of return than the minimum rate. Higher rate of return indicates that investment made in the particular year has higher cash inflow in the future.

FINDINGS:

After proper analysis of the financial position of the ACUTESOFT SOLUTIONS with the help of tools of financial analysis, the following analysis, the following things are found during the study.

- The ACC blocks project has 3.19 of payback period and plastering mortar project has 4.91
- of payback period. The project is accepted when pay back is less than 5 years which is Standard payback set by the management. So, less payback period is accepted.
- As per the management the minimum rate of return expected is 10%. The project ARR Greater than 40% then, ACC blocks project is accepted.
- The net income of the project is discounted at the minimum required rate return which is grater then-8% and NPV is positive so the project is accepted.

- The current year 2022 payback period is found to be in 1 year, this shows that the
- Company recovers its investment in 2 years.

SUGGESTIONS:

Here are few suggestions which can be utilized by the company to change few drawbacks into success

- It is concluded that the project is viable and profitable as the ARR is getting more than 40%
- The pay back indicates that the investment is fully recovered in short period. NPV of the project is considered as better because of its higher net present value The IRR of the project is giving higher rate of return.
- The profitability index is more than the giving value and where projects show NPV as
- positive.
- To offer suggestions to the Fusion building materials ltd., To improve its financial performance.

CONCLUSION:

The planning Process which is used to determine whether the long-term investments of an o
organization such as replacement machinery, products that are new, new plants and research development projects are worth seeking is the Investment appraisal or capital budgeting, Thus, capital budgeting or investment decisions are to considerable importance to the firm. since they tend to determine its value by influencing its growth, profitability and risk. The analysis of payback period and Average Rate of Returns conclude that management should take efforts to perform the capital budget in efficient manner.

REFERENCES:

1. Gilbert, E (1995): "The practices of financial management among large United States corporations", Financial Practice and Education, pp.16-23.
2. Kaplan, Robert S and Atkinson, Anthony A (2000): 'Justifying Investment in New Technology', in Advanced Management Accounting, Prentice Hall of India, New Delhi, pp. 473-492.
3. Brigham, E F (1975): "Hurdle rates for screening capital expenditure proposals", Financial Management, Vol.4, pp.17-26.
4. Bierman, H J (1993): "Capital budgeting in 1992: A survey", Financial Management, Vol. 22, p.24.
5. Purohit, B N; Lall, G S and Panda, J (1994) Capital Budgeting in India, Kanishka Publishers Distributors, Delhi.
6. Jain, P.K., Jain, S.K., and Tarde, S.M. (1995): "Capital Budgeting Practices of Private Sector in India – Some Empirical Evidences, The Management Accountant, November, pp. 813-820.
7. Jain, P K and Kumar, M (1998), "Comparative Capital Budgeting Practices in India: The Indian Context", Management and Change, January- June, pp.151-171.
8. Yadav Vinod Kumar (2013): Capital Budgeting in Small-Scale Industries, Indian Journal of Finance, Vol. 7, No. 10, pp. 5-13.