A Study on Capital Budgeting at Anantha PVC Pipes Pvt Ltd

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ABSTRACT

Capital budgeting is a step by step process that businesses use to determine the merits of an investment project. The decision of whether to accept or deny an investment project as part of a company's growth initiatives, involves determining the investment rate of return that such a project will generate.

KEYWORDS: Traditional Method, Payback period, Average rate of return Modern Method, Net present value, Profitability index, Internal rate of return

INTRODUCTION

The term Capital Budgeting refers to long term planning for proposed capital outlay and their financing. It includes raising long-term funds and their utilization. It may be defined as a firm's formal process of acquisition and investment of capital.

Need for the study;-

The present study helps to analyze the capital budgeting techniques in Anantha pvc pipe Ltd.

Scope of the study;-

The study on capital budgeting covers different techniques followed by ANANTHA PVC PIPE Ltd 2015-16 to 2019-20.

Objectives of the study;-

➢ To study the relevance of capital budgeting in evaluating the project.
➢ To study the techniques of capital budgeting for decision-making.
➢ To analyze the present value of rupee invested.

Research Methodology;-
Primary sources:

It is also called as first handed information the data is collected through the observation in the organization and interviews with officials. By asking, questions with the accounts and other persons in the financial department. A part from these some information is collected through the seminars, which were held by ANANTHA PVC PIPES PVT LTD.

Secondary sources:

These secondary data is existing data which is collected data which is collected by others that is sources are financial journals, annual reports of the ANANTHA PVC PIPES PVT LTD.,

Limitations;-

➢ Lack of awareness of ANANTHA PVC PIPES PVT. LTD.

➢ Lack of time is another limiting factor the schedule period 6 weeks are not sufficient to make the study independently regarding Capital budgeting in Anantha pvc pipes pvt ltd

➢ The busy schedule of the officials in the ANANTHA PVC PIPES PVT LTD is another limiting factor. Due to the busy schedule of officials restricted me to collect the complete information about organization.

DATA ANALYSIS:
Traditional Method;
1. Payback period
The payback period is one of the most popular and widely recognized traditional methods of evaluating investment proposals. It is defined as the number of years required in a project. If the project generates constant annual cash inflows, the payback period can be computed by the following formulae:

$$\text{Payback period} = \frac{\text{Initial cash outflow}}{\text{Annaual cash inflow}}$$

Year	Profit after tax	Depreciation	Cash flow after tax	Cumulative cash flows
2016	374540	2432956	2807496	2807496
2017	3049546	2167152	5216698	8024195
2018	4380048	2437146	6817194	14841389
2019	5300374	3102096	8402470	23243860
2020	7567635	5611603	13179238	36423098

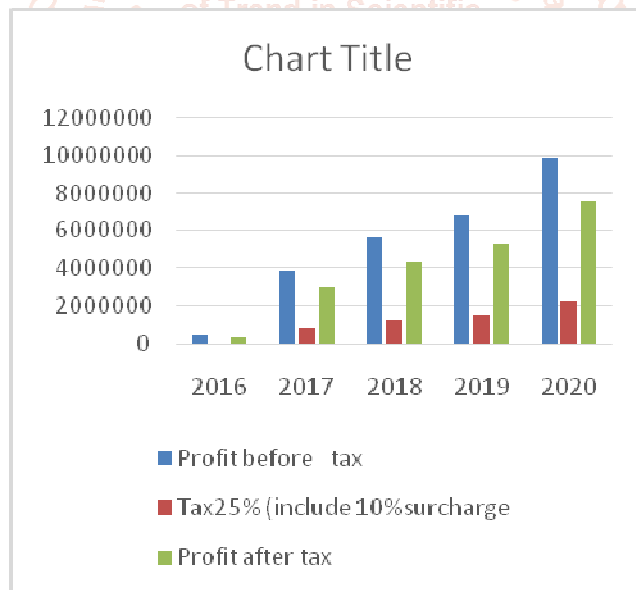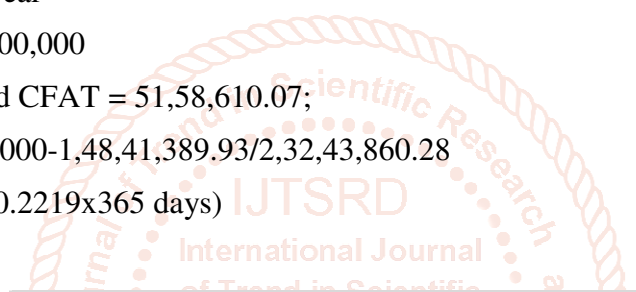$$\text{PBP} = \text{Base year} + \frac{\text{Required CFAT}}{\text{Next year}}$$

Initial investment is Rs.2,00,00,000

Base year = 3rd year, Required CFAT = 51,58,610.07;

Payback period = 3+2,00,00,000-1,48,41,389.93/2,32,43,860.28

= 3+0.2219 = 3.2219 years (0.2219x365 days)

= 3 years 2 months 20 days

Inferences:
From the point of ARR method, project should be accepted, the initial investment we can get with in less time.

Average rate of return;
The Average Rate of Return (ARR) is also known as Accounting Rate of Return using accounting information, as revealed by financial statements, to measure the profitability of an investment. The accounting rate of return is found out by dividing the average after tax profit by the average investment. The average investment would be equal to half of the original investment, if it is depreciated constantly. The Accounting rate of return can be calculated by the following formula i.e

$$\text{ARR} = \frac{\text{Profit after tax}}{\text{Book value of the investment}} \times 100$$

Year	Profit before tax	Tax25% (include 10% surcharge	Profit after tax
2016	483278	108737	374540
2017	3934898	885352	3049546
2018	5651675	1271626	4380048
2019	6839192	1538818	5300374
2020	9829346	2261711	7567635

Average Net profit after tax= $\dfrac{\text{Total net profit after tax}}{\text{Number of years}}$

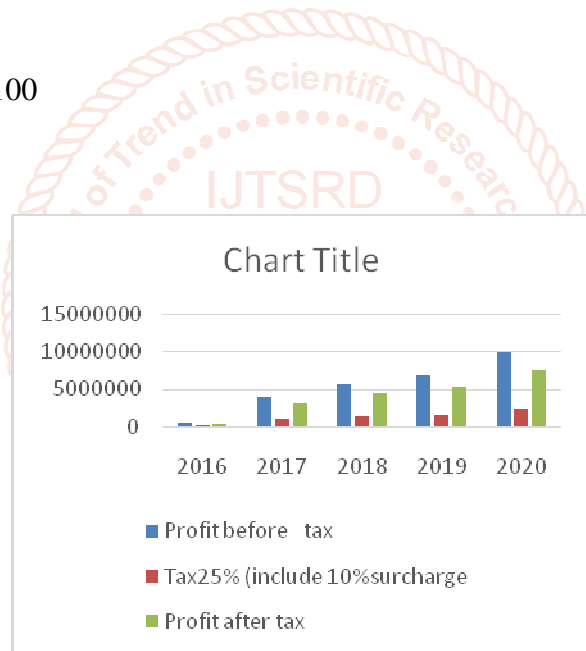$$=\dfrac{2{,}06{,}72{,}143}{5} = 41{,}34{,}428$$

Book value of investment = $\dfrac{\text{Initial investment}}{2}$

$$=\dfrac{2{,}00{,}00{,}000}{2}=1{,}00{,}00{,}00$$

ARR = $\dfrac{41{,}34{,}428.6}{1{,}00{,}00{,}000}$ X 100

=41.34%

Chart Title

Inferences:

From the point of ARR method, project should be accepted, the initial investment we can get with in less time.

Modern method

Net present value

The Net present value (NPV) method is the classic economic method of evaluating the investment proposals. It is one of the discounted cash flow techniques explicitly recognizing the time value of money. It correctly postulates that cash flows arising at different time periods differ in value and the comparable only when their equivalents present values are found out.

Acceptance Rule:

➢ Accept if NPV >0
➢ Reject if NPV <0
➢ In differences if NPV = 0

$$\text{NPV}= \dfrac{\text{Cash flow 0}}{(1+k)^0}+ \dfrac{\text{cash flow 1}}{(1+k)^1} +\ldots + \dfrac{\text{cash flow n}}{(1+k)^n} = \sum_{t=0}^{n}\dfrac{\text{cash flow t}}{(1+k)^t} - C_0$$

Years	Profit After Tax	Depreciation	After Tax	NPV @5%	Present Value Cash Flow
2016	374540.91	2432956	2807496.91	0.95238095	2673806
2017	3049546.32	2167152	216698.32	0.90702948	4731699
2018	4380048.12	2437146	6817194.12	0.8638376	5889075
2019	5300374.35	310209621	8402470.35	0.82270247	6912768
2020	7567635	5611603	13179238	0.78352617	10326277
				Total	30533625

Present value of cash inflow = 3,05,33,625
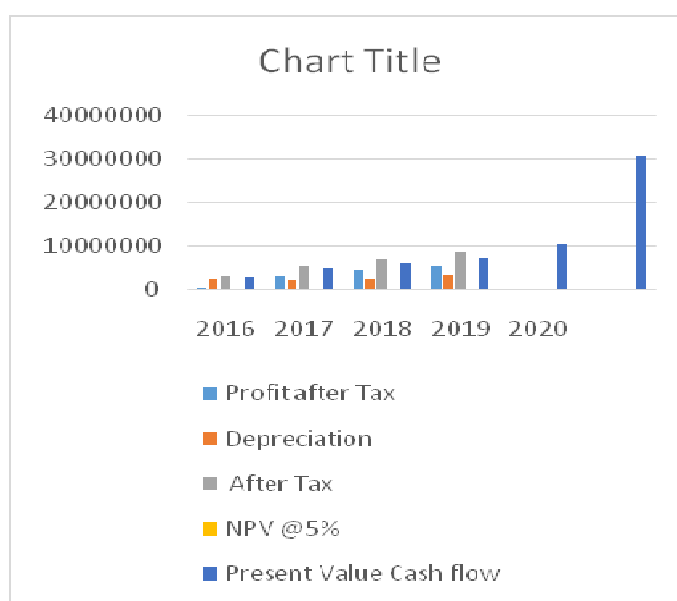
Initial Investment cash outflow = 2, 00, 00,000

$$\text{Profitability Index} = \frac{3,05,33,625}{2,00,00,000}$$

= 1.5266 Net Profitability Index
= PI =1.5266 – 1
=0.5266

Chart Title

Internal Rate of Return:
The internal rate of return (IRR) method is another discounted cash flow technique, which makes account of the magnitude and timing of cash flows. Others terms used to describe the IRR Method are yield on investment, marginal efficiency of capital, rate of return over cost, time adjusted rate of internal return and so on. The concept of internal rate of return is quite simple to understand in the case of one-period projects. The IRR is calculated by interpolating the two rates with the help of the following formula:

$$IRR = LR + \frac{\text{PV of cash inflows at lower rate - PV of cash outflows}}{\text{PV of cash inflows at lower rate-PV of cash inflows at higher rate}} (Hr - Lr)$$

Where,
L_r = Rate of interest that is lower of the two rates at which PV of Cash inflows have been Calculated.
H_r = Rate of interest that is higher of the two rates at which PV of Cash inflows have been Calculated.

ACCEPTANCE RULE
The accept project rule, using the IRR method, is to accept the project if its internal rate of return is higher than the opportunity cost of capital (r>k) note that k is also known as the required rate of return or cut-off rate. The

project shall be rejected if its internal rate of return is lower than the opportunity cost of capital. Thus the IRR acceptance rules are:

➢ Accept if r>k
➢ Reject if r<k
➢ May accept if r=k

Years	Profit After Tax	Depri Ciation	Cash Flow After Tax	NPV @10%	Present Value Cash Flow	NPV @20%	Present Value Cash Flow
2016	374541	2432956	2807497	0.90909	2552269	0.8333	2339580
2017	3049546	2167152	5216698	0.82645	4311320	0.6944	3622706
2018	4380049	2437146	6817194	0.75134	5121858	0.5787	3945135
2019	5300374	3102096	8402470	0.68301	5739000	0.4842	4052117
2020	7567635	5611603	13179238	0.6209	8183270	0.402	5296440
				Total	25907717	Total	19255978

Net Present Value of cash flow of LOWER RATE (LR) = 2,59,07,717

Net Present Value of cash flow of HIGHER RATE (HR) = 1,92,55,978
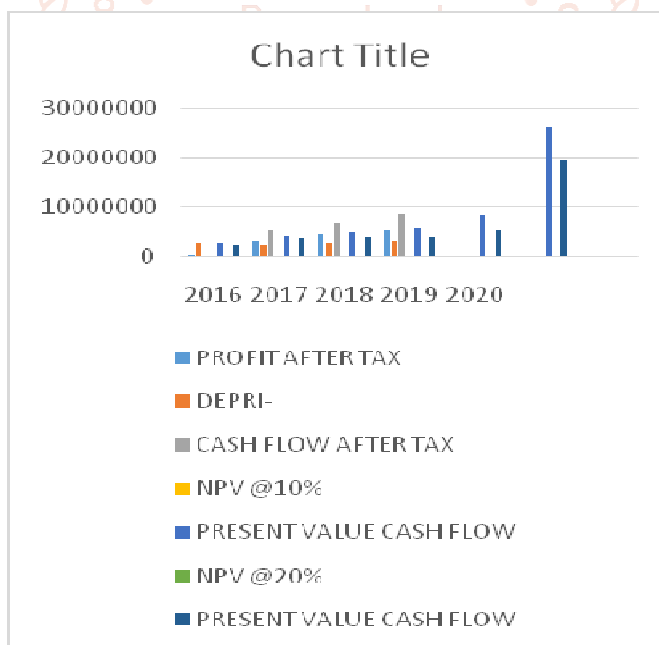
Therefore Present value @

$$IRR = LR + \frac{L R - \text{Initial Investment}}{\text{Present value @ L R} - \text{Present value @ H R}} \times \text{Rate Difference}$$

$$= 10\% + \frac{59,07,717}{66,51,739} \times 10$$

$$= 10\% + 0.889 \times 10$$

$$= 18.89\%$$

Chart Title

FINDINGS
➢ The company had taken longer period i.e., payback period is 3 years 2 months 20 days to recover its initial investment.
➢ The average rate of return is not good i.e., ARR = 41.34% as it was just to compensate the marginal profits.
➢ The net present value of ANANTHA PVC PIPES PVT. Ltd is satisfactory as

➢ NPV = 1,05,33,625.
➢ The internal rate of return i.e., IRR= 18.89% is fairly good.
➢ The profitability index is fairly good is it was gradually increasing in each year as shown graphically.
➢ The unit cost and other expenditures are eligible to claim from the potential buyer as approved by the Regulatory Commission

SUGGESTIONS

➢ Company should go for the improvement in the technology to improve efficiency.

➢ The Company can go for different projects as it has huge reserves and surplus, to expand its operations.

➢ The Company is beneficial enough to expand its business by utilizing reserves and surplus.

➢ The firm has to decrease the cost of production per unit.

➢ For society with lower income levels or below poverty line Company should go for subscribed rates and for industries it should increases its rate marginally to cover the losses.

➢ In order to diversify its operations it has to invest in more products so that NPV will be fairly high.

CONCLUSION

Under the light of inferences drawn from the analysis the company has to concentrate on Pay Back Period and NPV for acceptance of the project. The discounting methods are most preferable as the rate of returns is depending on the present values. All the techniques which was used for the project resulted positively expect on Pay Back Period. Finally it is concluded that firm can generate huge profits by investing in more projects diversifying its operations.

BIBLOGRAPHY

[1] M. PANDEY: Financial Management: vikas publishing house pvt ltd, 9th edition.

[2] PRASANNA CHANDRA: Financial Management: Tata McGraw-Hill, 7th edition.

[3] I. M. PANDEY: Financial Management: Tata McGraw-Hill, 4th edition.

WEBSITES

[1] www.google.co.in

[2] www.nandipipes.com