

# A Study on Capital Budgeting Analysis of Electrosteel Casting Limited in Srikalahasti

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**Abstract:** A firm could evaluate a prospective project's lifetime cash inflows and outflows as part of capital planning to see if the anticipated returns generated match a suitable goal benchmark. Investment assessment is another name for capital budgeting. In an ideal world, companies would explore all initiatives and opportunities that increase shareholder value and profit. Because the quantity of capital or money available for new projects in every organization is limited, management utilizes capital budgeting strategies to evaluate which initiatives will provide the highest return over a given period. As the basic information regarding the industry like industry major players, industry competitiveness and their products. Data regarding company profile, like vision, mission, quality policy and its products. Information collected from both primary and secondary sources. conceptual background it comprises information regarding capital budgeting, and its various technique like information on capital budgeting and its different techniques, such as NPV, ARR, PBP, and IRR, as well as a review of the literature. It will cover study design, including the sort of research technique employed, data gathering methods, and limitations. The fourth chapter deals with data analysis and interpretation, which includes Various ratios are used to assess the company's financial statement.

## INTRODUCTION

An efficient allocation of capital is the most important finance function in the modern times. It involves decisions to commit the firm's funds to the long-term assets. The investment decisions of a firm are generally known as the Capital Budgeting, or Capital Expenditure Decisions. A Capital Budgeting Decision may be defined as the firm's decision to invest its current funds most efficiently in the long-term assets in anticipation of an expected flow of benefits over a series of years. The project aims at evaluating the investment proposal for setting up a facility in

ELECTROSTEEL CASTING LTD, SRIKALAHASTI. The long term investment decision of the firm is generally known as the capital budgeting or capital expenditure decision. Capital budgeting is a decision making process for investment in assets that have long term implications, affect the future growth and profitability of the firm and basic composition and assets mix of the firm. It involves

- Measuring the benefits and costs associated with each alternative option in terms of incremental cash flows.
- Evaluating different proposals in the light of return expected by the investors of the firm and the return promised by the proposal.

## REVIEW OF LITERATURE

Klinowski, (2017) The profitability of individual projects is assessed in the financial analysis, which is a critical stage of capital budgeting, using both simple methods that do not account for the time value of money and complex (discounting) methods that do account for the risk associated with pursuing the specific projects.

Parasuram (2019) However, research has yet to provide an acknowledged complete model that adequately captures the process that a capital budgeting must go through in order to move from ideas, information, decision, and financed execution.

Alles et al. (2020), Both financial and nonfinancial factors can affect capital budgeting approach selection. Demographic characteristics of the decision-maker are among the nonfinancial variables.

## ABOUT ELECTROSTEEL GROUP

Electrosteel Castings Limited (ECL) is a pioneer in the production of Ductile Iron Steel in India and is a five-decade-old Water Infrastructure Company providing techno-economic solutions for water supply and sewerage systems.

It has established itself as an international brand that values commitment to excellence by carrying forward the legacy of providing clean drinking water to millions.

The Group started off as a Steel Castings and Cast Iron Spun Pipe manufacturing company, evolving over time into a globally recognized DI Steel and Fittings manufacturer.

### Group Companies

Today, the Electro steel Group comprises of Electro steel Castings Limited - India's leading Ductile Iron Steel and Fittings manufacturer and Electro steel Castings Ltd Casting Ltd Steel Limited, (formerly Lanco Industries Ltd.).

Electro steel as a Group caters to nearly 25% of the domestic DI Pipe demand. Together we manufacture 5.7 L TPA of DI Steel and 16000 TPA of DI Fittings. We also produce and sell a host of other products like Foundry Grade Pig Iron, Sponge Iron, Ferro Alloys, Cement and Metallurgical Coke.

We also generate power for our own consumption utilizing the waste heat generated from our coke oven and sponge iron operations and some surplus power is exported to the State grid.

Growing from strength to strength over half a century What started off as a Cast Iron Pipe manufacturing facility 60 years back, has metamorphosed into a true Indian multinational, spanning 5 continents and 90+ countries across the globe. Touching lives with #technologythatcares, our pipelines bring clean drinking water and have been a lifeline to millions. Steadfast on our mission of "Carrying life to people, safe drinking water for all" – over the years, we have been creating industry benchmarks by delivering internationally accredited superior quality Ductile Iron Steel and Fitting.

### *Electro steel Castings Limited*

Electro steel Castings Limited is India's premier manufacturer and exporter of Ductile Iron Steel and

Fittings having its facilities in Khardah, Haldia and Bansberia in West Bengal and Elavur in Tamil Nadu. The Company has a strong brand presence around the globe and has one prevailing aim - to remain the first choice in the market segment.

At present the Electro Steel group has three running companies.

1. Electro steel Casting Limited (ECL)
2. Electro steel Castings Ltd Casting Ltd Steel Limited (formerly Lanco Industry Ltd.)
3. Electro steel Steels Limited (ESL)

## NEED FOR THE STUDY

- Many Companies wants to invest a huge amount of money in order to take their firm growth and development. In this case, they have to take a sound investment decision among various investment alternatives.
- If the investment decision taken up on a project is not worth undertaking, the amount invested on a particular project would not generate profit or value rather it creates huge loss to the firm.
- Hence, to increase company wealth and profit or to avoid loss, a sound investment procedure is needed. Thus, the need of capital budgeting arises.

## OBJECTIVES OF THE STUDY

- To determine the cash inflows and out flows of the projects undertaken by the Electro Steel Castings Limited
- To measure the profitability of the project by considering all the relevant cash flows.
- To evaluate the company's investment decisions by Applying capital budgeting techniques
- To make recommendations and to improve further capital budgeting decisions.

## SCOPE OF THE STUDY

- The study covers investment decisions of Electro Steel Castings Ltd. with regard to its establishment and financial data from the years 2018-2019 to 2022-2023.
- Various aspects of capital budgeting such as definition, objectives, importance, process and methods are included in the study

Years	Cash inflows RS.	Cumulative cash inflows RS.
2018-19	243761	243761
2019-20	429661	673422
2020-21	290561	963983
2021-22	199561	1163544
2022-23	225561	1389105

- For the purpose of this study, it has been analyzed by using capital budgeting techniques such as Pay Back Period, Average Rate of Return, Net Present Value, Internal Rate of Return, Profitability Index.

### RESEARCH METHODOLOGY

#### RESERCH DESIGN

Type of research

The type of research undertaken for this project is Analytical Research.

#### DATA COLLECTION

The present project work covers a period of five years from 2019-2023. The project work is based on the data collected from secondary sources.

- The data is collected from Electro Steel Castings Limited with the help of Secondary sources.
- Secondary sources consist of not only published records and reports, but also unpublished records. The latter category includes various records and registers maintained by firms and organisations, e.g., accounting and financial records, personnel records, register of members, minutes of meetings, inventory records, etc.

#### DATA ANALYSIS TOOLS:

The following data analysis tools used in the study are:

- Payback period
- Accounting Rate of Return
- Net present value
- Internal Rate of Return.
- Profitability Index

#### LIMITATIONS OF THE STUDY;

- The study is conducted in short period. The time period of study has been limited to 45days. So, it is not sufficient to make in-depth analysis regarding Capital Budgeting analysis in Electro steel castings Ltd.

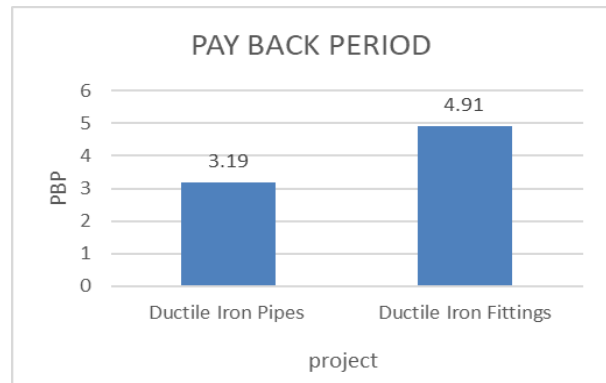
- The busy schedule of the officials in the Electro steel castings Ltd. is another limiting factor. Due to the busy schedule, officials restricted me to collect relevant data.

#### DATA ANALYSIS & INTERPRETATIONS: CALCULATION OF PAY BACK PERIOD

$$\begin{aligned} \text{Payback period} &= \text{current year} + \frac{\text{difference in cash flows}}{\text{net year cash flows}} \\ &= 3 \text{ years } 2 \text{ Months} \end{aligned}$$

#### PAY BACK PERIOD

Name of the project	PAY BACK PERIOD
Ductile Iron Pipes	3.19
Ductile Iron Fittings	4.91



#### INTERPRETATION:

The company standard pay back period is 5 years, From the above analysis, both ductile iron pipes & ductile iron fitting are less than standard pay back period, So both the projects are recommended to the company.

#### AVERAGE RATE OF RETURN

#### CALCULATION OF AVERAGE RATE OF RETURN

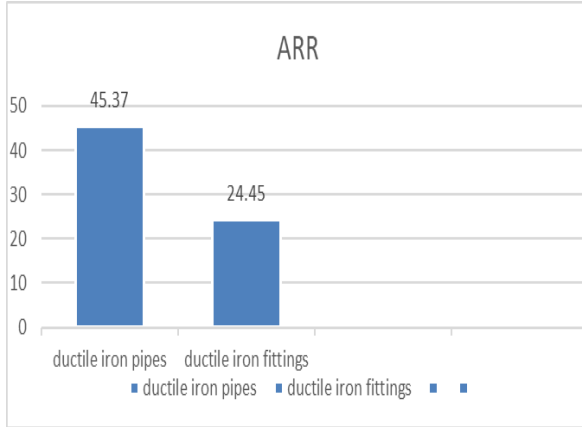
Years	Net profit after taxes	Cumulative cash flows RS.
2018-19	348000	1101737
2019-20	634000	2407574
2020-21	420000	3543111
2021-22	280000	4784898
2022-23	320000	6285435

**AGERAGE RATE OF RETURN**

$$ARR = \frac{\text{AVERAGE PAT}}{\text{AVERAGE INVESTMENT}} \times 100$$

ARR=45.37

Name of the project	AVERAGE RATE OF RETURN
Ductile Iron Pipes	45.37
Ductile Iron Fittings	24.45



**INTERPRETGRATION:**

From the above graph the standard ARR company 20% .Both ductile iron pipes & ductile iron fitting are greater than standard ARR are both project accepted for investment.

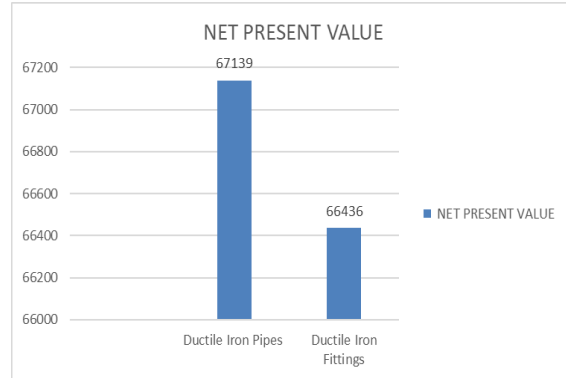
**NET PRESENT VALUE**

**CALCULATION OF NET PRESENT VALUE@10%**

YEAR	CASH FLOW AFTER TAXES (CFATS)	PRESENT VALUE INTEREST VALU@10%	PPRESENT VALUE
2018-19	1003500	1.00	1003500
2019-20	243761	0.909	221579
2020-21	429661	0.826	354900
2021-22	290561	0.751	218211
2022-23	199561	0.682	136101

NPV : 67139

NAME OF THE PROJECT	NET PRESENT VALUE
Ductile Iron Pipes	67139
Ductile Iron Fittings	66436



**Interpretation**

From the above graph net present value project 1 and project 2 are greater than the net present value are both project accepted for investment company.

**INTERNAL RATE OF RETURN (IRR)**

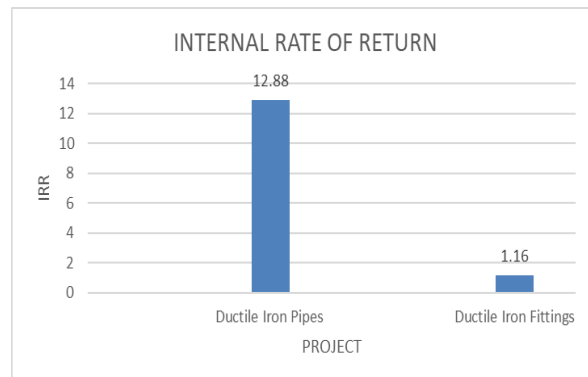
**CALCULATION OF IRR**

year	Cash FLOWS	P.V.%15%	P.V.OF NET CASH FLOWS
2018-19	1003500	1.00	1003500
2019-20	243761	0.870	212072
2020-21	429661	0.756	324824
2021-22	290561	0.658	191189
2022-23	199561	0.572	114149

NPV : 49162

**INTERNAL RATE OF RETURN**

NAME OF THE PROJECT	INTERNAL RATE OF RETURN
Ductile Iron Pipes	12.88
Ductile Iron Fittings	1.16



**INTERPRETATION:**

From the above graph the internal rate of return project 1 12.88is greather than is accepted prorect 2 is 1.16 less than is rejected investment.

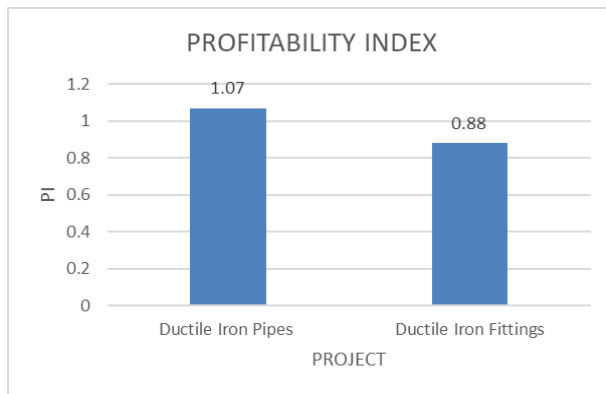
**PROFITABLE INDEX (PI)**

**CALCULATION PROFITABLE INDEX (PI)**

YEARS	CAHS FLOWS	P.V.%10%	P.V.OF NET CAHS FLOWS
2018-19	1003500	1.00	1003500
2019-20	243761	0.909	221579
2020-21	429661	0.826	354900
2021-22	290561	0.751	218211
2022-23	199561	0.682	136101

NPV : 67139

NAME OF THE PROJECT	PROFITABILITY INDEX
Ductile Iron Pipes	1.07
Ductile Iron Fittings	0.88



**INTERPRETATION**

From the above analysis project 1 grether than accepted project 2 less than it project is rejected not accepted.

**FINDING**

It is found that,

- The company standard payback period is 5 years, both project 1 is ductile pipe is 3.19 & project 2 ductile iron fitting 4.91 are less than standard payback period, So both the projects are recommended to the company.
- The standard ARR company is 20%. Both project 1 ductile iron pipe 45.37 &project 2 is ductile iron fitting 24.45 are greater than standard ARR are both project accepted for investment.
- The net present value project 1 ductile pipe is 67.13 and project 2 ductile iron fitting is 66.43 same analysis for investment both project accepted
- The internal rate of return project 1 is ductile iron pipe 12.88is greater than is accepted project 2

ductile iron fitting is 1.16 less than is rejected investment.

Profitability index project 1 ductile iron pipe 1.07 greater than accepted project 2 ductile iron fitting is 0.88 less than it project is rejected not accepted.

**SUGGESTION**

As per capital budgeting analysis, It is suggested to the company to accept the Project 1 Ductile Iron Pipes because the PBP, ARR, NPV, IRR and PI are profitable, where as Project 2 Ductile Iron fittings has IRR and PI are not profitable, So it is not recommended to the company.

**CONCLUSION**

A single discount rate should not be used for all the capital budgeting methods. The analysis is done for future estimated Cash flows and benefits, there is possibility of risks that must be considered for making capital budgeting decisions. Overall Project 1 ductile iron fitting is acceptable in all the investment evaluation techniques.

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