

# **A Study on Capital Budgeting Towards Electrosteel Casting Limited in Srikalahasti**

\* J.DAKSHAYANI, \*\* Dr. N. CHANDRIKA

\*Student, Roll number: 20AK1E0003, MBA Department, AITS, Tirupati

\*\*Associate professor, MBA Dept., AITS, Tirupati.

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## **ABSTRACT:**

*Businesses employ a step-by-step procedure called capital budgeting to assess the merits of investment projects. Studies on capital budgeting determine the ideal investment sizes and have an effect on investment effectiveness. Determine the investment rate of return that a project will produce before deciding whether to accept or reject it as part of your company's growth ambitions. The payback time, internal rate of return, and net present value of Dodla Dairy Private Limited are the main topics of this. The outcome demonstrates that there are multiple profitability indices and a positive NPV. In this study the management expected minimum rate of return is 40%. The result shows that the project ARR greater than 40%.*

*The net income of the project is discounted at the minimum required rate of return 8%.The result shows the capital invested is getting more return which is greater than 10%. And profitability index also more than one. Finally electro steel casting company is performing optimally with accepted evaluation criteria of capital budgeting techniques.*

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## **I. 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 longterm 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.

## **II. REVIEW OF LITERATURE:**

- Oliver (1981) put forward a definition as, "the summary psychological state resulting when the emotion surrounding disconfirmed expectations is coupled with the consumers' prior feelings about the consumption experience".
- Schiffman and Kanuk (2004) defines customer satisfaction as "The individual's perception of the performance of the product or service in relation to his or her expectations".
- Woodruff and Gardian (1996) define "Satisfaction, then, is the evaluation or feeling that results from the disconfirmation process. It is not the comparison itself (i.e., the disconfirmation process), but it is the customer's response to the comparison. Satisfaction has an emotional component."

## **ABOUT ELECTROSTEEL GROUP**

Electrosteel Group was founded in the year 1955 with the name Dalmia Iron and Steel Ltd, It has been fulfilling its vision of 'Carrying life to people, safe drinking water for all' over half a century. As the pioneer of introducing Ductile Iron Steel in India, the Electrosteel Group has established itself as an international brand that values commitment to excellence. Being the country's leading pipeline solutions provider, Electrosteel has been providing clean drinking water to millions - a promise of quality that has led it to achieve international benchmarks and recognition worldwide as a global leader that understands the stockyards have a comprehensive stock of DI Steel, Fittings and flanged Steel. It offers technical advice at the design stage and comprehensive

after sales support to its Consumers. Electrosteel Steels Limited. An Integrated Steel Plant has been set up which is capable of producing 2.5 Million metric tons of Hot Metal, which is further processed into Pig Iron, Billets, TMT Bars, Wire Rods and Ductile Iron Steel. These are some of the achievements which the members of the group would remember for a long time and also take the pride in being part of the organization. Company always promotes new technology in its manufacturing process to increase productivity; it also shaped the modern Indian industry with the inclusion and adoption of new techniques and methods.

- The company is India's largest Producer of ductile iron Steel
- Electrosteel is Asia's second largest manufacturer in DI pipe industry
- The company ranks among world's largest Global producer of Ductile Iron (DI) Pipe.
- It is the first to set up a Ductile Iron Pipe Plant in India.
- It was the first to manufacture Grinding Media in India.
- It was the first to introduce Hi-Chrome technology to India for Cement Plant Ball Mill Internals.
- It has been a pioneer in the manufacture of Alloy Steel Castings in India.

At present the Electro Steel group has three running companies.

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

#### **OBJECTIVES OF THE STUDY**

- To know the techniques of capital budgeting for decision-making and to understand investment decisions.
- To evaluate the company financial performance through capital budgeting techniques NPV, Payback period, IRR and PI.

### **III. RESEARCH METHODOLOGY**

#### **SOURCES OF THE STUDY:**

The present project work covers a period of five years from 2014-2018. The project work is based on the data collected from primary and secondary sources.

#### **There are two types of techniques**

Primary data

Secondary data

#### **Primary data:**

The primary data was collected through personal interviews with financial managers and holding discussions with all parties concerned.

#### **Secondary data:**

The secondary data collected from published and unpublished manuals, records, brochures, files, etc; of the organization and books, reports etc., Managers and supervisors of the organization have also been interviewed to elicit necessary information on the basis of on structural schedules the secondary information was collected from the company's manuals and office records pertaining to production, marketing, personal and financial position.

#### **STATEMENT OF THE PROBLEM:**

Investment in fixed assets is an important decision made by the top level management because of it involves huge amount of investment and also irreversible for every company as to follow some scientific methods to utilize their capital properties.

**NEED FOR THE STUDY:** The project study is under taken to analyse and understand the Capital Budgeting process in Electro steel casting ltd, which gives main exposure to practical implication of theory knowledge.

**SCOPE OF THE STUDY:** Various aspects of capital budgeting such as definition, objectives, importance, process and methods are included in the study. A brief details pertaining to Electrosteel casting ltd with regard to its establishment and financial summary for the years 2013-14 to 2017-18 are covered. Besides the capital budgeting tools employed by Electrosteel casting ltd in appraising projects has been examined.

#### **LIMITATIONS OF THE STUDY**

- The busy schedule of the officials in the Electrosteel casting ltd is another limiting factor. Due to the busy schedule, officials restricted me to collect the complete information about organization.

- Non-availability of confidential financial data.

### TYPES OF INVESTMENT DECISIONS

- **Independent Investments:**

These are proposals, which do not compete with one another in a way that acceptance of one precludes the possibility of acceptance of another. In case of such proposals the firm may straightaway “accept or reject” a proposal on the basis of a minimum return on investment required. All these proposals, which give a higher,

- **Contingent Investments:**

These are proposals whose acceptance depends on the acceptance of one or more other proposals. For example a new machine has to be purchased on account of substantial expansion of plant in this case investment in the machine is dependent upon expansion of plant. When a contingent investment proposal is made, it should also contain the proposal on which it is dependent in order to have a better perspective of the situation.

- **Mutually Exclusive Investments:**

These are proposals, which compete with each other in a way that the acceptance of one precludes the acceptance of other or others. For example, if a company is considering investment in one of two temperature control systems, acceptance of one system will rule out the acceptance of another. Thus two or more mutually exclusive proposals cannot be accepted. Some technique has to be used for selecting the better or the best one. Once this is done other alternatives get automatically get eliminated.

- **Make Or Buy Decision:**

Make or buy decision is no longer a short run operating decision and it becomes a problem of capital expenditure which necessitates consideration of required rate of return, A company has to take this decision, when it has to face following choice

1. Buy certain part or sub-assemblies from outside suppliers
2. Use available capacity to produce the item within the factory

### Conceptual knowledge about Capital Budgeting Average Rate of Return (ARR):

The average rate of return (ARR) method of evaluating proposed capital expenditure is also known as the accounting rate of return method. It is based upon accounting information rather than cash flows. There is no unanimity regarding the definition of the rate of return. There are a number of alternative methods for calculating the ARR. The most common usage of the average rate of return (ARR) expresses it as follows:

$$\bullet \quad \text{ARR} = \frac{\text{Average annual profits (After Dep\& Taxes)}}{\text{Average investment over the life of the project}} * 100$$

### Accept-Reject Rule:

Accept if ARR > minimum rate  
Reject if ARR < minimum rate

- **Pay Back Period (PBP)**

The pay back method (PB) is the second traditional method of capital budgeting. It is the simplest and, perhaps, the most widely employed, quantitative method for appraising capital expenditure decisions. This method answers the question: How many years will it take for the cash benefits to pay the original cost of investment, normally disregarding salvage value? Cash benefits here represent CFAT ignoring interest payment. Thus the pay back method measures the number of years required for the CFAT to pay back the original outlay required in an investment proposal.

$$\text{PB} = \frac{\text{Investment}}{\text{Constant annual cash flow}}$$

• **Accept-Reject Criterion:**

Accept if PB < standard payback
Reject if PB > standard payback

• **Net Present Value (NPV)**

The first DCF/PV technique is the NPV. NPV may be described as the summation of the present values of cash proceeds (CFAT) in each year minus the summation of present value of the net cash outflows in each year. Symbolically, the NPV for projects having conventional cash flows would be:

$$\bullet \quad \text{NPV} = \sum_{t=1}^n \frac{C_t}{(1+r)^t} - \text{Initial investment}$$

Where  $c_t$  = cash flow at the end of year t

N = life of the project

R = discount rate

**ACCEPT-REJECT CRITERION:**

NPV > ZERO (accept)

NPV < ZERO (reject)

NPV = ZERO (indifferent)

**INTERNAL RATE OF RETURN (IRR):**

The second discounted cash flow (DCF) or time adjusted method for appraising capital investment decisions is the internal rate of return (IRR) method. This technique is also known as yield on investment, marginal efficiency of capital, marginal productivity of capital, rate of return, and time-adjusted rate of return and so on. Like the present value method, the IRR method also considered the time value of money by discounting the cash streams. The internal rate of return is usually the rate of return the project earns. It is defined as the discount rate (r) which equates the aggregate present value of the net cash inflows (CFAT) with the aggregate present value of cash outflows of a project. In other words, it is that rate which gives the project NPV as zero.

$$\text{Investment} = \sum_{t=1}^n \frac{C_t}{(1+r)^t}$$

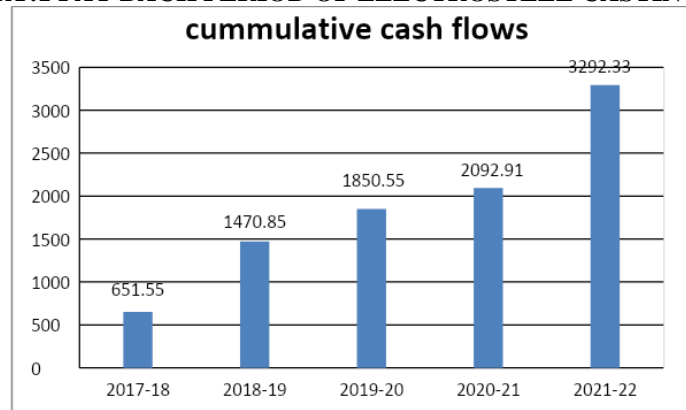
Where  $c_t$  = cash flow at the end of year t

R = internal rate of return (IRR)

N = life of the project

**IV. DATA ANALYSIS & INTERPRETATIONS:**

**CHART:1 PAY BACK PERIOD OF ELECTROSTEEL CASTING LTD.**



The above graphs shows that, the payback period lies in seconds and third year with Rs.1470.85 and 1850.55 i.e. initial investments 1546.05. The amount has been recovers in the second year and the remaining amount in third year (1546.05-1470.85-75.20) recovered in 3 years. This means the payback period lies between second and theirs year. The payback period is computed below.

**Pay Back Period =  $2 + \frac{75.2}{379.70}$**

= 2+0.19

= 2.19 years

Payback period (PBP) = 2.19 year.

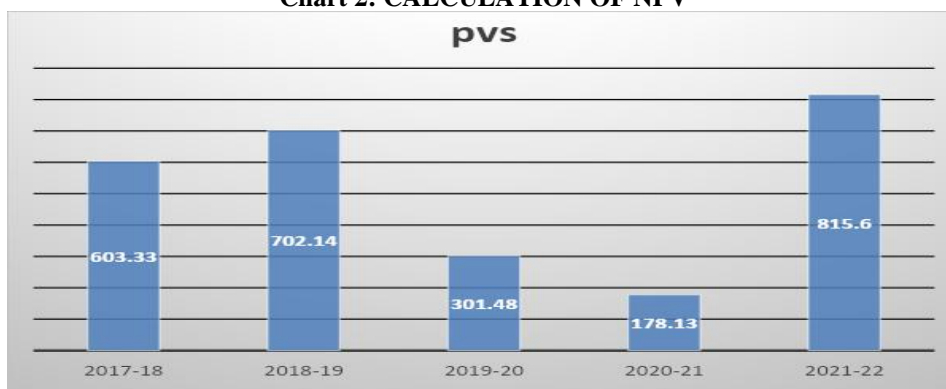
**ACCEPT-REJECT CRITERION:**

PBP can be used as criterion to accept or reject an investment proposal. A proposal whose actual payback period is more than what is pre-determined by the management. PBP thus is useful for the management to accept the investment decision on the ELECTROSTEEL CASTING LTD and also to assist management to know that the initial investment is recorded in 2.19 years.

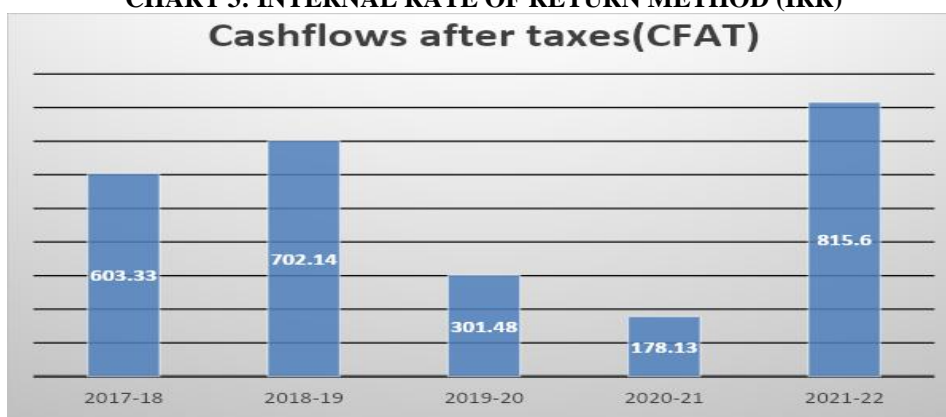
**NET PRESENT VALUE METHOD (NPV).**

Net present value method or NPV is one of the best of evaluating the capital investment proposals. Under these method cash flows and outflows associated with each project are first calculated.

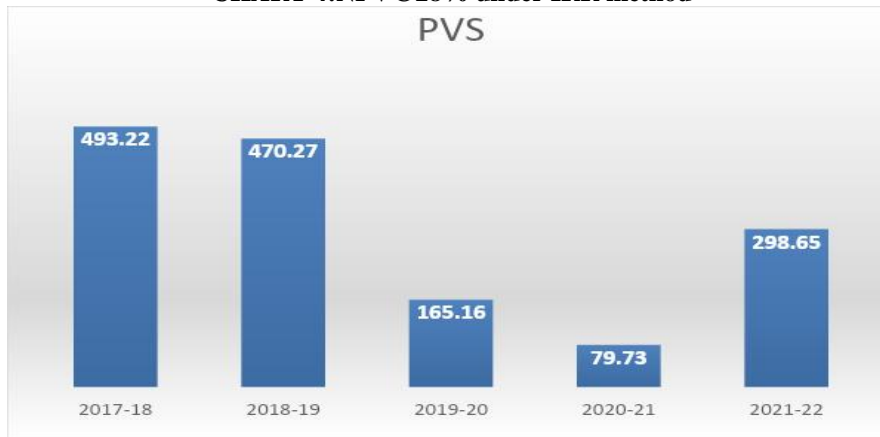
**Chart 2: CALCULATION OF NPV**



**CHART 3: INTERNAL RATE OF RETURN METHOD (IRR)**



**CHART 4:NPV@28% under IRR method**



**CHART 4:PROFITABILITY INDEX.**



Calculated value of PI = 1.68 Years

**INFERENCE:**Annuity lies between 22% and 34%

**FINDINGS:**

- The project is accepted when pay back is less than 2 years 2 months which is standard pay back set by the management. The project gives less payback is accepted.
- As per the management the minimum rate of return expected is 40%.The project ARR greater than 40% greater than 40% is accepted.
- The net income of the project is discounted at the minimum required rate return 8% and NPV is positive so the project is accepted.
- The capital invested is getting more return which is greater than 10%.
- The project showing Profitability Index is more than one. So the project is accepted.

**SUGGESTIONS:**

- 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 rate of return.

**V. CONCLUSION**

Capital budgeting techniques are very useful to estimate future inflows and outflows relating to the purchasing power and time value of money. After analysing the capital budgeting techniques in tradition the modern methods are very useful investment techniques to Electrosteel casting ltd.

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