



A Study on Capital Budgeting in the Alloys Industry

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ABSTRACT

The descriptive research study aimed to investigate capital budgeting practices within alloys (P) Ltd. Capital budgeting is a vital process for businesses, facilitating the evaluation of potential investments in long-term assets. This abstract serves as an overview of capital budgeting, emphasizing its significance, methodologies, and critical considerations. Capital budgeting entails assessing the financial viability of projects to ascertain their capacity to generate returns surpassing the cost of capital. This multifaceted process involves estimating cash flows, evaluating risks, incorporating the time value of money, and utilizing various appraisal techniques such as Net Present Value (NPV), Internal Rate of Return (IRR), and Payback Period. Several factors, including project risk levels, strategic alignment, and capital constraints, play pivotal roles in shaping investment decisions during capital budgeting exercises. Effective capital budgeting empowers organizations to allocate resources efficiently, enhance shareholder value, and realize long-term growth objectives.

KEYWORDS: Asset, Budgeting, Capital, Intensive, IRR, Monte Carlo, NPV, Payback, Project, Risk.

INTRODUCTION

Capital budgeting is the process a business undertakes to evaluate potential major projects or investments. Construction of a new plant or a big investment in an outside venture are examples of projects that would require capital budgeting before they are approved or rejected. Capital budgeting is a method of estimating the financial viability of a capital investment over the life of the investment. Unlike some other types of investment analysis, capital budgeting focuses on cash flows rather than profits.

REVIEW OF LITERATURE:

A company refers its financial assessments of the capital investments in the capital budgeting. Capital budgeting is a part of assessing the decision to make investments. The financial management and the capital investment decision-making are fundamental for its success and survival in long term. Different organizations use different types of decision-makers to adopt the decisions related to the referred budgeting. Research provided inconclusive evidence regarding the capital budgeting payback period (PP) as the most popular technique employed in evaluating projects. Other investigations demonstrated that discounted cash-flows practices are the most frequently used capital budgeting techniques. One of the most crucial choices each organization's financial management must make is its capital budget. When weighing the significance of capital investment decisions, managers must take the necessary to make a choice. The managers make a number of arbitrary calls when making investing selections. Although many different approaches have been put forth in the literature, subjective approaches have received First, the choice of capital investments has a big impact on how quickly a company grows; a poor choice could lead to the demise of the business. Second, making such choices costs a lot of money. Also adding to their complexity is the fact that they are among the most uncertain judgements in terms of future cash flow estimates as well as the social, technological, economic, and political effects on a systematic review is a means of evaluating and interpreting all available research relevant to a specific research question, topic area, or phenomenon of interest. Its aim to present an evaluation of an investigation topic by using a trustworthy and rigorous methodology (Kitchenham, Brereton, Bugden, Turner, Bailey, and Linkman). The systematic review of literature is defined as by the manner in which the reviewer proceeds, stage by stage, with full transparency and explicitness about what is done, typically using a protocol to guide the process (Young et al., 2002). Pittaway et al. (2004) proposed a comprehensive and detailed process to arrive at organized results from a large potential sample of articles. However, the origin of the criteria for content analysis was not explicit. Kitchenham et al. (2009) proposed a subjective process for choosing articles in specific journals. But, Ensslin et al. (2010) presented the Prokop-C, a detailed and comprehensive process for selecting a large sample of potential articles with the integration of criteria grounded in a worldview, which enables a holistic view of the analysis. Proknow presents a structured process to build knowledge about the researcher interest area, according to the constructivist view. The methodology consists of a series of sequential procedures that begin with the definition of the search engine for scientific articles to be used, followed by pre-established processes of filtering and the selection of a relevant bibliographic portfolio (Ensslin et al., 2010). Proknow-C is a set of steps or guides to filter and analysis the bibliographic information on a certain theme or subject. It is subdivided into four stages: 1) the selection of the bibliographical portfolio; 2) the bibliometric analysis of the selected articles; 3) the systematic analysis of the

selected articles; and 4) the definition of the research question and the research objective (Ensslin, 2013). The selection of the articles is a singular process, subject to restriction researchers' limitations, according to the theme that they want to study. The limitations of this process are as follows: the keyword definition by the researchers; the identification of the number of citations per article through Google Scholar; and the analysis of the article's title, summary and full text, according to the researchers' preferences (Lacerda et al., 2016)The estimate. The financial management and the capital investment decision-making are fundamental for the survival and success of the company in the long term

OBJECTIVE OF THE STUDY:

To study the various capital budgeting methods are being implemented in the organization.

To evaluate the capital budgeting methods are being implemented in the organization.

To suggest the better financial performance in the organizations.

SCOPE OF THE STUDY:

The present study has done undertaking to study and findout effectiveness of capital budjecting in the organization.

To find out whether organization is for decision making long term investment of the organization. For taking better financial decussion.

RESEARCH METHODOLOGY:

- DEFINITION:
- Methodology is a way to systematically solve the research problem. It may be understood as a science of studying how the research is done scientifically. It gives the frame work or plan for the study that guides the collection data and analysis of the data.

RESEARCH DESIGN

- The research design is the conceptual structure within which research is conducted; it constitutes the blueprint for the collection, measurement and analysis of data. The research design is the arrangement o conditions for collections and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure.

DATA SOURCES

- Data can be defined as the quantitative or qualitative values of a variable. Data is plural of datum which literally means to give or something given. Data is thought to be the lowest unit of information from which other measurements and analysis can be done. Data can be numbers, images, words, figures, facts or ideas. Data in itself cannot be understood and to get information from the data one must interpret it into meaningful information. There are various methods of interpreting data. Data sources are broadly classified into primary and secondary data.

Source of Data

- There are two types of data to be collected
- Primary data
- Secondary data
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- Primary data are those which are collected afresh and for the first time and thus happen to the original in character.
- Secondary data, the data that are already available, it refers to the data which have already been collected and analysis by someone else. The secondary data recollected from company profile and website. Mostly the data used for the project are secondary data.

DATA ANALYSIS AND INTERPRETATION:

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 ease 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

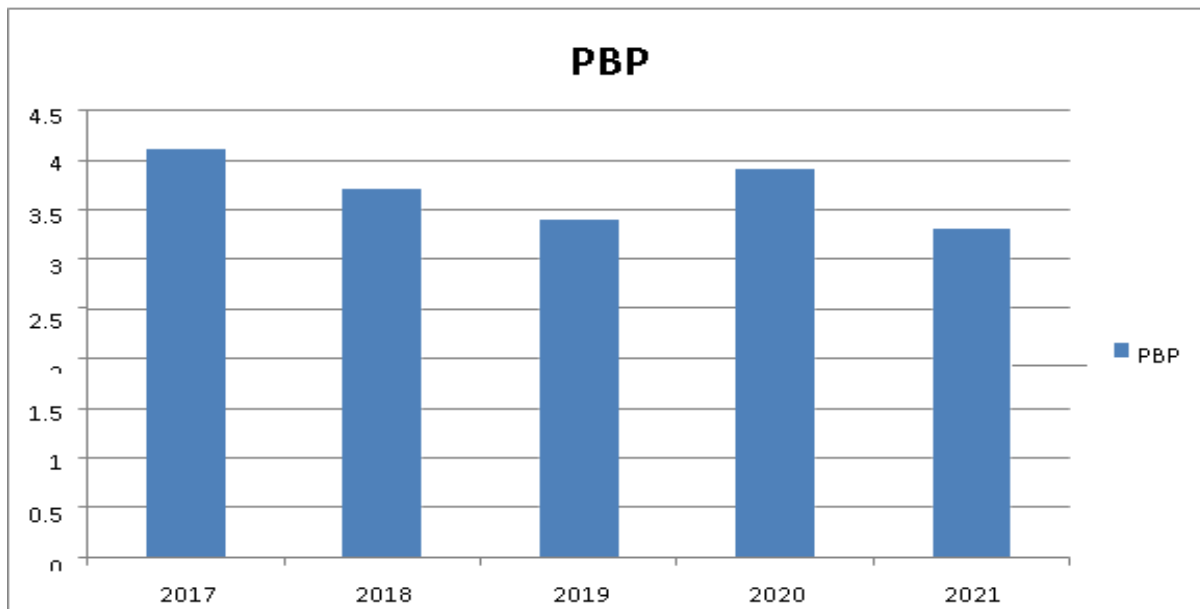
of endeavor. One of the oldest and most widely used methods to evaluate a capital investment proposal is the Payback Period, as the name implies it refers to the time required to recover the initial investment or the initial cash outlay as it is called in financial terms.

Formula :

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

YEAR	COST OF THE ASSET	ANNUAL CASH INFLOW	PAYBACK PERIOD
2018	3.347	821	4.1
2019	3.255	889	3.7
2020	2.962	883	3.4
2021	2.899	753	3.9
2022	2.91	849	3.3

CHANGES IN PAY BACK METHOD:



INTERPRETATION:

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 2017. The 'Y' axis denotes time period. In the first year 2017, annual cash inflow is .821 crores and the payback period 4.1 and the payback period for fifth year 2021 are 3.3. Comparatively payback period for the year 2021 is less .

Calculation net present value:

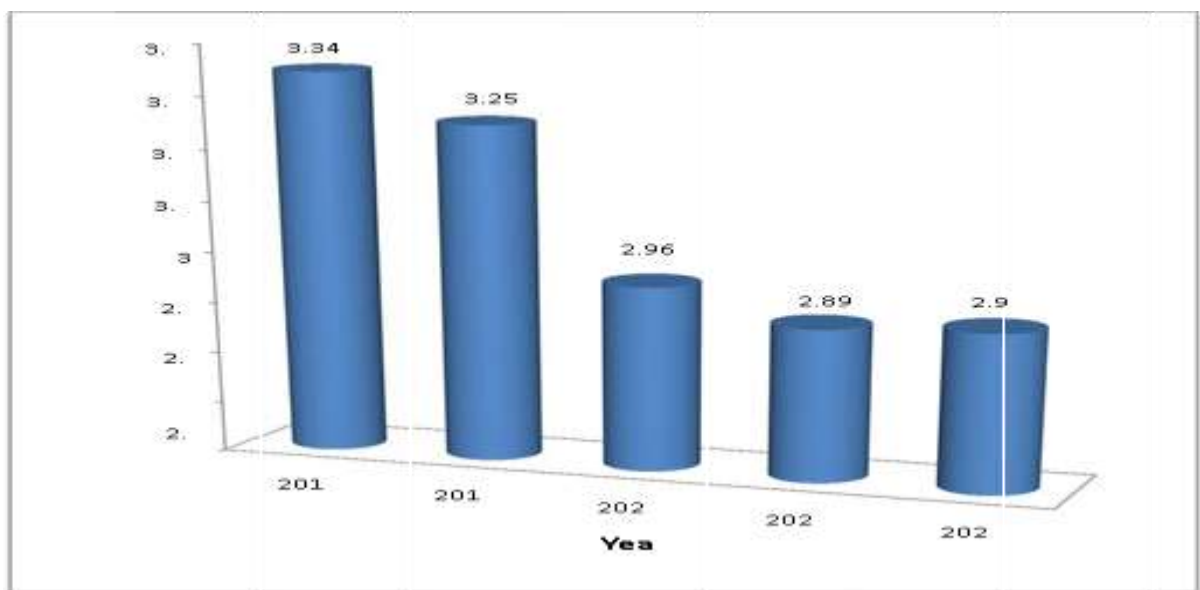
YEAR	CASH OUTFLOWS	DISCOUNTING PRESENT VALUE	PRESENT VALUE OF NET CASH FLOWS	CASH IN FLOWS
2018	3.347	0.909	3.042423	3.347
2019	3.255	0.826	2.68863	3.255
2020	2.962	0.751	2.224462	2.962
2021	2.899	0.683	1.980017	2.899
2022	2.91	2.91	1.80711	2.91
		TOTAL :	11.742642	15.373

Calculation:

Present value of all cash flows 15, 37, 30, 000

Less: Present value of Initial Investment 11, 74, 26, 420

Net Present Value (2009-11) 3, 63, 03,580

**INTERPRETATION:**

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 $NPV > 0$

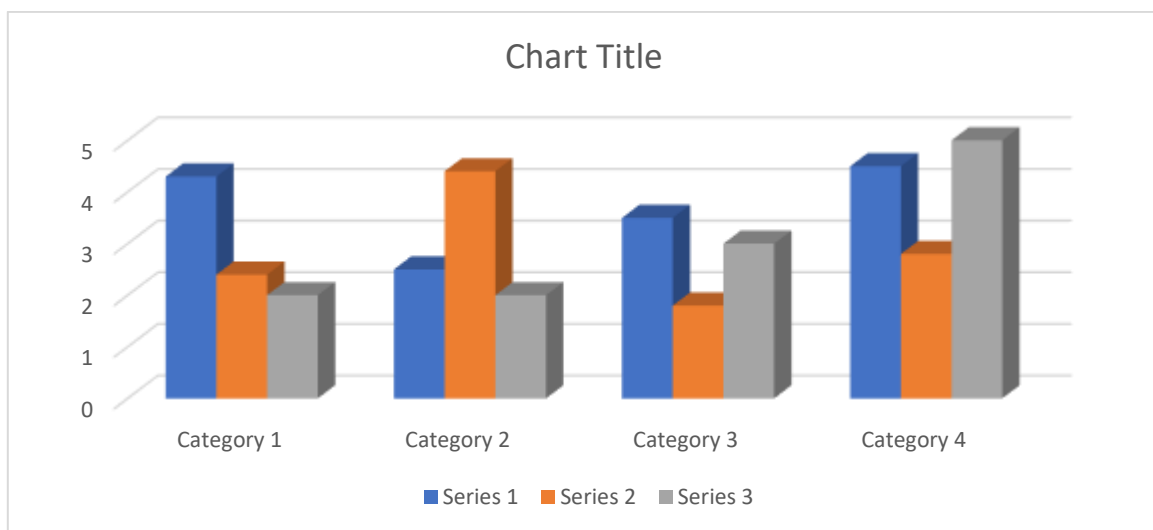
Reject the project when $NPV < 0$

May of may not accept the project when $NPV = 0$.

Above table clearly indicates that the Net Present Value for the 5 years from 2008to.

Average rate of return analysis:

YEAR	ANNUAL PROFIT	INVESTMENT	RATE OF INTREST
2018	0.821	3.347	24.52943
2019	0.889	3.255	27.31183
2020	0.883	2.962	29.81094
2021	0.735	2.899	25.35357
2022	0.894	2.91	30.72165



INTERPRETATION:

The chart shows that in the year 2018 and in the year 2022 in 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 2018, 2019, 2020, 2021 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.

FINDINGS:

- 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 greater than 8% and NPV is positive so the project is accepted.
- The current year 2022 payback Period is founded 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 draw backs 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 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 of 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.

REFERENCE:

1. Al-Mutairi, A., Naser, K., Saeid, M., & McMillan, D. (2018). Capital budgeting practices by non-financial companies listed on Kuwait Stock Exchange (KSE). *Cogent Economics & Finance*, 6(1), 2-18.
2. Arnold, G. C., & Hatzopoulos, P. D. (2000). The theory-practice gap in capital budgeting: evidence from the United Kingdom. *Journal of Business Finance & Accounting*, 27(5-6), 603-626
3. Bennouna, K., Meredith, G. G., & Marchant, T. (2010). Improved capital budgeting decision making: evidence from Canada. *Management Decision*, 48(2), 225-247.
4. Brij Alal, P., & Quesada, L. (2009). The use of capital budgeting techniques in businesses: a perspective from the Western Cape. *Journal of Applied Business Research*, 25(4), 37-46.
5. Andrés, P., Fuente, G., & San Martín, P. (2015). Capital budgeting practices in Spain. *Business Research Quarterly*, 18(1), 37-56.
6. Batra, R., & Verma, S. (2014). An empirical insight into different stages of capital budgeting. *Global Business Review*, 15(2), 339-362
7. Toit, M. J. D., & Pienaar, A. (2005). A review of the capital budgeting behaviour of large South African firms. *Meditate Accountancy Research*, 13(1), 19-27
8. Pike, R. H. (1996). A longitudinal survey on capital budgeting practices. *Journal of Business Finance & Accounting*, 23(1), 79-92.
9. Toloo, M., Nalchik, S., & Sohrabi, B. (2018). Selecting most efficient information system projects in presence of user subjective opinions: a DEA approach. *Central European Journal of Operations Research*, 26(4), 1027-1051
10. Ex bide B., U, & Agued, G. A. (2013). Capital budgeting, government policies and the performance of SMEs in Nigeria: a hypothetical case analysis. *IA*, 21(1), 55-73