

A STUDY ON LONG TERM CAPITAL INVESTMENT BUDGETING WITH REFERENCE TO GOLDEN FIBERS

Submitted in partial fulfillment of the requirements for the award of Degree in

MASTER OF BUSINESS ADMINISTRATION

by

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**DEPARTMENT OF BUSINESS ADMINISTRATION
SCHOOL OF MANAGEMENT STUDIES**

SATHYABAMA

**INSTITUTE OF SCIENCE AND TECHNOLOGY
(DEEMED TO BE UNIVERSITY)**

**Accredited with Grade "A" by NAAC | 12B Status by UGC | Approved by AICTE
JEPPIAAR NAGAR, RAJIV GANDHI SALAI, CHENNAI - 600 119**

MAY 2023



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BONAFIDE CERTIFICATE

This is to certify that this Project Report is the bonafide work of **KAWSICKANNAN S 41410166** who carried out the project entitled "**A Study On Long Term Capital Investment Budgeting With Reference To Golden Fibers**" under my supervision from January 2023 to March 2023.

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I **KAWSICKANNAN S (41410166)** hereby declare that the Project Report entitled “**A Study On Long Term Capital Investment Budgeting With Reference To Golden Fibers**” done by me under the guidance of **Dr.A.S.PRINCY** is submitted in partial fulfillment of the requirements for the award of Master of Business Administration degree.

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ACKNOWLEDGEMENT

I am pleased to acknowledge my sincere thanks to Board of Management of **SATHYABAMA** for their kind encouragement in doing this project and for completing it successfully. I am grateful to them.

I convey my sincere thanks to **Dr. G. Bhuvaneswari, MBA., Ph.D., Dean - School of Management Studies** and **Dr. A. Palani, M.Com., M.Phil., M.B.A., Ph.D., Head - School of Management Studies** for providing me necessary support and details at the right time during the progressive reviews.

I would like to express my sincere and deep sense of gratitude to my Project Guide **Dr.A.S.PRINCY** for her valuable guidance, suggestions and constant encouragement paved way for the successful completion of my project work.

I wish to express my thanks to all Teaching and Non-teaching staff members of the **School of Management Studies** who were helpful in many ways for the completion of the project.

KAWSICKANNAN S

PROJECT COMPLETION LETTER

Date:05-Apr-2023



GOLDEN FIBERS

TO WHOMSOEVER IT MAY CONCERN

This is to certify that Mr Kawsickannan S (Reg No : 41410166) pursuing “ Master of Business Administration “ in Sathyabama Institute of Science And Technology Chennai . He has successfully his project in “ **A STUDY ON LONG TERM CAPITAL INVESTMENT BUDGETING WITH REFERENCE TO GOLDEN FIBERS**” under the guidance of Mr Vignesh M in Financial Department .

The Duration of this project was from **04 Jan 2023** to **04 Apr 2023** at **GOLDEN FIBERS, UDUMALAIPET.**

During his training he has demonstrated his financial skills with self – motivation to learn new skills. His performance exceeded our expectations and he was able to complete the project on time.

We wish Him all the best for His upcoming career.

For Golden Fibers Pvt ,Ltd.

For GOLDEN FIBERS


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ABSTRACT

The key function of the financial management is the selection of the most profitable assortment of capital investment and it is the most important area of decision making of the financial manger because any action taken by the manger in this area affects the working and the profitability of the firm for many years to come. The objective of the research is to study on the company's forecasting decision through Long term capital investment budgeting technique through which the importance of long term capital investment budgeting in an organization and to analyze the long term capital investment budgeting process to be adopted by the company in order to take better investment decisions for various business projects. Further, it caters information about cash inflows and outflows of various years. Thus the comparison provides clear idea about investments and return on the same which can be helpful for the years to come. The analyses have been done by the data collected from income and expenditure statements and separate investment report. Long term capital investment budgeting techniques like Net Present Value method, Rate of Return method and Payback Period method are used to analyze the collected data. Some other forecasting tools like standard deviation, Correlation analysis and trend analysis are used in this study.

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CHAPTER I

INTRODUCTION

1.1 INTRODUCTION

Long term capital investment budgeting, which is also called “investment appraisal,” is the planning process used to determine which of an organization’s long term investments. Long term capital investment budgeting involves choosing projects that add value to the firm. This can involve almost anything from acquiring a lot of land to purchasing a new truck or replacing old machinery. Businesses, specifically corporations, are typically required, or at least recommended, to undertake those projects which will increase profitability and thus enhance shareholders' wealth.

When a firm is presented with a long term capital investment budgeting decision, one of its first tasks is to determine whether or not the project will prove to be profitable. The net present value (NPV), internal rate of return (IRR) and payback period (PB) methods are the most common approaches to project selection. Although an ideal long term capital investment budgeting solution is such that all three metrics will indicate the same decision, these approaches will often produce contradictory results. Depending on managements' preferences and selection criteria, more emphasis will be put on one approach over another. Nonetheless, there are common advantages and disadvantage associated with these widely used valuation methods. The firm's long term capital investment budgeting decision may be comprised of a number of distinct decisions, each referred to as a project. A long term capital investment budgeting is a set of assets that are contingent on one another and are considered together. Suppose a firm is considering the production of a new product. It must make a decision of whether or not to produce this new product. This capital project entails acquiring land, building facilities, and purchasing production equipment. And this project may also require the firm to increase its investment in its working capital -- inventory, cash, or accounts receivable. Working capital is the collection of assets needed for day-to-day operations that support a firm's long-term investments.

Nature of Long term capital investment budgeting:

Long term capital investment budgeting is the process of making investment decisions in capital expenditures. A capital expenditure may be defined as an expenditure the benefits of which are expected to be received over period of time exceeding one year.

Need and Importance of Long term capital investment budgeting:

Long term capital investment budgeting means planning for capital assets.

Long term capital investment budgeting decisions are vital to any organization as they include the decisions as to:

- (a) Whether or not funds should be invested in long term projects such as setting of an industry, purchase of plant and machinery etc.
- (b) Analyze the proposal for expansion or creating additional capacities.
- (c) To decide the replacement of permanent assets such as building and equipment's.
- (d) To make financial analysis of various proposals regarding capital investments so as to choose the best out of many alternative proposals.

The importance of long term capital investment budgeting can be well understood from the fact that an unsound investment decision may prove to be fatal to the very existence of the concern.

The need, significance or importance of long term capital investment budgeting arises mainly due to the following:

(1) Large Investments:

Long term capital investment budgeting decisions, generally, involve large investment of funds. But the funds available with the firm are always limited and the demand for funds far exceeds the resources. Hence, it is very important for a firm to plan and control its capital expenditure.

(2) Long-term Commitment of Funds:

Capital expenditure involves not only large amount of funds but also funds for long-term or more or less on permanent basis. The long-term commitment of funds increases the financial risk involved in the investment decision. Greater the risk involved, greater is the need for careful planning of capital expenditure, i.e. Long term capital investment budgeting.

(3) Irreversible Nature:

The capital expenditure decisions are of irreversible nature. Once the decision for acquiring a permanent asset is taken, it becomes very difficult to dispose of these assets without incurring heavy losses.

(4) Long-Term Effect on Profitability:

Long term capital investment budgeting decisions have a long-term and significant effect on the profitability of a concern. Not only the present earnings of the firm are affected by the investments in capital assets but also the future growth and profitability of the firm depends upon the investment decision taken today. An unwise decision may prove disastrous and fatal to the very existence of the concern. Long term capital investment budgeting is of utmost importance to avoid over investment or under investment in fixed assets.

(5) Difficulties of Investment Decisions:

The long term investment decisions are difficult to be taken because:

- (i) Decision extends to a series of years beyond the current accounting period,
- (ii) Uncertainties of future and
- (iii) Higher degree of risk.

(6) National Importance:

Investment decision though taken by individual concern is of national importance because it determines employment, economic activities and economic growth. Thus, we may say that without using long term capital investment budgeting techniques a firm may involve itself in a losing project. Proper timing of purchase, replacement, expansion and alternation of assets is essential.

Limitations of Long term capital investment budgeting:

Long term capital investment budgeting techniques suffer from the following limitations:

- (1) All the techniques of long term capital investment budgeting presume that various investment proposals under consideration are mutually exclusive which may not practically be true in some particular circumstances.
- (2) The techniques of long term capital investment budgeting require estimation of future cash inflows and outflows. The future is always uncertain and the data collected for future may not be exact. Obviously the results based upon wrong data may not be good.

- (3) There are certain factors like morale of the employees, goodwill of the firm, etc., which cannot be correctly quantified but which otherwise substantially influence the capital decision.
- (4) Urgency is another limitation in the evaluation of capital investment decisions.
- (5) Uncertainty and risk pose the biggest limitation to the techniques of long term capital investment budgeting.

1.2 INDUSTRY PROFILE

The manufacture of jute fibres into coarse cloth by hand-spinning and hand-weaving was a very old industry in India. "Practically, every homestead in the jute tracts had a few bundles of jute suspended from a beam in the roof of the verandah. The fibre was spun into twist or yarn, and worked up as required into string or rope, or was woven into gunny cloth or bag."

The first power loom was established in 1859 at Baranagar near Calcutta. In the beginning, the progress was very slow so much so that between 1854 to 1863—64, only one more mill was built. From 1863—64 onwards, however, growth of the industry was fairly rapid, occasional set-backs notwithstanding jute was the monopoly of India, and in this, the Bengal industry "furnished with the best mechanical appliances moved by steam" had a strong advantage.

It naturally led to the industry's expansion which had the inevitable result of "shutting Dundee out to a great extent from the Asiatic, Australian and even a part of the American markets." The progress was slowed down during 1890-95 on account of the prevailing famines in India which indirectly hit the export trade and hence the demand for gunny hags in the country. From 1900 onwards, the industry again grew at a fairly rapid pace and by 1913—14, the number of jute mills had risen to 64 with 36,000 looms and employing 2.16 lakh workers.

The First world war created a large demand for sand-bags and other jute manufactures. In order to economise on shipping which was scarce at that time, the govt., encouraged the export of jute manufactures in place of the raw-fibre.

The shipping difficulties were so acute that between 1917—19, even exports of just manufactures was prohibited except under license. However, the war demand was so great that these restrictions could not seriously hinder the growth of the industry.

In 1919, the industry comprised 76 mills which employed 2.76 lakh workers. In addition, there were 211 jute presses in which 33,316 persons were employed. It is worth noting that the jute growers of Bengal did not share this prosperity of the industry. On the contrary, export markets having been closed by the war and there being acute shipping shortage, the farmer was forced to dispose of his crop at whatever prices the industry chose to pay.

There were some difficulties in 1965- 66, but taking the period of the Third plan as a whole, there was a 21.6% increase in the production of jute goods. In 1965, there were 97 jute mills in India representing a capital investment of rupees 87.46 crores and employing 2.17 lakh persons. The production of jute goods stood at 13.35 lakh metric tons and the value of jute goods exported constituted 20.5% of India's total exports in 1964—65.

Profits and Wages of Jute Industry:

Jute, from the very beginning, was famous for its high profits. The early mills **“simply coined money.”** That is why many persons, doing prosperous business in tea, coal, turned to jute. The boom was so great “that the shares for a mill could be sold in Calcutta during a morning.”

The peak of profits was reached from the I world war until 1930 when, in the words of Buchanan, “it is doubtful if any group of factories in the world paid such handsome profits as the jute industry in India.” It is estimated that during the decade 1915—24, the industry earned 90% per annum on its capital.

During the thirties, the industry was so depressed that in spite of hours being reduced to some forty per week, and weeks operated to three per month, profits came down and even disappeared for many mills. The total paid profits in 1931 were under rupees one crore as compared with rupees 2.65 crores in 1930 and rupees 7.23 crores paid in 1926.

The industry turned the corner with the start of the second world war. The days of low prices and low profits were left behind and an era of rising prices and high profits started. The index of profits jumped rapidly from 100 in 1939 to 590 in 1940 and 923 in 1943.

Previous losses were more than made up by the unprecedented prosperity enjoyed by the industry. With the end of the war, profits understandably declined from the dizzy heights but the industry continued to earn much more than the normal on the basis of shorter working hours, curtailed production and the sealing of looms.

This may be seen from the fact that the index number of profits declined from 923 in 1943 to 415.4 in 1946 but rose to 679 in 1951 and stood at 277.5 in 1955. As regards wages, no statistics are available on the earnings of jute mill workers during the early days of the industry.

There is, however, evidence to suggest that the workers were made to work unlimited hours and that “some of the mills, with the object of conserving their labour from encroaching new mills, decided to run their machinery 22 hours.” Even the ‘staggering profits’ reaped by the industry during 1915—29 brought no improvement in the wages of the workers.

The royal commission on labour found that the average weekly wage of a worker, working in a single shift factory in the spinning section, amounted to Rs.4.12 and in the weaving section, to Rs.9.50. During the Depression, wages were further reduced by 10-15%. This led to two general strikes, one in 1929 and the other in 1932 when wages were reduced to Rs.30/- only.

During the Second World War, the cost of living in the jute mill area rose by 300%, while, on the whole, the war and amenity allowances increased the average earnings of the jute workers by only about 20%. In 1942, when the index of profits stood at 896 (1939= 100), it was found that 56% of the workers earned Rs.15-30 per month; 40% earned more than Rs.30/- per month and 4% earned less than Rs.15 per month.

To add insult to injury, there were heavy fines; often the workers were marked absent for a day or two even when he was present. Wages did not show an appreciable improvement even in the post-Independence period when total wages, including dearness allow; nee, increased from Rs.58.50 in September, 1948 to Rs.70.60 (including interim relief) in January, 1961—a 20.6% increase.

Problems of the Jute Industry:

The industry's major problem was that of foreign competition. The most powerful competitor was Pakistan which had the advantage, being a late comer, of installing

more productive modern machines as against India's old factories crying for modernisation.

The industry in Pakistan, assured of ample supply of lower-priced and better quality raw-fibre, enjoying a substantial export subsidy and operating through Bonus vouchers, was able to increase her share in the world jute exports from 7% in the fifties to nearly 30% towards the end of the Third Plan Period.

Indian jute goods had also to contend with synthetics such as Polypropylene which had shown promise of being an effective substitute for jute.

Continuous improvement in the quality of the product and diversification of production were the two major means by which the industry could hope to sustain its competitiveness both against other countries and against the flood of Polymers. The industry did, with the help of the National Industrial Development Corporation, initiate some programmes of modernisation such as the introduction of the electrically driven looms. But the process was far from complete—only the Spinning section had been modernized.

As regards diversification, the Finlow committee had pinpointed **“the distinct lack of variety”** as the most striking feature of the growth of the jute industry. The jute Enquiry commission also complained that the industry produced only certain types of goods required traditionally in certain markets and stressed the need for more positive efforts to diversify the pattern of production.

Unlike France, Belgium and Holland which, by installing new machines, were able to produce larger variety of goods, India did not make much progress in this field.

Another problem was that of adequate and regular supply of raw-jute of good quality. One thing was clear. India could not indefinitely depend upon the mercies of Pakistan but had to increase her own domestic production.

A self-sufficiency drive was launched under which the area under jute cultivation was extended but the results were not very satisfactory. Much of the raw-jute produced was **“grown on marginal lands and was of poor quality.”**

Besides, the supply was not stable; it kept fluctuating. For instance, production of raw-jute stood at 4.2 million bales in 1955-56; it declined to 4.1 million bales in 1960-61; again rose to 6.3 million bales in 1961-62 but fell to 5.4 million bales in 1962-63 and showed a steep decline to 4.4 million bales in 1965-66. Due mainly to raw-jute shortage, there was under — utilisation of capacity varying between 6-22% in the industry.

Jute in Ancient times

Jute has been used since ancient times in Africa and Asia to provide a cordage and weaving fiber from the stem and food from the leaves. In several historical documents (Ain-e-Akbari by Abul Fazal in 1590) during the era of the great Mughal Emperor Akbar (1542 – 1605) states that the poor villagers of India used to wear clothes made of jute. Simple handlooms and hand spinning wheels were used by the weavers, who used to spin cotton yarns as well. History also states that Indians, especially Bengalis, used ropes and twines made of white jute from ancient times for household and other uses.

Chinese papermakers from very ancient times had selected almost all the kinds of plants as hemp, silk, jute, cotton etc. for papermaking. Qiu Shiyu, researcher of the Harbin Academy of Sciences and expert of Jin history, concluded that Jews used to take part in the work of designing "jiaozi," made of coarse jute paper. A small, piece of jute paper with Chinese characters written on it has been discovered in Dunhuang in Gansu Province, in northwest China. It is believed it was produced during the Western Han Dynasty (206 BC--220 AD). See [Jute paper from Western Han Dynasty](#)



Jute cloths



Dundee Jute Mill in Scotland. In 1833, Jute fibre was spun mechanically in Dundee, Scotland.



Dundee Jute Mill in Scotland. The Entrepreneurs of the Dundee Jute Industry in Scotland were called The Jute Barons.

1.3 COMPANY PROFILE

Golden Fibers started in 2014, on native place of Tirupur with more than 80 employees. After the 2nd year join hands two partners expands the branches in Udumalai with more than 400 employees.

We are driven by our core values of **Quality, Partnership & Responsibility** to deliver excellence to all stakeholders in our business: ourselves, suppliers, the community and, above all, our valued customers.

Embracing our values, we innovate and improve and to deliver excellence to our Customers, Suppliers, to the Community around us and to our Internal Stakeholders.

A natural fibre with a silky lustre and high tensile strength, jute has grown increasingly popular as the world becomes more environmentally responsible. In addition to its natural, earthy appeal, jute stands out as an environment-friendly raw material with a multitude of applications.

Right from the first steps of cultivation, jute gives back more than it takes.

“A hectare of jute consumes 15 tonnes of carbon dioxide and releases 11 tonnes of oxygen in 120 days of growth, and cultivating jute in crop rotations enriches the fertility of the soil for the next crop.” (**Food and Agriculture Organization of the United Nations**). From fiber to finished product, jute is carbon positive.

Abundantly grown in India, jute is used to make a variety of products that protect and enrich the environment.

1.4 PRODUCT PROFILE



Jute (जूट) is a natural fibre with golden and silky shine and hence called **The Golden Fibre**. It is the cheapest vegetable fibre procured from the bast or skin of the plant's stem and the second most important vegetable fibre after cotton, in terms of usage, global consumption, production, and availability. It has high tensile strength, low extensibility, and ensures better breath ability of fabrics. Jute fibre is 100% bio-degradable and recyclable and thus environmentally friendly. It is one of the most versatile natural fibres that has been used in raw materials for packaging, textiles, non-textile, construction, and agricultural sectors. It helps to make best quality industrial yarn, fabric, net, and sacks.

Advantages of jute include good insulating and antistatic properties, as well as having low thermal conductivity and a moderate moisture regain. It include acoustic insulating properties and manufacture with no skin irritations. Jute has the ability to be blended with other fibres, both synthetic and natural, and accepts cellulosic dye classes such as natural, basic, vat, sulfur, reactive, and pigment dyes. While jute is being replaced by relatively cheap synthetic materials in many uses, but jute's biodegradable nature is suitable for the storage of food materials, where synthetics would be unsuitable.

Properties of Jute

Jute is one of the strongest natural fibers. The long staple fiber has high tensile strength and low extensibility. Its luster determines quality; the more it shines, the better the quality. It also has some heat and fire resistance. Jute is a biodegradable features.

Jute include good insulating and antistatic properties, as well as having low thermal conductivity and a moderate moisture regain. It include acoustic insulating properties and manufacture with

no skin irritations. Jute has the ability to be blended with other fibres, both synthetic and natural, and accepts cellulosic dye classes such as natural, basic, vat, sulfur, reactive, and pigment dyes.

Types of Jute

For general utility purposes, jute products fall into four classes of manufacture:

HESSIAN or BURLAP: A plain woven fabric of 5 to 12 ozs. a yard, made of good quality jute yarn. It is used for a wide range of applications as in cloth form and in the form of bags.

SACKING: It is also known as "heavy goods," made from lower grades of fiber, loosely woven cloth, in plain or twill weave, weighing from 12-20 ozs. per yard of different widths. It is used for bags of all types.

CANVAS - The finest jute product, closely woven of the best grades of fiber widely used in India for protection from the weather.

JUTE YARN and TWINE - Most of the single strand jute yarn produced is consumed by the mills themselves in fabric and twine manufacture. Jute twine in varying weights and thickness is, used extensively both in India and abroad for sewing, tying, and for a variety of industrial applications such as packing pipe joints, cable binding, etc.

Uses of Jute

Jute is the second most important vegetable fibre after cotton; not only for cultivation, but also for various uses. Jute is used chiefly to make cloth for wrapping bales of raw cotton, and to make sacks and coarse cloth. The fibres are also woven into curtains, chair coverings, carpets, area rugs, hessian cloth, and backing for linoleum.

While jute is being replaced by synthetic materials in many of these uses, some uses take advantage of jute's biodegradable nature, where synthetics would be unsuitable. The fibres are used alone or blended with other types of fibres to make twine and rope. Jute butts, the coarse ends of the plants, are used to make inexpensive cloth. Conversely, very fine threads of jute can be separated out and made into imitation silk. As jute fibres are also being used to make pulp and paper,

and with increasing concern over forest destruction for the wood pulp used to make most paper, the importance of jute for this purpose may increase.

1.5 OBJECTIVES

Primary Objective

To study the performance of long term capital investment budgeting.

Secondary Objective

- To study and ensure planning for future by setting up various budgets.
- To know the budgeting operation in the company.
- To analyze the elimination of wastages and increase in profitability.
- The analyze the correlation between Revenue and Sales.

Evaluation of past projects and investment may cater valuable information to be adapted in the future. Thus, planning for forthcoming days becomes easy. A clear view of works done by different departments in the organization can be observed.

1.6 Need for the study

Companies are in a situation to invest a huge amount of money in order to take their firm to a greater extends of growth. In this case, they have to take a sound investment decision among various 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 loss to the firm. Hence, to increase wealth and profit of the firm or to avoid loss, a sound procedure is needed. Thus, the need of long term capital investment budgeting arises.

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. Long term capital investment 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 process of allocating budget for fixed investment opportunities is crucial because they are generally long lived and not easily reversed once they are made.

So we can say that this is a strategic asset allocation process and management needs to use long term capital investment budgeting techniques to determine which project will yield more return over a period of time.

1.7 Scope of the Study

Duty of a financial manager is to choose investments with satisfactory cash flows and rates of return. Therefore, a financial manager must be able to decide whether an investment is worth undertaking and be able to choose intelligently between two or more alternatives. To do this, a sound procedure to evaluate, compare, and select projects is needed. This procedure is called Long term capital investment budgeting.

Long term capital investment budgeting is the process of making investment decisions in capital expenditures. A capital expenditure may be defined as an expenditure the benefits of which are expected to be received over the period of time exceeding one year.

The study has been undertaken to understand the significance of long term capital investment budgeting through which to analyze the performance of the long term capital investment budgeting.

- The study can help the organization to take investment decision in forthcoming years
- It can be used as reference
- It will be helpful for fund allocation

1.8 Limitations of the Study

- The company's certain information are kept secret
- The period of study restricted only to ten years.
- The study concentrates only on long term capital investment budgeting of the company

CHAPTER 2

REVIEW OF LITERATURE

Alles et al. (2020), both financial and nonfinancial considerations can have an impact on the choice of capital budgeting approaches. The decision-maker's demographic characteristics are among the nonfinancial elements. However, a study by Katabi and Dimoso (2016) that was conducted in Tanzania revealed that company-related variables such as the industry of the business, sales growth, business establishment, number of employees, and business form are crucial when choosing capital budgeting techniques.

Susan F. Haka, Michigan State University, USA (2020)

“Long term capital investment budgeting and investment appraisal” and historical appraisal of the development of current long term capital investment budgeting practices and reviews long term capital investment budgeting academic research. He has explained modern long term capital investment budgeting and its processes. In the late eighteenth and early nineteenth centuries, the industrial revolution was instrumental in creating demand for long term capital investment budgeting processes and techniques. Academic research, beginning in the late 1940s and early 1950s, is categorized by its focus on appraisal techniques, individual decision-maker effects, organizational issues, and environmental factors. Experimental, analytical, agency-based, survey-based, and case-based research is reviewed. His study concluded with a compilation of issues identified by academic research and a set of questions that have not yet been addressed.

Davina F. Jacobs (2019) is a senior economist in the Fiscal Affairs Department has done a research on long term capital investment budgeting practices. His study argues that the key challenge in government budgeting is to define an appropriate balance between current and capital expenditures. Budgeting for government capital investment also remains not well integrated into the formal budget preparation process in many countries. Hence, the research has been prepared with an aim to provide an overview of past and current budgeting practices for public investment. The study will also provide a comparison between the budget practices between low-income countries and developed countries and

make a series of recommendations for how to ensure efficient integration of capital planning and budget management in low-income countries.

Niels Hermes, Peter Smid and Lu Yao (2019) Faculty of Management and Organization, University of Groningen and Faculty of Economics, University of Groningen, The Netherlands, have made a study on “Long term capital investment budgeting practices: A comparative study of the Netherlands and China”. The paper compares the use of long term capital investment budgeting techniques of Dutch and Chinese firms, using data obtained from a survey among 250 Dutch and 300 Chinese companies. It aims to analyze the use of long term capital investment budgeting techniques by companies in both countries from a comparative perspective to see whether economic development matters. The empirical analysis provides evidence that Dutch Chief Financial Officers on average use more sophisticated long term capital investment budgeting techniques than Chinese CFOs do. At the same, however, the result suggests that the difference between Dutch and Chinese firms is smaller than expected based upon the differences in the level of economic development between both countries, at least with respect to the use of methods of estimating the cost of capital and the use of CAPM as the method of estimating the cost of equity.

Forecasting for Environmental Decision Making - J. Scott Armstrong (2019)

Those making environmental decisions must not only characterize the present, they must also forecast the future. They must do so for at least two reasons. First, if a no-action alternative is pursued, they must consider whether current trends will be favorable or unfavorable in the future. Second, if an intervention is pursued instead, they must evaluate both its probable success given future trends and its impacts on the human and natural environment. Forecasting, by which I mean explicit processes

For determining what is likely to happen in the future, can help address each of these areas. Certain characteristics affect the selection and use of forecasting methods. First, the concerns of environmental forecasting are often long term, which means that large changes are likely. Second, environmental trends sometimes interact with one another and lead to new concerns. And third. Interventions can also lead to unintended changes. This chapter discusses forecasting methods that are relevant to environmental decision making, suggests

when they are useful, describes evidence on the efficacy of each method, and provides references so readers can get details about the methods. A key consideration is whether or not the forecasting methods are designed to assess the outcomes of interventions. The chapter then examines issues related to presenting forecasts effectively. Finally, it describes an audit procedure for determining whether the most appropriate forecasting tools are being used.

Lingesiya Kengatharan¹ Department of Financial Management, University of Jaffna, Sri Lanka (2019) The main purpose of this research was to delineate unearthen lacunae in the extant long term capital investment budgeting theory and practice during the last two decades and ipso facto become springboard for future scholarships. Web of science search and iCat search were used to locate research papers published during the last twenty years. Four criteria have been applied in selection of research papers: be an empirical study, published in English language, appeared in peer reviewed journal and full text research papers. These papers were collected from multiple databases including OneFile (GALE), SciVerse ScienceDirect (Elsevier), Informa - Taylor & Francis (CrossRef), Wiley (CrossRef), Business (JSTOR), Arts & Sciences (JSTOR), Proquest ,MEDLINE (NLM), and Wiley Online Library. Search parameters covered long term capital investment budgeting, long term capital investment budgeting decision, long term capital investment budgeting theory, long term capital investment budgeting practices, long term capital investment budgeting methods, long term capital investment budgeting models, long term capital investment budgeting tools, long term capital investment budgeting techniques, long term capital investment budgeting process and investment decision. Thematic text analyses have been explored to analyses them. Recent studies lent credence on the use of more sophisticated long term capital investment budgeting techniques along with many long term capital investment budgeting tools for incorporating risk. Notwithstanding, it drew a distinction between developed and developing countries. Moreover, factors impinging on choice of long term capital investment budgeting practice were identified, and bereft of behavioral finance and event study methodological approach were highlighted. More extensive studies are imperative to build robust knowledge of long term capital investment budgeting theory and practice in the chaotic environment. This research was well thought out

in its design and contributed by stating the known and unknown arena of long term capital investment budgeting during the last two decades. This scholarship facilitates to academics, practitioners, policy makers, and stakeholders of the company.

Stewardship Theory Psaros (2018) states that similar to stakeholder theory, the views of stewardship theory differ from agency theory. For example, stewardship theory does not support the view that individuals are utility maximisers and also does not support the assertion that all business decisions are based on economic considerations only. It asserts that some business decisions are based on non-economic returns such as those related to social status in the community.

Donaldson and Davis (2018) add that some individuals are motivated in their decisions by an intrinsic satisfaction in undertaking a task that challenges them or/and achieving trust from peers and supervisors. The core of stewardship theory is about how individuals rank their social needs in a community, such as being accepted and valued by their peers and supervisors. Similar to executive remuneration or compensation, 'these needs help align the individual's interests with their organization's goals'. If the organization maintains a good relationship with the stakeholders, including the local community, individuals would want to make decisions that identify them with the organization because that would help promote their social status in the community. If the individuals rank social status high on their list of needs, then it would help them perform harder to achieve the organization's goal.

Psaros (2018) asserts that stewardship theory states that managers do not start out with the intention of maximising their own utility at the expense of the interests of other stakeholders.

Kiel and Nicholson (2017) state that 'underlying this rationale is the assertion that since managers are naturally trustworthy there will be no major agency costs'. The acceptance of stewardship theory has adverse implications on one theory that has become widely accepted, that having the chair of the board independent of the CEO gives the organization legitimacy for claiming to have an efficient or sound financial management in place and hence improving the return on equity (ROE) to the shareholders.

Kiel and Nicholson (2017) state that their findings support Boyd's (1995) conclusion that the issue of CEO duality is explained better if the size and complexity of the organizations are considered. In highly entrepreneurial firms, for example in the humble beginnings of Microsoft and internet companies the chairman-CEO duality may send a positive message to the market 30 2 Literature Review because it supports stewardship theory and enhances social status by minimizing the agency cost. It can also lead to the organization being seen as having a clear leadership which may lead to better corporate performance. In addition to the studies investigating the relationship between board composition and firm performance, sociologists have focused on the relationship between the firm's social network and the firm's performance. These studies formed the resource dependency theory. The resource dependency theory explains how the firm's success is linked to its ability to control its external resources.

(Psaros 2017). The board of a company plays several vital roles, such as providing advice to management on operational and strategic issues and monitoring management. Besides these, it is also an important link between the organization and the external resources which an organization needs to maximize its performance

(Hillman et al. 2008; Pfeffer and Salancik 2016). The more control an organization has on external resources, the lower the costs of resources and the higher the chances that the firm will minimize agency costs. The firm may then maximise the use of resources to maximize the value of the firm. It will also help in making strategic plans more workable and mitigate agency costs. If the success of the organization depends on external resources, then having its members on the board of directors of the resources company who can help to establish a relationship between the organisation and the external resources improves the financial efficiency and management of the organisation, reduces agency costs and hence maximises the value of the firm. It also reduces uncertainty of accessing the resources, and external dependencies.

Kiel and Nicholson (2016) argue that agency theory, stewardship theory and resource dependence theory all play a vital role in determining what should be appropriate corporate governance policies and structures.

Leon et al. (2015), capital budgeting is a procedure for assessing and making decisions regarding investment projects. The authors added that when evaluating a project, cash flows must be taken into account while taking risk and uncertainty into account. Therefore, care must be given in project selection to increase the likelihood that the firm will see long-term success.

Ross et al. (2015), is the process of organising and controlling a company's investment in long-term assets. The strategic decisions made by the company, such as firm expansion, asset replacement and new asset selection, cost reduction, and the decision to buy vs lease, all heavily rely on capital budgeting.

Haka et al. (2014) separated selection procedures for capital budgeting into two groups: sophisticated and simple. Advanced methods take inflation, time value of money, and risk-adjusted net cash flows into account. NPV, IRR, and PI are sophisticated procedures; in contrast, naive methods do not take time value of money and risk-adjusted factor into account. PBP and ARR are two major subcategories of naive approaches.

Baker and Powell (2014), there are six steps in the capital budgeting process: locating project proposals, predicting project cash flows, assessing projects, choosing projects, carrying out projects, and conducting a post-completion audit.

(Baker and Beardsley 2014). However, by the end of the 1980s, research discovered a shift in usage towards DCF methods for NPV and IRR and a beginning drop in the use of non-DCF methods for PBP and IRR as primary methods, though they continued to be quite popular as secondary methods.

Kester and Robbins (2014) among CFOs of listed companies on the Irish Stock Exchange. The findings revealed that they employed DCF approaches, with NPV being the most widely used metric for capital budgeting decisions, closely followed by PB and IRR, and ARR coming in third on the respondents' list of least-important methods. The most common methods for incorporating risk were believed to be scenario analysis and sensitivity analyses.

A survey of capital budgeting practises in Japan was carried out by **Shinoda (2014)** utilising sample information from 225 companies registered on the Tokyo Stock Exchange. The findings showed that Japanese businesses combine PB and

NPV approaches to manage their capital budgeting decisions. The issue and circumstance determine the capital budgeting methods that are employed. Instead of relying solely on rigorous academic theory, effective capital budgeting decision-making calls for a more holistic approach to the problem of capital budgeting approaches.

With a response rate of 35%, **Mubashar and Tariq (2013)** conducted a study on 200 non-financial enterprises listed on the Pakistan Stock Exchange. It was discovered that NPV, IRR, and PI were extensively employed for capital budgeting by Pakistani listed companies. The most popular approach of capital budgeting among these DCF methods is NPV (61.4 percent of respondent firms always utilise NPV). Again, 27% of businesses always employed IRR, but curiously, every business that responded to the survey used IRR as a secondary strategy in addition to NPV. Similar to how WACC is calculated using target value weights, the cost of equity capital is calculated using the capital asset pricing model (with additional risk components). Sensitivity analysis and scenario analysis are the two main methods used for risk assessment.

A thorough primary survey was carried out by **Nurullah and Kengatharan (2013)** among 32 out of 46 CFOs of manufacturing and trading businesses listed on the Colombo Stock Exchange in Sri Lanka. The findings showed that NPV, closely followed by PBP and IRR, was the most popular capital budgeting technique. Similarly, sensitivity analysis was regarded as the most important capital budgeting tool for absorbing risk, and the WACC was the most popular way to determine cost of capital. Additionally, the results showed that the size of the capital budget had an impact on the usage of the capital budgeting methodologies (NPV, IRR, and PB), as well as the incorporation of risk tools (sensitivity analysis and simulation).

A thorough phone survey of 400 CEOs of small, medium, and big businesses in ten countries in Central and Eastern Europe (CEE) was done by **Andor et al. (2013)**. They came to the conclusion that CEE capital budgeting practises are mostly influenced by business size, culture, the country's code of ethics, and corporate objectives, with targeted leverage, management ownership, and the

quantity of projects to be analysed also playing a modest contribution. The same holds true for using CAPM and figuring out the cost of capital.

Bennouna et al. (2013), although Canadian enterprises preferred to employ NPV, there is still a disconnect between theory and practise. In addition, 17% of big businesses didn't use DCF. Only 8% of those favoured genuine options, whereas the bulk of Canadian businesses used NPV and IRR. The outcome reveals that there is still a gap between theory and practise in both the specifics of DCF capital budgeting decision approaches and in available practical possibilities.

In their study of the Jordan Industrial Corporation, **Khamees et al. (2013)** discovered that enterprises employed both DCF and non-DCF approaches in almost equal amounts when assessing capital investment projects. The PBP is the second most popular approach, according to the results, behind the PI. The findings showed that respondents don't rely on just one method. The findings did not, however, indicate that non-DCF or DCF cash flow approaches were better than other methods. However, the PBP technique was shortly followed by the PI technique in terms of usage.

De Souza and Lunkes (2012) looked into how big publicly traded companies in Brazil used capital budgeting techniques. Their research shows that managers of Brazilian enterprises primarily used the PB (71%) and that NPV (65%) and IRR (61%) were close behind. The survey also notes that WACC (63% of the time) is the method most frequently employed to determine the minimal rate of return. The findings indicate that scenario analysis (68%) and sensitivity analysis (55%) are the two methods most frequently utilised for risk assessment.

In 2017, Batra and Verma looked at the responses from 77 Bombay Stock Exchange-listed Indian companies. According to their research, business managers typically adhere to the capital budgeting guidelines recommended by academic theory. The most common DCF methodologies are risk-adjusted sensitivity analysis and NPV and IRR.

Ghahremani M. et al. (2012), "Capital budgeting technique selection through four decades: with a great focus on real option," published in the International Journal of Business and Management, 7(17), pp. 98–117, they aim to provide a review

and analysis of capital budgeting techniques from 1970–2012 in developing and developed countries in order to identify the factors that are most important when choosing techniques.

Vongai Maroyi & Huibrecht The authors of **Margaretha Van D P's (2012)** article, A survey of capital budgeting techniques used by listed mining companies in South Africa, published in the African Journal of Business Management, 6(32), pp. 9279–9292, examined the capital budgeting strategies employed by South African mines that are listed on the Johannesburg Securities Exchange (JSE). They also looked into the motivations for these strategies' adoption. The major goal of this study was to identify the capital budgeting methods that are most frequently employed.

Capital budgeting is covered in detail in the book Essentials of Financial Management by **V.K. Saxena and Vashist C. D., 2012** by Sultan Chand & Sons Educational Publishers in New Delhi. It most effectively aids students, investors, and researchers in comprehending the significance of capital budgeting, project selection criteria, numerous concepts, as well as its limitations. Financial Management: A Comprehensive Text by Kishore Ravi M. Book containing case studies, New Delhi: Taxmann Publications p. Ltd. The author divides the book's presentation of financial management into two parts. The topic's most recent developments have all been taken into account. The book provides an exhaustive study of the topic and satisfies the requirements for professional and research courses at all levels.

The capital budgeting chapter in Khan M.Y. and Jain P. K.'s Management Accounting: Text, Problems and Cases, New Delhi: The McGraw-Hill Publishing Company Ltd., deals with the discussion of the principles & procedures, meaning, importance, challenges, justification, and varieties of capital budgeting.

"Capital Budgeting Theory and Practise: A Review and Agenda for Future Research," **Kengatharan Lingesiya (2011)**. 15–38 are included in Applied Economics and Finance, 3(2). The major goal of this study was to identify and reveal gaps in the recent capital budgeting theory and practise in order to serve as a springboard for further research.

Sihlaer William W. et. al. (2011), Financial Management: Theory and Practise, Mumbai: Jaico Publishing House, financial management is meant to assist the chief executive of a smaller company, especially one that is expanding quickly, in making sure that the financial management of the company is in line with the company's strategy. All the subjects are carefully handled within the book's well-organized framework.

Financial Management: A Conceptual Approach, **by P.V. Kulkarni and B.G. Satyaprasad (2015)**, published by Himalaya Publication House in Mumbai, elaborates capital budgeting choices under risks and uncertainties. The types and causes of risks are the main areas of focus.

Prof. **Tatikonda Neelakantam (2011)**, Advancements in Capital Budgeting Evaluation Practises: A Conceptual Analysis, 9, pp. 6–15, examines the evaluation of capital budgeting practises based on advancements. All the concepts are properly analysed through this study to determine the most popular capital budgeting method. According to the study's findings, current methodologies are particularly beneficial when businesses are making decisions about long-term investments.

A strategic Framework to Use Payback Period in Evaluating Capital Budgeting in Energy and Oil and Gas Sectors in Oman by **Mawih Kareem Al-Ani (2011)**. This research study, published in the International Journal of Economics and Financial Issues, 5(2), pp. 469–475 examines the relationships between strategic variables and uses the payback period to assess capital budgeting choices from the viewpoints of managers and investors in Oman.

Tomasz Wnuk-Pel 2011, "Factors Determining the Selection of Capital Budgeting Methods in Companies Operating in Poland." This article, published in StowarzyszenieKsiegowych w Polsce, 84(140), pp. 217–240, examined the application of capital budgeting techniques in detail.

Effect of Budgetary Process on Financial Performance of NGOs in Kenya's Health Sector, **KimunguyiSammy et al. (2010)**. The primary goal of this study, published in International Journal of Business and Social Science, 6(12), pp. 163–172, was

to determine how the budgetary process affected the financial performance of NGO's in Kenya's health sector.

"Capital Budgeting practises: A comparative study between a port company in Brazil and in Spain," **LunkesRogerio J. et al. (2010)**. This study paper compares the capital budgeting practises employed by port firms in Brazil and Spain, as published in the Journal of Public Administration and Policy study, 7(3), pp. 39–49.

Yadav Anuradha (2010), "Capital Budgeting Procedures and Practises of Unsung Entrepreneur in Delhi," International Journal of Science and Research (IJSR), 4(1), pp. 37-41. In this paper, the author examined the extent to which capital budgeting practises & procures are employed by unsung entrepreneurs of Delhi.

Weerakun Banda YatiwelleKoralalage (2010), The use of capital budgeting techniques in large businesses: Evidence from Sri Lanka, International Journal of Arts & Commerce, 3(9), pp. 77–84, examines the use of capital budgeting techniques and looks into various variables and associations relating to capital budgeting practises in large listed companies in Sri Lanka. According to the study, investment projects are evaluated using Net Present Value, Accounting Rate of Return, Payback Period, Internal Rate of Return, and Profitability Index.

This study focuses on the capital budgeting practises in Rwanda by examining the capital budgeting techniques and the cash flow estimation. It is titled **Mba zize Peter & Daniel Twesige (2010)**, Capital Budgeting Practises in Developing Countries: A Case of Rwanda. The results of this study demonstrate that businesses in Rwanda are employing discounted cash flow approaches, however there are still some discrepancies on how acceptable these techniques are, as the majority of businesses continue to apply incorrect discount rates when discounting predicted cash flows.

Rakesh H. M. (2010), "A Study on Capital Budgeting Practises in Listed Companies of the Bombay Stock Exchange," The survey, which focused on capital budgeting practises, was carried out between December 2012 and March 2013 using a questionnaire distributed to 5,163 individuals in charge of capital budgeting at companies listed on the Bombay Stock Exchange.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 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 of conditions for collections and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure.

Descriptive Research

Descriptive research determines the relationship between two or more variables. It includes surveys and fact finding enquiries of different kinds. The major purpose of descriptive research is description of the state of affairs as it exists at present. The main characteristics of this method are that the researcher has no control over the variables, he can only report for the happening. The method of research utilized in descriptive research is survey method of all kinds including comparative method and correlation method.

3.2 Source of Data

There are two types of data to be collected

- Primary data
- Secondary data

Primary data are those which are collected afresh and for the first time and thus happen to be original in character.

Secondary data, the data that are already available, it refers to the data which have already been collected and analyzed by someone else. The secondary data recollected from company profile and website. Mostly the data used for the project are secondary data.

3.3 Methodology

Payback Period Method

The payback period is also called as pay off or payout period method. That represents the period in which the total investment in permanent assets payback itself. The method is based on the principle that every capital expenditure pays itself back within a certain period out of the additional earnings generated from the capital assets. Thus, it measures the period of time for the original cost of the project to be recovered from the additional earnings of the project itself. Under this method, various investments are ranked according to the length of their payback period in such a manner that the investment with a shorter payback period is preferred to the one which has longer payback period. It is exact amount of time required for a firm to recover its initial investment in a project as calculated from cash flows.

The **payback** measures the length of time it takes a company to recover in cash its initial investment. This concept can also be explained as the length of time it takes the project to generate cash equal to the investment and pay the company back. It is calculated by dividing the capital investment by the net annual cash flow. If the net annual cash flow is not expected to be the same, the average of the net annual cash flows may be used.

The payback method is a one-sidedly derived number which tells a small amount about a project's beginning phase, but it tells one close to nothing about the full lifetime of the project. The effortlessness of calculating payback can possibly promote carelessness, especially in the failure to incorporate all the costs linked with investing in a project, such as training and maintenance. The payback method does not account for the time value of money either, and is therefore considered an unsophisticated long term capital investment budgeting technique. Even though the payback method has these cons associated with it, the simplicity of the method can allow it to be used as a filter for those projects which should go on to a more in-depth method, such as those explained below. If a project is not recommended based on the payback method, then chances are pretty high the project should not even be considered for the other methods.

Rate of Return Method

The method takes into account the earnings expected from the investment over their whole life. It is known as accounting rate of return method for the reason that under this method, the accounting concept of profit is used rather than cash inflows.

According to this method, various projects are ranked in order of the rate of earnings or rate of returns. The project with the higher rate of return is selected as compared to the one with lower rate of returns. This method can also be used to make decision as to accepting or rejecting the proposal.

The IRR method is another sophisticated long term capital investment budgeting technique and is the most widely used. It is, however, more complicated to calculate by hand, and a scientific calculator or spreadsheet application may need to be used. Businesspeople typically would rather see calculation results in the form of annual rates of return instead of actual dollar returns. This allows them to really compare two or more projects for ranking purposes to see which project is going to provide more bangs for the buck. The IRR method gives the rate of return result. This is especially important in our current economic climate, where businesses are trying to cut costs and only invest in those projects which will yield a higher rate of return.

Net Present Value Method

It is 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 measures the difference between present value of future cash inflows generated by a project and cash outflows during a specific period of time. With a help of net present value we can figure out an investment that is expected to generate positive cash flows.

The NPV method does take into consideration the time value of money, so it is referred to as a sophisticated long term capital investment budgeting technique. Therefore, everything is calculated based of today's dollars. For example, if \$300,000 is expected to be earned in year 5, then its worth is \$155,811 in today's dollars. This method is easier to calculate by hand than the IRR method. In addition, the NPV method gives a more realistic solution due to the fact that it takes into consideration that the firm reinvests intermediate cash flows at the company's cost of capital rate, rather than the high rate specified by the IRR method. The NPV method is the theoretically preferred method of long term capital investment budgeting techniques. (p. 429-430)

The NPV is considered less insightful because it does not measure the interest rates, profitability, and other benefits relative to the amount invested. This means that NPV gives one a measure of the expected dollar amount of money made from the proposed project. Most often, financial managers want to see results measured in annual rate of return, such as with the IRR method.

In order to calculate net present value (NPV), we first estimate the expected future cash flows from a project under consideration. The next step is to calculate the present value of these cash flows by applying the discounted cash flow (DCF) valuation procedures. Once we have the estimated figures then we will estimate NPV as the difference between present value of cash inflows and the cost of investment

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Long term capital investment budgeting Process

Evaluation of Long term capital investment budgeting project involves six steps:

- First, the cost of that particular project must be known.
- Second, estimates the expected cash out flows from the project, including residual value of the asset at the end of its useful life.
- Third, riskiness of the cash flows must be estimated. This requires information about the probability distribution of the cash outflows.
- Based on project's riskiness, Management find outs the cost of capital at which the cash out flows should be discounted.
- Next determine the present value of expected cash flows

4.6 Importance of Long term capital investment budgeting Decisions

Long term capital investment budgeting is a process used to determine whether a firm's proposed investments or projects are worth undertaking or not. The process of allocating budget for fixed investment opportunities is crucial because they are generally long lived and not easily reversed once they are made. So we can say that this is a strategic asset allocation process and management needs to use **long term capital investment budgeting techniques** to determine which project will yield more return over a period of time.

The question arises why **long term capital investment budgeting decisions** are critical? The foremost importance is that the capital is a limited resource which is true of any form of capital, whether it is raised through debt or equity. The firms always face the constraint of **capital rationing**.

Long term capital investment budgeting by Payback Period

The most-used method of long term capital investment budgeting is determining the payback period. The company establishes an acceptable amount of time in which a successful investment can repay the cost of capital to make it. Investment alternatives with too long a payback period are rejected. Investment alternatives inside the payback period are evaluated on the basis of the fastest payback. Payback method disadvantages include that it does not account for the time value of money.

Net Present Value Long term capital investment budgeting

In net present value long term capital investment budgeting, each of the competing alternatives for a firm's capital is assigned a discount rate to help determine the value today of expected future returns. Stated another way, by determining the weighted average cost of capital over time, also called the discount rate, a company can estimate the value today of the expected cash flow from an investment of capital today. By comparing this net present value of two or more possible uses of capital, the opportunity with the highest net present value is the better alternative.

A disadvantage of the net present value method is the method's dependence on correctly determining the discount rate. That calculation is subject to many variables that must be estimated.

The Internal Rate of Return Method

An advantage of long term capital investment budgeting with the internal rate of return method is that the initial calculations are easier to perform and understand for company executives who may not have a financial background. Excel has an IRR calculation function.

The disadvantage of the IRR method is that it can yield abnormally high rates of return by overestimating the value of reinvesting cash flow over time.

TOOLS USED FOR ANALYSIS:

1. Net present Value (NPV)
2. Payback Period (PBP)
3. Average rate of return (ARR)
4. Profitability Index (PI)
5. Correlation analysis
6. Standard Deviation
7. Mean
8. Trend Analysis

CHAPTER 4

DATA ANALYSIS AND INTERPRETATION

4.1 PAY BACK PERIOD

The **payback** measures the length of time it takes a company to recover in cash its initial investment. This concept can also be explained as the length of time it takes the project to generate cash equal to the investment and pay the company back. It is calculated by dividing the capital investment by the net annual cash flow. If the net annual cash flow is not expected to be the same, the average of the net annual cash flows may be used.

Payback Period =	Initial Investment
	Cash Inflow per Period

TABLE 4.1 CALCULATION OF ANNUAL CASH INFLOW

Year	2018	2019	2020	2021	2022
Total Sales	1606310970	1952574983	2062496269	2177381956	2371633523
Less: Costs	1555885007	1815614157	1961324252	2068196415	2286017710
EBDT	50425963	136960826	101172022	128327364	85615818
LESS: Depreciation or other exceptional items	-	967090	-	10393113	12541810
EBT	50425963	135993136	101172022	117934251	73074008
LESS: Tax	17100966	100752605	(22354952)	38433857	26851541
PAT (Annual Cash Inflow)	33324997	35241131	123526969	79500394	46222467

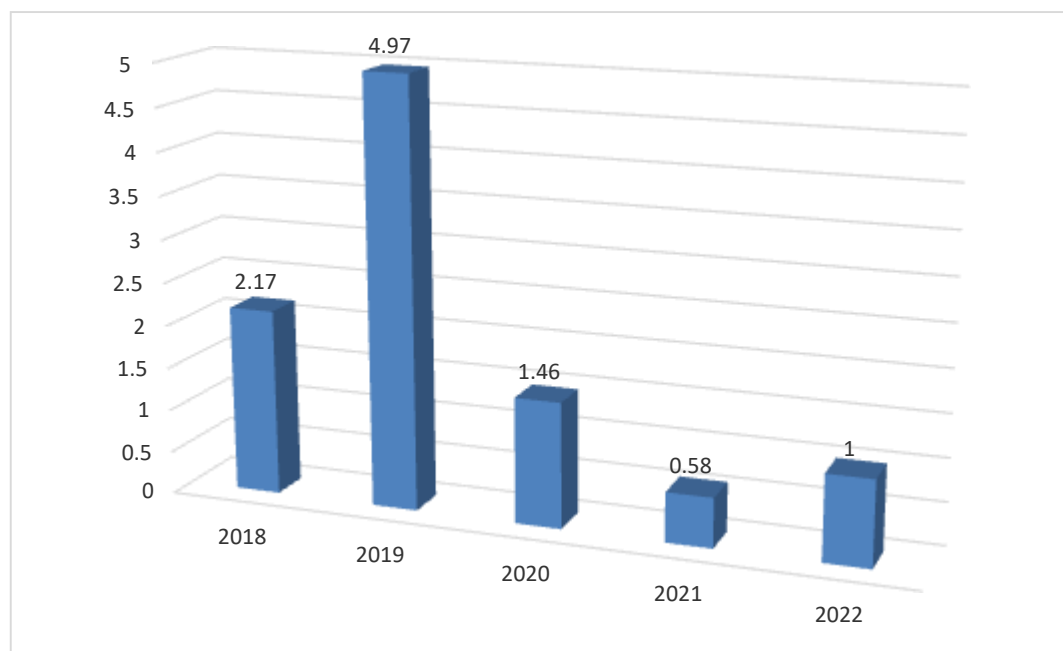
Payback Period Analysis

Year	Initial investments	Annual cash Inflow	Payback period
2018	72368453	33324997	2.17
2019	175080399	35241131	4.97
2020	180236203	123526969	1.46
2021	46246000	79500394	0.58
2022	46246000	46222467	1.00

INTERPRETATION

The shorter the payback period, the sooner the company recovers its cash investment. Whether a cash payback period is good or poor depends on the company's criteria for evaluating projects. From the above it is inferred that the company have its highest pay back on 2019 with 4.97 or 5 years. The current year (2022) PBP is found to be 1 year. This shows that the company recovers its investment in 1 year

CHART 4.1 Payback Period Analysis



4.2 ACCOUNTING RATE OF RETURN (ARR)

ARR method uses accounting information as reveals by financial statements, to measure the profitability of the investment proposals. It is also known as the return on investment. Sometimes it is called as the Average rate of return. (ARR)

PAT

Average Rate of Return (ARR) = ----- * 100

Original Investment

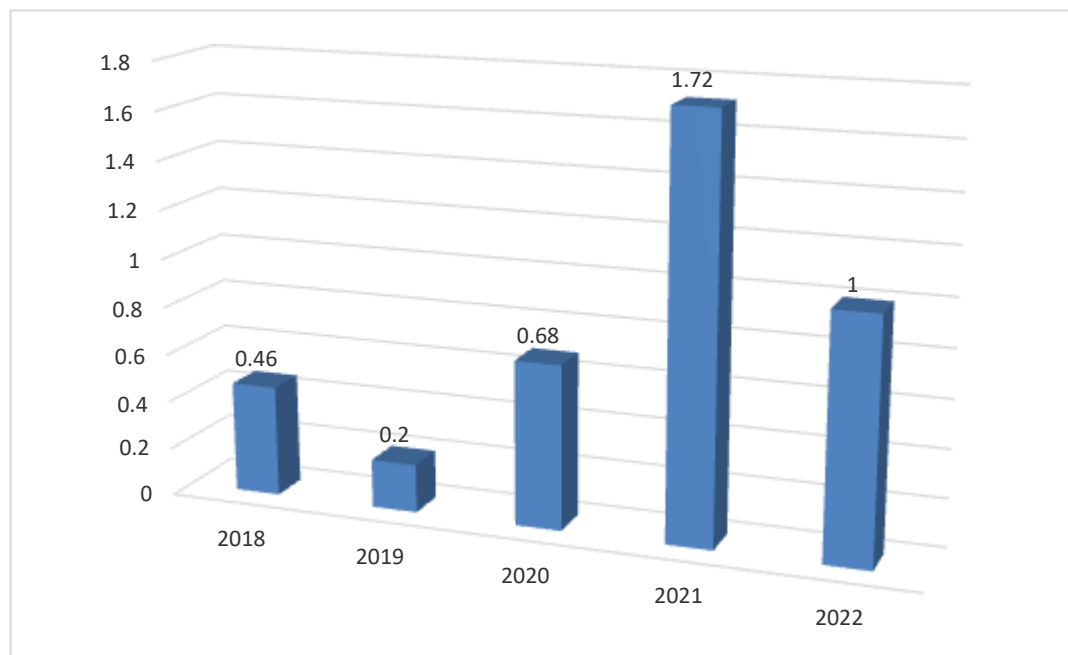
TABLE 4.2 ACCOUNTING RATE OF RETURN (ARR)

Year	PAT	Initial investments	Average Rate of Return
2018	33324997	72368453	0.46
2019	35241131	175080399	0.20
2020	123526969	180236203	0.68
2021	79500394	46246000	1.72
2022	46222467	46246000	1.00

INTERPRETATION:

The chart shows that, in the year 2019 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 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. The Average rate of return for the year 2022 is reduced to 1 year.

CHART 4.2 ACCOUNTING RATE OF RETURN (ARR)



4.3 NET PRESENT VALUE

Considering the time value of money is important when evaluating projects with different costs, different cash flows, and different service lives. Discounted cash flow techniques, such as the net present value method, consider the timing and amount of cash flows. To use the net present value method, you will need to know the cash inflows, the cash outflows, and the company's required rate of return on its investments. The required rate of return becomes the discount rate used in the net present value calculation.

Formula

Present value = Cash flows * Present value of Re. 1 @ 10% discount using present value table

Net present value = Present value of all cash inflows – present value of initial investment.

Decision Rule:

Accept: NPV > Zero

Reject: NPV < Zero

TABLE 4.3 Net Present Value Analysis

Year	PAT	Discounting present value Table (Present value of Re.1 @ 10 %)	Present Value of Net Cash Flows	Present value of Initial investment
2018	33324997	0.909	30292422.27	65782923.78
2019	35241131	0.826	29109174.21	144616409.6
2020	123526969	0.751	92768753.72	135357388.5
2021	79500394	0.683	54298769.1	31586018
2022	46222467	0.621	28704152.01	28718766
		TOTAL =	235173271.3	406061505.8

Calculation:

Present value of all cash flows	23, 51, 73, 271.3
Less: Present value of all Initial Investment	40, 60, 61,505.8
Net Present Value (20118-12)	(17, 08, 88,234.5)

Interpretation

Above table clearly indicates that the Net Present Value for the five years from 2018 to 2022 is **(17, 08, 88,234.5)**

A negative NPV indicates that the project will probably be unprofitable and therefore should be adjusted, if not abandoned altogether. NPV enables a management to consider the time value of money it will invest. This concept holds that the value of money increases with time because it can always earn interest in

a savings account. Therefore, any other investment of that money must be weighed against how the funds would perform if simply deposited and saved.

4.4 PROFITABILITY INDEX

Profitability index (PI), also known as profit investment ratio (PIR) and value investment ratio (VIR), is the ratio of payoff to investment of a proposed project. It is a useful tool for ranking projects because it allows you to quantify the amount of value created per unit of investment.

The ratio is calculated as follows:

$$\text{Profitability index} = \frac{\text{PV of future cash flows}}{\text{Initial investment}}$$

Assuming that the cash flow calculated does not include the investment made in the project, a profitability index of 1 indicates breakeven. Any value lower than one would indicate that the project's PV is less than the initial investment. As the value of the profitability index increases, so does the financial attractiveness of the proposed project.

Rules for selection or rejection of a project:

- If $PI > 1$ then accept the project
- If $PI < 1$ then reject the project

TABLE 4.4 PROFITABILITY INDEX

Year	PAT (Rs. In Crore)	Discounting present value Table (Present value of Re.1 @ 10 %)	Present Value of Net Cash Flows	Present value of Initial investment
2018	33324997	0.909	30292422.27	65782923.78
2019	35241131	0.826	29109174.21	144616409.6
2020	123526969	0.751	92768753.72	135357388.5
2021	79500394	0.683	54298769.1	31586018
2022	46222467	0.621	28704152.01	28718766
		TOTAL =	235173271.3	406061505.8

PROFITABILITY INDEX = PV OF CASH INFLOWS ÷ INITIAL INVESTMENT

$$PI = 235173271.3 \div 406061505.8$$

$$PI = 0.579$$

DECISION RULE:

Accept: $PI > 1$

Reject: $PI < 1$

INTERPRETATION:

PI is lesser than 1 so Reject the proposal

It indicates that for every one rupee investment there will be 0.579 loss

4.5 STANDARD DEVIATION

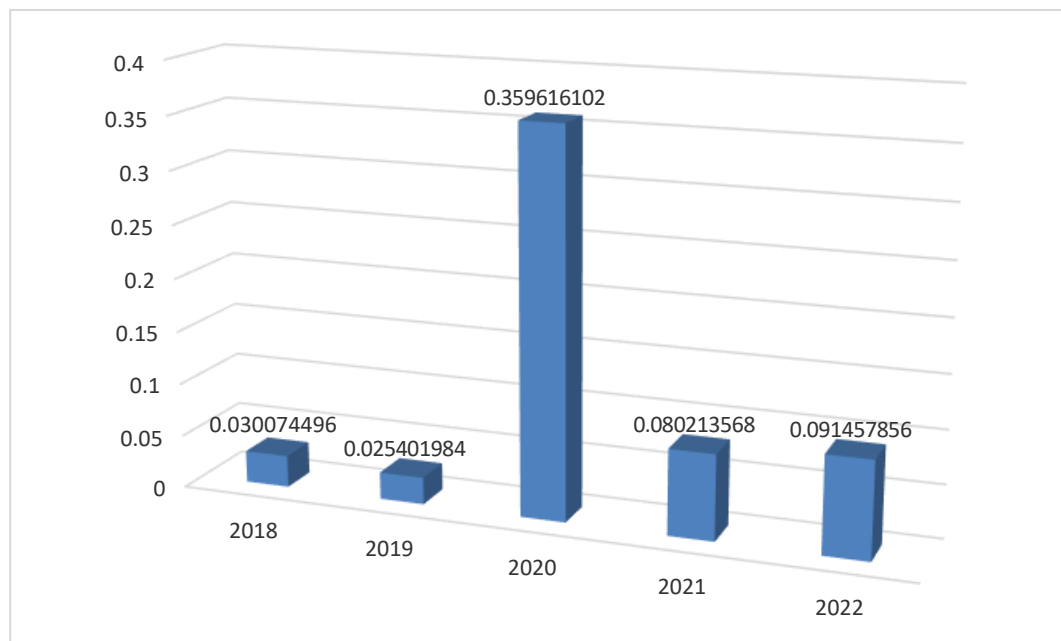
Statistical measure of the degree to which an individual value in a probability distribution tends to vary from the mean of the distribution. From a normal distribution, one standard deviation includes about 66% of the population; two standard deviations include about 95%.

$$s = \sqrt{\frac{\sum (x - \bar{x})^2}{n - 1}}$$

TABLE 4.5 CALCULATION OF PROFIT AFTER TAX (In Crores)

Year	PAT (x)	$\bar{x} = \sum x / 5$	$X = x - \bar{x}$	X^2
2022	0.4622	0.63562	(0.17342)	0.0300744964
2021	0.7950	0.63562	0.15938	0.0254019844
2020	1.2353	0.63562	0.59968	0.3596161024
2019	0.3524	0.63562	(0.28322)	0.0802135684
2018	0.3332	0.63562	(0.30242)	0.0914578564
$\sum X$	3.1781		$\sum X^2$	0.586764008
			$\sum X^2 / n-1$	0.146691002
			S.D =	0.3830026

CHART 4.3 CALCULATION OF PROFIT AFTER TAX (In Crores)



INTERPRETATION:

Standard deviation is used in determination of risk involved in an investment. PAT is fluctuating throughout the period of study. PAT is high in 2020 with 1.2353 and very low in 2018. The current year (2022) PAT is decreased to 0.4622 when compared to the previous year (2021) with 0.7950.

The Standard Deviation for PAT is **0.3830026**

Variance for PAT is 0.146691002

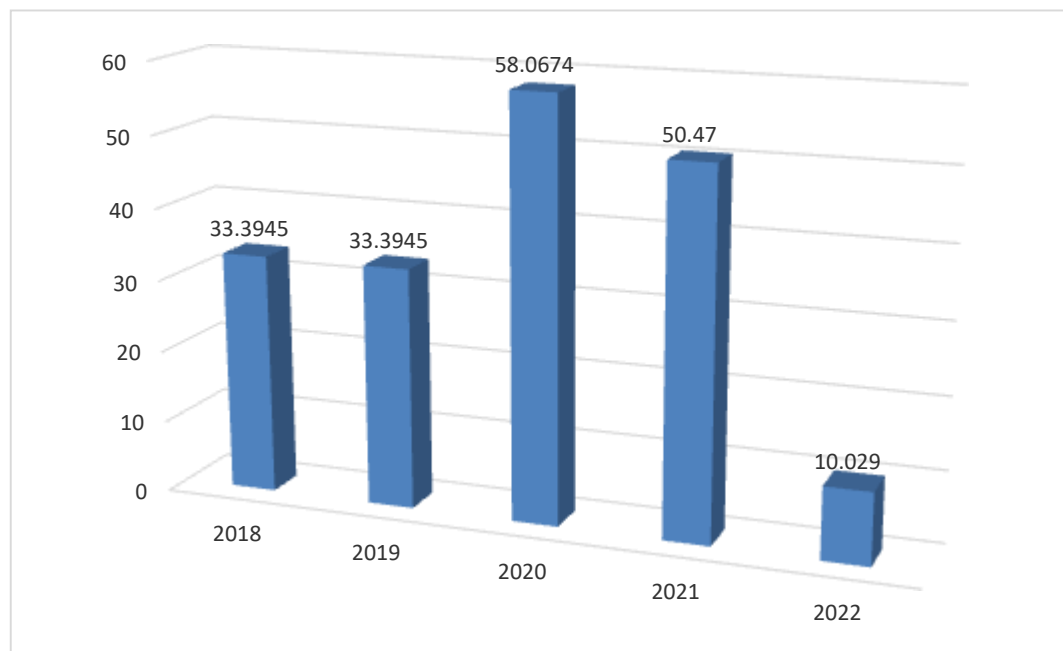
4.6 STANDARD DEVIATION CALCULATION OF INVESTMENT

$$s = \sqrt{\frac{\sum (x - \bar{x})^2}{n - 1}}$$

TABLE 4.6 STANDARD DEVIATION CALCULATION OF INVESTMENT(In Crores)

Year	Investment (x)	$\bar{x} = \sum X/5$	$X = x - \bar{x}$	X^2
2022	4.625	10.4038	(5.7788)	33.3945
2021	4.625	10.4038	(5.7788)	33.3945
2020	18.024	10.4038	7.6202	58.0674
2019	17.508	10.4038	7.1045	50.470
2018	7.237	10.4038	(3.1668)	10.029
$\sum X$	52.019		$\sum X^2$	185.355
			$\sum X^2 / n-1$	46.33875
			S.D =	6.0872

CHART 4.4 STANDARD DEVIATION CALCULATION OF INVESTMENT(In Crores)



INTERPRETATION:

The Investments of the company has been in the increasing rate till 2020. The company has the same investment for the last 2 years 2021 and 2022. The investment of the company has been decreased. In the year 2022 the Investment has been decreased to 4.625.

The standard deviation of Investment is 6.0872

The Variance is 46.33875

Standard deviation is applied to an investment to measure the investment's volatility. Standard deviation is also known as historical volatility and is used by investors as a gauge for the amount of expected volatility.

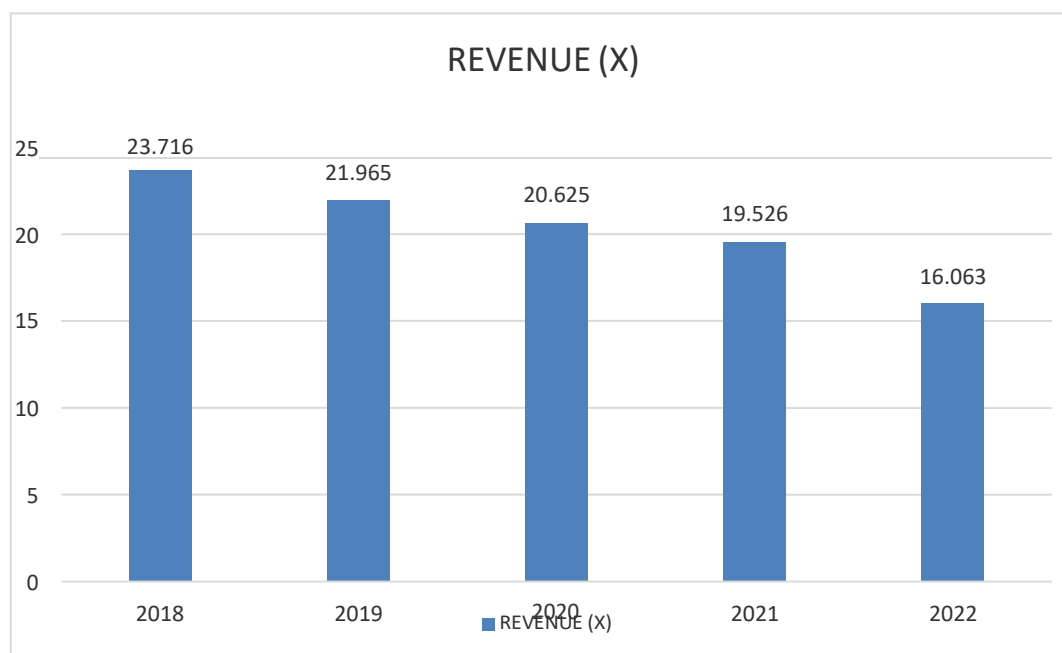
4.7STANDARD DEVIATION CALCULATION OF REVENUE

$$s = \sqrt{\frac{\sum (x - \bar{x})^2}{n - 1}}$$

TABLE 4.7STANDARD DEVIATION CALCULATION OF REVENUE(In Crores)

Year	REVENUE (x)	$\bar{X} = \sum X/5$	$X = x - \bar{x}$	X^2
2022	23.716	20.379	17.3598	301.368656
2021	21.965	20.379	15.6088	245.6346374
2020	20.625	20.379	14.2688	203.5986534
2019	19.526	20.379	13.1698	173.443632
2018	16.063	20.379	9.7068	94.22196624
$\sum X$	101.895		$\sum X^2$	1016.261545
			$\sum X^2 / N$	254.0654
			S.D =	15.93943

CHART 4.5 STANDARD DEVIATION CALCULATION OF REVENUE(In Crores)



INTERPRETATION:

The greater the S.D, the greater will be the magnitude of the deviations of the values from the mean. The S.D measures the variability of values. Revenue is in an increasing position. Revenue is high in 2022 with 23.716 when compared to the previous year 2021 with 21.965.

The Standard Deviation for Revenue is 15.93943

The Variance is 254.0654

4.8CORRELATION ANALYSIS

4.8 CORRELATION CALCULATION OF REVENUE AND EBIT

$$r = \frac{n(\sum xy) - (\sum x)(\sum y)}{\sqrt{[n\sum x^2 - (\sum x)^2][n\sum y^2 - (\sum y)^2]}}$$

TABLE 4.8 CORRELATION CALCULATION OF REVENUE AND EBIT

Year	REVENUE (X)	χ^2	EBIT(Y)	γ^2	XY
2022	23.716	562.4487	0.856	0.732736	20.3009
2021	21.965	482.4612	1.283	1.646089	28.1811
2020	20.625	425.3906	1.012	1.024144	20.8725
2019	19.526	381.2647	1.37	1.8769	26.75062
2018	16.063	258.02	0.504	0.504	8.095752
$\Sigma \square =$	101.895	2109.585	5.025	5.533885	104.2019
				CORRELATION	0.449147

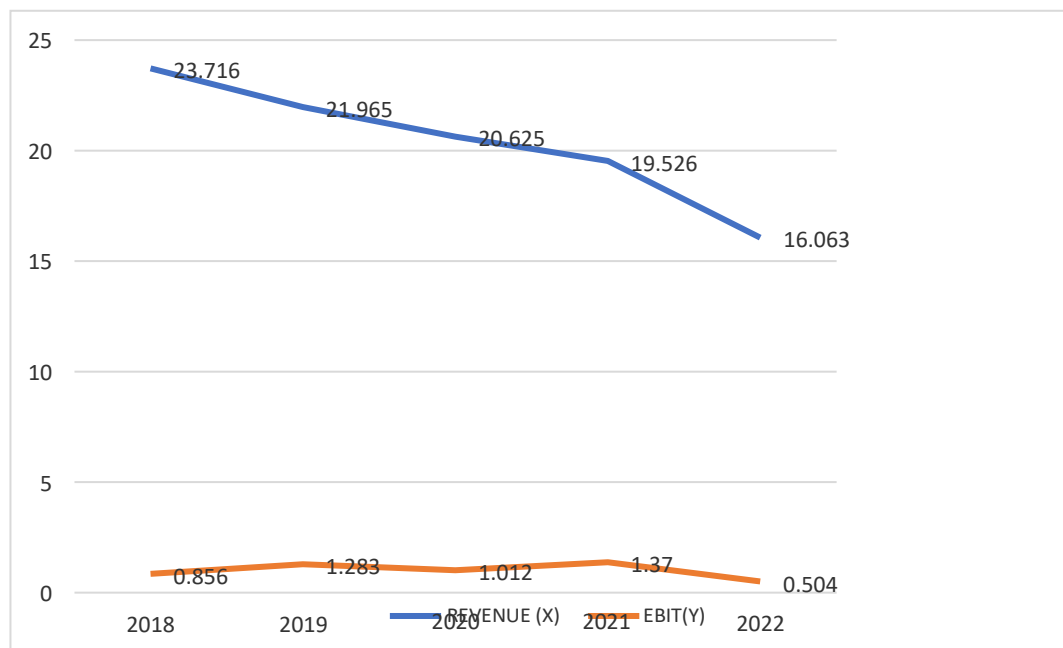


CHART 4.6 CORRELATION CALCULATION OF REVENUE AND EBIT

INTERPRETATION:

There is a high degree of correlation between Revenue and EBIT as the correlation value **0.449147** is more than 0.05. It measures the closeness of relationship between Revenue and EBIT and they both have a positive correlation

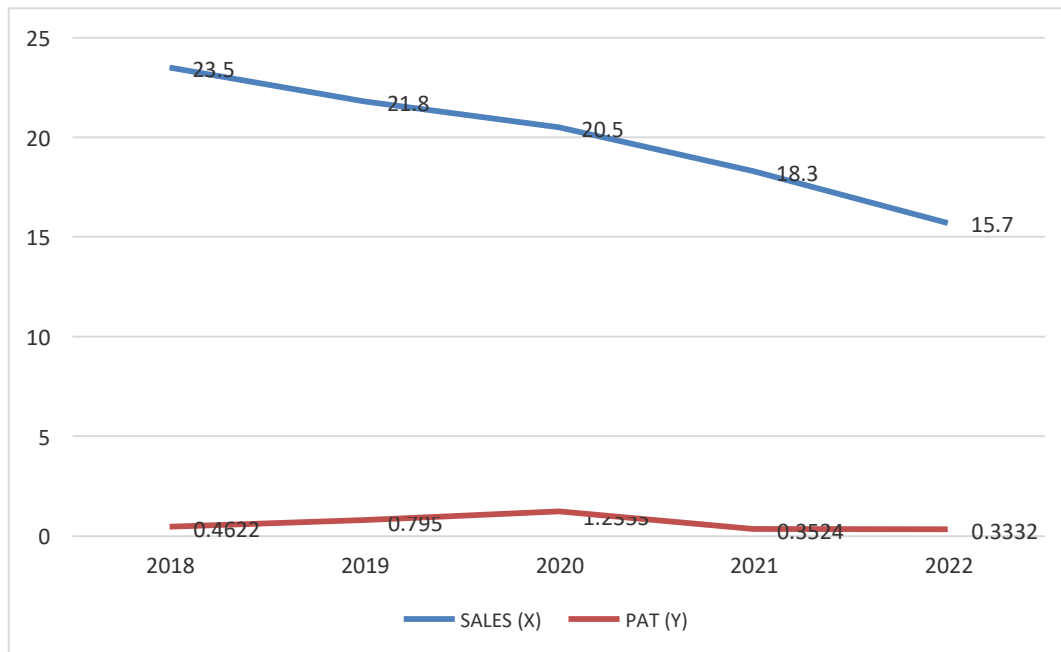
4.9 CORRELATION CALCULATION OF SALES AND PAT

$$r = \frac{n(\sum xy) - (\sum x)(\sum y)}{\sqrt{[n\sum x^2 - (\sum x)^2][n\sum y^2 - (\sum y)^2]}}$$

Year	SALES (X)	X ²	PAT (Y)	Y ²	XY
2022	23.5	552.25	0.4622	0.21362884	10.8617
2021	21.8	475.24	0.7950	0.632025	17.331
2020	20.5	420.25	1.2353	1.52596609	25.32365
2019	18.3	334.89	0.3524	0.124102224	6.44892
2018	15.7	246.49	0.3332	0.11102224	5.23124
Σ =	99.8	2029.12	3.1781	2.606828	65.19651
				CORRELATION	0.377508531

TABLE 4.9 CORRELATION CALCULATION OF SALES AND PAT

CHART 4.7 CORRELATION CALCULATION OF SALES AND PAT



INTERPRETATION:

There is a high degree of correlation between Sales and Profit after Tax because the correlation value (0.377508531) is more than 0.05. It measures the closeness of relationship between Sales and Profit after Tax and they both have a positive correlation.

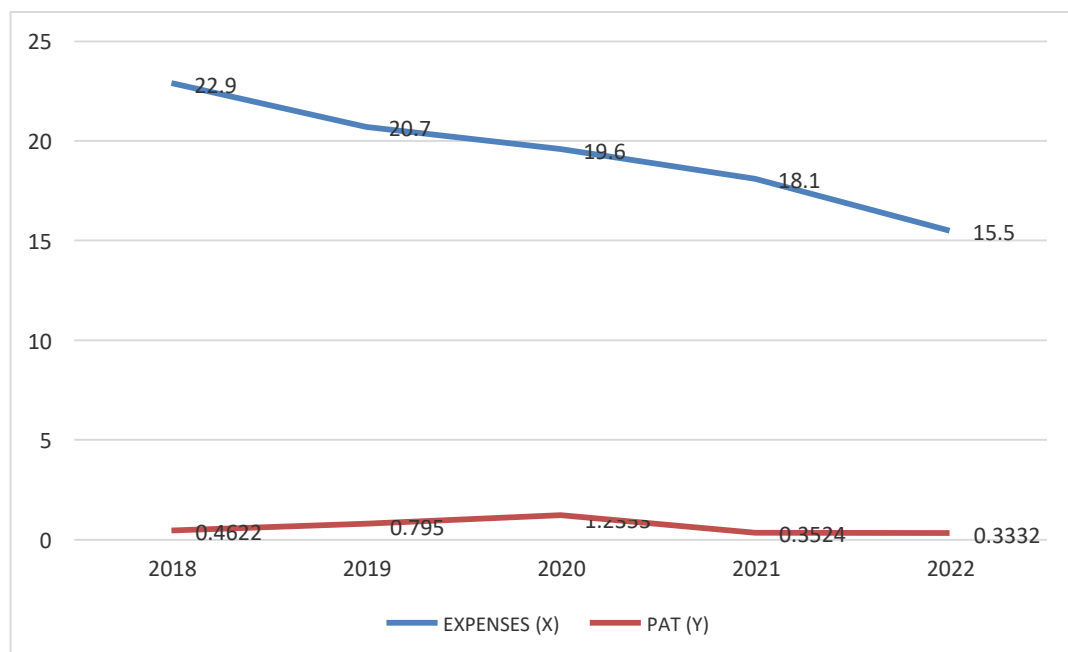
4.10 CORRELATION CALCULATION OF EXPENSES AND PAT

$$r = \frac{n(\sum xy) - (\sum x)(\sum y)}{\sqrt{[n\sum x^2 - (\sum x)^2][n\sum y^2 - (\sum y)^2]}}$$

TABLE 4.10 CORRELATION CALCULATION OF EXPENSES AND PAT

Year	EXPENSES (X)	χ^2	PAT(Y)	γ^2	XY
2022	22.9	524.41	0.4622	0.21362884	10.58438
2021	20.7	428.49	0.7950	0.632025	16.4565
2020	19.6	384.16	1.2353	1.52596609	21.21188
2019	18.1	327.61	0.3524	0.124102224	6.41368
2018	15.5	240.25	0.3332	0.11102224	5.19792
$\Sigma=$	96.80	1904.92	3.1781	2.606828	62.86436
				CORRELATION	0.297873

CHART 4.8 CORRELATION CALCULATION OF EXPENSES AND PAT



INTERPRETATION:

There is a high degree of correlation between Expenses and PAT, the correlation value is 0.297873 above than 0.05. It measures the closeness of relationship between Expenses and PAT and they both have a positive correlation.

4.11 MEAN

The **Mean** of a data set illustrates an average. To find the mean, add all of the numbers in a data set and then divide by how many numbers given in the data set. The mean would be significantly affected if one of the numbers in a data set is an outlier. The mean is a good measure of central tendency to use when a data set doesn't have any outliers

TABLE 4.11 CALCULATION OF MEAN AND STANDARD DEVIATION FOR EXPENSES

i. CALCULATION OF MEAN FOR EXPENSES

YEAR	EXPENSES(x)
2018	1555885007
2019	1815614877
2020	1961324252
2021	2068196415
2022	2286017710
$\sum x =$	9687038261

$$\bar{x} = \frac{1}{n} \sum_{i=1}^n x$$

9687038261

= ----- = 1937407652

ii. CALCULATION OF STANDARD DEVIATION FOR EXPENSES

$$s = \sqrt{\frac{\sum (x - \bar{x})^2}{n - 1}}$$

YEAR	EXPENSES(x)	(X- 1937407652)	X ²
2018	1.555885007	-0.381522645	0.145559529
2019	1.815614877	-0.121792775	0.01483348
2020	1.961324252	0.023916600	0.000572005
2021	2.068196415	0.130788763	0.017105701
2022	2.286017710	0.348610058	0.121528973
$\sum x =$	9.687038261		0.299599686

0.299599686

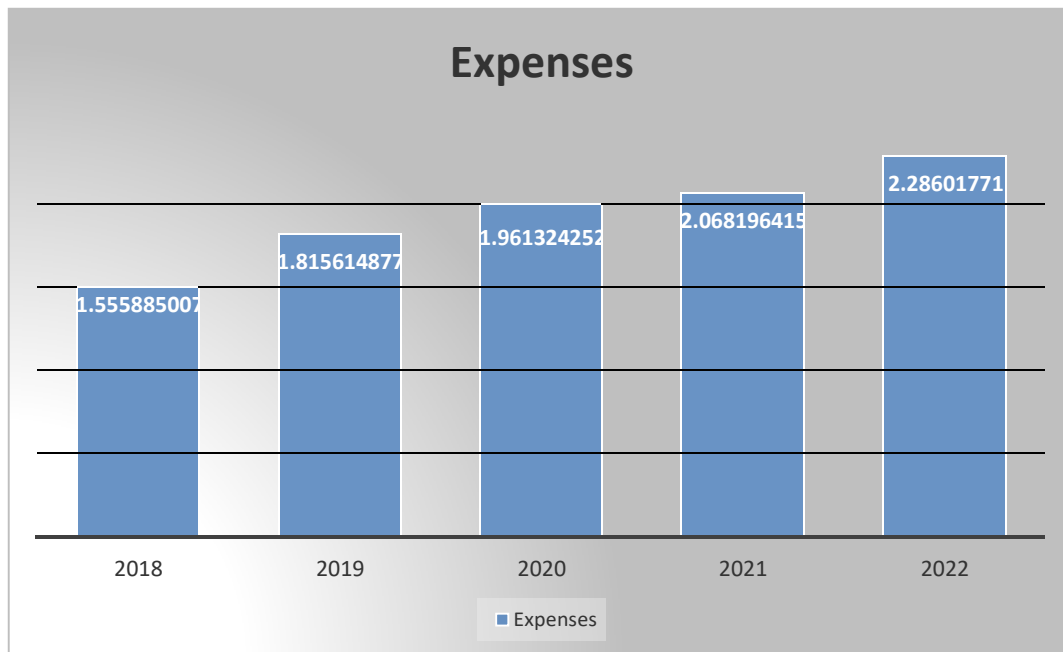
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5-1

VARIANCE = 0.074899921 or 74, 89,921

STANDARD DEVIATION= 0.2736785 or 27, 36,785

CHART 4.9 CALCULATION OF MEAN AND STANDARD DEVIATION FOR EXPENSES



INTERPRETATION:

From the above calculation,

The average Expenses for 5 years are found to be 1,93,74,07,652.

The Variance for expenses is found to be 0.074899921 or 74, 89,921

The Standard Deviation is found to be 0.2736785 or 27, 36,785

4.12 TREND ANALYSIS

Trend analysis is based on the idea that what has happened in the past gives traders an idea of what will happen in the future. Trend analysis has a great advantage that it can also be used to predict the future events. This is possible by forecasting the future cash flow based on the data available of the past. With the help of trend analysis, you can predict the future and track the variances to add performance.

$Y=a+b(x)$

TABLE 4.12 TREND ANALYSIS -PAT

Year	PAT(y)	x	X ²	xy	Y=a+b(x)
2018	0.3332	-2	4	-0.6664	0.4955
2019	0.3524	-1	1	-0.3524	0.56556
2020	1.2353	0	0	0	0.63562
2021	0.7950	1	1	0.795	0.70568
2022	0.4622	2	4	0.9244	0.77574
	$\Sigma y = 31.781$		$\Sigma x^2=10$	0.7006	

$$Y=a +b (x)$$

$$a = \Sigma y /n$$

$$b= \Sigma xy / \Sigma x^2$$

$$a= 0.63562$$

$$b= 0.07006$$

For: 2022

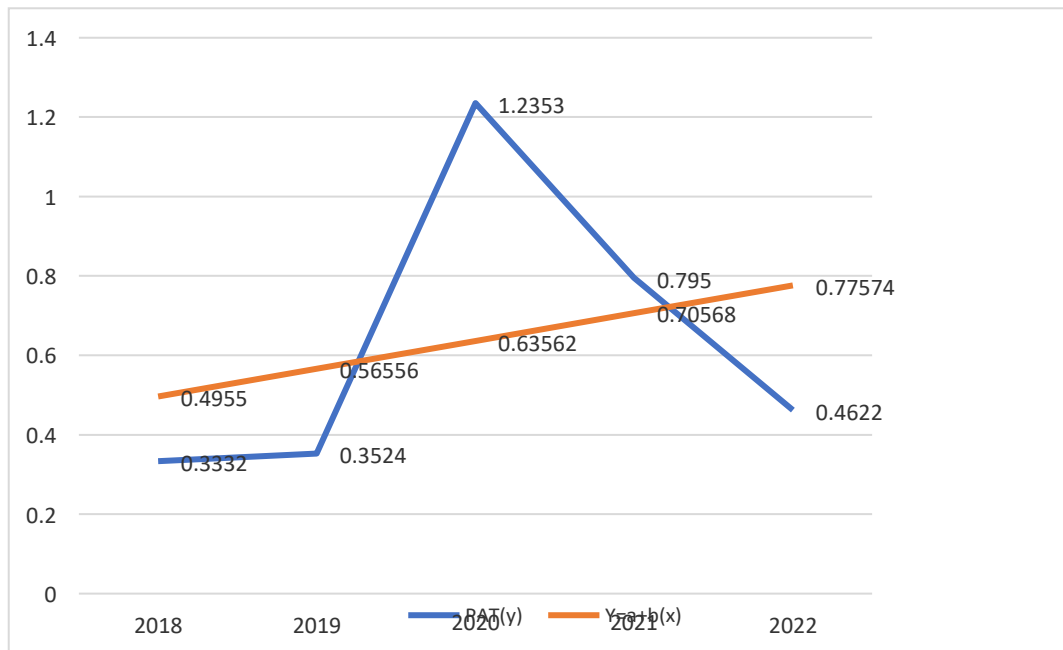
Let us assume x=3

$$Y=a + b(x)$$

$$Y= 6.3562 +0.0368737 *3$$

$$Y= 0.7462411$$

CHART 4.10 TREND ANALYSIS -PAT



INTERPRETATION

- The PAT is increasing at an increasing rate for the all the five years. The company has the highest PAT on 2020 with 1.2535
- The PAT trend is found to be increasing rate this is due to the gradual decrease of expenses for the first 3 years. In the year 2022 the PAT is tend to decrease this is due to the increase in the interest and expenses of the company.
- The PAT trend is decreasing so the company should take necessary steps to increase the profit of the company by decreasing the expenses and debtors

TABLE 4.13 TREND ANALYSIS - EBIT

Year	EBIT(y)	x	X ²	xy	Y=a+b(x)
2018	0.504	-2	4	-1.008	0.8776
2019	1.360	-1	1	-1.36	0.9403
2020	1.012	0	0	0	1.003
2021	1.283	1	1	1.283	1.0657
2022	0.856	2	4	1.712	1.1284
	5.015		Σ x²=10	0.627	

$$Y=a +b (x)$$

$$a = \Sigma y /n$$

$$b= \Sigma xy / \Sigma x^2$$

$$a=1.003$$

$$b=0.0627$$

For: 2022

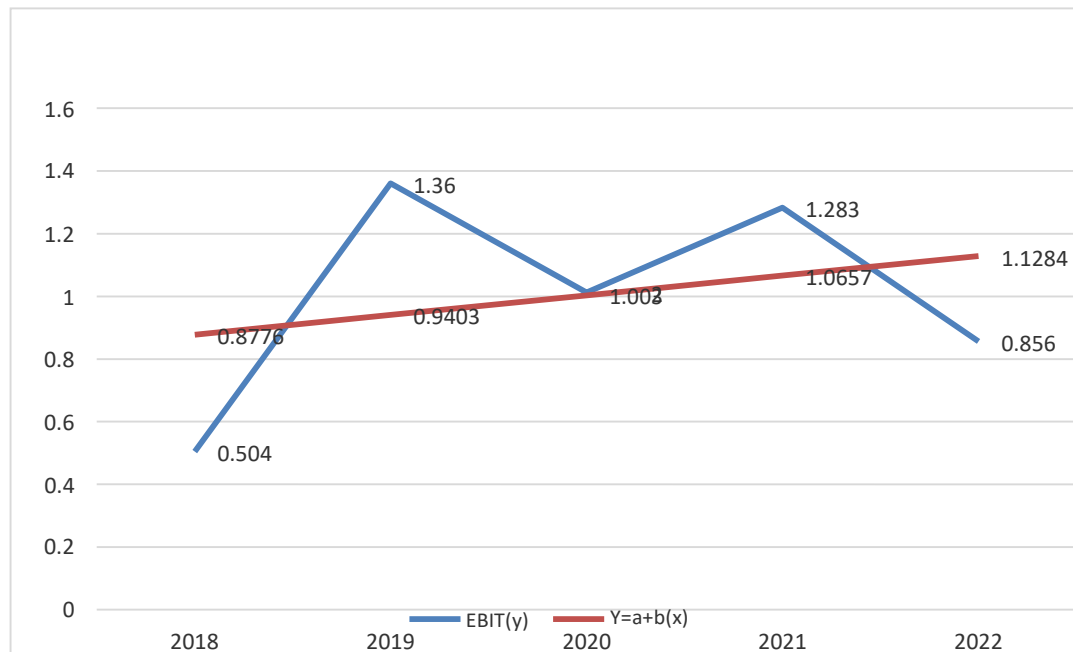
Let us assume x=3

$$Y=a + b(x)$$

$$Y= 1.003 +0.033*3$$

$$Y= 1.102$$

CHART 4.11 TREND ANALYSIS - EBIT



INTERPRETATION

- The EBIT is fluctuating for all the five years. The company has the highest EBIT on 2019 with 13.60
- The EBIT trend is found to be increasing rate this is due to the gradual Increase of Sales
- The EBIT trend is decreasing in 2022 this may be due to increase in the expenses and high interest.

CHAPTER 5

FINDINGS, SUGGESTIONS AND CONCLUSION

5.1 FINDINGS

- The current year (2022) PBP is found to be 1 year. This shows that the company recovers its investment in 1 year
- The Average rate of return for the year 2022 is reduced to 1 year the Net Present Value for the five years from 2018 to 2022 is **(17, 08, 88,234.5)**. A negative NPV indicates that the project will probably be unprofitable and therefore should be adjusted, if not abandoned altogether.
- PI is lesser than 1 so Reject the proposal. It indicates that for every one rupee investment there will be 0.579 loss
- The current year (2022) PAT is decreased to 4.622 when compared to the previous year (2021) with 7.950.
- The Standard Deviation for PAT is 3.425679518 and Variance for PAT is 11.73528016
- In the year 2022 the Investment has been decreased to 4.625.
- The standard deviation of Investment is 6.089. The Variance is 37.071
- Revenue is high in 2022 with 23.716 when compared to the previous year 2021 with 21.965.
- The Standard Deviation for Revenue is 14.25665841. The Variance is 203.252309
- There is a high degree of correlation between Revenue and EBIT as the correlation value **0.449147** is more than 0.05. It measures the closeness of relationship between Revenue and EBIT and they both have a positive correlation.

- There is a high degree of correlation between Sales and Profit after Tax because the correlation value (0.377508531) is more than 0.05. It measures the closeness of relationship between Sales and Profit after Tax and they both have a positive correlation.
- There is a high degree of correlation between Expenses and PAT, the correlation value is 0.288887458 above than 0.05. It measures the closeness of relationship between Expenses and PAT and they both have a positive correlation.
- The average Expenses for 5 years are found to be 1,93,74,07,652.
- The Variance for expenses is found to be 0.074899921 or 74, 89,921
- The Standard Deviation is found to be 0.2736785 or 27, 36,785
- The PAT is increasing at an increasing rate for the all the five years. The company has the highest PAT on 2020 with 1.2535
- The PAT trend is found to be increasing rate this is due to the gradual decrease of expenses for the first 3 years.
- In the year 2022 the PAT is tend to decrease this is due to the increase in the interest and expenses of the company.
- The EBIT is fluctuating for the all the five years. The company has the highest EBIT on 2019 with 1.360
- The EBIT trend is found to be increasing rate this is due to the gradual Increase of Sales

5.2 SUGGESTIONS

1. The shorter the payback period, the sooner the company recovers its cash investment. Whether a cash payback period is good or poor depends on the company's criteria for evaluating projects. Higher rate of return indicates that investment made in the particular year has higher cash inflow in the future.

2. A negative NPV indicates that the project will probably be unprofitable and therefore should be adjusted, if not abandoned altogether.
3. NPV enables a management to consider the time value of money it will invest. This concept holds that the value of money increases with time because it can always earn interest in a savings account. Therefore, any other investment of that money must be weighed against how the funds would perform if simply deposited and saved.
4. The PAT trend is decreasing so the company should take necessary steps to increase the profit of the company by decreasing the expenses and debtors
5. The EBIT trend is decreasing in 2022 this may due to increase in the expenses and high interest. So the company should take necessary actions to decrease the expenses.

5.3 CONCLUSION

Long term capital investment budgeting or investment appraisal is the planning process used to determine whether an organization's long term investments such as new machinery, replacement machinery, new plants, new products, and research development projects are worth pursuing.

It is budget for major capital, or investment, expenditures. It is a process used to determine whether a firm's proposed investments or projects are worth undertaking or not. The process of allocating budget for fixed investment opportunities is crucial because they are generally long lived and not easily reversed once they are made. So we can say that this is a strategic asset allocation process and management needs to use long term capital investment budgeting techniques to determine which project will yield more return over a period of time.

Through this study it is very clear that long term capital investment budgeting essentially involves evaluation of the worth of capital investment proposals based on estimates of cash inflows and outflows. The study emphasizes that efficient allocation of capital is the most important finance function in the modern times. Thus, long term capital investment 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

- Antonia Patrone and Marco Guerriero, published in Journal of Applied Accounting Research. A dynamic programming approach to long-term capital budgeting under uncertainty
- Augustine C. Arize, Mahesh Rajan, and Ikechukwu Nwachukwu, published in International Journal of Public Sector Management. Capital budgeting practices in the public sector: A systematic literature review
- Bose Fundamentals of Financial Management
- Cheng-Few Lee, published in Journal of Risk and Financial Management. Long-Term Capital Budgeting and Investment Decisions under Uncertainty
- D.Chandra and Joseph Tham, published in International Journal of Accounting, Auditing and Performance Evaluation. Long-Term Capital Budgeting: The Impact of Capital Rationing and Inflation
- Daniel A. Feenberg, published in National Tax Journal. The impact of tax uncertainty on long-term capital budgeting decisions
- Deborah A. O'Neill and Patrick J. O'Grady, published in International Journal of Pharmaceutical and Healthcare Marketing. Long-term capital budgeting in the pharmaceutical industry: A case study
- Edward W. Zajac and William J. White, published in Strategic Management Journal. Long-term capital budgeting for multinational corporations
- Emmanuel Amissah, Samuel Anokye Nyarko, and Stephen Kwadwo Antwi, published in Journal of Business Research. Investment appraisal techniques and capital budgeting: A systematic literature review
- Farzad Mahmoodi, published in Journal of Cleaner Production. Long-term capital budgeting for sustainable operations: A review and research agenda
- Grace W. Y. Wang and Lili Xu, published in Applied Economics Letters. Long-term capital budgeting in a pandemic: A real options approach
- Haider A. Al-fayyad, published in Accounting Research Journal. Capital budgeting and the cost of equity capital: Evidence from Asia-Pacific firms
- Hanqin Qiu, Wei Zhang, and Chong Wang, published in International Journal of Emerging Markets. The determinants of long-term capital budgeting in China: Evidence from state-owned and non-state-owned enterprises

- Heba M. Fayed and Mervat A. Abou-El-Saad, published in Emerging Markets Finance and Trade. Long-term capital budgeting and investment decisions in emerging markets
- I.M.Pandey Financial Accounting New Delhi Publication
- Ignacio Velez-Pareja Adi Masli and Dan Dhaliwal, published in Journal of Management Accounting Research. Long-term Capital Budgeting and Investment Decisions: A Review of the Literature
- Ioanna Kourti and Athanasios Kolios, published in Journal of Cleaner Production. Long-term capital budgeting decisions for sustainable development
- Joseph Tham and Ignacio Velez-Pareja, published in Accounting and Finance. Long-term capital budgeting with liquidity constraints and capital rationing
- Joseph Tham and Ignacio Velez-Pareja, published in Asia-Pacific Journal of Accounting & Economics. Long-term capital budgeting with liquidity constraints and asymmetric information
- Joshua M. Pearce and Kai Riemer, published in Renewable and Sustainable Energy Reviews. Capital budgeting and climate change: A review of the literature
- Juliano Lima, Vinícius Tadeu Rossi, and André Luiz Carvalhal da Silva, published in Energy Policy. The role of information disclosure in long-term capital budgeting: Evidence from the Brazilian energy sector
- M.Y.Khan & p.k.jain Financial Management
- Maria João Guedes and João Leitão, published in International Journal of Financial Studies. Long-term capital budgeting decisions under uncertainty: A real options analysis
- Md. Rabiul Islam, Murad Banaji, and Simon Dunstall, published in European Journal of Operational Research. Capital budgeting under economic uncertainty: A multi-objective optimization approach
- Mohammad Mahdi Lotfi, Mohsen Afsharian, and Amirreza Moravej, published in Journal of Accounting, Finance and Economics. Investigating the Effect of Information Asymmetry on Long-Term Capital Budgeting

- Mu Mu, Yang Zhou, and Qing Miao, published in Sustainable Production and Consumption. Long-term capital budgeting for green technology investment: A case study of solar photovoltaic power projects
- Panagiotis D. Diamantopoulos, Konstantinos E. Petridis, and Ioannis S. Triantafyllou, published in Energy. Long-term capital budgeting in the oil and gas industry: A real options approach
- Pao-Long Chang and Hung-Yu Wei, published in Journal of Risk and Financial Management. Optimizing Long-Term Capital Budgeting Decisions with Real Options and Monte Carlo Simulation
- Rachel Bocquet and Fabien De Geuser, published in International Journal of Production Economics. Long-term capital budgeting and the option to abandon: An application to nuclear power plants
- Raymond W. So, published in Journal of Applied Business Research. The long-term capital budgeting decision: The impact of uncertainty on the decision-making process
- Roshan Lal and Varun Gupta, published in International Journal of Business and Management. The impact of behavioral factors on capital budgeting and investment decision-making: A systematic literature review
- S.M.Maheswari Financial Accounting Vikas publication
- Shiyu Cai, Yan Zhang, and Shixuan Jiang, published in Journal of Economic Studies. Long-term capital budgeting and stock prices: Evidence from China
- Siqi Zhang and Rong Zhang, published in Journal of Business Research. Long-term capital budgeting under uncertainty: A fuzzy real options approach
- Suchismita Mishra and S. Raja Sethu Durai, published in Journal of Business Research. Long-term capital budgeting in emerging markets: Evidence from India
- Thomas J. Hemmer and Daniel J. Mount, published in Journal of Hospitality and Tourism Research. Long-term capital budgeting in the hospitality industry: A survey of current practice
- Uma sekaran Research Methods for business john wiley & sons inc

- W. David Holford, published in Journal of Engineering and Technology Management. Long-term capital budgeting with competing projects: A decision analysis approach
- Xingyuan Jiang and Ying Ma, published in Journal of Intelligent & Fuzzy Systems. A multi-objective optimization model for long-term capital budgeting with interval data
- Yan Zhang, published in Managerial Finance. Long-term capital budgeting under uncertainty and managerial optimism: Evidence from China
- Yan Zhang, Yuhong Jiang, and Shixuan Jiang, published in Asia-Pacific Journal of Accounting & Economics. Long-term capital budgeting decisions and managerial overconfidence: Evidence from China
- Yanfei Lan, published in European Journal of Operational Research. A two-stage stochastic programming approach to long-term capital budgeting
- Yasser Boualam and Abdelaziz Bouras, published in Journal of Industrial Engineering International. Long-term capital budgeting with strategic interactions
- Zhuo Jin and Xinyu Wang, published in Economic Modelling. Optimal long-term capital budgeting under endogenous economic growth
- Zhuo Jin, published in Economic Modelling. Long-term capital budgeting under price uncertainty and endogenous technological progress.

Website

- www.yahooanswer.com
- <http://campus.murraystate.edu/academic/faculty/lguin/FIN330/Financial%20Leverage.htm>
- http://en.wikipedia.org/wiki/Standard_deviation
- <http://www.investopedia.com/terms/c/correlationcoefficient.asp>
- <http://www.yourarticlelibrary.com/financial-management/theories-of-capital-structure-explained-with-examples-financial-management/29398/>
- <https://www.boundless.com/finance/textbooks/boundless-finance-textbook/capital-structure-13/introducing-capital-budgeting-104/capital-structure-overview-and-theory-446-3785/>

- http://www.academia.edu/7134744/Theories_of_Capital_budgeting_Analysis_of_Capital_budgeting_Determinants
- <http://www.zenwealth.com/businessfinanceonline/RA/RatioAnalysis.html>
- <https://www.scribd.com/doc/30500131/6/Features-of-Financial-Analysis>
- <http://www.nyu.edu/classes/keefe/waoe/roshanb3.pdf>
- <http://steconomice.uoradea.ro/anale/volume/2022/v3-finances-banks-and-accountancy/53.pdf>
- http://en.wikipedia.org/wiki/Trade-off_theory_of_capital_budgeting

Consolidated five years Balance Sheet of GOLDEN FIBERS

Income and Expenditure

PARTICULARS	2018	2019	2020	2021	2022
Rs. Crore (Non-Annualised)					
Total income	10.229	10.642	12.177	13.944	12.793
Sales	9.713	10.152	11.685	13.316	12.312
Industrial sales	9.713	10.152	11.685	13.316	12.312
Income from non-financial services	0	0	0	0	0
Income from financial services	0.488	0.461	0.47	0.601	0.406
Interest	0.18	0.153	0.135	0.174	0.255
Dividends	0.19	.222	.25	0.098	.142
Treasury operations	0.118	0.086	0.085	0.329	0.009
Other income	0.017	0.012	0.012	0.014	0.055
Prior period income & extraordinary income	0.011	0.017	0.01	0.013	0.02
Change in stock	-0.029	0.189	0.383	-0.316	-0.075
Total expenses	9.379	9.942	11.677	12.893	11.824
Raw material expenses	4.161	4.423	5.596	6.715	5.205
Packaging expenses	0	0	0	0	0
Purchase of finished goods	0	0	0	0	0
Power, fuel & water charges	0.863	0.709	0.708	0.855	1.123
Compensation to employees	1.006	1.123	1.264	1.418	1.598
Indirect taxes	1.048	1.254	1.356	1.054	0.89
Royalties, technical know-how fees, etc.	0	0	0	0	0
Lease rent & other rent	0.011	0.011	0.011	0.015	0.016
Repairs & maintenance	0.234	0.218	0.242	0.265	0.305
Insurance premium paid	0.031	0.027	0.02	0.014	0.029
Outsourced mfg. jobs (incl. job works, etc.)	0.224	0.346	0.489	0.351	0.308
Outsourced professional jobs	0.005	0.008	0.007	0.01	0.01
Directors' fees	0.002	0.002	0.002	0.002	0.002
Selling & distribution expenses	0.576	0.56	0.674	0.727	0.896
Travel expenses	0.153	0.177	0.187	0.208	0.186
Communication expenses	0.042	0.039	0.039	0.045	0.041
Printing & stationery expenses	0	0	0	0	0
Miscellaneous expenses	0.314	0.306	0.335	0.444	0.404
Other operational exp. of indl.	0	0	0	0	0

Enterprises					
Other oper. exp. of non-fin. service enterprises	0	0	0	0	0
Share of loss in subsidiaries/JVs,etc.	0	0	0	0	0
Lease equalisation adjustment	0	0	0	0	0
Loss on securitisation of assets/loans	0	0	0	0	0
Fee based financial service expenses	0.015	0.017	0.022	0.025	0.021
Treasury operations expenses	0	0	0	0	0.064
Total provisions	0	0	0.003	0.025	0
Write-offs	0.006	0.007	0.011	0.004	0.001
Less: Expenses capitalized	0.026	0.03	0.074	0.072	0.029
Less: DRE & expenses charged to others	0.024	0	0.03	0.047	0.036
Prior period & extraordinary expenses	0	0.005	0.011	0	0.003
Interest paid	0.015	0.012	0.023	0.045	0.052
Financial charges on instruments	0	0	0	0	0
Expenses incurred on raising deposits/debts	0	0	0	0	0
Depreciation	0.393	0.396	0.416	0.375	0.35
Amortisation	0	0	0	0	0
Provision for direct taxes	0.33	0.332	0.365	0.415	0.385
PAT	0.821	0.889	0.883	0.735	0.894
PBDITA	0.1559	0.1629	1.687	1.57	1.681
PBDTA	0.1544	0.1617	1.664	1.525	1.629
PBT	0.1151	0.1221	1.248	1.15	1.279

Investments Report

PARTICULARS	2018	2019	2020	2021	2022
Rs. Crore (Non-Annualised)					
-					
Investments	3.347	3.255	2.962	2.899	2.91
In equity shares	0.397	0.401	0.412	0.417	0.42
Group companies	0.223	0.223	0.223	0.219	0.219
Other than group companies	0.174	0.178	0.189	0.198	0.201
In debt instruments	0.776	0.636	0.565	0.352	0.116
Other than government debentures/bonds	0.775	0.635	0.564	0.351	0.116
Other than group companies	0.775	0.635	0.564	0.351	0.116
In bonds/debentures of government/local bodies	0.001	0.001	0.001	0.01	0
In mutual funds	2.159	2.225	1.99	2.161	0.238
Other than group companies	2.159	2.225	1.99	2.161	2.38
In others	0.024	0	0.004	0	0
Less: Provision for diminution in value of investments	0.009	0.007	0.01	0.032	0.006
Book value of quoted investments	0.288	0.292	2.292	2.328	2.55
Market value of quoted investments	0.415	0.426	2.065	0.831	0.859
Marketable securities	2.447	2.517	2.292	2.328	2.55

Report Showing Appreciation of Profit

PARTICULARS	2018	2019	2020	2021	2022
Rs. Crore (Non-Annualised)					
-					
PBDITA	1.559	1.629	1.687	1.57	1.681
Depreciation	0.393	0.396	0.416	0.375	0.35
Amortisation	0	0	0	0	0
PBIT	1.166	1.233	1.271	1.195	1.331
Interest paid	0.015	0.012	0.023	0.045	0.052
Financial charges on instruments	0	0	0	0	0
Fee based financial services expenses	0	0	0	0	0
PBT	1.151	1.221	1.248	1.15	1.279
Provision for direct tax	0.33	0.332	0.365	0.415	0.385
Corporate tax	0.336	0.355	0.35	0.401	0.42
Deferred tax	0	0	0	0	0
Less: Deferred tax assets / credit	0.026	0.039	0.005	0.005	0.035
Other direct tax	0.02	0.016	0.02	0.019	0
Fringe benefits tax	0.02	0.016	0.02	0.019	0
PAT	0.821	0.889	0.883	0.735	0.894
Prior period & extra-ordinary income	0.011	0.017	0.01	0.013	0.02
Prior period &	0	0.005	0.011	0	0.003

extra-ordinary expenses					
Net prior period & extraordinary transactions	-0.011	-0.012	0.001	-0.013	-0.017
PBDITA net of P&E	1.548	1.17	1.688	1.557	1.664
PBIT net of P&E	1.155	1.221	1.272	1.182	1.314
PBT net of P&E	1.14	1.209	1.249	1.137	1.2.62
PAT net of P&E	0.81	0.877	0.884	0.722	0.877
Distribution of profits (%)					
PBDITA	100	100	100	100	100
Depreciation & Amortisation	2.5208467	2.43093923	2.46591583	2.38853503	2.08209399
Financial charges	0.096215523	0.073664825	0.136336692	0.286624204	0.309339679
Tax	2.1167415	2.03806016	2.16360403	2.6433121	2.29030339
PAT	5.26619628	5.45733579	5.23414345	4.68152866	5.31826294
Non—provisions	0	0	0	0	0
Diminution in investement	0	0	0	0	0
Sundry debtors	0	0	0	0	0
Loans & advances including NPAs	0	0	0	0	0
Loans & advances to group cos.	0	0	0	0	0
Interest expenses	0	0	0	0	0
Power expenses	0	0	0	0	0
Gratuity	0	0	0	0	0
Others	0	0	0	0	0

A STUDY ON LONG TERM CAPITAL INVESTMENT BUDGETING WITH REFERENCE TO GOLDEN FIBERS

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ABSTRACT

This project titled “A Study on long term capital investment budgeting with reference to golden fibers” “The objective of the research is to study on the company's forecasting decision through Long term capital investment budgeting technique through which the importance of long term capital investment budgeting in an organization and to analyze the long term capital investment budgeting process to be adopted by the company in order to take better investment decisions for various business projects. Further, it caters information about cash inflows and outflows of various years. Thus the comparison provides clear idea about investments and return on the same which can be helpful for the years to come. The analyses have been done by the data collected from income and expenditure statements and separate investment report. **KEYWORDS:** Uses of forecasting tools like standard deviation, Correlation analysis and trend analysis are used in this study.

INTRODUCTION

Long term capital investment budgeting, which is also called “investment appraisal,” is the planning process used to determine which of an organization's long term investments. Long term capital investment budgeting involves choosing projects that add value to the firm. This can involve almost anything from acquiring a lot of land to purchasing a new truck or replacing old machinery. Businesses, specifically corporations, are typically required, or at least recommended, to undertake those projects which will increase profitability and thus enhance shareholders' wealth. Suppose a firm is considering the production of a new product. It must make a decision of whether or not to produce this new product. This capital project entails acquiring land, building facilities, and purchasing production equipment. And this project may also require the firm to increase its investment in its working capital -- inventory, cash, or accounts receivable. Working capital is the collection of assets needed for day-to-day operations that support a firm's long-term investments.

COMPANY PROFILE

Golden Fibers started in 2014, on native place of Tirupur with more than 80 employees. After the 2nd year join hands two partners expands the branches in Udumalai with more than 400 employees. We are driven by our core values of **Quality, Partnership & Responsibility** to deliver excellence to all stakeholders in our business: ourselves, suppliers, the community and, above all, our valued customers. “A hectare of jute consumes 15 tonnes of carbon dioxide and releases 11 tonnes of oxygen in 120 days of growth, and cultivating jute in crop rotations enriches the fertility of the soil for the next crop.” (**Food and Agriculture Organization of the United Nations**). From fiber to finished product, jute is carbon positive. Abundantly grown in India, jute is used to make a variety of products that protect and enrich the environment.

STATEMENT OF THE PROBLEM

In this study the researcher has to analyze the future investment of the organization and to study various dimensions of investment problems and their future financial objectives in organization. It has been highlighted that the open market plays a greater role in capital investment budgeting and the companies costing analysis. This has let the organizations to invest capital in the production machineries for the future upcoming demands. It will return in long term growth and profits to the company which has plans in the estimated years.

REVIEW OF LITERATURE

- ❖ **Alles et al. (2020)**, both financial and nonfinancial considerations can have an impact on the choice of capital budgeting approaches. The decision-maker's demographic characteristics are among the nonfinancial elements.

However, a study by Katabi and Dimoso (2016) that was conducted in Tanzania revealed that company-related variables such as the industry of the business, sales growth, business establishment, number of employees, and business form are crucial when choosing capital budgeting techniques.

- ❖ **Davina F. Jacobs (2019)** is a senior economist in the Fiscal Affairs Department has done a research on long term capital investment budgeting practices. His study argues that the key challenge in government budgeting is to define an appropriate balance between current and capital expenditures. Budgeting for government capital investment also remains not well integrated into the formal budget preparation process in many countries. Hence, the research has been prepared with an aim to provide an overview of past and current budgeting practices for public investment. The study will also provide a comparison between the budget practices between low-income countries and developed countries and make a series of recommendations for how to ensure efficient integration of capital planning and budget management in low-income countries.
- ❖ **Stewardship Theory Psaros (2018)** states that similar to stakeholder theory, the views of stewardship theory differ from agency theory. For example, stewardship theory does not support the view that individuals are utility maximisers and also does not support the assertion that all business decisions are based on economic considerations only. It asserts that some business decisions are based on non-economic returns such as those related to social status in the community
- ❖ **Psaros (2018)** asserts that stewardship theory states that managers do not start out with the intention of maximising their own utility at the expense of the interests of other stakeholders.
- ❖ **Kiel and Nicholson (2017)** state that ‘underlying this rationale is the assertion that since managers are naturally trustworthy there will be no major agency costs’. The acceptance of stewardship theory has adverse implications on one theory that has become widely accepted, that having the chair of the board independent of the CEO gives the organization legitimacy for claiming to have an efficient or sound financial management in place and hence improving the return on equity (ROE) to the shareholders.

OBJECTIVES OF THE STUDY

- ❖ To study and ensure planning for future by setting up various budgets.
- ❖ To know the budgeting operation in the company.
- ❖ To analyze the elimination of wastages and increase in profitability.
- ❖ The analyze the correlation between Revenue and Sales.

NEED FOR STUDY:

Companies are in a situation to invest a huge amount of money in order to take their firm to a greater extends of growth. In this case, they have to take a sound investment decision among various 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 loss to the firm. Hence, to increase wealth and profit of the firm or to avoid loss, a sound procedure is needed. Thus, the need of long term capital investment budgeting arises. 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. Long term capital investment 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 process of allocating budget for fixed investment opportunities is crucial because they are generally long lived and not easily reversed once they are made. So we can say that this is a strategic asset allocation process and management needs to use long term capital investment budgeting techniques to determine which project will yield more return over a period of time.

SCOPE OF THE STUDY

The study has been undertaken to understand the significance of long term capital investment budgeting through which to analyze the performance of the long term capital investment budgeting.

- ❖ The study can help the organization to take investment decision in forthcoming years
- ❖ It can be used as reference
- ❖ It will be helpful for fund allocation

METHODOLOGY:

The research methodology deals with various aspects of research, it talks about the types of research to be used, the research plans, how data can be collected either by primary or secondary sources. It also plans what type of financial statement have required to make capital investment budgeting to be use. The research decides about the income and expenditure of the company to make decisions and the various statistical tools to be used in data analysis and interpretation.

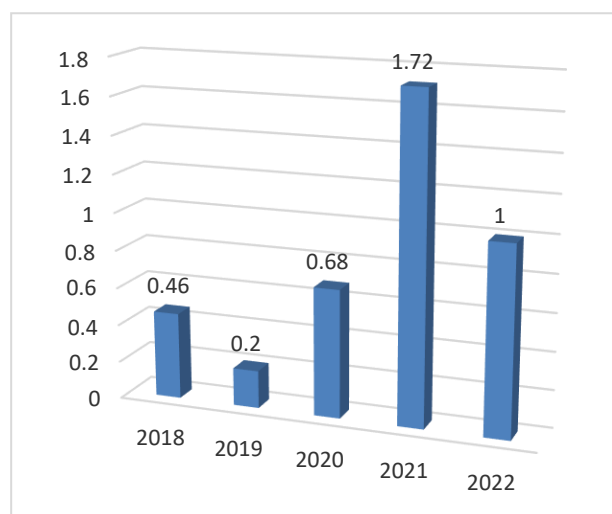
DATA ANALYSIS:

1. ACCOUNTING RATE OF RETURN (ARR)

Year	PAT	Initial investments	Average Rate of Return
2018	33324997	72368453	0.46
2019	35241131	175080399	0.20
2020	123526969	180236203	0.68
2021	79500394	46246000	1.72
2022	46222467	46246000	1.00

Source: primary data

1.ACCOUNTING RATE OF RETURN (ARR)



Source: Secondary data

INFERENCE:

The chart shows that, in the year 2019 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 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. The Average rate of return for the year 2022 is reduced to 1 year.

2.Net Present Value Analysis

Year	PAT	Discounting present value Table (Present value of Re.1 @ 10 %)	Present Value of Net Cash Flows	Present value of Initial investment
2018	33324997	0.909	30292422.27	65782923.78
2019	35241131	0.826	29109174.21	144616409.6
2020	123526969	0.751	92768753.72	135357388.5
2021	79500394	0.683	54298769.1	31586018
2022	46222467	0.621	28704152.01	28718766
		TOTAL =	235173271.3	406061505.8

Calculation:

Present value of all cash flows 23, 51, 73, 271.3

Less: Present value of all Initial Investment 40, 60, 61,505.8

Net Present Value (2018-22)

(17, 08, 88,234.5)

Inference:

Above table clearly indicates that the Net Present Value for the five years from 2018 to 2022 is **(17, 08, 88,234.5)**

A negative NPV indicates that the project will probably be unprofitable and therefore should be adjusted, if not abandoned altogether. NPV enables a management to consider the time value of money it will invest. This concept holds that the value of money increases with time because it can always earn interest in a savings account. Therefore, any other investment of that money must be weighed against how the funds would perform if simply deposited and saved.

3.PROFITABILITY INDEX

Year	PAT (Rs. In Crore)	Discounting present value Table (Present value of Re.1 @ 10 %)	Present Value of Net Cash Flows	Present value of Initial investment
2018	33324997	0.909	30292422.27	65782923.78
2019	35241131	0.826	29109174.21	144616409.6
2020	123526969	0.751	92768753.72	135357388.5
2021	79500394	0.683	54298769.1	31586018
2022	46222467	0.621	28704152.01	28718766
		TOTAL =	235173271.3	406061505.8

PROFITABILITY INDEX = PV OF CASH INFLOWS ÷ INITIAL INVESTMENT

PI = 235173271.3 ÷ 406061505.8

PI = 0.579

DECISION RULE:

Accept: PI >1

Reject: PI <1

INFERENCE:

PI is lesser than 1 so Reject the proposal

It indicates that for every one rupee investment there will be 0.579 loss

4. TREND ANALYSIS -PAT

Year	PAT(y)	x	X ²	xy	Y=a+b(x)
2018	0.3332	-2	4	-0.6664	0.4955
2019	0.3524	-1	1	-0.3524	0.56556
2020	1.2353	0	0	0	0.63562
2021	0.7950	1	1	0.795	0.70568
2022	0.4622	2	4	0.9244	0.77574
	$\Sigma y = 31.781$		$\Sigma x^2 = 10$	0.7006	

Y=a +b (x)

$a = \Sigma y / n$

$b = \Sigma xy / \Sigma x^2$

$a = 0.63562$

$b = 0.07006$

For: 2022

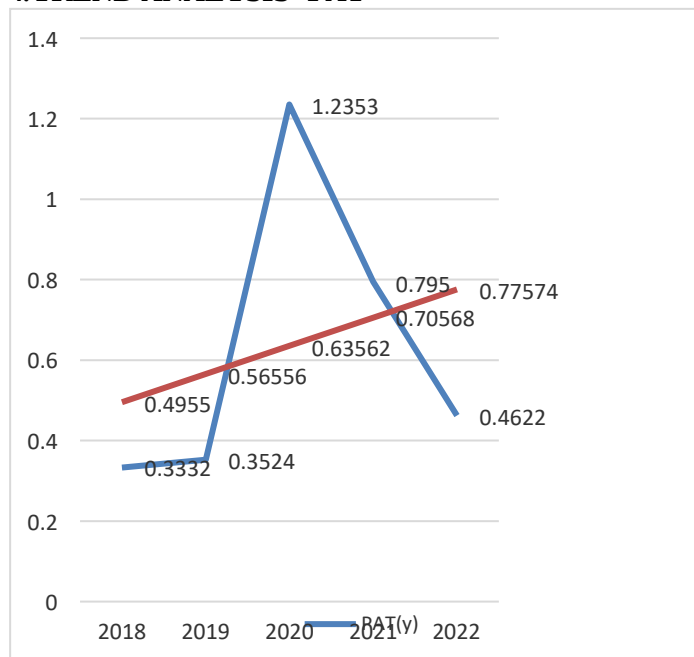
Let us assume $x=3$

$Y = a + b(x)$

$Y = 6.3562 + 0.0368737 * 3$

$Y = 0.7462411$

4. TREND ANALYSIS -PAT



INFERENCE

- The PAT is increasing at an increasing rate for the all the five years. The company has the highest PAT on 2020 with 1.2535
- The PAT trend is found to be increasing rate this is due to the gradual decrease of expenses for the first 3 years. In the year 2022 the PAT is tend to decrease this is due to the increase in the interest and expenses of the company.
- The PAT trend is decreasing so the company should take necessary steps to increase the profit of the company by decreasing the expenses and debtors

5. TREND ANALYSIS – EBIT

Year	EBIT(y)	x	X ²	xy	Y=a+b(x)
2018	0.504	-2	4	-1.008	0.8776
2019	1.360	-1	1	-1.36	0.9403
2020	1.012	0	0	0	1.003
2021	1.283	1	1	1.283	1.0657
2022	0.856	2	4	1.712	1.1284
	5.015		Σ x²=10	0.627	

$$Y = a + b(x)$$

$$a = \Sigma y / n$$

$$b = \Sigma xy / \Sigma x^2$$

$$a = 1.003$$

$$b = 0.0627$$

For: 2022

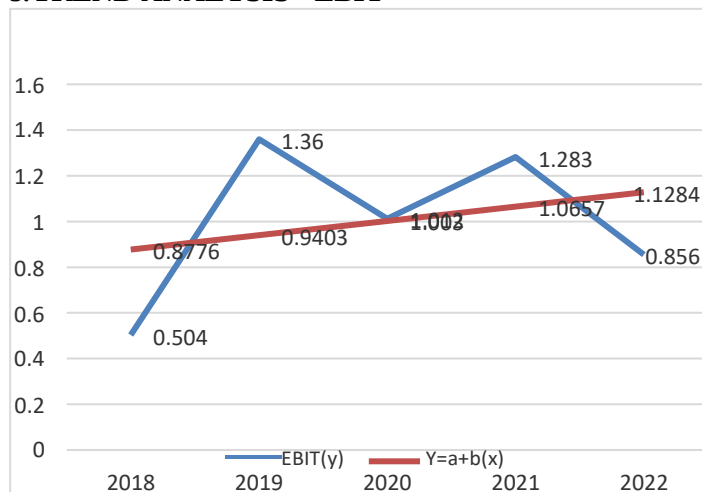
Let us assume $x=3$

$$Y = a + b(x)$$

$$Y = 1.003 + 0.033 \times 3$$

$$Y = 1.102$$

5. TREND ANALYSIS - EBIT



INFERENCE

- The EBIT is fluctuating for the all the five years. The company has the highest EBIT on 2019 with 13.60
- The EBIT trend is found to be increasing rate this is due to the gradual Increase of Sales
- The EBIT trend is decreasing in 2022 this may due to increase in the expenses and high interest.

SUGGESTIONS

- ❖ The shorter the payback period, the sooner the company recovers its cash investment. Whether a cash payback period is good or poor depends on the company's criteria for evaluating projects. Higher rate of return indicates that investment made in the particular year has higher cash inflow in the future.
- ❖ A negative NPV indicates that the project will probably be unprofitable and therefore should be adjusted, if not abandoned altogether.
- ❖ NPV enables a management to consider the time value of money it will invest. This concept holds that the value of money increases with time because it can always earn interest in a savings account. Therefore, any other investment of that money must be weighed against how the funds would perform if simply deposited and saved.

- ❖ The PAT trend is decreasing so the company should take necessary steps to increase the profit of the company by decreasing the expenses and debtors
- ❖ The EBIT trend is decreasing in 2022 this may due to increase in the expenses and high interest. So the company should take necessary actions to decrease the expenses.

CONCLUSION

Long term capital investment budgeting or investment appraisal is the planning process used to determine whether an organization's long term investments such as new machinery, replacement machinery, new plants, new products, and research development projects are worth pursuing. The process of allocating budget for fixed investment opportunities is crucial because they are generally long lived and not easily reversed once they are made. The study emphasizes that efficient allocation of capital is the most important finance function in the modern times. Thus, long term capital investment 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

- Edward W. Zajac and William J. White, published in Strategic Management Journal. Long-term capital budgeting for multinational corporations
- Raymond W. So, published in Journal of Applied Business Research. The long-term capital budgeting decision: The impact of uncertainty on the decision-making process
- Uma sekaran Research Methods for business john wiley & sons inc

WEBSITE

- www.yahooanswer.com
- <http://campus.murraystate.edu/academic/faculty/lquin/FIN330/Financial%20Leverage.htm>