



# A STUDY ON CAPITAL BUDGET

**HARISHMA.R & DR.S.UMAMAHESHWARI**

**MASTER OF BUSINESS**

**ADMINISTRATION SATHYABAMA UNIVERSITY,**

**CHENNAI, INDIA.**

## **ABSTRACT**

The main task of financial management is to choose the best results from the investment, and this is the most important decision for the finance manager because any decision made by the president in this regard can affect the operations of the company and its profits for many years. The purpose of the research is to examine the decisions of companies in the financial investment process by examining the importance of capital investment in organizations and to determine the sources of financial capital in which the company will be well invested in various ways. business decisions. It also provides information on cash flow and cash flow for each year.

**KEY WORDS:** Capital Budget.

**INTRODUCTION:** Capital budgeting, also known as "investment analysis," is a planning process used to determine the long-term capital expenditures an organization must make. Investment financing involves selecting projects that will add value to the company. This can include just about anything from acquiring more land to buying a new car or replacing an old machine. Businesses, especially corporations, are often required, or at least approved, to carry out activities that increase profits and therefore the wealth of their owners. When a company is faced with a financial decision, one of its first tasks is to determine whether the project will be profitable. Net present value (NPV), rate of return (ARR), and payback period (PB) methods are the most commonly used methods for project selection.

## **OBJECTIVES OF THE STUDY:**

- To study and ensure planning for the future by setting up various budgets.
- To know the Sales budget of the company.
- To analyze the elimination of wastage and increase in profitability.
- To find out the standard deviation for Total assets.

**NEED OF THE STUDY:**

The process of allocating money to fixed assets is important because it often takes a long time and cannot be easily reversed all at once. So we can say that this is an asset allocation process where management has to use financial resources to determine which activity will generate more profits over time.

**SCOPE OF THE STUDY:**

Capital budgeting is the process of making investment decisions in capital expenditures. Capital expenditures can be defined as expenditures that are expected to be profitable for more than one year.

**REVIEW OF LITERATURE**

**(Richard P 1996)**, A longitudinal survey on capital budgeting practices, *Journal of business finance & accounting*, 23(1), Jan 1996, pp. 79-92, in their study provide a more consistent and comprehensive analysis of how the capital budgeting practices has evolved in recent years in large UK companies.

**(Binder John JandChaput Scott J 1996)**, A positive analysis of corporate capital budgeting practices, *Review of quantitative finance & accountancy*, 6 (1996), pp. 245-257, in their article cost benefit analysis suggested that Discounting cash flow methods will be used more frequently for large projects.

**(Colin Drury andMilkeTalvas 1996)**, UK capital budgeting practices: some additional survey evidence, *European journal of finance* 2, pp. 371-388, has focused a light on some of unresolved issues on capital budgeting in UK and examined the impact of company size on the use of financial appraisal techniques.

**(Kester et.al. 1996)**, Capital budgeting practices of listed firms in Singapore, *Singapore Management Review*, pp 9-23, has studied Capital Budgeting Practices of Listed Firms in Singapore. They took a sample size of 211 companies and the survey resulted in 54 responses. They found that the responding executives in Singapore considered IRR and payback to be equally important for evaluating and ranking capital investment projects.

**(Rao U 1996)**; Capital budget practices: A comparative study of India and select South East Asian Countries, *ASCI Journal of Management*, Volume 25, pp 30-46, survey of 74 Indian companies revealed that 51% use IRR as project appraisal criterion. Firms typically use (92% or more) multiple evaluation methods. ARR and PBP are widely used as supplementary decision criteria.

**( BabuPrabhakara C and Sharma Aradhana 1996)**, Capital budgeting Practices in Indian Industry, *ASCI Journal of Management*, Volume 25, 1996, had done an empirical study on capital budgeting practices in Indian Industry. The authors have conducted a survey of 73 companies in and around Delhi and Chandigarh. They used personal interview method. It has been found by them that 90% of companies have been using capital budgeting methods. Around 73% of the companies have been using DCF methods.

**( Jain P K and Kumar M 1998)**, “Comparative Capital Budgeting Practices: The Indian Context”, *Management and Change*, January-June, pp. 151-171, has done a comparative study of capital budgeting practices in Indian context and observed that 25% of sample companies invested for expansion and diversification and firms were making regular investments for replacement and maintenance.

(Kester George W and Chang Rosita P 1999), Capital Budgeting Practices in the Asia-Pacific Region: Australia, Hong Kong, Indonesia, Malaysia, Philippines and Singapore, Financial Practice and Education, Vol 9, No.1, pp 25-33, survey 226 CEOs from Australia, Hong Kong, Indonesia, Malaysia, Philippines, and Singapore and find that Discounted Cash Flow techniques such as NPV/IRR are the most important techniques for project appraisal except in Hong Kong and Singapore.

(Stanley B 2000), Integrating traditional capital budgeting concepts into an international decision-making environment, The Engineering Economist, 2000, volume 45, Number 4, pp 309-325, has analyzed the capital budgeting policies of 146 multinational companies in light of current financial theory.

## RESEARCH METHODOLOGY:

There are many financial analysis methods that can be used to determine the economic value of an investment. Capital Budgeting is the process by which investors determine the value of a potential investment project. The three most common approaches to project selection are the Payback Period (PB), Accounting Rate of Return (ARR), and Net Present Value (NPV).

## RESEARCH DESIGN:

A research design is a conceptual framework for a research study; establishes standards for data collection, measurement and analysis. Research design is the collection of data in accordance with the purpose of education and the functioning of the process and the preparation of events for analysis.

## ANALYSIS:

### PAYBACK PERIOD (PBP):

Return measures the time it takes for a company to recover the money it originally invested. This strategy can also mean how long it will take for the project to generate cash equivalents for the investment and pay back the company. It is calculated by dividing capital investment by annual income. If the annual financial plan is different, average annual income can be used.

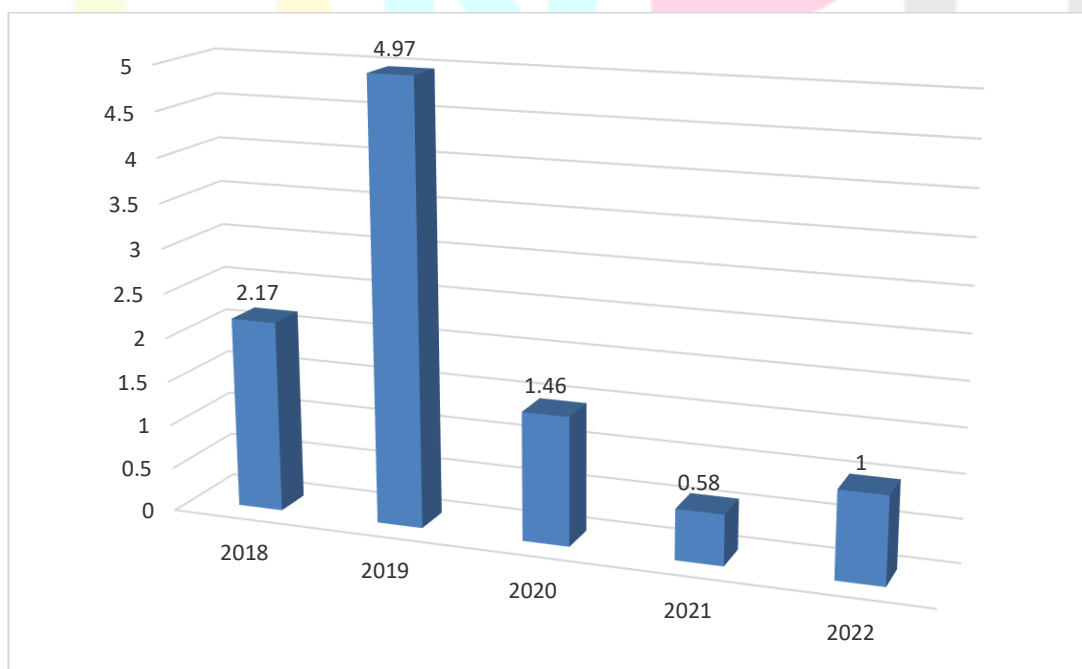
### CALCULATION OF ANNUAL CASH INFLOW

Year	2018	2019	2020	2021	2022
Total Sales	1606310970	1952574983	2062496269	2177381956	2371633523
Less: Costs	1555885007	1815614157	1961324252	2068196415	2286017710
<b>EBDT</b>	50425963	136960826	101172022	128327364	85615818
<b>LESS:</b> Depreciation or other	-	967090	-	10393113	12541810

exceptional items					
<b>EBT</b>	<b>50425963</b>	<b>135993136</b>	<b>101172022</b>	<b>117934251</b>	<b>73074008</b>
LESS: Tax	17100966	100752605	(22354952)	38433857	26851541
<b>PAT (Annual Cash Inflow)</b>	<b>33324997</b>	<b>35241131</b>	<b>123526969</b>	<b>79500394</b>	<b>46222467</b>

### Payback Period Analysis

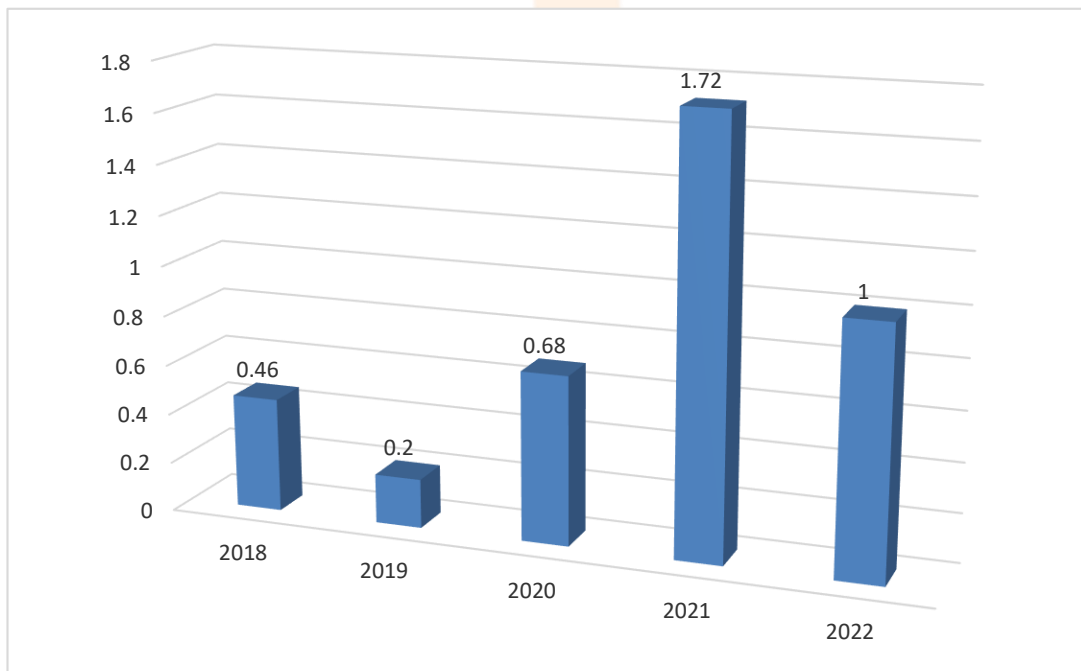
Year	Initial investments	Annual cash Inflow	Payback period
2018	72368453	33324997	2.17
2019	175080399	35241131	4.97
2020	180236203	123526969	1.46
2021	46246000	79500394	0.58
2022	46246000	46222467	1.00



## ACCOUNTING RATE OF RETURN (ARR):

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

Year	PAT	Initial investments	Accounting 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



## NET PRESENT VALUE(NPV):

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.

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
		<b>TOTAL</b>	<b>235173271.3</b>	<b>406061505.8</b>

#### Calculation:

Present value of all cash flows	23, 51, 73, 271.3
Less: Present value of all Initial Investment	40, 60, 61,505.8
<b>Net Present Value (2018-22)</b>	<b>(17, 08, 88,234.5)</b>

#### FINDINGS:

The current year (2022) PBP is found to be 1 year. This shows that the company recovers its investment in 1 year. From the above, it is inferred that the company has its highest payback period in 2019 with 4.97 or 5 years. The value of the Payback Period (2018: 2.17), (2019: 4.97), (2020: 1.46), (2021: 0.58), (2022: 1.00). A negative NPV indicates that the project will probably be unprofitable and therefore should be adjusted, if not abandoned altogether. 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. The Accounting rate of return for the year 2022 is reduced to 1 year. The value of the Accounting Rate of Return (2018: 0.46), (2019: 0.20), (2020: 0.68), (2021: 1.72), (2022: 1.00). The average rate of return for the year 2021 is reduced to 1 year the Accounting Rate of Return for the five years from 2021 is **(1.72)**.

#### SUGGESTION:

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. A higher rate of return indicates that investment made in the particular year has a 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.

## CONCLUSION:

Capital budgeting or investment evaluation is the planning process used to determine the organization's long-term investments such as new machinery, replacement machinery, new factories, new products, and research and development will be worth following. Capital or investment finance, expenditure. It is a process used to determine whether a company's investment or project is worth making. The process of allocating funds to fixed assets is important because they are usually long-lived and cannot be easily recovered all at once.

## Reference Books

- I.M.Pandey “Financial Accounting” New Delhi Publication
- S.M.Maheswari “Financial Accounting” Vikas publication
- D.Chandra Bose “Fundamentals of Financial Management”
- Uma Sekaran Research Methods for business john wiley & sons inc
- M.Y.Khan & p.k.jain “Financial Management”

## Website

- [www.yahooanswer.com](http://www.yahooanswer.com)
- <http://campus.murraystate.edu/academic/faculty/lguin/FIN330/Financial%20Leverage.htm>
- [http://en.wikipedia.org/wiki/Standard\\_deviation](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/>

## BALANCE SHEET

PARTICULARS	2018	2019	2020	2021	2022
Rs. Crore (Non-Annualised)					
<b>Total income</b>	<b>10.229</b>	<b>10.642</b>	<b>12.177</b>	<b>13.944</b>	<b>12.793</b>
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
<b>Change in stock</b>	<b>-0.029</b>	<b>0.189</b>	<b>0.383</b>	<b>-0.316</b>	<b>-0.075</b>
<b>Total expenses</b>	<b>9.379</b>	<b>9.942</b>	<b>11.677</b>	<b>12.893</b>	<b>11.824</b>
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 incl. Enterprises	0	0	0	0	0
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
<b>PAT</b>	<b>0.821</b>	<b>0.889</b>	<b>0.883</b>	<b>0.735</b>	<b>0.894</b>
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

