



AN EMPIRICAL STUDY ON CURRENT PRACTICES OF CAPITAL BUDGETING

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ABSTRACT

Capital budgeting is a step by step process that businesses use to determine the merits of an investment project. The decision of whether to accept or deny an investment project as part of a company's growth initiatives, involves determining the investment rate of return that such a project will generate. However, what rate of return is deemed acceptable or unacceptable is influenced by other factors that are specific to the company as well as the project. For example, a social or charitable project is often not approved based on rate of return, but more on the desire of a business to foster goodwill and contribute back to its community. Capital budgeting is important because it creates accountability and measurability. Any business that seeks to invest its resources in a project, without understanding the risks and returns involved, would be held as irresponsible by its owners or shareholders. Furthermore, if a business has no way of measuring the effectiveness of its investment decisions, chances are that the business will have little chance of surviving in the competitive marketplace. Businesses (aside from non-profits) exist to earn profits. The capital budgeting process is a measurable way for businesses to determine the long-term economic and financial profitability of any investment project Capital budgeting is also vital to a business because it creates a structured step by step process that enables a company.

INTRODUCTION

Capital budgeting is an essential part of every company's financial management. Capital budgeting is a required managerial tool. One duty of financial manager is to choose investment with satisfactory cash flows with high returns. Therefore a financial manager must be able to decide whether an investment is worth undertaking and able to decide and be able to choose intelligently between two or more alternatives. Capital budgeting involves the planning and control of capital expenditure. It is the process of deciding whether or not to commit resources to a particular long term project whose benefits are to be realized over a period of time.

A capital budgeting decision is defined as the firm's decision to invest its current funds efficiently in the long-term assets in anticipation of an expected flow of benefits over a series of years. The firm's investment decisions would generally include expansion, acquisition, modernization, and replacement of the long-term assets. They are the assessment of future events, which are difficult to predict. It is really complex problem to estimate the future cash flow of an investment.

The investment decision of a firm is generally know as Capital Budgeting or Capital Expenditure Decision. Capital budgeting is also known as "Investment Decision Making", "Capital Expenditure Decisions", "Planning Capital Expenditure" and "Analysis of Capital Expenditure. Capital budgeting is finance terminology for the process of deciding whether or not to undertake an investment project. A logical prerequisite to the analysis of investment opportunities is the creation of investment opportunities. Unlike the field of investments, where the analyst more or

less takes the investment opportunity set as a given, the field of capital budgeting relies on the work of people in the areas of industrial engineering, research and development, and management information systems (among others) for the creation of investment opportunities. As such, it is important to suggest that students keep in mind the importance of creativity in this area, as well as the importance of analytical techniques. Because a project is financially sound, it must be ethically sound, right? Well . . . the question of ethical appropriateness is less frequently discussed in the context of capital budgeting than that of financial appropriateness.

Budgeting requires the company to look ahead and formalize future goals. It 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. Capital budgeting techniques based on accounting earnings and accounting rules are sometimes used - though economists consider this to improper- such as the accounting rate of return, and "return on investment."

OBJECTIVES OF THE STUDY

- To know the important differences, that can arise in evaluating projects.
- To know the strengths and weakness of existing Techniques in capital budgeting.
- To know capital projects using traditional methods of investment appraisal and discounted cash flows methods.
- To know recommendations and to improve further process of capital budgeting
- To know the profitability of the project by considering all cash flows.

SCOPE OF THE STUDY

Preparation of capital budgeting is an important tool for efficient and effective managerial decisions. So in every organization they have to examine the capital budgeting process, Therefore the financial manager must be able to decide whether an investment is worth undertaking and able to decide and be able to choose intelligently between two or more alternatives.

- The process by which company's appraise investment decision, in particular by which capital resources are allocated to specific projects.
- Capital budgeting requires firms to account for the time value of money and project risk, using a variety of more or less formal techniques.
- Capital budgeting decisions affect the profitability in terms of interest of the firm. They also have a bearing on the competitive position of the enterprise. It's a diversification burden.
- Capital investment involves cost and the majority of the firms have scarce capital resources.
- Capital budgeting is a complex process as it involves decisions relating to the investment of huge resources for the benefit of achievement in future as it is always uncertain.
- Understanding the importance of the capital budgeting in DR. Reddy's Laboratories Ltd.

NEED OF THE STUDY

- The project study is undertaken to analyse and understand the Capital Budgeting

process in Dr. Reddy's Laboratories Ltd, which gives mean exposure to practical implication of theory knowledge.

- To know about the company's operations of using various capital budgeting techniques.
- The financial department can implement and can get positive results by maintaining proper financial reports.
- To analyze the proposal for expansion or creating additional capacities
- To make financial analysis of various proposals regarding capital investment so as to choose the best out of many alternatives proposals.

IMPORTANCE OF THE STUDY

Capital budgeting is of paramount important in financial decision making:

- Decisions affect the probability of the firm, as they also have a bearing on the competitive positions of the enterprises.
- A capital expenditure decision has its effect over a long time and inevitable affect's the company future cost structure.
- The capital investments firm acquires the long-lived assets that generate the firm's future cash flows and determine its level of profitability.
- Proper capital budgeting analysis is critical to a firm's successful performance because capital investments decisions can improve cash flows.
- Capital investment involves cost of majority of the firms have scarce capital resources.
- Capital decisions are not easily reversible, without much financial loss to the firm.
- To make financial analysis of various proposals regarding capital investment so as to choose the best out of many alternatives proposals.

ABOUT COMPANY

Dr. Reddy's Laboratories is an Indian multinational pharmaceutical company located in Hyderabad, Telangana, India. The company was founded by Kallam Anji Reddy, who previously worked in the mentor institute Indian Drugs and Pharmaceuticals Limited. Dr. Reddy's manufactures and markets a wide range of pharmaceuticals in India and overseas. The company has over 190 medications, 60 active pharmaceutical ingredients (APIs) for drug manufacture, diagnostic kits, critical care, and biotechnology products.

Dr. Reddy's began as a supplier to Indian drug manufacturers, but it soon started exporting to other less-regulated markets that had the advantage of not having to spend time and money on a manufacturing plant that would gain approval from a drug licensing body such as the U.S. Food and Drug Administration (FDA).

METHODOLOGY OF THE STUDY

The data is collected from Dr. Reddy's Laboratory with the help of Secondary sources.

This sources containing data that have been collected and compiled for another purpose. The secondary sources consist of readily available compendia and already compiled statistical statements and reports whose data may be used by researches for their studies, e.g., census reports, annual reports and financial statements of companies, Statistical statements, Reports of Government Departments, Annual Reports on currency and finance and Financial Journals, newspapers, etc.

Secondary sources consist of not only published records and reports, but also

unpublished records. The latter category includes various records and registers maintained by firms and organisations, e.g., accounting and financial records, personnel records, register of members, minutes of meetings, inventory records, etc.

Company Name: Dr. Reddy's Laboratory

Source of Data : Secondary Data

Duration of the study: 45days

Period of the study : 01 DEC 2021 To 14 JAN 2022.

TOOLS & TECHNIQUES:

- Payback period .
- Accounting Rate of Return.
- Profitability Index.
- Net Present Value.
- Internal Rate of Return.

LIMITATION OF THE STUDY

- The study is conducted in short period. The time period of study has been limited to less than 45days. The period is small to study the practical investment decision of a company like Dr. Reddy's Laboratories ltd.
- It does not consider all the new unapproved schemes.
- The study is conducted with the available data, gathered from annual reports of Dr. Reddy's Laboratories ltd.
- The formula has been used according to the availability of the data.
- All the techniques of capital budgeting presume that various investment proposals under considerations are mutually exclusive which may not practically be true in some particular circumstance.
- Uncertainty and risk pose the biggest limitation to the technique of capital budgeting.
- Since the procedures and policies of the company does not allow disclosing of all financial information and has to be completed with the available data collected.

Data analysis and Interpretation

All finance activity commences with an investment proposal, which calls for a financial appraisal of a project. Here, capital Budgeting has its role. Each one of the projects is appraised on following basis”

- ◆ Cost Estimates.
- ◆ Cost PRODUCTION s.

Cost Estimates :-

Feasibility Report of the project is prepared based on the cost of similar units prevailing at the time of preparation of projects report of the latest costs are not available, the same should be escalated. Collection of data with regard to the cost of the various equipment should from part of a continuous planning so tat a realistic cost estimate is made for the project Reports for civil works are generally based on DR. REDDYS LABORATORIES LTD. schedule of rates with reasonable premium there on.

Cost of PRODUCTION :-

The financing of public sector company is generally based on Debt Equity of 3:1 the general rate of interest chargeable by the central Government on loan components is 10.5% (Now enhanced to 11%) . The plant life as provided under the Electricity Supply Act, 1948 is 25 years and depreciation based on this period has to be calculated on straight line method, on 90% of the cost fixed assets. The operation & maintenance expenses are generally of the order 2.5% of the capital cost based on the above assumptions, the cost of PRODUCTION could be worked out discounted cash flow basis taking 12% IRR (Internal Rate of Return). This rate has been generally accepted by various appraising agencies of the power projects.

Feasibility Report based on above methodology and indicating site selection, coal linkage, power distribution examined by Central Electricity Authority in all cases where investment is Rs.1 Crore and above. Since DR. REDDYS LABORATORIES LTD.is public sector undertaking, all the investment decisions have to be formally sanctioned by Government after PIB's (Public Investment Board's) clearance.

SHARE CAPITAL :

The entire share capital is owned by Government of India. During the Year no addition has been made. However the authorized capital has been increased from Rs. 80,000 million to Rs.1,00,000 million and the face value or share has been split to Rs.10/- each from Rs.1000/- each.

ROLE OF FINANCE MANAGEMENT IN INVESTMENT DECISIONS IN DR. REDDY'S LABORATORIES LTD:

Finance Manager is the number of a project team. He plays an important role in investigation stage of the project, when various alternatives are analysed & the most optimum solution is decided upon. The soundness upon the accuracy of the data & as a finance manager has to questing and satisfy himself on the validity of the data.

The power projects are extremely capital intensive and before large resources are committed to a scheme a detailed feasibility study need to be prepared covering-

- ◆ The need of the project
- ◆ The demand projections
- ◆ The alternatives of the site locations
- ◆ The broad parameters of the plant and equipment
- ◆ The cost estimates
- ◆ The viability of the scheme.

Cost Estimates :- Cost estimates and financial justification and returns of the projects are the areas where financial management has to play its role. Cost estimates should be prepared by the cost engineers and vetted by the finance manager. Cost engineering is a specialized filed & need to be developed in the contest of power projects because of insufficient cost data on the components of the projects.

This raises an important question of the present methodology of preparing the cost estimates without any provision for price contingencies. Because of time lag between

preparation of cost estimates and investment decisions, after its scrutiny by the appraising agencies, these estimates are already out of data and hence would need updating.

CAPITAL BUDGETING
EXAMPLE OF STAGE I & II

Sl.	Schemes	Outlay
1.	Stage-I (3 x 20000 MT)	5,48,92,00,000
2.	Stage- II(3 x 50000 MT)	11,03,69,00,00
3.	Stage-III(1 x 50000MT)	1229.38(Millions)

Stage – I consisting outlay of 5,48,92,00,000 this is Recovered in 5 years of time.

RECOVERY OF PROJECTS (Stage-I):

Following calculations are under consider

Under Discounted Pay Back Period:

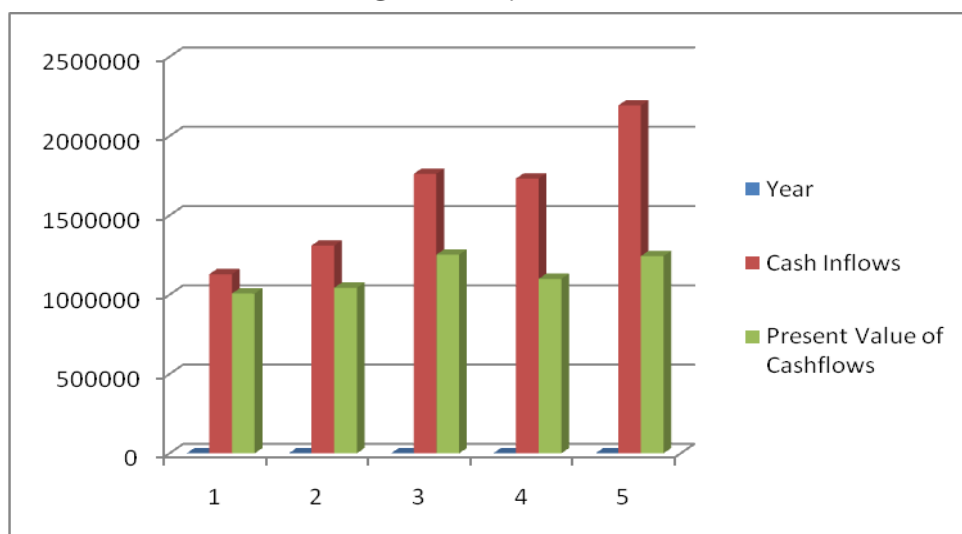
Stage – I (3 x 20000)Outlay : 5,48,92,00,00

NET PRESENT VALUE:

Table:1

Year	Cash Inflows	Dis. @12%	Present Value of Cashflows
1	Rs. 1.129.384.000	0,892	Rs. 1.007.410.528
2	Rs. 1.310.895.000	0,797	Rs. 1.043.986.315
3	Rs. 1.761.879.000	0,711	Rs. 1.252.695.969
4	Rs. 1.732.086.000	0,635	Rs. 1.109.874.610
5	Rs. 2.193.061.000	0,567	Rs. 1.243.465.587
Total Present Value of Cash Flows			Rs. 5.647.433.010
Less: Cash Outlay			Rs. 5.489.200.000
Net Present Value			Rs. 158.233.010

GRAPH 1:



Interpretation:

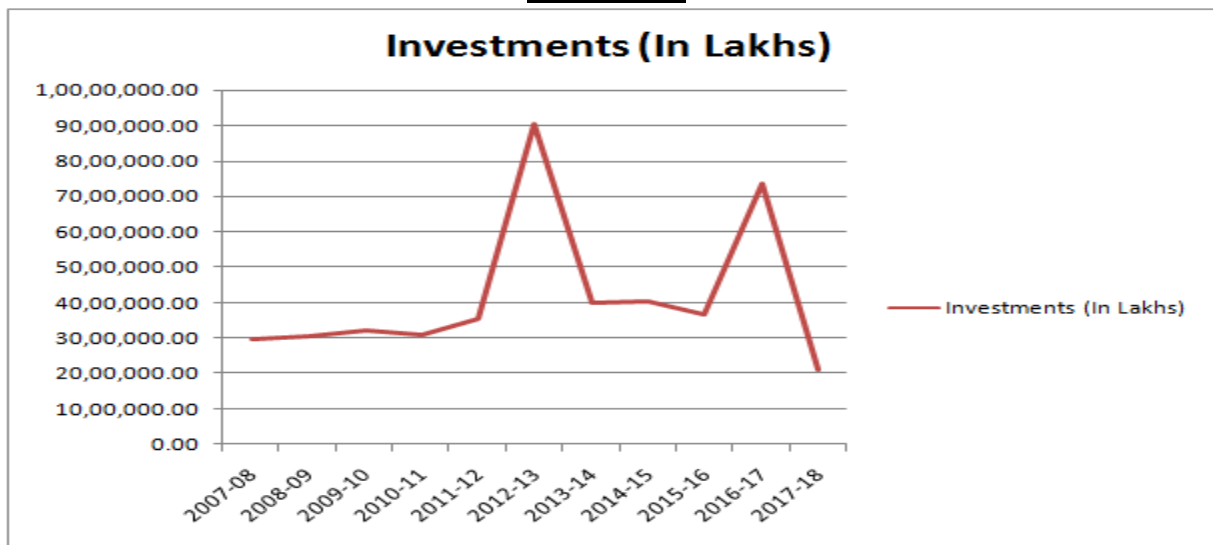
The Net Present Value is the difference between the “ Present value of cash inflows” and “Present value of cash outflows.

PROFITABILITY INDEX (P.I): Table:2

Year	Investments (In Lakhs)	Cash inflows(P.V.)	Cash Out Flows (Initial)
2007-08	2,945,083.37	18180	20000
2008-09	3,040,293.17	24780	30000
2009-10	3,192,444.28	45070	60000
2010-11	3,071,183.11	54640	80000
2011-12	3,545,210.87	18630	30000
2012-13	9,025,874.00	161290	22000
2013-14	3,991,459.40	19210	33000
2014-15	4,038,114.20	11130	70000
2015-16	3,667,441.15	65420	40000
2016-17	7,338,000.00	19233	80000
2017-18	2,089,775.00	61323	60000
	Total:	498896	525000

$$\begin{aligned}
 \text{PI} &= \frac{\text{P.V. of Cash Inflows}}{\text{Initial Cash outlays}} \\
 &= \frac{498896}{525000} = 0.95
 \end{aligned}$$

GRAPH 2 :



Interpretation:

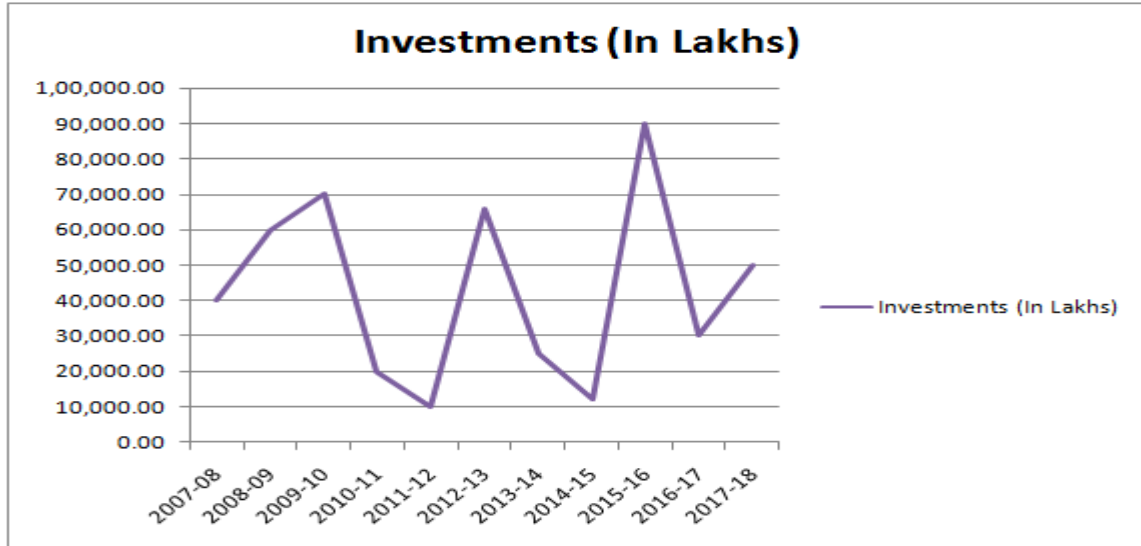
- a) The profitability index of present value of cash inflows and cash out flows is fluctuation from year to year in the year 2007-08 the present value of cash inflows is 18180 were as in the year 2017-18 has been increased with 61323.
- b) The highest cash inflows has been recorded in 2011-2012 as 161290 and lowest has been recorded as 18180 in the year 2017-18.

Table:3 - PAY BACK PERIOD:

Year	Investments (In Lakhs)	Cash inflows(P.V.)	Cash Out Flows (Initial)
2007-08	40,000.00	8000	20000
2008-09	60,000.00	1600	30000
2009-10	70,000.00	2200	60000
2010-11	20,000.00	4500	80000
2011-12	10,000.00	4000	30000
2012-13	66,000.00	3000	22000
2013-14	25,000.00	2900	33000
2014-15	12,000.00	1100	70000
2015-16	90,000.00	1600	40000
2016-17	30,000.00	1200	80000
2017-18	50,000.00	1800	60000
Total:	473,000.00	31900	525000

$$\begin{aligned}
 \text{Pay Back Period} &= \frac{\text{Initial Investments}}{\text{Annual Cash inflows}} \\
 &= \frac{40,000}{8000} = 5 \text{ Years}
 \end{aligned}$$

GRAPH 3:



Interpretation:

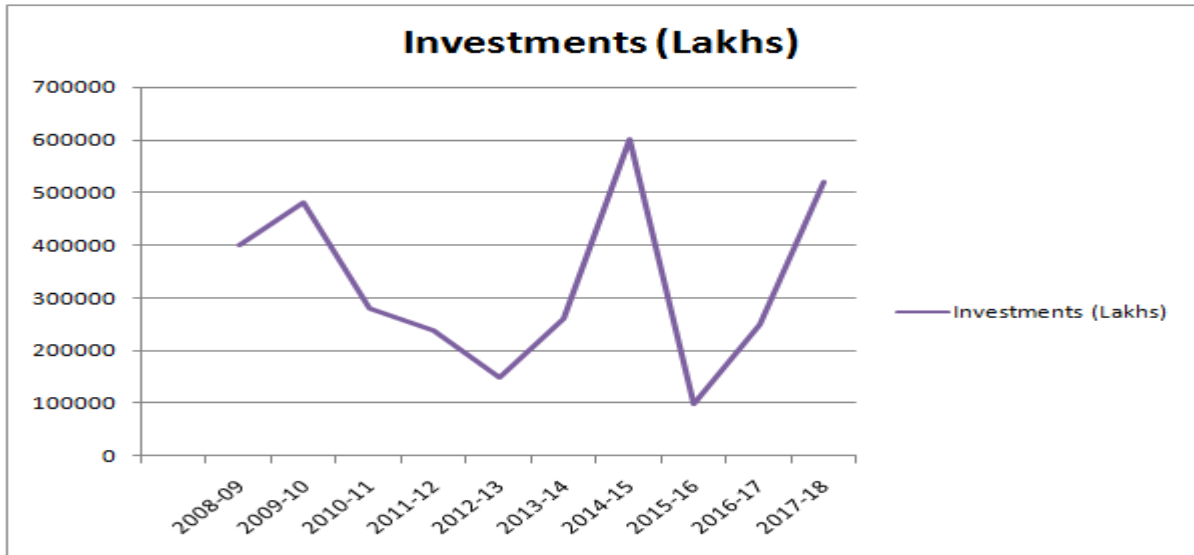
- a) In the Pay Back method the Investment and the case inflows are fluctuating from year to year where as in the year 2007-08 it is 40000 and in the year 2017-18 is 50000.
- b) Cash inflows are in the order of increasing to decreasing from 2011-12 and 2016-17.

c) Table:4 - AVERAGE RATE OF RETURN:

Year	Investments (Lakhs)	Average Income (Thousands)	Cash Flows after Taxes
2008-09	400,000.00	20000	100000
2009-10	480,000.00	15000	260000
2010-11	280,000.00	28000	440000
2011-12	240,000.00	85000	750000
2012-13	150,000.00	75000	160000
2013-14	260,000.00	64000	200000
2014-15	600,000.00	78000	300000
2015-16	100,000.00	25000	600000
2016-17	250,000.00	18000	800000
2017-18	520,000.00	22000	750000
Total	3,280,000.00	430000	4360000

$$\begin{aligned}
 \text{Average Rate of Return} &= \frac{\text{Average Income}}{\text{Average Investments}} \\
 &= \frac{20000}{400000} = 0.06\%
 \end{aligned}$$

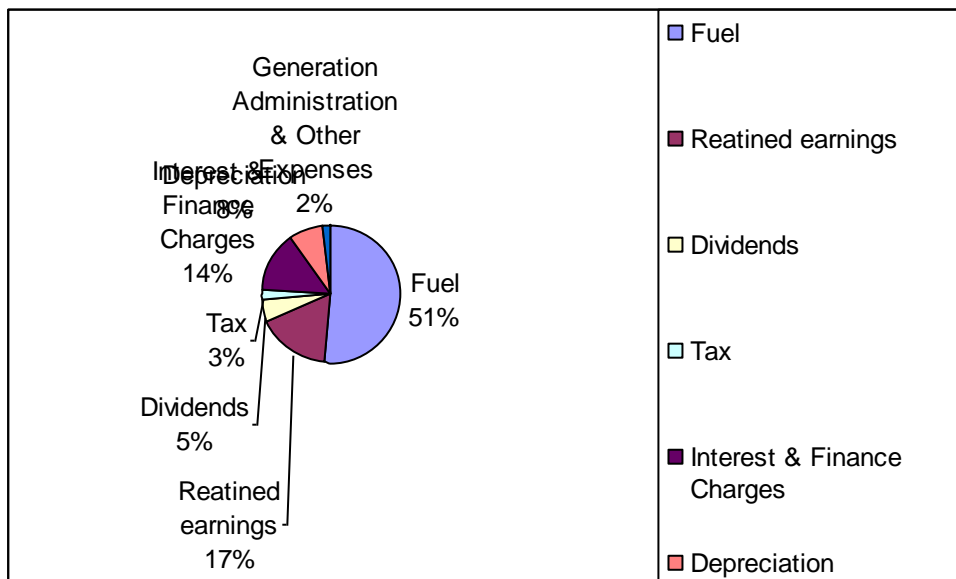
GRAPH 4:



Interpretation:

- a) Average rate of return is calculated based on Average income and Average investment where as Average income in the year 2008-09 is 20000 and investments in the year 2014-15 is 400000.
- b) The value from 2008-09 and 2017-18 are fluctuating from year to year.

DISTRIBUTION OF REVENUE 2017-2018



Interpretations:

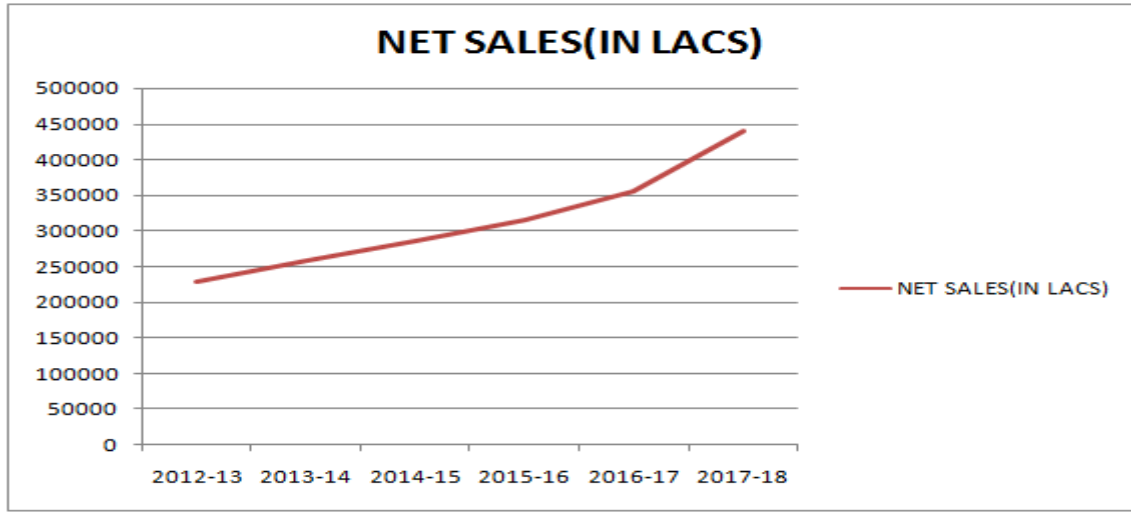
- a) In the year 2017-18 the revenue is distributed in the form of fuel retained earning, dividends is latest finance change, depreciation and for employees.
- b) Where as in the year 2013-14 it is been fluctuated the rates compare to the year 2017-18.

TABLE 5:

FY YEAR	NET BLOCK (IN LAKS)
2012-13	284738
2013-14	323083

2014-15	328916
2015-16	386106
2016-17	400381
2017-18	520861

GRAPH:6 - NET BLOCK AND GROSS FIXED ASSETS



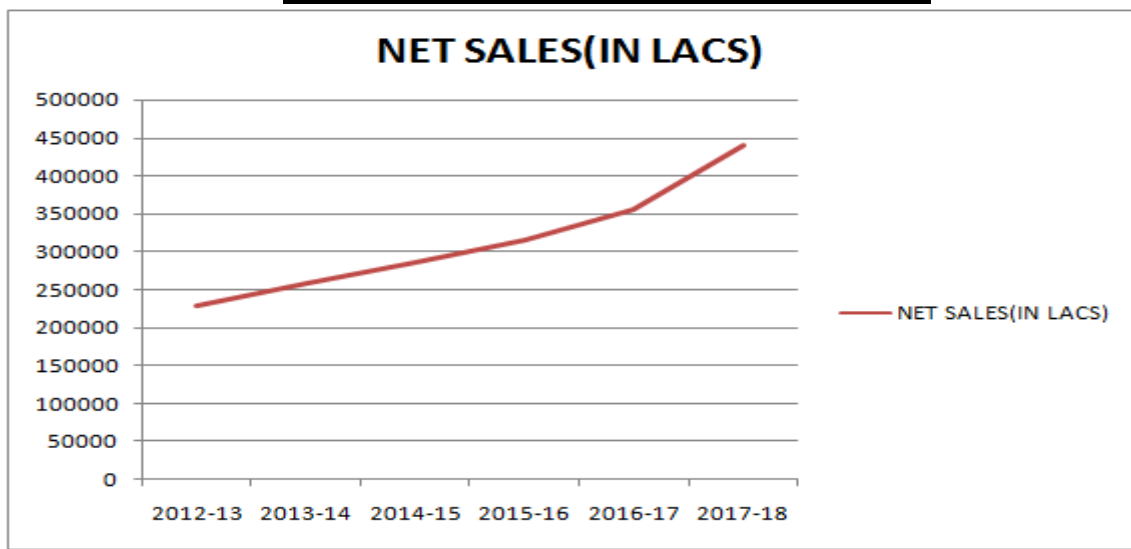
Interpretations:

- a) From 2012-2013 the net block and gross fixed assets is 328916.
- b) Where as the Net Block and gross fixed asset is been increased in the year 2017-18

TABLE 7:

FY YEAR	NET SALES(IN LACS)
2012-13	229055
2013-14	258117
2014-15	286453
2015-16	315400
2016-17	355502
2017-18	440302

GRAPH:8 - NET WORTH AND NET ASSETS



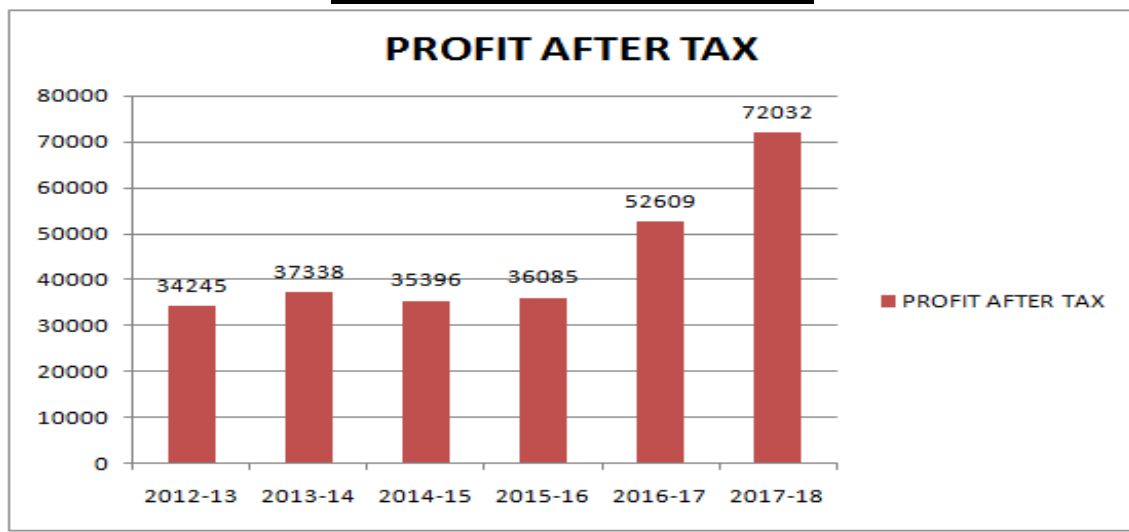
Interpretations:

- a) Net worth and net assets has been increasing from year to year from 2012-13 it is 229055 and compare to 2017-18 it has been increased to 440302.
- b) By observing the chart we can say the net worth and net assets has been increasing from 2016-17 to 2015-2016

TABLE 8 :

FY YEAR	PROFIT AFTER TAX
2012-13	34245
2013-14	37338
2014-15	35396
2015-16	36085
2016-17	52609
2017-18	72032

GRAPH:9 - PROFIT AFTER TAX



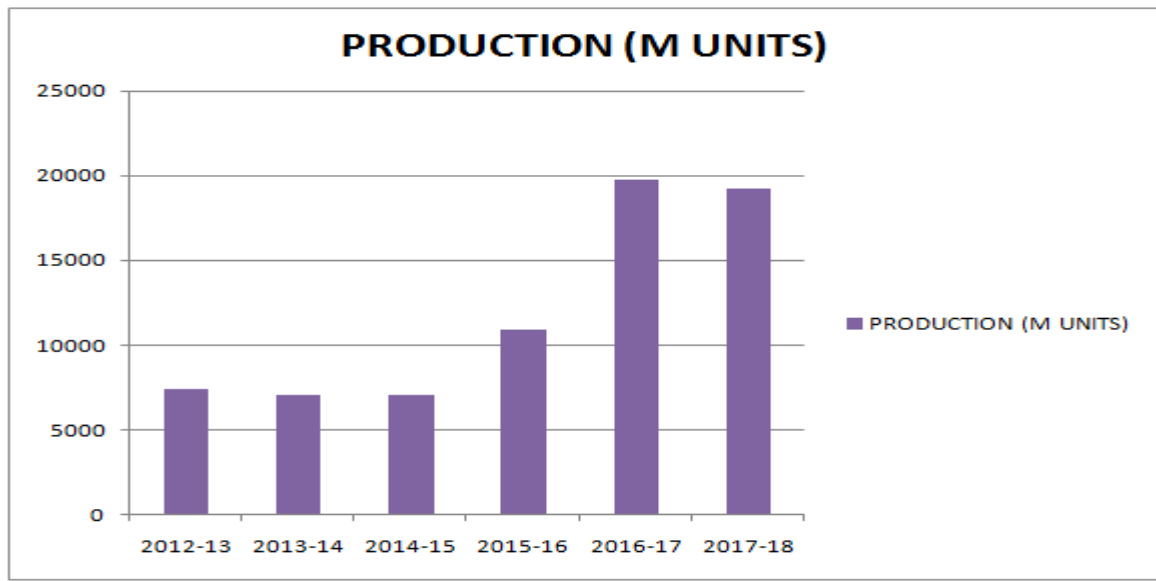
Interpretations:

- a) The chart show the increase value after the deduction of tax in the year 2017-18.
- b) The Profit is changing from year to year in the year 2012-13 it is 34245 where as increasing value in the year 2011-2012 and decreased, in the year 2016-17 the value is increased.

TABLE 9 :

FY YEAR	PRODUCTION (M UNITS)
2012-13	7470
2013-14	7080
2014-15	7090
2015-16	10923
2016-17	19790
2017-18	19237

GRAPH:10 - PRODUCTION AND SALES



PRODUCTION IN MUS – SALES IN MILLIONS:

Interpretations:

- a) On the X – axis year are been shown from 2012-13 to 2017-18 and the value has been increasing from year to year.
- b) In the year 2012-13 the Production and sale has been 7470 and the value has been increasing year to year but 2015-2016 the value is decreasing.

FINDINGS & CONCLUSIONS

FINDINGS

- ❖ The Corporate mission of Dr. Reddys Laboratories Ltd.is to make available reliable and quality power in increasingly large quantities. The company will spear head the process of accelerated development of the power sector by expeditiously planning, implementing power project and operating power stations economically and efficiently.
- ❖ As in project implementation, the plant continued to excel in Production with the machines having reached its first goal of total capacity installation.
- ❖ The organization needs the capable personalities as management to lead to organization successfully. The management make the plans and implement of these plans. These plans are expressed in terms of long-term investment decisions.
- ❖ The special budgets are rarely used in the organization like long-term budgets, research & development budget and budget and budget for constancy.
- ❖ From the Revenue budget for the year 2003-2004, it is clear that the Actual sales (Rs. 168552.50 lacks) are more then the budgeted or Estimated sales (Rs. 164208.54 lacks). It is a good sign and the overall earnings of the budget indicate high volume over estimated.
- ❖ Raw material utilization is perfectly carry out in this unit. And Cash from subsidiary products effectively carry out the job.
- ❖ New projects acceptance consider on the basis of Return Benefits. Risk is evaluated while considering the new projects.

CONCLUSIONS

- ❖ Every organization has pre-determined set of objective and goals, but reaching those objectives and goals only by proper planning and executing of the plans economically.

- ❖ Dr. Reddy's began as a supplier to Indian drug manufacturers, but it soon started exporting to other less-regulated markets that had the advantage of not having to spend time and money on a manufacturing plant that would gain approval from a drug licensing body such as the U.S. Food and Drug Administration (FDA).
- ❖ In 2010, the family-controlled Dr Reddy's denied that it was in talks to sell its generics business in India to US pharmaceutical giant Pfizer, which had been suing the company for alleged patent infringement after Dr Reddy's announced that it intended to produce a generic version of atorvastatin, marketed by Pfizer as Lipitor, an anti-cholesterol medication. Reddy's was already linked to UK pharmaceuticals multinational Glaxo Smithkline.

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