



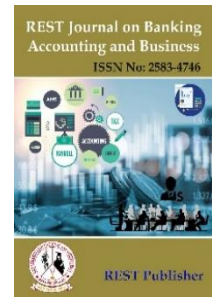
## REST Journal on Banking, Accounting and Business

Vol: 3(2), 2024 (Online)

REST Publisher; ISBN: 978-81-956353-0-6

Website: <https://restpublisher.com/journals/jbab/>

DOI: <https://doi.org/10.46632/jbab/3/2/17>



# A Study on Financial Forecasting and Planing with Reference to TVS Moters

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**Abstract:** *The value of the firm depends upon its expected Financial Forecasting. The rate used to discount earnings stream it's the firm's required rate of return or the cost of capital. Thus, the capital structure and Financial Forecasting decision can affect the value of the firm either by changing the expected earnings of the firm, but it can affect the reside earnings of the shareholders. The effect of leverage on the cost of capital is not very clear. Conflicting opinions have been expressed on this issue. In fact, this issue is one of the most continuous areas in the theory of finance, and perhaps more theoretical and empirical work has been done on this subject than any other.*

**Key words:** *Financial Forecasting, cost of capital, capital structure.*

## 1. INTRODUCTION

A financial plan is a series of steps or goals used by an individual or business, the progressive and cumulative attainment of which is designed to accomplish a financial goal or set of circumstances, e.g. elimination of debt, retirement preparedness, etc. This often includes a budget which organizes an individual's finances and sometimes includes a series of steps or specific goals for spending and saving future. This plan allocates future income to various types of expenses, such as rent or utilities, and also reserves some income for short-term and long-term savings. A financial plan is sometimes referred to as an investment plan, but in personal finance a financial plan can focus on other specific areas such as risk management, estates, college, or retirement.

## 2. REVIEW OF LITERATURE

**Source: Mediterranean Journal of Social Sciences (ISSN 2039-2117)**

Based on the authors' extensive teaching, research and business experiences, this book reviews, discusses and integrates both theoretical and practical aspects of financial planning and forecasting. The book is divided into six parts: Information and Methodology for Financial Analysis, Alternative Finance Theories and Their Application, Capital Budgeting and Leasing Decisions, Corporate Policies and Their Interrelationships, Short-term Financial Decisions, Financial Planning and Forecasting, and Overview. The theories used in this book are pre-Modigliani-Miller Theorem, Modigliani-Miller Theorem, Capital Asset Pricing Model and Arbitrage Pricing Theory, and Option Pricing Theory. The interrelationships among these theories are carefully analysed. Meaningful real-world examples of using these theories are discussed step-by-step, with relevant data and methodology. Alternative planning and forecasting models are also used to show how the interdisciplinary approach is helpful in making meaningful financial management decisions.

**Source: Hamburg Business School, University of Hamburg**

**Author: Martin Spindler**

This article is an introduction to machine learning for financial forecasting, planning and analysis (FP&A). Machine learning appears well suited to support FP&A with the highly automated extraction of information from large amounts of data. However, because most traditional machine learning techniques focus on forecasting (prediction), we discuss the particular care that must be taken to avoid the pit falls of using them for planning and resource allocation (causal inference). While the naive application of machine learning usually fails in this context, the recently developed double machine learning framework can address causal questions of interest. We review the current literature on machine learning in FP&A and illustrate in a simulation study how machine learning can be used for both forecasting and planning. We also investigate how forecasting and planning improve as the number of data points increases.

### 3. OBJECTIVES OF THE STUDY

To Study the Financial Forecasting and planning of **TVS MOTORS LTD.**

To Study effectiveness of financing decision on EPS and EBIT of the firm.

Examining leverage analysis of **TVS MOTORS LTD.**

To evaluate the Financial Forecasting and planning practices relating to various projects of **Tvs motors ltd** Hyderabad

To Assess the long term requirements of funds and plan for application of internal resources and debt servicing.

To Assess the effectiveness of long-term investment decisions of **Tvs motors ltd**

### 4. METHODOLOGY OF THE STUDY

Data relating to **TVS MOTORS LTD.** Has been collected through

#### SECONDARY SOURCES:

- Published annual reports of the company for the year 2019-2023.

#### PRIMARY SOURCES:

- Detailed discussions with Vice-President (Works).
- Discussions with the Finance manager and other members of the Finance department.

### 5. LIMITATIONS OF THE STUDY

The study is limited to **Tvs motors ltd** only.

1. The study is limited to certain projects of **Tvs motors ltd**.
2. Period of the study is restricted to five years only.
3. The present study cannot be used for inter firm comparison.
4. Limited span of time is a major limitation for this project.
5. The act and figures of the study is limited to the period of FIVE years i.e. 2019-2023.
6. The data used in reports are taken from the annual reports, published at the end of the years.
7. The result does not reflect the day-to-day transactions.

#### FINACIAL ANALYSIS

Analysis Of **TVS Motors Limited**

Years	Total sales	Total assets	Fixed assets	Net Profit	Capital Employed	Long term funds	Share holders' Funds
2018-2019	18205.64	19815.64	15890.33	1904.23	6607.67	2789.76	274.04
2019-2020	19270.69	17667.95	17176.18	2446.20	15392.72	2019.09	274.07
2020-2021	20204.94	20697.50	19025.20	2655.43	16986.24	2197.34	274.19
2021-2022	20279.80	22070.29	20521.42	2194.47	19196.57	2389.35	274.24
2022-2023	22936.18	25369.51	19384.46	2021.73	17827.08	2956.53	274.40

#### Traditional Capital Budgeting Appraisal Methods

**Payback period method:**

The **TVS MOTORS LIMITED** has Rs. 2041.63 crors of initial investment and the annual cash flows for the years 2021 to 2022. Then the payback period is calculated as follows:

**Calculation Of Pay Back Period of Tvs Motors Limited**

(Rs. In crores)

SI.NO	YEAR	CASH INFLOW	CUMULATIVE CASH FLOWWS
1	2018-2019	2179.96	2179.96
2	2019-2020	3348.75	5519.71
3	2020-2021	3505.51	9024.22
4	2021-2022	2041.63	16065.85
5	2022-2023	2073.69	18189.54

The above table shows that, the initial investment RS.2986.65 Cr... lies between second and third years with Rs. 2179.96 and 5519.71 Cr

$$\text{PBP} = \text{Actual (Base) year} + \frac{\text{Difference in cash flows}}{\text{Next year cash flows}}$$

$$\text{PBP} = 2 + \frac{2073.69}{18189.54}$$

$$= 2 + 0.17$$

$$= 2.17 \text{ year}$$

Payback period (PBP) = 2.17 year.

**ACCEPT-REJECT CRITERION:**

PBP can be used as a criterion to accept or reject an investment proposal. A proposal whose actual payback period is more than what is pre-determined by the management.

PBP thus, is useful for the management to accept the investment decision on the **TVS MOTORS LIMITED** and also to assist the management to know that the initial investment is recovered in 2.17 years.

**Accounting or average rate of return method:**

**Cash flows of the TVS MOTORS LIMITED are shown in cash flow statement. ARR is calculated as follows:**

Statement showing calculation of ARR

(Rs. In Cr....)

YEARS	EARNINGS AFTER TAX (EAT)
2018-2019	2179.96
2019-2020	3348.75
2020-2021	3505.51
2021-2022	2041.63
2022-2023	2073.69
TOTAL	18189.54

$$\text{ARR} = \frac{\text{Average annual EAT'S}}{\text{Average investment}} \times 150$$

$$\text{Average Annual EAT'S} = \frac{\text{Total amount}}{\text{No of years}}$$

$$= \frac{18189.54}{5} = 2627.90$$

Average investment = 5208.75

$$\text{ARR} = \frac{2627.90}{5208.75} \times 100 = 50.45 \%$$

Average Rate of Return = 50.45 %

**ACCEPT-REJECT critters** method allows **TVS MOTORS LIMITED** to fix a minimum rate of return. Any project expected to give a return below it will be straight away rejected. The average rate of return is as good as 50.45 % of **TVS MOTORS LIMITED** depicts the prospects of management efficiency.

**TIME ADJUSTED (OR) DISCOUNTED CASH FLOW METHOD:**

The time adjusted or discounted cash flow methods take into accounts the profitability time value of money. These methods are also called the modern methods of capital budgeting.

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

YEARS	CFAT'S	PVIF @ 15%	PV'S
2018-2019	2179.96	0.909	2072.49
2019-2020	3348.75	0.826	2766.07
2020-2021	3505.51	0.751	2632.64
2021-2022	2041.63	0.683	1894.43
2022-2023	2073.69	0.620	1785.69
TOTAL:			15051.32
LESS: Initial Investment:			5208.75
NPV:			4842.57

**Accept-reject criterion:**

The accept -reject decision of NPV is very simple. If the NPV is positive then the project should be accepted and if NPV is negative then the project should be rejected

i.e. If NPV > 0 (ACCEPT)  
and NPV < 0 (REJECT)

Hence in the case of **TVS MOTORS LIMITED** project it is visible that the positive NPV shows the acceptance and importance of the project

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

STATEMENT OF SHOWING CALCULATION NPV @88%,89%,90% UNDER IRR METHOD (R s corers)

YEARS	Annual CFA Ts	Discount Rate-88%		Discount Rate-89%		Discount Rate-90%	
		PVF	PV	PVF	PV	PVF	PV

2018-2019	2179.96	0.531	1692.25	0.529	1687.91	0.529	1687.91
2019-2020	3348.75	0.2921	978.18	0.2799	937.32	0.2799	937.32
2020-2021	3505.51	0.2079	553.52	0.1981	520.18	0.1981	520.18
2021-2022	2041.63	0.0858	185.18	0.0783	209.86	0.0783	209.86
2022-2023	2073.69	0.0461	95.60	0.0419	85.85	0.0419	85.85
			2954.71		2850.15		2850.15

From the above calculations the following can be observed.

#### **DECISION:**

Since the initial investment RS.5208.75 cr is lies more than 95% the company APTDC can determine the IRR as >95%

Hence IRR=>95%

#### **ACCEPT-REJECT CRITERION:**

IRR is the maximum rate of interest, which an organization can afford to pay on capital, invested in, is accepted if IRR exceeds the cutoff rates and rejected if it is below the cutoff rate.

The cutoff rate of **TVS MOTORS LIMITED** is 15%, which is less than the IRR i.e >95% hence the acceptance of **TVS MOTORS LIMITED** is quiet a good investment decision taken by management.

## **6. FINDINGS**

1. There has been a small reduction in Gross Sales and with the performance of prefab Division the Gross Profit gap has narrowed and contributing to the EBIT. The Gross Profit has decreased in 2023 considerably from 2,886.25Cr in 2022 to 2,775.51Cr in year. The interest payment has increased by 197.58 Cr in the Current year and the Profit before Tax at 2021.73 when compared to 2194.47 cr in 2022.
2. Perform Division realization has increased by 7.58% even the Turnover has come to 19851.20 Cr in 2023 from 19858.60 Cr in 2021.
3. The profit After Tax has come 2021.73 in 2023 Cr to 2,194.47in 2022 Cr in year because of **slope in TVS MOTORS LIMITED**.
4. The PAT is in a decreasing trend from 2018-2019 because of increase in sale prices and also decreases in the cost of manufacturing. In 2022 and 2023 even the cost of manufacturing has increased by 7.58% because of higher sales volume PAT has increased considerably, which leads to higher EPS, which is at 73.45 in 2023.
5. The EBIT level in 2020 is at 489.65 Cr and is increasing every year till 2023. Because of slumps in the TVS MOTORS LIMITED less realization. The EBIT levels in 2019 again started growing and reached to 3569.64Cr and in 2020 were at 2354.67 Cr and in 2021 were at 1991.18, because of the sale price increase per bag and increase in demand. The infrastructure program taken up by the T.S. Govt. in the field s of rural housing irrigation projects created demand and whole Cement Industries are making profits.
6. The EPS of the company also increased considerably which investors in coming period. The company has taken up a plant expansion program during the year to increase the production activity and to meet the increase in the demand
7. Because of decrease in non-operating expenses to the time of -0.428 Cr the Net profit has increased. It stood at in current year increase because of redemption of debenture and cost reduction. A dividend of Rs.21.39% Cr as declared during the year at 27.44% on equity.

## **7. SUGGESTIONS**

1. The company has to maintain the optimal capital structure and leverage so that in coming years it can contribute to the wealth of the shareholders.
2. The mining loyalty contracts should be revised so that it will decrease the direct in the production
3. The company has to exercise control over its outside purchases and overheads which have effect on the profitability of the company.

4. As the interest rates in public financial institutions are in a decreasing trend after globalization the company going on searching for loan funds at a less rate of interest as in the case of Bank.
5. Efficiency and competency in managing the affairs of the company should be maintained.

## 8. CONCLUSION

The budgeting exercise in **TVS MOTORS LIMITED** also covers the long-term capital budgets, including annual planning and provides long term plan for application of internal resources and debt servicing translated in to the corporate plan. The scope of capital budgeting also includes expenditure on plant betterment, and renovation, balancing equipment, capital additions and commissioning expenses on trial runs generating units. To establish a close link between physical progress and monetary outlay and to provide the basis for plan allocation and budgetary support by the government. The manual recommends the computation of NPV at a cost of capital / discount rate specified from time to time. A single discount rate should not be used for all the capacity budgeting projects. The analysis of relevant facts and quantifications of anticipated results and benefits, risk factors if any, must be clearly brought out. Inducting at least three non-official directors the mechanism of the Search Committee should restructure the Boards of these PSUs. Feasibility report of the project is prepared on the cost estimates and the cost of generation.

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