

ANALYSING FINANCIAL PERFORMANCE OF INDIAN AUTOMOBILE SECTOR IN CONTEXT OF ACHIEVING SUSTAINABILITY

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ABSTRACT

Manufacturing sector has occupied an important role in India's Economic Development. India is globalising its product more worldwide by ensuring vocal about local products which in turns leading to more start-ups, self-production, and employment opportunities'. Self-reliant is leading India towards sustainability. Sustainability focuses on meeting the needs of the present without compromising the ability of future generations to meet their needs. In India, focus on Manufacturing sector have been increased to make India self-reliant and generate more employment opportunities. Prime Minister of India, Mr. Narendra Modi, had launched the 'Make in India' program to place India on the world map as a manufacturing hub and give global recognition to the Indian economy. The Government of India has taken several initiatives to promote a healthy environment for the growth of Manufacturing Sector in the country. The Manufacturing Sector of India has the potential to reach US\$ 1 trillion by

2025 with impetus on developing industrial corridors and smart cities; the government aims to ensure holistic development of the nation. The corridors would further assist in integrating, monitoring, and developing a conducive environment for the industrial development and will promote advance practices in Manufacturing Sector. India is an attractive hub for foreign investments in the Manufacturing Sector. Several mobile phone, luxury and automobile brands, among others, have set up or are looking to establish their manufacturing bases in the country. In today's COVID19 pandemic, there is focus of India to be self-reliant and every country is promoting its Manufacturing Sector. In this paper, financial performance and Capital structure of Automobiles sector listed on BSE 500 for last 10 years will be analysed to know the overall growth of this sector for making India self-reliant. Various parameters will be analysed in relation to ratios, trend analysis, descriptive statistics, correlation for predicting the growth of automobile sector in the last

ten years. Data will be collected from CMIE Prowess. Government initiatives to boost up the manufacturing sector will also be analysed. This paper will help Government, Policy Makers, Industrialist, and the Economist to find more paved ways of economic development through automobile manufacturing sector.

Keywords: Sustainability, Start-Ups, Financial Performance, Capital Structure, Manufacturing Sector, Make in India, Automobile Sector

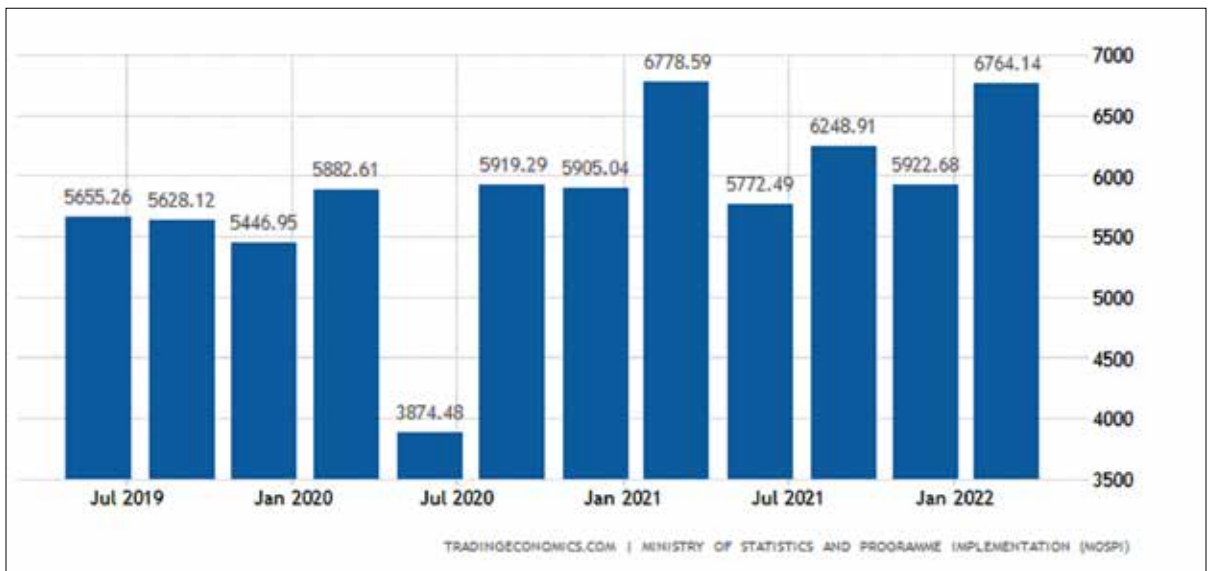
INTRODUCTION

With the help of Manufacturing Sector Firms, sustainability and high economic growth of nations took place. In today's global scenario, manufacturing is an essential step not only towards self-reliance, but a road to national development and economic empowerment. So, the company should plan according to the changing situations its capital structure in such a way to get maximum returns and proper utilization of funds. Leverage ratio affects the cost of capital. Financial leverage is expressed as ratio of debt and equity that explains relationship between borrowed funds and owners fund in the firm's capital structure. Firms having only equity are called unlevered firms whereas firms having both debt and equity capital are called Levered Firms. Different forms of capital structure can be chosen by company to maximize overall market value of shares. There are many theories in corporate finance related to Capital structure. Different capital structure theories have been examined and tested from time to time to analyses the relationship between leverage and other firm features. Modigliani and Miller (1958) put

forward first "Capital Structure Irrelevance" theory in which the market value of firm was not affected by financial leverage. Increase in debt does not affect capital without taxes. When taxes are taken in to consideration, interest on debt will be deducted from tax known as tax shields which ultimately reduce debt cost and ultimately increases the performance of firm. An extension of MM theory can be seen in the form of Trade-off theory. It focuses on attaining optimal capital structure by maintaining an equilibrium between the benefit of debt in the form of tax saving and the distress debt cost or with current financial inflexibility. According to pecking order theory of Myers (1984) the firm has two main internal and external sources of finance. Firms first preference is to use internal financing and if it is not available or insufficient in amount, only then it uses its sources of funding through external sources. With a view to minimize cost, the sequence or the priority of using sources of funding is firstly retained earnings or liquid assets, then debt and finally equity to meet their fund needs. According to agency cost theory given in 1976 by Jensen and Meckling, agents might not always act for the benefit of principal leading to conflict between principals and decision makers such as board of directors, managers, agents in business and losses to principals. Agency cost includes bonding expenditures, residual loss of the agent, and all principal's expenditure related to monitoring. The main conflict that shareholder face is that the managers do not invest the free cash flow in unprofitable projects. Debt acceptability is different in different industries due to the different features of industries.



Source: (IBEF Reports)



Source: Ministry of Statistics and Programme Implementation (MOSPI)

GDP From Manufacturing in India increased to 6764.14 INR Billion in the first quarter of 2022 from 5922.68 INR Billion in the fourth quarter of 2021.

REVIEW OF LITERATURE

Robert et.al (2020) examined the effect of Equity and debt financing on the firm’s financial performance. All the firms taken under study were listed on Nairobi securities

exchange. The study found that short term debt had significant & negative affect on financial performance whereas long term debt had positive & significant effect on financial performance. Panel data, regression was used for the year 2008-13.

Vu et.al (2020) studied the influence of different factors affecting capital structure from 2014-16 through correlation and regression. The study was undertaken on 59 companies that were exclusively listed on Vietnam stock exchange and the construction companies were taken under study. It was found that factors such as asset size, debt equity, number of years of operation do not affect ROA & ROE. The long-term debt to total equity ratio had adverse effect on return on asset. The same negative impact on ROA was found between total debt to total equity ratio, where as positive impact of return on equity was found on debt equity.

Das and Swain (2018) conducted study to know different capital structure determinants and to measure the financial performance of 50 manufacturing firms for 10 years due to impact of capital structure. The results depicted that there was significant relationship between capital structure variables and Return on Asset, Return on Capital Employed, Return on Equity and none relationship found between capital structure variables and earning per share. Descriptive Statistics, Regression Analysis, Anova is used under study.

Sofat and Singh (2017) study conducted from (2002-12) shows that variables like asset & risk were firmly related to debt ratio while variables like debt service capacity and firm size were adversely affected in relation to debt ratio. The objective of the study was to investigate important determinants of capital structure of top 100 Manufacturing firms that were listed in BSE in India

Chadha and Sharma (2015) analysed capital structure impact from 2003-13 on 422 listed manufacturing sector firm's financial

performance that were traded on BSE using panel data regression model. Findings showed that observed firm's financial parameters of Tobin's Q and Return on Asset were not affected by financial leverage. Moreover, financial leverage was negatively correlated with ROE. There was negative affect of recession on financial performance of Indian Manufacturing sector that were taken under study.

Das (2010) studied the changing structure and performance of registered manufacturing sector in India in two periods. First one is pre-reform period from 1980-1990 and the other is post-reform period from 1991-2004. The findings of the study showed that there had been industrial slowdown in post-reform period (2000-2004) and the performance of manufacturing sector was best during (1991-2000). Trend growth rates, Regression and Structural ratios were used for analysis.

SIGNIFICANCE OF STUDY AND RESEARCH GAP

The concern of business owners and managers nowadays is to devise a strategy which helps in maintaining financial position as well as to increase profitability and shareholder's wealth. Manufacturing Sector has seen as one of the high and among most prominent growing sectors in India. Mr. Narendra Modi, (Prime Minister of India) also give importance to manufacturing sector by launching program "Make in India" which will make India Economy a manufacturing hub in the world. A lot of effort is done by government in the manufacturing sector to achieve a suitable and promoting environment for growth and expansion of Automobile sector in

Indian economy. Nowadays, there is focus of India to be self-reliant and every country is promoting its Manufacturing Sector. The literature on capital structure shows that as compared to developed economies, there were few studies done in developing economies on Automobile sector. Moreover, the studies which are done in India are limited to some Automobile Sector Firms that were either listed or unlisted in stock exchange. Automobile Sector is the most promising sector in future for economic development of India. Most of the Manufacturing Sector Firms remains untouched in existing literature and the results of studies were not same in many cases under study.

OBJECTIVES

1. To study the growth pattern of Automobile sector.
2. To explain the relationship between Profitability and the determinants of capital structure in the Automobile Sector firms.

RESEARCH METHODOLOGY

9 Manufacturing sector firms have been selected. Under that 261, firms have been selected for the sample. Secondary data related to financial performances of these companies has been collected from CMIE Prowess. CMIE Prowess data of these companies have been extracted from library. The top BSE 500 companies have been taken and from that too only manufacturing sector have been taken into consideration. Hence, the total 261 manufacturing sector BSE 500 listed companies have been selected for the data

under study. Out of that Automobile Sector 28 companies have been studied.

Data Collection Methods: The secondary sources including online publications in Emerald, Google scholar, JSTOR, Shod Ganga and other online database have been used. Various secondary sources like books, newspapers, Magazines, Journals, Government reports. The libraries of various institutes and universities like Delhi University, JNU University, NIFPF library, Bhagat Phool Singh women university library etc.

Period of the Study: In order to examine the Capital structure impact on financial Performance of Automobile Sector, the study has been conducted for the period of 10 years i.e. March 2013 to March 2022. This period of 10 years has been selected to know the latest trend of Automobile sector firms' performance

Variables under Study: Return on Asset is taken as measure of profitability. Size, Growth, Tangibility, Profitability, and Interest Coverage Ratio are taken as determinants of capital structure. The relationship have been examined between ROA and Independent variables Size, Growth, Tangibility, Profitability, and Interest Coverage Ratio.

DATA ANALYSIS AND INTERPRETATION

Total Manufacturing firms available on CMIE prowess and from those selecting BSE 500 Manufacturing firms. Among the above BSE 500 manufacturing Sector Firms, Transport Sector 28 companies have been selected under study.

Table1: (Source: Compiled by author from CMIE PROWESS).

	Manufacturing Sector Industry	Total Manufacturing firms	Manufacturing firms listed on BSE 500
1	Food & Agro Based Products	2715	24
2	Textiles	1859	11
3	Chemicals & Chemical Products	3135	93
4	Consumer Goods	1040	24
5	Construction Material	718	23
6	Metals & Metal Products	2200	21
7	Machinery	2250	27
8	Transport Equipment	1174	28
9	Miscellaneous Manufacturing	2427	4
10	Diversified	125	6
	Total	17,643	261

To test the defined hypothesis, various statistical techniques have been used. In order to analyse and interpret the data along with findings, following statistical methods have been used in the research. Descriptive Statistics (Mean, Median, Frequency, Percentage, standard deviation, maximum, minimum, coefficient of variation), Correlation, Regression etc.

DESCRIPTIVE STATISTICS

Table2: (Output Computed by researcher from SPSS).

	Mean	Std. Deviation	N
RETURN ON ASSETS	8.7483	6.59999	280
SIZE	12336.0943	16125.56754	280
TANGIBILITY	.5651	.17427	280
PROFITABILITY	.1702	.08242	280
LIQUIDITY	1.3710	.70311	280
INTEREST COVERAGE RATIO	173.4100	746.50663	280

Interpretation: Descriptive statistics of all variables have been computed. The mean of ROA is 8.4 and standard deviation is 6.5. The mean of independent variable tangibility is .56 and standard deviation is .17. The mean of liquidity is 1.4 and standard deviation is .70. The mean of profitability is .17 and standard deviation is .82. The mean of ICR is 173.4 and standard deviation is 746. The mean of size is 12336 and standard deviation is 16125.

Table 3: (Output Computed by researcher from SPSS).

Pearson correlation	Roa	Size	Tangibility	Profitability	Liquidity	Interest coverage ratio
ROA	1	-.118	-.106	.882	.337	.339
SIZE	-.118	1	.287	-.133	-.219	-.009
TANGIBILITY	-.106	.287	1	.011	-.495	-.063
PROFITABILITY	.882	-.133	-.011	1	.259	.279
LIQUIDITY	.337	-.219	-.495	.259	1	.313
INTEREST COVERAGE RATIO	.339	-.009	-.063	.278	.313	1

Interpretation: Coefficient correlation shows that No Independent variable is highly correlated with Dependent Variable that is Return on Assets.

ANOVA

Table 4: (Output Computed by researcher from SPSS).

MODEL	SUM OF SQUARES	DF	MEAN SQUARE	F	SIG
REGRESSION	9746.634	5	1949.327	221.940	.000b
RESIDUAL	2406.578	274	8.783		
TOTAL	12153.213	279			

a. Dependent Variable: Return on Assets

b. Predictors: (Constant), Interest Coverage Ratio, Size, tangibility, Profitability, liquidity.

Interpretation: As P value is less than 0.05, which shows that overall model is fit and data is significantly predicting our model.

MODEL SUMMARY

Table 5: (Output Computed by researcher from SPSS).

Model	R	R SQUARE	Adjusted R Square	Std. Error of the Estimate
1	.896	.802	.798	2.96364

a. Predictors: (Constant), Interest Coverage Ratio, Size, tangibility, Profitability, Liquidity.

Interpretation: Adjusted R2 shows that 80% of variation in Return on Assets is reflected by ICR, Size, tangibility, Profitability, and liquidity.

COEFFICIENTS

Table 6: (Output Computed by researcher from SPSS).

Model	Unstandardized Coefficients		Standard Coefficients			Collinearity statistics	
	B	Std. Error	Beta	t	Sig.	tolerance	VIF
1. Constant	-1.793	.977		-1.834	.068		
Size	1.411E.5	.000	.034	1.212	.227	.892	1.121
Tangibility	-3.595	1.223	-.095	-2.940	.004	.693	1.442
Profitability	68.230	2.327	.852	29.320	.000	.856	1.169
Liquidity	.484	.317	.052	1.528	.128	.635	1.575
ICR	.001	.000	.080	2.745	.006	.851	1.175

a. Dependent Variable: Return on Assets

Interpretation: As P value is less than 0.05 in every variable except the liquidity. Thus, Liquidity is not impacting on ROA, so this hypothesis is rejected

INTERPRETATIONS

1. Coefficient correlation shows that No Independent variable is highly correlated with Dependent Variable that is Return on Assets.
2. Anova table shows that overall model is fit. As P value is less than 0.05, which shows that overall model is fit and data is significantly predicting our model.
3. Adjusted R2 shows that 80% of variation in Return on Assets is reflected by ICR, Size, tangibility, Profitability, and liquidity.
4. As P value is less than 0.05 in every variable except the liquidity. So, Liquidity is not impacting on ROA, so this hypothesis is rejected, other Independent Variables Size, Interest Coverage Ratio, tangibility and profitability are impacting the ROA.

CONCLUSION

Thus, Automobile sector is showing promising returns in future. The Government of India has taken several initiatives to promote a healthy environment for the growth of Manufacturing Sector in the country. From above SPSS data analysis, our model is fit. It has been depicted from Adjusted R2 that 80% of variation in Return on Assets is reflected by ICR, Size,

tangibility, Profitability, and liquidity. Liquidity is not impacting on ROA, so this hypothesis is rejected. Rest all independent variables like Size, Interest Coverage Ratio, tangibility, and profitability are impacting our dependent variable Return on Asset. The Government of India has taken several initiatives to promote a healthy environment for the growth of Manufacturing Sector in the country to achieve sustainability. The Manufacturing Sector of

India has the potential to reach US\$ 1 trillion by 2025 with impetus on developing industrial corridors and smart cities; the government aims to ensure holistic development of the

nation. This paper will help Government, Policy Makers, Industrialist, and the Economist to find more paved ways of economic development considering contribution of automobile sector.

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