



Capital Structure and Profitability of Manufacturing Sector

1. V.Gayatri

3BR20BA106

Department of Management Studies
Ballari Institute of Technology and Management
Ballari Karnataka

2. Dr. Janet Jyothi Dsouza

Professor and HOD

Department of Management Studies
Ballari Institute of Technology and Management
Ballari Karnataka 583104

3. Prof. Dinesh K

Assistant Professor

Department of Management Studies
Ballari Institute of Technology and Management
Ballari Karnataka 583104

Date of Submission: 28-10-2022

Date of Acceptance: 09-11-2022

Abstract

This study analysis the capital structure and profitability of manufacturing sector in India by firm level data (a sample of 50 manufacturing companies from BSE Index) for a study period of 10years. Regression model has been employed for studying the impact of capital structure and profitability. Three profitability measures are -ROA, ROE and ROTI are applied. Four debt measures are employed to study the impact of capital structure and profitability-TOL/TNA, LTD/TNA, STD/TNA and Debt/Equity ratio. The control variables included in the study are Size, Growth, Liquidity, Tangibility and age. The study found that the sample companies have low debt levels in their capital structure. Short term debt funds are important mode of financing adopted by sample companies. Liquidity has positive sign impact on ROE. Tangibility has positive impact on ROE. Growth, Size and Age shows the no sign to impact on profitability. The study concludes that capital structure has no impact on profitability and the right choice of financing the assets may have an effect of performance on manufacturing sector in India.

Key Words: capital structure, profitability, manufacturing companies, ROE

I. Introduction

Capital structure is crucial in allowing an organization to solve the question of whether or not an optimal capital structure can be reached. According to Abor (2005), a corporation must finance its activities and, in doing so, must select a certain combination of equity and debt that comprises the capital structure. As a result, a business's total capital is comprised of both debt and equity, forming the investment structure of the firm. Investment assembly choices are seen as critical managerial decisions because they affect shareholder risk and return. Theories of capital structure attempt to clarify whether the ratio of debt to equity is important and, if so, what the ideal capital structure would be. A capital structure is often considered to be optimum if it lowers the cost of a company's funding while increasing the shareholder-attributable capital gains. Many hypotheses on this subject have been developed over time by researchers and other academic professionals. These ideas include the one put out by Modigliani then Miller (1958), which claimed that because here is no optimal investment assembly and the rate of acquiring investment is unrelated to the



form of financing a corporation uses, the investment construction of a corporation is irrelevant or unrelated to the situation value. Modigliani & Miller (1963) made modifications to their original capital structure irrelevance theory model, nevertheless, in light of their acknowledgment of the existence of corporation tax and the tax deductibility of interest payments (Al-Nasarawa & Thabit, 2020).

II. Literature Review:

Nawi (1994) analyzed the factors that influence capital structure in Malaysian SMEs and how they affect their performance. A positivist paradigm, with a preliminary study consisting of 25 interviews with SME owner-managers that are analysed using theme analysis. The Utilized to complete the conceptual framework for the main study, which is a self-completion questionnaire survey. a total of 384 firms provided usable responses. Data consists of 18 years from 1976 to 1994. The study used for binomial logistic regression model and concluded that there is a response rate of 75.3 percent. Addae and Hughes (5 year) analyzed a statistically important good relationship between profitability of listed of Ghana by using for this primarily came from the Ghana stock exchange (GSE) from 2005 and 2010. The study has investigated used regression analysis model and determined that here is statistically important encouraging connotation between profitability besides short-term debt, as well as a statistically significant negative relationship between profitability and long-term debt. Ambedkar (2009) studied the Organization data and the relationship between the liquidity and profitability of FDEs operating in India's industry (a sample of 54 Foreign Direct Investment businesses from the S&P BSE 500 Index). The report's eight-year period runs from 2010 to 2018. Three profitability metrics are employed in the study, which use a multiple regression model: ROA, ROE, and ROTI. The study's control variables were determined to be Size, Growth, Liquidity, Tangibility, and Age. The four debt indicators utilized to analyze the impact of capital structure on profitability were TOL/TNA, LTD/TNA, STD/TNA, and Debt/Equity ratio. Profitability is severely impacted by debt ratios. Vatasu (2010) 196 industrial businesses from Romania that are listed on the Bucharest Stock Exchange were examined to see how capital structure and financial presentation related to one another. The study's seven-year period runs from 2003 to 2010. Long-term debt, short-term debt, total debt, and total equity are the capital structure elements in the study. It was found that Romanian

enterprises perform better than those in other countries. Mohapatra and Moharana (2010) analyzed the capital structure of the Indian steel industry and the influence. The 66 steel companies in the sample have an average debt portion of 68 percent in their capital structure, indicating that they are heavily debt-driven. The study consists of 10 years from 2000 to 2010. The study used correlation analysis, multiple regression, and stepwise regression model and concluded that there are three variables, profitability, growing, and danger, required a substantial impact on the debt ratio of these steel concerns, Capital Structure, Debt Ratio, Steel Industry, and Trade. Sadiq and Nauman (2012) analyzed influence and flora of association with the success of automobile businesses registered on the Karachi stock exchange as samples of 19 companies were chosen. The study consists of 6 years from 2006 to 2012. The study using estimate the result, regression analysis and correlation testing are used by the help of statistical instrument SPSS and concluded that nearby is a investment assembly (debt/equity) is poorly connected to profitability, supposing that an rise in debt investment produced a decline in company productivity and vice versa. Degryse and peter (2012) analyzed the impression of manufacturing features on small organization's investment assembly by using a registered information based collecting monetary reports of Dutch small and (SMEs). The study consists for 9 years from 2003 to 2012. The information has used correlation and regression analysis model and concluded that there are average debt levels vary by industry, which is consistent with the trade-off. Arulvel and Agnathan (2013) examined investment construction besides monetary presentation of recorded trading companies by using inspects the association of investment assembly and monetary performance of exchange corporations which are registered in CSE. the six-year trial, which ran from 2007 to 2013. DR is adversely connected through all monetary presentation actions, including (GP), (NP), (ROE), and (EPS), according to the study's use of statistical correlation regression modeling. The (D/E) ratio is similarly inversely linked through all finance concert metrics, with the exception of GP, and the only association that is meaningful is with net present value (NP). Barros and Toshiro (2013) determination of the investment assembly of small and middle-sized entrepreneurs and a single catalogue that contains over 19,000 Brazilian organisations and the factors that influence the investment assembly of SMEs. The study consists 13 years from 2000 to 2013. Profitability is inversely proportional to



leverage, while asset growth is proportional to leverage. the pecking order hypothesis of capital structure, and concluded that there a less strong evidence (a) Leverage is positively associated to size, implying that bigger enterprises have more access to recognition markets; (b) riskier firms have higher leverage. Vatavu (2015) analyzed to determine the connection among investment assembly and monetary routine in 196 Romanian business corporations recorded on the Bucharest Stock Exchange using primary data. LTD, STD, over-all debt, and over-all equity are the investment assembly pointers. Data consists of 13 years from 2003 to 2015. Cross-sectional regressions and OLS model and concluded that there is a lengthy as they have a important influence on money choices and are likely to inspiration presentation. The findings show that performance in Romanian businesses is higher. Ullah and Nadeem (2015) analyzed result of investment structure and productivity by using the financial statement of the bank and with concerns organisation by manufacturing and non-manufacturing which is performing good market. The data considered of 8 years from 2008 and 2015. The study has used correction, regression and probability model and decided that there is strong negative regression amongst debt & profit also strong regression between debt & profit. Hamid and Nur tariqa (2015) analyzed bearing of investment assembly on productivity of 46 family originalities and 46 non-family organizations by with STD ratio, LTD ratio, and debt ratio. The learning consists of 6 years from 2009 to 2015. The study used for general multivariate model and Empirical analysis for testing the hypothesis and concluded That Their debt ratio is bad and suggestively connected to viability, constructed on 276 fixed years. The discoveries point toward those gainful businesses trust on equity as their prime cause and higher leverage situation is linked to a lower profit margin. Pacheco and Tavares (2015) analyzed SMEs in the footwear business. Using a panel data methodology and a consensus-based approach, by using a sample of 70 enterprises. The study consists for 5 years from 2010 to 2015. The study has used immovable effects model and arbitrary things model. The Hypothesis testing are used for the study and growth, profitability, whole liquidity, hazard, and presence in overseas marketplaces are all important, according to the findings. Awais and Aisha (2015) analyzed to assess the influence of investment assembly on the monetary act by means of a example of 100 non-financial corporations registered on the Karachi Stock

Exchange. The study consists for 11 from 2004 to 2015. STATA variety 14 is used to collect and analyse the required evidences from the selected firms. Using regression analysis and concluded that there the association between LTD, STD, and LTD as investment assembly variable quantity and business presentation indices such ROE, ROA, Tobin's Q, and earnings per segment was investigated. Marandu and Athenia (2016) analyzed capital structure and profitability on banks by using the sample collection from banks. The data considered of 14 years from 2002 to 2016. The study several linear regressions using time series data from major has used linear regression model and concluded that there is find a powerful connection among the ROA (effectiveness measure) and the capital structure that are unique to banks, such as capital adequacy, size, security, and credit danger. Ullah and Zaman (2017) analyzed the money structure in the monetary appearance of 90 cloth corporations recorded on the Pakistan Stock Exchange (PSX). D/E, TOD/TOA, asset turnover ratios, sales growth, tax system, and exportation development. The study consists of 11 years from 2008 to 2017. cross-sectional also time series information was collected, and the board regression estimate method was used for study. The random-effect regression estimate model and concluded that the debt-to-equity variable in the investment edifice is bad. Nsiah and Antwi (2017) analyzed the impact of investment assembly on the profitability of (NBFIs) registered on the (GSE) and panel data was collected from (15) corporations. The study consists for 7 years from 2010 to 2017. The study has using (STD/TNA), (LTD/TNA), corporation (SZ), and (LQDTY) were used as investment structure procedures in the study, while (ROA) was used to quantify profitability and concluded that their STD has a bad and statistically important link by viability. LTD, on the extra hand, has a helpful and important relationship with corporate profitability. Kalyani and Neeti (2017) analyzed influence of investment on productivity by position to choose corporations after fat and normal fume industries of India by using sample of 7 organizations registered in NSE and BSE were certain and the financial information. Data consist of 15 years 2005 to 2017. The study has used multiple regression model and concluded that there is good sign net profit ratio and capital structure and profitability. Mukhopadhyaya and Birla (2017) analyzed influence the profitability of BSE Sensex companies to capital structure decisions. The study consists of 7 years from 2010 to 2017. The study used for 5 independent variable quantity connected



to currency assembly choices: "Size of the Firm (log sales)," "D/E Ratio," "I/C Ratio," "Growth Rate (Assets)," and "Non-Debt Tax Shield." "ROA" and "ROE" were. VIF was used to see if there was any multi-collinearity between the independent variable quantity. Multiple regression analysis. Otukenrin and Eluyale (2018) The effectiveness of eight Nigerian Deposit Cash Banks and the productivity capital structure affects profitability and secondary data was gathered from annual reports released on the (NSE) by particular Nigerian Deposit Money Banks. The study consists 16 years (2003–2018). The study using regression analysis and Concluded That There a negative association between investment assembly (D/E ratio and leverage ratio) and productivity (ROE). This means that using debts mixed with equity (D/E ratio and leverage ratio) in an inequitable ratio as a funding mechanism might have a negative impact. Pietro and Jose (2018) analyzed influence of the local institutional environment, as assessed by local growth, on the investment assembly of minor and medium-sized businesses is investigated in this paper (SMEs) by using a taster of 6,560 Spanish initiatives. The study consists for 11 from 2007 to 2018. The study has using for empirical research employs (PLS), a variance-based operational equation modelling technique (SEM) then concluded that there is a good sign for regional capital structure. Tamilselvi and Thangamani (2018) analyzed relationship with other financial decision variables, capital structure is a critical aspect of financial decision making. LTD ratios are used to calculate the share of loan funding. A corporation's investment building is influenced by a variety of circumstances, The data consist of 14 years from 2004 to 2018. The hypothesis model is tested using a structural equation model and concluded that there is companies can plan appropriate capital structures and become more competitive and cost effective. Liaqat and Jozsef (2019) analyzed determining a company's financial behavioural and on secondary financial industry data from 2006 to 2019. financial sector, this study adds to the present form of information by satisfying a break in the evolution of investment assembly. modern corporate finance appears to be capital structure. financial sector, this study adds to the current body of data over substantial a break in the growth of investment building. Using static modelling and concluded that there healthy below another estimate approaches then proposal valuable plan implications. Banerjee and Mukhopadhyay (2019) analyzed independent variables that influence the profitability of BSE Sensex concerns at what time it comes

towards currency building results. The study consists for 9 years 2010 to 2019. Multiple linear regression model. The study considers 5 independent variables connected to investment assembly decisions: "Size of the Firm (log sales)," "D/E Ratio," "I/C Ratio," "Growth Rate (Assets)," and "Non-Debt Tax Shield." "ROA" and "ROE" were used by way of substitutions aimed at effectiveness in this study. it is increasing the firm profitability. VIF was used to see if there was any multi-collinearity among the independent variables. Singh and Bagga (2019) focused the result of investment assembly on effectiveness by using the data of fifty 50 corporations recorded on NSE of India. The data considered of 11 years from 2008 to 2019. The study has used descriptive statistical, correlation, multiple panel data regression model and concluded that there is important optimistic impression of investment building on organization's effectiveness. Wu (2019) analyzed determine the connection among principal construction and industrial corporation effectiveness in the United States by gathered since the audited financial reports of 15 US manufacturing companies' data historical 2009 to 2019. The regression models of investment building and productivity percentages be situated empirically generated with panel examination procedures. As a result, the investment structure plays an important role. Rahman and Kawsar (2020) analyzed to control the influence of monetary force on corporate effectiveness a taster of 22 textile companies registered on the London Stock Exchange. The study involves of 10 years from 2010 to 2020. The study has using pooled ordinary least squares, fixed effect, and general registered method of moments (GMM) models and concluded that the discovers a substantial negative suggestion among influence besides commercial productivity. The outcome stays also optimistic. Madrones and Gonzalo (2020) analyzed money assembly and proprietorship construction to explain the financial presentation of Latin American English enterprises. By means of a panel information technique, we conduct a numerical examination the enterprises in Brazil, Chile, Mexico, and Peru. The data consist of 20 years from 2000 to 2020. The Study used for random influences model and random influence model by using the primary information. concluded that there has it comes to the ownership assembly of Chilean enterprises, the first big shareholder has a positive effect on financial performance. Ayalew (2021) focused principal assembly and success on board information proof banks by using the review of 16 private banks. The data considered of 7 years



from 2013 to 2021. The study has used regression and correlation of co-efficient model and concluded that there are mixed results found in the pertaining the co-efficient estimates of cost income ratio and employee productivity. Kruk, S. (2021) analyzed miller Modigliani, miller, SMEs in the footwear business. Using a panel data methodology and a consensus-based approach, between 2010 and 2013, we studied the capital structure determinants using a sample of 70 enterprises. Data consists of 69 years from 1952 to 2021. DeAngelo, Modigliani model by using the interpretation of data. Different theory techniques used for the study. It is a tangible and intangible growth

III. Research Design

Statement of The Problem:

Information asymmetry becomes important in emerging economies because stock price volatility there are particularly high. In developing countries like India, price volatility in stocks listed on BSE markets is undesirable. The focus of this study is therefore on capital structure and profitability because they take a greater influence on the money construction and productivity of India's manufacturing sector, and because determining a manufacturing sector's profitability requires an analysis of its factors.

Need for The Study:

The prime need of the learning remains toward analyse the investment construction and productivity of manufacturing sector of selected stocks from different sectors of BSE and understand various factors affecting investment assembly and productivity

Objectives of The Study:

- Toward analysis the investment structure and productivity of manufacturing sector in India.
- To Identify the values for each stock listed on the BSE and assess their capital structure and profitability.
- To segregate the stocks listed under BSE according to their ratio values.

Scope of The Study:

When investing, investors take into account capital structure and profitability. Normal investors would struggle to estimate the needed capital on investing in the stock market; as a result, several market models and tactics are used to contributions shareholders in creation the best possible savings choices. This explores reliefs in the

establishment of manufacturing enterprises by investigating the influence of factors on the stock market for companies listed on the BSE.

IV. Research Methodology:

In instruction to meet the goal of the learning, the data of each company registered on the BSE as well as the data of the BSE Sensex from Bombay stock exchange of India limited have been gathered for a period of ten years. Daily open and closing prices of equities listed on the BSE are used as data for this purpose. The information gathered from each registered company under BSE will be compared to the BSE Sensex as a whole in order to determine each company's value. To assess the investment construction and productivity of industrial concerns, The computed ratios are analysis is selected as a tool such as mean, median and standard deviation. To determine the effect of investment assembly on productivity of corporate concerns.

Collection of Data:

In this study secondary data has been used by collecting from capital line database of several sources such as official website of BSE. As per the needs of the study, the data collected was processed data which covered over the period of 10 years.

Measure of profitability

1. Return on assets (ROA)
2. Return on equity (ROE)
3. Return on total income (ROTI)

Return on Asset (ROA)

The ROA, defined as net profits separated by total assets, replicates how well a bank's administration is in using the banks investment resources to create profits.

Return on Equity (ROE)

Return on Equity (ROE) refers to the return on shareholders on their equity and equals net profits after tax separated by total equity. It syndicates effectiveness, asset proficiency and debt optimization and the association is multiplicative.

There are numerous methods to express the dependent variable. The ROE ratio was chosen as a degree of profitability since it has been used to quantify profitability by a number of prior academics. Profit after Tax to Total Net Assets (PAT/TNA) is the metric used to calculate Return on Assets (ROA). Net fixed assets net of depreciation has been used to determine total net assets since profit after tax is net of depreciation and represents profit after charging all expenses and



provisions. The second metric of profitability used is Return on Equity (ROE), which assesses the management's overall effectiveness in creating profits given the quantity of assets at its disposal. Profit after Tax to Net Worth (PAT/NW) is the ratio used to calculate Return on Equity (ROE). ROE shows how well a company has utilized owner resources. Profit after Tax to Total Income (PAT/Total Income) is the metric used to calculate Return on Total Income (ROTI). This ratio shows the proportion of net profit, or revenue after costs, that a business generated from its overall revenue during a certain time. The ratio shows how much after-tax profit the business generates for each rupee of revenue produced.

Measures of capital structure

1. Total outside liabilities / Total net assets (TOL/TNA)
2. Long term Debt / total net assets (LTD/TNA)
3. Short term Debt / total net assets (STD/TNA)
4. Debt / equity (D/E)

The most inclusive way to define stock power is as the ratio of total liabilities to total assets. The first indicator of leverage or investment assembly is (Total Outside Liabilities to Total Net Assets), which is epitomized by TOL/TNA. The LTD ratio, which is considered as long-term debt divided by total net assets (LTD/TNA), represents the capital structure next. This ratio comprises all borrowings except current obligations. The third capital structure indicator

chosen is the STD ratio, which is represented by the ratio of STD to total net assets (STD/TNA). Here, the term "short-term debt" refers to current liabilities. The D/E ratio, expressed by LTD to net worth, was chosen as the fourth indicator of capital structure (Equity).

Control variables

1. Liquidity
2. Growth
3. Size
4. Tangibility
5. Age

The ratio of current assets to current liabilities is used to analysis liquidity. Firm Growth served as the controlling factor. Growth is evaluated in this study using the sales' compound annual growth rate. Several earlier researchers have used the normal logarithm of sales or the normal logarithm of total assets as a substitution to assess company size, and have included firm size as a control variable. The natural logarithm of the total net assets is used as a measure of size in this study. In their experiments used tangibility as a control variable. The ratio of Net Fixed Assets to Total Net Assets is used in this study to control Tangibility. Counting backwards from the year the data were obtained, the number of years since the firm was founded was utilized as a proxy variable to reflect a company's age as a control variable. The natural logarithm of the age in years since incorporation is utilized in this study as a stand-in for age for companies up to the year 2018.

V. Data Analysis and Interpretation

Descriptive data:

TABLE 1: Descriptive Figures of Reliant on liberal Variable quantity of Firms			
Variables	Mean	Median	Root-mean²Deviation
TOL/TNA	15.72	1.69	13.13
LTD/TNA	9.78	0.23	9.23
STD/TNA	360.31	67.71	41.89
D/E	1.33	0.39	0.17
ROE (X)	0.06	0.08	0.02
ROR(NT/TA)	-1.19	0.03	0.60
ROTI	0.06	0.0071	0.03
Liquidity	3.01	2.22	0.20
Growth	12.55	1.56	5.56
Size	2197.13	301.23	325.54



Tangibility	56.88	81.17	74.68
AGE	113.06	109	0.71

According to Table 1's mean debt ratio for 50 manufacturing enterprises, the sample companies have been heavily reliant on debt in their capital structures. The proportion of TOL to TNA shows that the contribution is 15.72 percent with a 0.50 median value. The (LTD/TNA) ratio was 9.78% with a median value of 0.23% indicating that only 9.78% of total assets were financed through long term debt funds. The mean and median value of STD/TNA ratio are 360.31% and 67.71% respectively, which indicates that out of 15.72% of total outside liabilities used to finance the total assets, 360.31 are being financed by short term debt funds.

This suggests that a key method of financing used by the sample of manufacturing enterprises is short-term borrowed funds, which are represented by current liabilities. The median debt-to-equity ratio is 0.39:1, which indicates that sample companies choose lower amounts of debt when financing their investment construction. The mean DER is 1.33:2. This indicates that the two most representative measures of the capital structure of the chosen sample of manufacturing enterprises are the TOL/TNA ratio and the STD/TNA ratio.

The PAT/NW ratio, which measures a company's effectiveness in earning incomes from

every element of stockholders' equity, shows that the mean return on equity was 0.06 percent, whereas the mean and median returns on assets and total income were (-1.19), 0.03 and 0.06, respectively. According to table 1, the value 2197.13 percent reflects the mean natural logarithm of Net sales, with 301.23 percent being the median size. Scope of the sample companies is slow as the normallog of total net properties. The sales compound annual growth rate is used to calculate the growth of the independent variable. 12.55 percent is the mean growth rate, and 1.56 percent is the median growth rate. Current ratio measures liquidity; mean current ratio is 3.01 percent, median current ratio is 2.22 percent, meaning that sample companies' current assets are 3.01 percent greater than their current liabilities. According to the ratio of net secure properties to total net assets, which has a mean of 56.88 percent and a median of 81.17 percent, the sample companies' net fixed assets make up, on average, 56.88 percent of their total net assets. The median age of the sample companies is 109 years, and the average age is 113 years. The average age suggests that the businesses are generally well-established and have grown significantly in size.

The correlation matrix:

Pearson's correlation matrix											
	TOL/TNA	LTD/TNA	STD/TNA	D/E	ROE (X)	ROA (NT/TA)	Liquidity	Size	Growth	Tangibility	Age
TOL/TNA	1										
LTD/TNA	0.99951	1									
STD/TNA	0.04271	0.0442	1								
D/E	0.02583	0.0271	0.1123	1							
ROE (X)	-0.0095	-0.0094	0.0099	-0.281	1						
ROA (NT/TA)	0.00741	0.0071	0.047	0.0518	-0.02	1					
Liquidity	-0.0114	-0.0109	-0.173	0.0659	-0.038	0.0962	1				
Size	0.05255	0.0554	0.934	0.0785	-0.04	0.0463	-0.1166	1			
Growth	-0.0007	-0.0002	0.043	-0.062	0.0839	0.0296	0.09423	-0.045	1		
Tangibility	0.00431	0.00215	-0.470	-0.115	0.1569	0.018	0.04617	-0.625	0.0218	1	
Age	0.05571	0.0561	-0.132	0.104	-0.015	-0.0079	0.20818	-0.135	0.0523	0.077678	1

Correlation is significant at the 0.05 level (2-tailed)

Correlation is significant at the 0.01 level (2-tailed)

To detect multi-collinearity, one of the options is to examine the correlation structure between all the predictors. On examination of correlation matrix in this Table 2, it is found that indicator liquidity is positively correlated with liquidity of D/E and ROA measures of debt, i.e.,

highly correlated among them LTD/TNA of TOL/TNA and Size of STD/TNA, and all other correlation coefficients are below 0.80. on examination of correlation among Various indicator of dependent and independent variable in the Table 2, it is observed in that Companies profitability as



measured by ROA of ROE is negatively correlated with ROE ratio. ROE (PAT/WN) is negatively correlated TOL/TNA, LTD/TNA, STD/TNA, D/E and the outcomes are in confirmation with the taking order theory.

VI. Findings:

1. Overall, the debt ratios TOL/TNA, LNA/TNA, and debt-equity have a bad influence on effectiveness, according to experiential consequences.
2. The LTD/TNA ratio may explain the variance in ROA and ROE, which is statistically important at the 1% accessible in the implication on the table.
3. The current ratio liquidity indicator has a favourable result on ROTI.
4. The outcome is in line with the conclusions of the study, which found that "maintaining a high investment in current assets like cash, inventories, etc., the business reduces the possibilities of production halt & inability to pay creditors on time.
5. Here's an optimistic and strong correlation among liquidness and effectiveness indicating the advantages of greater working capital management and profits from lower interest costs.
6. ROTI measures profit after taxes as a percentage of total revenue; therefore, a rise in liquidity must be accompanied by a growing in sales, which will main to an increase in profit and, ultimately, a positive influence of liquidity on likelihood as indicated by ROTI.
7. ROTI measures profit after taxes as a percentage of total revenue; therefore, a rise in liquidity must be accompanied by arise in sales, which will main to an increase in profit and, ultimately, a positive influence of liquidity on likelihood as indicated by ROTI.
8. This conclusion is in line with the observation that liquidity is adversely linked with all debt ratios.
9. Growth, calculated as the compound annual growth rate, has a negative influence on likelihood and is negligible.
10. The profitability of manufacturing enterprises in India was unaffected significantly by size as evaluated by the natural logarithm at total net assets.
11. It is probable that when asset size grows, businesses may finance these assets through long-term borrowing, as shown by the positive correlation.

12. The debt metrics in Table 2 are all tangible, with the exception of the STD ratio. It suggests that the purchase of fixed assets is being financed by long-term loan sources, and it has been found that debt levels have a beneficial influence on profitability.

VII. Conclusion:

In the Indian manufacturing sector, the importance of capital structure decisions in maximizing company value cannot be overstated. The objective of any stable must be using the utmost suitable financing mix which will make the most of the value of firm, minimizing the overall cost of capital. Success of a company depends on effectiveness of managers in obtaining positive financial results which will help to maintain the stability and increase the shareholder's wealth. Better profitability of a company will directly have an effect on the development of the country in which they operate. In this learning, an effort is finished to evaluate the relationship b/w money assembly and profitability of corporations from S&P BSE representing Indian manufacturing sector for a study.

Three profitability measures exist: TOL/TNA, LTD/TNA, STD/TNA, and the D/E ratio. Size, Growth, Liquidity, Tangibility, and Age were the study's control factors. The outcome supports the pecking-order theory's prediction that prosperous businesses prefer to employ internally produced cash from surplus profits to finance their investments, and as a result, they turn to lower levels of debt in their capital structure. Liquidity consumes a favourable and important consequence on effectiveness as measured by sales, which results in a rise in profits and a favourable effect of liquidity on profitability as assessed by ROTI. ROE is severely impacted by liquidity. Profitability through growth has no discernible effect. The research shows that the industrial sector's capital structure and profitability favour lower debt levels. To encompass the consequences of liberalization, the recessionary period, and the post-recessionary environment, a longer study period may be helps for the future reference or research.

REFERENCE:

- [1]. Nawi, H. M. (2015). determinants of capital structure in small and medium-sized enterprises in malaysia.
- [2]. Addae, A. A., Nyarko-Baasi, M., & Hughes, D. (n.d.). The Effects of Capital Structure on



- Profitability of Listed Firms in Ghana. www.iiste.org
- [3]. Ambedkar, R. S. (2019). Capital Structure and Profitability of Foreign Direct Investment Companies In a Indian Manufacturing Sector. INTERNATIONAL Journal Of Scientific & Technology Research, 8, 7. www.ijstr.org
- [4]. Vätavu, S. (2015). The Impact of Capital Structure on Financial Performance in Romanian Listed Companies. Procedia Economics and Finance, 32, 1314–1322. [https://doi.org/10.1016/s2212-5671\(15\)01508-7](https://doi.org/10.1016/s2212-5671(15)01508-7)
- [5]. Ambedkar, R. S. (2019). Capital Structure and Profitability of Foreign Direct Investment Companies In a Indian Manufacturing Sector. INTERNATIONAL Journal Of Scientific & Technology Research, 8, 7. www.ijstr.org
- [6]. Muhammad Nauman Sadiq, B., Sher, F., Nauman Sadiq α , M., & Sher σ , F. (2016). Impact of Capital Structure on the Profitability of Firm's Evidence from Automobilesector of Pakistan. In Type: Double Blind Peer Reviewed International Research Journal Publisher: Global Journals Inc (Vol. 16).
- [7]. Degryse, H., de Goeij, P., & Kappert, P. (2012). The impact of firm and industry characteristics on small firms' capital structure. Small Business Economics, 38(4), 431–447. <https://doi.org/10.1007/s11187-010-9281-8>
- [8]. Arulvel, K., & Ajanthan, A. (2013). Capital structure and financial performance: A study of listed trading companies in Sri Lanka. academician: An International Multidisciplinary Research Journal, 3(6), 1. <https://doi.org/10.5958/j.2249-7137.3.6.001>
- [9]. Forte, D., Ayres Barros, L., & Toshiro Nakamura, W. (n.d.). Determinants of the Capital Structure of Small and Medium Sized Brazilian Enterprises. <http://www.anpad.org.br/bar>
- [10]. Vätavu, S. (2015). The Impact of Capital Structure on Financial Performance in Romanian Listed Companies. Procedia Economics and Finance, 32, 1314–1322. [https://doi.org/10.1016/s2212-5671\(15\)01508-7](https://doi.org/10.1016/s2212-5671(15)01508-7)
- [11]. Awais, M., Iqbal, W., Iqbal, T., & Khursheed, A. (2015). impact of capital structure on the firm performance: comprehensive study of karachi stock exchange. Sci.Int.(Lahore), 28(1), 501–507.
- [12]. Hamid, M. A., Abdullah, A., & Kamaruzzaman, N. A. (2015). Capital Structure and Profitability in Family and Non-Family Firms: Malaysian Evidence. Procedia Economics and Finance, 31, 44–55. [https://doi.org/10.1016/s2212-5671\(15\)01130-2](https://doi.org/10.1016/s2212-5671(15)01130-2)
- [13]. Pacheco, L., & Tavares, F. (2015). Capital structure determinants of Portuguese footwear sector SMEs: Empirical evidence using a panel data. Tékhne, 13(2), 145–157. <https://doi.org/10.1016/j.tekhne.2016.04.002>
- [14]. Awais, M., Iqbal, W., Iqbal, T., & Khursheed, A. (2015). impact of capital structure on the firm performance: comprehensive study of karachi stock exchange. Sci.Int.(Lahore), 28(1), 501–507.
- [15]. Marandu, K. R., & Sibindi, A. B. (2016). capital structure and profitability: an empirical study of south african banks. In Corporate Ownership & Control (Vol. 14, Issue 1)
- [16]. Ullah, A., Pinglu, C., Ullah, S., Zaman, M., & Hashmi, S. H. (2020). The nexus between capital structure, firm-specific factors, macroeconomic factors and financial performance in the textile sector of Pakistan. Heliyon, 6(8). <https://doi.org/10.1016/j.heliyon.2020.e04741>
- [17]. Kwaben Nsiah, T., Li Mei, C., Musah, M., & Antwi, F. (n.d.). the effect of capital structure on the profitability of non-bank financial institutions': An Empirical Evidence from the ghana stock exchange (GSE) EPRA International Journal of Research and Development (IJRD) Peer Reviewed Journal. www.eprajournals.com
- [18]. Mathur, N., & Kalyani, S. (2017). impact of capital structure on profitability: with reference to select companies from oil and natural gas industry of India. In Inspira-Journal of Modern Management & Entrepreneurship (JMME) (Vol. 129, Issue 03). <https://www.researchgate.net/publication/323535038>
- [19]. Banerjee, A., Mukhopadhyaya, J. N., & Birla, J. D. (2019). IJRTBT An Empirical Analysis To Study The Relationship Between Profitability And Capital Structure Decisions In Indian Scenario. In International Journal on Recent Trends in Business and Tourism | (Vol. 3, Issue 3).
- [20]. Otekunrin, A. O., Nwanji, T. I., Eluyela, D., Olowookere, J. K., & Fagboro, D. G. (2020).



- Capital structure and profitability: The case of Nigerian deposit money banks. *Banks and Bank Systems*, 15(4), 221–228. [https://doi.org/10.21511/bbs.15\(4\).2020.18](https://doi.org/10.21511/bbs.15(4).2020.18)
- [22]. di Pietro, F., Palacín-Sánchez, M. J., & Roldán, J. L. (2018). Regional development and capital structure of SMEs. *Cuadernos de Gestión*, 18(1), 37–60. <https://doi.org/10.5295/cdg.150530fd>
- [23]. Tamilselvi, J., Thangamani, m. p., & prof, a. (2018). capital structure analysis of software companies in India: a structural equation model approach author. *International Journal of Pure and Applied Mathematics*, 119(10), 1369–1383.
- [24]. Liaqat, I., Khan, M. A., Popp, J., & Oláh, J. (2021). Industry, Firm, and Country Level Dynamics of Capital Structure: A Case of Pakistani Firms. *Journal of Risk and Financial Management*, 14(9), 428. <https://doi.org/10.3390/jrfm14090428>
- [25]. Banerjee, A., Mukhopadhyaya, J. N., & Birla, J. D. (2019). ijrtbt an empirical analysis to study the relationship between profitability and capital structure decisions in Indian scenario. In *International Journal on Recent Trends in Business and Tourism | (Vol. 3, Issue 3)*.
- [26]. Singh, N. P., & Bagga, M. (2019). The Effect of Capital Structure on Profitability: An Empirical Panel Data Study. *Jindal Journal of Business Research*, 8(1), 65–77. <https://doi.org/10.1177/2278682118823312>
- [27]. Wu, C. (2019). the relationship between capital structure and profitability of U.S. manufacturing companies: an empirical analysis
- [28]. Rahman, Md. M., Saima, F. N., & Jahan, K. (2020). The Impact of Financial Leverage on Firm's Profitability: An Empirical Evidence from Listed Textile Firms of Bangladesh. *Journal of Business Economics and Environmental Studies*, 10(2), 23–31. <https://doi.org/10.13106/jbees.2020.vol10.no.2.23>
- [29]. Mardones, J. G., & Cuneo, G. R. (2020). Capital structure and performance in Latin American companies. *Economic Research-Ekonomska Istrazivanja*, 33(1), 2171–2188. <https://doi.org/10.1080/1331677X.2019.1697720>
- [30]. Amare, A. (2021). Capital structure and profitability: Panel data evidence of privatebanksinEthiopia. *CogentEconomicsand Finance*,9(1). <https://doi.org/10.1080/23322039.2021.1953736>
- [31]. Kruk, S. (2021). Impact of Capital Structure on Corporate Value—Review of Literature. *Journal of Risk and Financial Management*, 14(4), 155. <https://doi.org/10.3390/jrfm14040155++>