An Empirical Study of Financial Performance and Capital Structure of Indian Firms

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Abstract

Determining good financial performance of firm is key concern area for management. Management works in a variety of areas to address this issue, including total quality management, cost-cutting strategies, increasing sales revenue, growth and expansion, preventative maintenance, improving employee productivity, determining the ideal capital structure, etc. The study discuss the effects of capital structure on the financial performance of 56, NSE-listed companies from 2006 to 2020 will be examined. Through the use of Pearson's Coefficient of Correlation, Regression Analysis, and One Way ANOVA, the pertinent hypothesis has been developed and tested. "Return on Capital Employed, log of Total Assets, log of Total Sales, Debt to Equity Ratio, Interest Coverage Ratio, Dividend Payout Ratio, Degree of Operating Leverage, and Degree of Financial Leverage" have all been used as indicators of a firm's financial performance. The results demonstrate that there is no substantial relationship between financial structure and financial performance of listed companies.

Keywords: Financial Structure, Debt, Equity, Financial Ratios, Return on Capital Employed.

Introduction

The literature on financial structure emphasizes the crucial role of a firm's financial structure in determining its future growth, sustainability, and financial performance. Management's financial decisions are pivotal in establishing the optimal financial structure that maximizes firm value. While firms have varying levels of leverage, managers strive to find the ideal combination for an effective financial structure. In practice, the financial structure can be complex, involving multiple sources. Consequently, financing decisions for businesses exhibit a high degree of irregularities. This research is motivated by the lack of consensus regarding the criteria for determining the optimal capital structure in firms, aiming to contribute to a better understanding of this important aspect of financial management.

This paper explores the connection between a firm's financial performance and its financial structure, and suggests ways to enhance

the financial structure to improve overall performance. The capital structure significantly influences a company's value. Selecting an optimal capital structure is vital as it positively impacts financial performance and value, while a poor choice can lead to financial loss (Eriotis et al., 2007). The study aims to address the lack of consensus regarding the criteria for determining the optimal capital structure in firms, contributing to a better understanding of this important aspect of financial management.

Literature Review

The relationship between listed companies' capital structure and financial performance has been investigated through a systematic review of the literature. After reading through a variety of literature sources, the number of variables, including dependent and independent variables, used for the study have been extracted. The following are the various studies done in this area:

Singh, S. & Singh, A. (2018) used data from five years, from 2011 to 2016, of Taiwan exchange listed companies to determine the relationship between capital structure and firm's financial performance. Descriptive statistics, correlation analysis to determine the relationship between the variables, and t-statistics to test the hypothesis have all been used to analyse the data. The results were unremarkable but remarkably consistent at both the sectoral and market levels. The correlation coefficients between capital structure and various financial parameters show mixed sign and weak correlation strength. Furthermore, the findings imply that none of the three research goals were statistically significant according to t-test statistics.

The effect of capital structure on the financial performance of listed manufacturing firms in Nigeria from 2005 to 2014 was studied by Ajibola, Wisdom, and Qudus (2018). "The effect of capital structure on the financial performance of listed manufacturing firms in Nigeria was examined using panel methodology. The results of the panel ordinary least square test indicate that there is a positive statistically significant relationship between the long-term debt ratio (LTD) (0.0001), total debt ratio (TD) (0.0065), and return on equity (ROE), but not between the latter two variables". Additionally, there was a weak negative correlation between all of the capital structure proxies (LTD, STD, and TD) and ROA, making ROE a more accurate indicator of performance. The study found that capital structure affects financial performance favourably and that businesses should use more long-term debt.

Aman Srivastava (2011), "investigated the connection between BSE listed 98 companies's ownership structure and corporate performance. The results showed a positive relationship between ownership structure and accounting performance", but not with stock market indicators (P/E and P/BV ratios), which suggests that there may be other factors (economic, political, and contextual) influencing firms' performance in addition to ownership structure.

M. Brindusa Tudose (2012) conducted research on, "capital structure and firm performance. In order to evaluate the direction and intensity of research in the area, the goal of this paper is to look at the development of discussions on capital structure and firm performance". They used a three-pronged strategy—conceptual, theoretical, and empirical—to achieve these goals. The conceptual aspects needed to be highlighted because both financial structure and performance have multifaceted meanings that have sparked contentious discussions in the field of finance.

Pouraghajan, A. and Malekian, E. (2012) studied the relationship between capital structure and financial performance of companies listed on the Tehran Stock Exchange. "The findings indicated that asset turnover, firm size, asset tangibility ratio, and growth opportunities negatively affected financial performance". However, there was no significant correlation between "ROA and ROE measures and firm age". The research highlighted the impact of industry on firm performance and suggested that reducing the debt ratio can enhance shareholder wealth.

In a 2013 study by Mumtaz, R., et al., the relationship between capital structure and financial performance was examined. "The study analyzed 83 companies from the Karachi Stock Exchange using various financial ratios such as debt-to-equity ratio, operating profit margin, price-toearnings ratio, return on assets, and return on equity". The findings revealed a significant negative impact of capital structure on financial performance. Moreover, the study highlighted that higher debt levels in a firm's capital mix negatively affect its market value and increase its risk level. Bancel and Mittoo (2002) investigate the managers' capital structure decision and its factors. They found that while dilution in earnings per share is the main concern when issuing equity, financial elasticity, credit rating, and tax benefits of debt are the significant indicators influencing the debt decision.

Deari and Deari (2009) looked at the elements affecting financial structure. According to the study, non-debt tax shelter has no bearing on capital structure decisions, but financial performance, firm size, and growth do.

From 1990 to 2004, Salawu and Awolowo (2009),"looked into how the capital structure of listed companies on the Nigeria Stock Exchange affected their profitability. They came to the conclusion that profitability has an inverse relationship with long-term debt and a positive relationship with short-term debt and equity. While the findings indicate a bad correlation between profitability and the total debt to total asset ratio".

The relationship between the observed leverage levels of South African companies, their profitability, earnings volatility, and the likelihood of financial distress was attempted to be established by Dreyer (2010). Capital structure theory is the pertinent body of knowledge against which to conduct this investigation.

Margaritis and Psillaki (2010) used a sample of French manufacturing firms from the years 2003 to 2005 to study, "the relationship between capital structure, ownership structure, and firm performance". Leverage has a beneficial impact on firms' efficiency across the entire sample, according to the study.

San and Heng (2011) investigated, "the connection between the capital structure and financial results. One of the factors considered to determine financial performance is ROA. They came to the conclusion that there is a significant correlation between financial performance and capital structure".

The study by Ciftci and Tatoglu (2012) explores,"the relationship between capital structure and firm performance in Turkey". They find a positive association between leverage and firm performance, indicating that higher debt levels can enhance financial performance.

However, they also identify a non-linear relationship, suggesting that excessive leverage may have adverse effects. This research adds to the understanding of the Turkish context.

El-Halaby and El-Bannany (2016) examine the impact of capital structure on financial performance in Egypt. The study finds that leverage has a positive effect on profitability and growth indicators but negatively affects liquidity indicators. This research enriches the existing literature on capital structure and financial performance in the Egyptian context.

Obamuyi and Olokoyo (2017) investigate the relationship between capital structure and financial performance in Nigeria. The study reveals a significant association between capital structure and financial performance measures. Leverage negatively impacts profitability, while liquidity indicators are positively affected. This research contributes to understanding the Nigerian context and enhances knowledge on capital structure and financial performance in emerging economies.

Gatawa and Masih (2017) investigate the impact of capital structure on financial performance in selected emerging markets. Their findings show a significant relationship between capital structure indicators and performance measures such as return on assets and equity. The study emphasizes the importance of considering unique characteristics of emerging markets when analyzing the capital structure-performance relationship.

Similarly, Shahbaz, Zeshan, Afza, and Khalil (2019), "investigate the capital structure-performance link in South Asian emerging markets". Their findings demonstrate a significant association between capital structure and financial performance indicators like return on assets and return on equity. This highlights the crucial role of capital structure decisions in determining firm performance outcomes.

The fact that ROE is not significantly correlated with all capital structure variables, as observed by Ahmad, Abdullah, and Roslan in 2012, indicates that the capital structure has no immediate or long-term impact on returns to shareholders. When debt levels rise, the firm's overall return rises but not shareholder returns.

The business environment is becoming increasingly competitive for the firms. In order to achieve the best level of financial performance for the firm, these research findings will be helpful in choosing the financial structure. As various studies produce disparate findings, the question of what actually occurs in the case of Indian firms remains. With the aid of statistical analysis, "this study examines the relationship between the financial structure and financial performance of the NSE-listed companies".

Objectives of Study:

This study examines, "the relationship between a firm's financial structure and its financial performance by investigating various variables. The dependent variables include ROCE (Return on Capital Employed) and Net Profit Ratio, while the independent variables encompass Total Sales of Firm, Total Assets of Firm, Debt Equity Ratio, Dividend pay-out, Degree of Financial Leverage, Degree of Operating Leverage, and Business Risk. The selected listed companies on NSE India serve as the sample for the study".

Research Methodology:

In this study "the judgment sampling which is a nonrandom sampling technique is chosen for sample selection. 56 companies were selected from all the listed companies at NSE from different sectors".Secondary data collected from the annual reports of the respective companies. Further, scholarly articles from academic journals, relevant text books on the subject and the internet search engines were also used.The period of the study ranges from 2003 to 2015.

Return on Capital Employed (ROCE) has been used as measure of financial performance of a company. "As Total Sales of firm, Total Assets of firm, Debt-Equity Ratio, Dividend pay-out, Degree of financial leverage, Degree of operating leverage and Business Risk are all related to capital structure of the firms, they have been used as the indicative of capital structure of a company".Here, Debt-Equity Ratio, Pay-out ratio, Log Asset, Log Sales, Growth of assets, Degree of financial leverage and Operating leverage have been used as independent variables to study their influence on the profitability measures, ROCE and NPR, i.e. the dependent variables.

Research Hypothesis:

Depending on the past findings and theoretical framework, the following null hypotheses have been framed:

H01: The size of the firm (log assets) and financial performance has insignificant relationship.

H02: The business risk and financial performance has insignificant relationship.

H03: The size of the firm (log sales) and financial performance has insignificant relationship.

H04: The degree of financial leverage and financial performance has insignificant relationship.

H05: The dividend pay-out and financial performance has insignificant relationship.

H06: The interest coverage ratio and financial performance has insignificant relationship.

H07: The degree of operating leverage and financial performance has insignificant relationship.

H08: The debt equity ratio and financial performance has insignificant relationship.

Variables: The various variables taken for this research study are discussed as follows:

- **a. Return on capital employed (ROCE):** It measures a firm's EBIT and the efficiency of firm to employee its capital.
- **b. Degree of Financial Leverage (DFL):** DFL = EBIT/EBIT-Interest, where DFL is the Degree of Financial Leverage.

c. Dividend Pay-out Ratio (DPR)

It is the amount of dividends paid from net income. The amount that is not paid out in dividends to stockholders is held by the company for growth. Firms with a high dividend pay-out ratio appear to be attractive from the shareholders' point of view. Firms with a low dividend pay-out ratio, indicating that the firm's retention ratio is high and the retained amount of profit may be used for internal financing, rely less on debt capital.

Dividend Pay-out = Average Dividend/Profit after Tax

d. Debt Equity Ratio (DER): It is express as follows: Debt Equity Ratio = Total Debt/Shareholders Equity e. Degree of operating leverage (DOL): It shows how EBIT changes over change in sales. The formula is as follows:

Degree of Operating Leverage (DOL) = percentage change in EBIT/ percentage change in sale or revenue.

f. The interest coverage ratio (ICR)

It shows the number of times the interest charges are covered by funds that are ordinarily available for their payment. According to Emekekwue (2008) says that ICR measures the number of times that a firm can earn the interest it hopes to pay. To debt holders (Bonds and debenture holders), if the ratio is high, then it is a welcome sign to potential investors. But if the number of times is very little, then potential creditors will have to watch out, as their future incomes will be very uncertain.

Net income +Fixed Charges/Fixed Charges

g. Business Risk (BR)

Business risks indicates that there is uncertainty in profits or there are chances of loss and the events that could pose a risk due to some unforeseen events in future, which causes business failure.

Data Analysis:

In carrying out this research to find out how financial performance influenced by capital structure the following model has been developed.

The Statistical Techniques used for analysis are Pearson's Coefficient of Correlation and Regression Analysis Model

to analyze how Financial Structure influence the financial performance of firms.

 $Y = a + b1X1 + b2X2 + b3X3 + ... + bnXn + \epsilon i$

Where

Y = Dependent variable of firm

X = Independent variable of firm

a = Intercept for X variable of firm

b1-bn = Coefficient for the independent variables x of companies, denoting the nature of relationship with dependent variable Y (or parameters)

 $\epsilon i =$ The error term

Specifically, where researchers convert the above general least square model into our specified variables it becomes:

$$(ROCE) = a + b1(DPR) + b2(DOL) + b3(DER) + b4(ICR) + b5(DFL) + b6(LOS) + b7(LOA) + b8(BR) + \epsilon i$$

Where:

ROCE = Return on Capital Employed

DPR = Dividend Pay-out Ratio

DOL=Degree of Operating Leverage

DER = Debt equity Ratio

ICR = Interest Coverage Ratio

DFL = Degree of Financial Leverage

LOS=Log of Sale

LOA=Log of Assets

BR=Business risk

Table -1

	ROCE	[Debt- Equity Ratio]	Interest Coverage Ratio	Pay-out ratio	DFL	Log of Sale	Log of Assets	DOL	Business Risk
[ROCE (%)]	1.000								
[Debt-Equity Ratio]	-0.092	1.000							
Interest Coverage Ratio	0.096	-0.020	1.000						
Pay-out ratio	0.226	-0.078	0.027	1.000					
DFL	0.103	-0.096	0.039	-0.011	1.000				
Log of Sale	0.153	-0.014	0.056	0.267	-0.281	1.000			
Log of Assets	0.101	-0.008	0.041	0.279	-0.200	0.471	1.000		
DOL	-0.104	-0.031	-0.022	-0.191	0.065	-0.244	-0.484	1.000	
Business Risk	-0.016	-0.004	-0.002	-0.011	0.010	-0.122	-0.038	-0.068	1.000

Data Analysis and Interpretation

Pearson Correlation Analysis Shows the following results according to Table 1:

It establishes relationship between eight independent variables and the one dependent variable. Correlation analyses provide early sign that there is positive correlation between dividend pay-out ratio which is independent variable and ROCE which is dependent variable (corr. =.226).

The analysis also reveals a significant correlation between various independent variables, such as the degree of financial leverage and the logarithm of sales and assets (correlation coefficients = 0.281, 0.200). Furthermore, payout ratio, Log of Sale and Log of Asset (corr=.267,.279) indicating possible multicollinearity problem.

Results of Regression Analysis for Return on Capital Employed (ROCE) NSE listed companies.

Regression Statistics					
Multiple R	0.58				
R Square	0.39				
Adjusted R Square	0.28				
Standard Error	20.819				
Observations	723.000				

Table 2: Regression Statistics

Source: Computed by the authors.

Table 3: ANOVA

ANOVA					
	df	SS	MS	F	Significance F
Regression	8	12582.81	1572.85	3.63	0.00
Residual	714	309471.55	433.43		
Total	722	322054.36			

Source: Computed by the authors.

a. Dependent variable: Return on Capital Employed (ROCE).

b. Independent Variables: Debt-Equity Ratio, Pay-out ratio, Interest Coverage Ratio, Log Asset, Log Sales, Business Risk, Degree of financial leverage and operating leverage.

Table 4: Regression Results

		Standard	t Stat	P- value	Lower	Upper 95%	Lower 95.0%	Upper 95.0%
	Coefficients	Error			95%			
Intercept Debt-Equity	7.355	2.973	2.474	0.014	1.518	13.191	1.518	13.191
Ratio	-0.228	0.111	-2.044	0.041	-0.447	-0.009	-0.447	-0.009
Interest								
Coverage Ratio	0.000	0.000	1.272	0.204	0.000	0.001	0.000	0.001
Pay-out ratio	0.085	0.031	2.719	0.007	0.023	0.146	0.023	0.146
DFL	0.000	0.001	0.693	0.489	-0.001	0.002	-0.001	0.002
Log of Sale	1.922	0.856	2.245	0.025	0.241	3.603	0.241	3.603
Log of Assets	-0.196	0.751	-0.260	0.795	-1.671	1.279	-1.671	1.279
DOL	-0.001	0.001	-0.911	0.363	-0.002	0.001	-0.002	0.001
Business Risk	0.000	0.000	-0.123	0.902	0.000	0.000	0.000	0.000

Regression Analysis has been conducted on dependent variable as ROCE and eight independentvariables. Independent Variables: Debt-Equity Ratio, Pay-out ratio, Interest Coverage Ratio, Log Asset, Log Sales, Business Risk, Degree of financial leverage and operating leverage.

The findings in Table 4 indicate that the R-squared value is 0.39, suggesting that 39% of the dependent variable (ROA) can be explained by the independent variables. The analysis of variance (ANOVA) table in Table 3 reveals that the F statistic is 3.63, which is highly significant at a p-value of 0.000. This indicates that there is a linear regression relationship between the dependent variable (ROA) and the independent variables, as the p-value is less than 0.05.

Furthermore, the regression analysis in Table 4 shows the following results for the respective variables:

DFL: The p-value is 0.489 and the corresponding t-value is 0.693.

Log of Assets: The p-value is 0.795 and the corresponding t-value is -0.260.

DOL: The p-value is 0.363 and the corresponding t-value is -0.911.

Business Risk: The p-value is 0.902 and the corresponding t-value is -0.123.

These results suggest that these variables are not significant in the model and should be removed.

On the other hand, the following variables were found to be significant in determining the financial performance of the listed companies:

Log Sales: The p-value is 0.025 and the corresponding t-value is 2.245.

Pay-out Ratio: The p-value is 0.007 and the corresponding t-value is 2.719.

Debt-Equity Ratio: The p-value is 0.041 and the corresponding t-value is -2.044.

These variables demonstrate a significant influence on the financial performance of the listed companies.

Hypotheses testing results: H01, H04 and H06 are rejected, H02, H03, H05, H07 and H08 are accepted.

Limitations and Scope for Further Study:

- 1. The study relies solely on the accuracy, reliability, and quality of secondary data.
- 2. There are many dependent and independent variables which can be used to determine impact of capital structure on profitability of firm, while ROCE as dependent variable and Debt- Equity Ratio, Pay-out ratio, Log Asset, Log Sales, Growth of assets, degree of financial leverage and operating leverage, business risk as independent variable has been chosen deliberately.

Major Findings and Conclusion:

"Debt-equity ratio, log Sale and dividend pay-out ratio have significant relationship with ROCE and on the other hand Log assets, degree of operating leverage, Degree of financial leverage and growth of asset are insignificant in determining the financial performance of the listed firms". These findings cannot be generalized because they are limited to an analysis of a small number of NSE listed companies. This study not only helps businesses determine the ideal financial structure to improve financial performance, but it also contributes to ongoing research in the area. Different factors, such as dividend policies, management choices, price earnings ratios, governmental regulations, tax rates, inflation, recession, working capital ratio, operating cash flow, current ratio, net profit margin, ROE, quick ratio, turnover ratios, and budget variance, among others, have an impact on how well a company performs financially. Therefore, it would be better if businesses chose their key performance indicators that would aid in identifying the best financial structure for a successful financial performance.

References:

- Ajibola, A., Wisdom, O., and Qudus, O. L. (2018). Capital structure and financial performance of listed manufacturing firms in Nigeria. Journal of Research in International Business and Management, 5(1),81-89.
- Banerjee, A. and De, A. (2014). Determinants of Corporate Financial Performance Relating to Capital

Structure Decisions in Indian Iron and Steel Industry: An Empirical Study, SAGE Publications, 18(1), 35–50.

- Chen, J. & Stranger, R. (2006). The determinants of capital structure: Evidence from Chinese listed companies, Economic Change and Restructuring, 38(1), 11–35.
- Ciftci, I., & Tatoglu, E. (2012). Capital structure and firm performance: Evidence from Turkey. The International Journal of Business and Finance Research, 6(1), 101-112.
- El-Halaby, S., & El-Bannany, M. (2016). The impact of capital structure on financial performance: Empirical evidence from Egypt. International Journal of Business and Management, 11(8), 89-103.
- Enekwe, Chinedu, The Relationship Between Financial Ratio Analysis And Corporate Profitability: A Study of Selected Quoted Oil and Gas Companies In Nigeria Innocent, European Journal of Accounting, Auditing and Finance Research, December 2015, Vol.3, No.2, page.17-34.
- Eriotis, N., Vasiliou, D. and Neokosmi, Z. V. (2007). How firm Characteristics affect capital Structure: An empirical Study. Managerial Finance, 33(5), 321-331.
- Fama, E.F. and French, K.R. (1998), "Taxes, Financing Decisions and Firm Value". The Journal of Finance, Vol. 53(3).
- Gatawa, A. S., & Masih, M. (2017). Capital structure and financial performance: Evidence from selected emerging markets. Journal of Asian Finance, Economics and Business, 4(2), 5-14.
- Idode, Patrick Esiemogie, Adeleke, Toyin Mary, Ogunlowore, Akindele John, Ashogbon, Oyekan Samuel,Influence of capital structure on profitability: Empirical Evidence from listed Nigerian banks,Volume 16, Issue 11. Ver. IV (Nov. 2014), page 22-28
- Kalyani Sushil and Mathur Neeti, Impact of capital structure on profitability: With reference to select companies from oil and natural gas industry of India, Inspira- Journal of Modern Management &

Entrepreneurship (JMME) 129, p-ISSN : 2231–167X, , Volume 07, No. 03, July, 2017, pp. 129-137

- MesutDogan,Does Firm Size Affect The Firm Profitability? Evidence from Turkey, Research Journal of Finance and Accounting, Vol.4, No.4, 2013, page no. 53-60.
- Mohamed M. KhalifaTailab,The Effect of Capital Structure on Profitability of Energy American Firms,International Journal of Business and Management Invention, Volume 3 Issue 2014,page54-61
- Mumtaz, R., Rauf, S. A., Ahmed, B. and Noreen, U. (2013). Capital Structure and Financial Performance: Evidence from Pakistan. Journal of Basic and Applied Scientific Research, 3(4), 113-119.
- Nilesh P. Movalia, A Study on Capital Structure Analysis and Profitability of Indian Tyres Industry, Pacific Business Review International, Volume 8, Issue 3, September 2015, 78-82
- Nwude, E. C. & Anyalechi, K.C.(2018). Impact of Capital Structure on Performance of Commercial Banks in Nigeria.International Journal of Economics and Financial Issues, 8(2), 298-303.
- Obamuyi, T. M., & Olokoyo, F. O. (2017). Capital structure and financial performance: Evidence from Nigeria. International Journal of Economics, Commerce, and Management, 5(1), 9-17.
- Pouraghajan, A. and Malekian, E. (2012). The Relationship between Capital Structure and Firm Performance Evaluation Measures: Evidence from the Tehran Stock Exchange. International Journal of Business and Commerce, 1(9), 166-181.
- RafiuOyesolaSalawu, Obafemi Awolowo, The Effect of Capital Structure on Profitability: An Empirical Analysis ofListed Firms In Nigeria, The International Journal of Business and Finance Research Volume 3 Number 2 2009,121-129
- Rajan, R.G. &Zingales, L. (1995), What Do We Know About Capital Structure? Some Evidence From SAGE Publications,

- Shahbaz, M., Zeshan, M., Afza, T., & Khalil, A. (2019). Capital structure and financial performance: Evidence from emerging markets of South Asia. Global Business Review, 20(5), 1045-1062.
- Singh, S. &Singh, A.(2018). Study on the Relationship of Firm's Performance with Capital Structure-Evidence from Taiwan. International Journal of Economics and Financial Issues, 8(3), 307-314.
- Srivastava, A. (2011) Equity Ownership and Financial Performance. Journal of Economics and Behavioral Studies, 2(4), 131-137.
- Tudose, M. Brindusa (2012). Capital Structure and Firm Performance. Economy Tansdisciplinarity Cognition, 15(2), 76-82.
- Zuraidah Ahmad, NorhasnizaMohd Hasan Abdullah

and ShashazrinaRoslan,Capital Structure Effect on Firms Performance: Focusing on Consumers and Industrials Sectors on Malaysian Firms, International Review of Business Research Papers Vol. 8. No.5. July 2012. Pp. 137–155.

Websites:

- http://par.sagepub.com
- http://www.managementstudyguide.com/capitalstructure.htm
- https://www.researchgate.net
- http://par.sagepub.com
- www.eajournals.org
- www.iiste.org
- www.ijbmi.org
- www.iosrjournals.org