The Impact of Capital Structure on Profitability of XYZ limited

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Abstract: The Capital Structure and Profitability are very vital matters in the development and survival of the business. This study hunts to find out the impact of capital structure on profitability. The present study bounded XYZ limited over the period of 5 years from 2014 to 2018. The analysis tools used in this study are correlation and regression analysis. In this study, Capital structure is represented by three variables, they are Debt Equity Ratio, Long Term Debt Ratio and Short Term Debt Ratio. The profitability is expressed by Return on Assets (ROA). As Per the findings there is a significant impact of Capital Structure on profitability of XYZ limited. There is a significant relationship between capital structure and profitability of XYZ limited.

Key words**:** Capital Structure, and Profitability

I. INTRODUCTION:

The capital structure is how a firm resources its overall operations and development by using various sources of funds. Debt arises in the method of long-term notes payable or bond issues, while equity is recorded as common stock, retained earnings or preferred stock. Short-term debt such as working capital necessities is also founded to be portion of the capital structure.
Profitability is the capability of a business to earn a profit. A profit is what is left out from the returns a business creates after it pays all expenditures directly related to the generation of the revenue, such as manufacturing a product, and other expenses related to the conduct of the business happenings. There are many ways to examine the profitability. Profitability ratios, which are a measure of the business's capacity to create revenue allied to the amount of expenditures it incurs.

Statement of the problem:

There is problem in each firm which are whether the capital structure impact on firm's profitability. Many studies found positive and negative relationship between capital structure on firm's profitability in various industry. Based on the research problem of the study the following research questions (RQ) are formulated,
RQ1: Is there any impact between capital structure and firm's profitability?
RQ2: Do capital structure associate with firm's profitability?

Objectives:

The objectives are geared towards the following:

1. To ascertain the relationship between capital structure and profitability of XYZ limited.
2. To examine the impact of capital structure on profitability of XYZ limited.
3. To analyse the level of increase or decrease in financial statement of XYZ limited.

II. LITERATURE REVIEW:

Y. Vijayalakshmi, N.Chandan Babu, Depally Pranay Kumar Goud (2018) "Impact of Capital Structure on Profitability of Public and Private Sector Banks in India" Capital structure is one of the most important areas of financial decision making. This study has been undertaken to find the impact of Capital structure on profitability of public and private sector banks in India listed in National Stock Exchange during 2013-2017. Regression analysis and Correlation has been used to know the relationship between Return on Equity (ROE), Return on Assets (ROA) and Earnings per Share (EPS) through R-programming.
S. Revathy, V. Santhi (2016) "Impact of capital structure on profitability of manufacturing companies in India" This paper investigates the impact of capital structure on profitability of the manufacturing companies in India and attempts to establish the hypothesized relationship as to how the capital structure affect the business revenue of companies and what the interrelationship is between capital structure and profitability. This study is done by categorizing the selected manufacturing companies into three categories based on two attributes, viz. stages and period. First, as per phases, manufacturing companies are grouped into pioneering stage, growth stage, and consolidation stage. Second, those companies are classified into pre-and post-merger, this study tries to establish the hypothesized relationship that capital structure has significant impact on profitability of manufacturing companies in India. A sample of seventy companies was chosen by using multi-stage sampling techniques. The study reveals that there has been a strong relationship between capital structure and Profitability and there is an increase in Debt Equity Ratio inversely affects profit of the manufacturing companies listed in Bombay Stock Exchange in India.
Anandasayanan S, Subramaniam V. A. (2015) "Effect of capital structure on profitability of listed manufacturing companies in Sri lanka". This study has a sample that consists of 12 Manufacturing companies listed in Colombo stock Exchange. Net profit ratio is used to measure the profitability of companies. Debt equity ratio, Long option term loans to total asset and short term loan to total assets ratios are used to measure the capital structure of the companies. Applying correlations and regression analysis, the

results shows significantly negative relation between debt and profitability. This suggests that profitable firms depend more on equity as their main financing while comparing others. Yet recommendations based on findings are obtained to improve certain factors like the firm must consider using an optimal capital structure.
Mehdi Mohammadzadeh, Farimah Rahimi, Forough Rahimi, Seyed Mohammad Aarabi and Jamshid Salamzadeh (2013) "The Effect of Capital Structure on the Profitability of Pharmaceutical Companies the Case of Iran" try to find the relationship between the capital structure and the profitability of pharmaceutical companies in Iran. In this study, the net margin profit and debts to asset ratio were used as indicators of profitability and capital structure, respectively and sales growth was used as a control variable. Results displayed that there was significant negative relationship between the profitability and the capital structure which means that the pharmaceutical companies have recognized a Pecking Order Theory and the internal financing has led to more profitability.

III. METHODOLOGY:

Research methodology:
Research methodology is the description, explanation and justification of various methods of conducting research. It deals with areas like research design, sources of data, sampling design, sampling size, hypothesis and statistical tools used for the data and interpretation.

Research design:
"A research design is the arrangement of condition for collection and analysis and data in a manner that aims to combine relevance to the research purpose with economy in procedures". The research design undertaken for the study is description one. A study, which wants to portray the characteristics of a group or individuals or situation, is known as Descriptive study. It is mostly qualitative in nature.

Data Source:
The study has quantitative data which been collected from secondary sources. Secondary data were gathered from audited financial statement of XYZ limited. It includes the balance sheet, annual report, manuals and websites of XYZ limited.

Method of Data Analysis:
To analysis the capital structure and long term profitability of the company, the following statistical tools are used suitable bar diagram. The tools used for analysis are:

1. Correlation Analysis
2. Regression Analysis

Correlation analysis is used to investigate the relationship between firms' capital structure and profitability. Regression analysis is used to investigate the impact of firms' capital structure on profitability. The regression model has been employed to analyse the relationship between dependent variable (ROA) and independent variables (Debt Equity Ratio, Long Term Debt Ratio and Short Term Debt Ratio) and to analyse the impact of capital structure on firms' profitability.

Model Specification:
For this study, based on the result of model specification tests, regression model of data has been selected to analyse the relationship between dependent variable ROA as measures of firm's profitability and independent variables Debt Equity Ratio, Long Term Debt Ratio and Short Term Debt Ratio as proxy of capital structure. Therefore, the regression model for this study was represented as follows:
The equation framed is $Y = A + B(X1) + C(X2) + D(X4)$
Where
Y = Profits in measured by ROA.
α = The constant term,
$X1$ = The total debt to equity ratio,
$X2$ = Total long term debt, payable in a years' time, to the total liabilities,
$X3$ = Total short term debt, payable in a years' time, to the total liabilities.

IV. ANALYSIS AND INTERPRETATION:

Correlation analysis:
Correlation is a statistical technique that can show whether and how strongly pairs of variables are related. A correlation analysis was conducted at a 95% confidence level to determine the degree of relationship among the
independent variables and eliminate multicollinearity.

Table No. 1 Correlation Matrix

		Return on Asset	Debt Equity Ratio	Long Term Debt Ratio	Short Term Debt Ratio

Return on Asset	Pearson Correlation	1	0.861	-0.52	0.612
	Sig. (2-tailed)		0.041	0.003	0.018
	N	5	5	5	4
Debt Equity Ratio	Pearson Correlation	0.861	1	-0.7	0.889
	Sig. (2-tailed)	0.041		0.011	0.031
	N	5	5	5	4
Long Term Debt Ratio	Pearson Correlation	-0.517	-0.697	1	-.962*
	Sig. (2-tailed)	0.003	0.011		0.038
	N	5	5	5	4
Short Term Debt Ratio	Pearson Correlation	0.612	0.889	-.962*	1
	Sig. (2-tailed)	0.018	0.031	0.038	
	N	4	4	4	4

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

Interpretation:
0The findings indicate that for the period under study, the Return on Asset had a high positive correlation with the debt equity ratio (R = 0.861). The Return on Asset had a medium negative correlation with long term debt to total debt ratio (R= -0.517). The debt equity ratio had a medium negative correlation with long term debt to total debt ratio (R= -0.697). The Return on Asset had a medium positive correlation with short term debt to total debt ratio (R= 0.612). The short-term debt ratio had a high positive correlation with the debt equity ratio (R = 0.889). The total long-term debt to total debt ratio had a high negative correlation with short term debt ratio (R = -0.962).
So, we can conclude that there is a both positive and negative correlation between capital structure and profitability.

Regression analysis:
A regression analysis is carried out to determine the nature of relationship between the dependent and independent variables and the prediction power of the regression model as well.

Table No.2.1 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.954	0.91	0.641	0.1743

ANOVA:
An analysis of variance is used to determine the significance of the regression model. The below ANOVA model summarises the significance of the estimated model

Table No.2.2 ANOVA

Model		Sum of Squares	D.F.	Mean Square	F	Sig.
1	Regression	0.308	3	0.103	3.378	0.043
	Residual	0.03	1	0.03		
	Total	0.338	4			

a. Predictors: (Constant), Short Term Debt, Long Term Debt, Debt Equity
b. Dependent Variable: ROA

Regression coefficients:
Regression coefficient is a statistical measure of the average functional relationship between two or more variables. In regression analysis, one variable is considered as dependent and other(s) as independent. Thus, it measures the degree of dependence of one variable on the other(s).

Table 4.2.3 Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	15.837	10.924		1.450	.034
	DEBTEQUITY	3.984	2.603	6.612	1.530	.031
	LONGTERM	- 2.865	2.134	5.737	-1.343	.048
	SHORTTERM	4.031	3.076	4.379	1.311	.043

a. Dependent Variable: ROA

Interpretation:

The above table gives the summary of the model; the R, R^2, adjusted R^2 and standard error which explain how well the regression model fits the data analysed. R measures the quality of prediction of the dependent variable. The value of R is 0.954 implying a high prediction power of the independent variable to the dependent variable. R^2 is the coefficient of determination with a value of 0.91. The table show the p-value ("sig" for significance) is less than .05 which is generally considered as "statically significant". The coefficient of determination indicates the variability's in the dependent variable attributable to the independent variables. Thus 91% of the changes in profits can be attributed to debt to equity ratio, long term debt to total debt and short term debt to total debt. Therefore the 9% of the profitability of the firms is affected by other factors other than the independent variables of the study.

The equation framed is:

$$Y = 15.837 + 3.984(X1) - 2.865(X2) + 4.031(X3)$$

V. FINDINGS:

Correlation:

There is a significant relationship between capital structure and profitability of XYZ limited.

Regression:

There is a significant impact of capital structure on profitability of XYZ limited.

It can be concluded that capital structure does influence profitability of XYZ limited.

VI. SUMMARY AND CONCLUSION:

A study titled on "the impact of capital structure on profitability of XYZ limited" was conducted with the help of the annual report. Various financial tools are used in the study. To extent possible the study has achieved its stated objectives. It can be concluded that capital structure does influence profitability of XYZ limited. This effect is statistically significant. The coefficient of determination indicates the variability's in the dependent variable attributable to the independent variables.

Thus 91% of the changes in profits can be attributed to debt to equity ratio, long term debt to total debt and short term debt to total debt. Therefore the 9% of the profitability of the firms is affected by other factors other than the independent variables of the study. In recent years, they have rooted a strong base with a good capital structure.

XYZ limited being a well-established company has provided due importance for its equity shareholders and enough safety and capital appreciation for their shares which will enable to increase the value of the firm and enable in easy accumulation of funds in future. Capital structure decision are dynamic for every year

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