



## **Financial Structure and the Profitability of Manufacturing Companies in Nigeria**

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### **Jel Classification**

L22, L25, L60.

### **Abstract**

Finance mix is a major factor that affects the liquidity and the going concern of a business enterprise. After an idea has been conceived by an entrepreneur, there is need to also analyse the capital required for startup and means of financing the project. A good combination of sources of finance is expected to boost the profitability of an organization, but if not properly mixed, could have a negative effect on the profitability of the organization. The main objective of the study is to evaluate the effects of financial structure on the profitability of manufacturing companies in Nigeria. This study employed the use of secondary data. The Spearman's Rank correlation and regression techniques were used for analysis, using the STATA Package for a sample of 25 manufacturing companies quoted on the Nigerian Stock Exchange for the period 2008-2012. The study showed that equity has a significant positive relationship with the profitability of manufacturing companies in Nigeria. The study recommends that managers should place greater emphasis on the facilitation of equity capital and policy makers should encourage manufacturing companies by reducing the cost of debt.

## **Introduction**

Financial decision is a major factor every business enterprise must consider at startup and during operations. This decisions will however affect the survival and sustainability of such business entity. At startup of every business enterprise, after generating the business idea, it is expedient that the owners of the business consider the various factors of production that will be relevant to the successful execution of the business idea. In the process of doing this, the owners will need to answer the question:“How do we finance the project at hand?” In an attempt to find an aswer to this question, all the available sources of finance is then explored and this is reflected in the business plan or the feasibility report prepared. Finance is a very important issue every business organisation must put into consideration at the startup or expansion of a business venture.

Knowing that the estimated startup capital is a different issue, while the finance mix is another one, if not properly handled could affect the business survival and profitabilty (Robert, 2012). Some researchers have argued for and some against equal mix of finance i.e. equal mix of equity and debt finance, while some have attributed the mix to some factors, which are seen as determinants of finance mix. Financial structure, which is also referred to as capital structure or finance mix is that business concept that examines the ratio of equity finance and debt finance to total finance of an organisation. Evaluating the importance of finance to business enterprises as well as the role profitability plays in the survival and going concern of business enterprises, Ogbulu and Emeni (2012) argued that most profitable firms prefer the internal sources of funding or equity while low profitable firms use debt financing due to insufficient internal funds. This study however seeks to find out the relationship that exists between financial structure and profitability of manufacturing companies in Nigeria.

The following research hypotheses were tested in the study:

H<sub>1</sub>: Leverage does not significantly affect the profitability of manufacturing firms.

H<sub>2</sub>: Short term debt does not significantly affect the profitability of manufacturing firms.

H<sub>3</sub>: Change in equity finance does not significantly affect the profitability of manufacturing firms.

## **Review of Literature**

In every corporate setting, economic growth is of utmost importance to the development of the organisation, which is the reason why the problem of funding has been recognized as an

instant cause of business failure and collapse in West Africa (Oni, 2013). It has been noted that an efficient financial system can be achieved if the financial structure of the company is structured in a way that cost of capital is reduced to the barest minimum (Dare and Sola, 2010). It has been argued that financial structure has a negative effect on firm performance which in turn affects the economic growth (Ogbulu and Emen, 2012) of the nation Nigeria.

Financial structure also known as capital structure can be defined as the way a corporation finances its assets through some combination of equity and debt (Dare and Sola, 2010). There are two forms of capital: equity capital and debt capital. Under the firm of capital, there exist market capitalization, bank credit which has its own benefits and drawbacks and a substantial part of any organization is aimed at finding the perfect capital structure in terms of risk and reward payoff for stakeholders.

However, it is appropriate to understand the concept of profitability which is the most common measure of an organizational growth and progress in terms of its efficiency and productivity. Profit maximization is a mandatory requirement for any business organization that wants to maintain its going concern status to the pleasure of its promoters, investors and its management (Pandey, 2004). Eljelly (2004) noted that the management of a company's liquidity involves adequate planning and control of resources to meet the company's short term obligations. Deloof (2003) argued that the financial structure of a firm is a determinant factor of its investment in current assets, which represents the resources used in day to day operations of the business entity.

Smith and Begemann (1997) emphasized that the promoters of capital structure theory agreed that profitability and liquidity are the main goals of financial structure management. However, for a company to maximize these two goals there is need to be careful, as attempts to pursue liquidity may affect profitability and more emphasis on profitability can also affect liquidity (Uremadu and Efobi, 2012). Liquidity is a situation in which a business enterprise is able to meet its short term obligations, while profitability on the other hand is the ability to maximise the resources of a company above the break-even point. Managers of business entities sometimes experience difficulty of how to achieve the equilibrium point between liquidity and profitability in order to maximize the value of the firm.

A large number of business failures have been attributed to inability of financial managers to properly plan and control the current assets and current liabilities of their respective

firms (Smith, 1993). Financial structure management is of particular importance to the small business, since they have limited access to the long-term capital markets, thereby relying solely on owners fund, trade credit and short-term bank loans as sources of finance (Chittenden et al, 1998). However, the failure rate among small businesses is very high compared to that of large businesses. Studies in the developed economies have shown that weak financial management is a primary cause of failure among small businesses (Berryman, 1983). Peel and Wilson (1996) mentioned that the efficient management of a company's financial structure and good credit management practices are important factors for enhancing the performance of the small businesses. Murinde (2004) stated that there is need for many industries to improve their return on capital employed (ROCE) by focusing on some critical areas such as cost management, reduction of cost of capital and improving financial structure efficiency. Deloof (2003) noted that adequate working capital management will influence corporate profitability. Their findings suggest that managers can increase profitability by reducing the number of days of accounts receivable and inventories.

To this end, it is expedient that manufacturing companies manage their financial mix in such a way that the objectives of liquidity and profitability are effectively managed and the survival of the business entity is enhanced. This study thus evaluates the role short term debt plays in enhancing profitability of the business as well as the role of of equity and long term debt in profitability of business entities.

### **Methodology**

The Panel data method was adopted for analyses, using the Pearson's Product Moment Correlation Coefficient and the regression analysis to determine the degree of relationship between the variables measured (Profitability, Financial Structure). The population of study comprises of all the listed manufacturing companies in Nigeria. The sample size from the population is made up of twenty five (25) manufacturing companies in Nigeria. Data were obtained for a period of five years which is 2008-2012. The non-probability sampling technique was used.

The data are collected from annual financial statements of the selected manufacturing companies. The data obtained were processed electronically with an electronic application (STATA).

**Model Specification**

This study specifies a simple regression equation model. This model is to verify the effect of financial structure on firm's profit margin. In order to examine the relationship between financial structure and profitability, a linear equation was used. The two construct involved includes financial structure and profitability. The regression equation can be computed as:

$$Y = \beta_0 + \beta X_{it} + \mu_{it} \dots \dots \dots (1)$$

Where

Y= profitability

X= financial structure (independent variables)

$\beta$ = Coefficient of financial structure

$\mu_{it}$ = Error term

Explicitly, equation 1 can be defined as:

$$\text{Profitability} = f(\text{Financial structure}) + c \dots \dots \dots (2)$$

Representing two variables of the construct, the equation below is formulated with inclusion of a control variable (SIZE of the firm). This is to enhance a better predictability and analysis of the relationship existing between the two constructs (financial structure and profitability). Therefore the equation becomes;

$$\text{PROF} = f(\text{Equity; Leverage; Short Term Debt}) + \text{SIZE} \dots \dots \dots (3)$$

The above can be deducted to the model below with the inclusion of a control variable, which is the size of the firm. The control variable was included to avoid a spurious result because the size of the firm is a major determination of the profit of such a firm.

$$\text{PROF}_{it} = \text{EQU}_{it} + \text{LEV}_{it} + \text{STD}_{it} \dots \dots \dots (4)$$

Therefore, the Regression Equation is:

$$\text{PROF} = \beta_1 + \beta_2 \text{EQU}_{it} + \beta_3 \text{LEV}_{it} + \beta_4 \text{STD}_{it} + \beta_5 \text{SIZE}_{it} + \mu_1 \dots \dots \dots (5)$$

Where:

PROF= Profitability

EQU= Equity

LEV= Leverage

STD= Short Term Debt

SIZE= Log of total asset

**Results**

**Table 1: Regression Analysis Results**

	Coef.	Std. Err.	T	P>t	[95% Conf. Interval	
<b>Equ</b>	0.186105	0.0993106	1.87	0.063	-0.0105231	0.382733
<b>Lev</b>	0.0639942	0.0540046	1.18	0.238	-0.0429312	0.17092
<b>Std</b>	0.0127197	0.0484994	0.26	0.794	-0.0833057	0.108745
<b>Size</b>	0.1197663	0.0337821	3.55	0.001	0.0528801	0.186653
<b>-cons</b>	-0.0648407	0.2710403	-0.24	0.811	-0.6014816	0.4718
R-Squared		0.1079				
Adjusted R-Squared		0.0781				
Root MSE		0.22165				
F-Statistic		3.63				
Prob( F-Statistic)		0.0079				

**Source: Computed Output (SATA)**

**Interpretation**

Table 1 shows that equity has a positive significant effect on the profitability of manufacturing companies in Nigeria at 10% level of significance. While short term debt and leverage have positive relationships with profitability, but are not significant at 10% level of significance.

**Findings and Discussions**

From the analyses of data from the sampled 25 companies, the study found that there is a positive significant relationship between equity finance and profitability of manufacturing companies in Nigeria. This means that higher the equity finance of manufacturing companies in Nigeria, higher the likelihood of the profit of such companies increasing. However there is no significant relationship between debt financing and profitability of manufacturing companies, either long term or short term debt. This result can however be interpreted to mean that interest on debt could have a significant effect on the profitability of manufacturing companies in Nigeria.

## Conclusion

The research work showed that the overall profitability in the manufacturing industry will be enhanced if good financial structure is properly managed as measured by leverage, short term debt and equity. This therefore means that, manufacturing companies operating in Nigeria should place more emphasis on equity funding compared to debt finance.

The following recommendations are deemed necessary to ensure better financial structure and mechanism which would invariably lead to a sound and better profitability; Policies aimed at encouraging unquoted firms to access public equity capital should be put in place. Manufacturing firms should adopt the mix source of financing such as the retained earnings and the equity sources. Policy makers should reduce the cost of debt financing to manufacturing companies, so as to make it attractive and also enhance the profit base and survival of business entities.

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