Effects of Macroeconomic Variables on Capital Structure in the Nigerian Manufacturing Sector

Owolabi A. Usman & Khafilat Temitope Olayiwola

Abstract

This study examined macroeconomic effects on capital structure in the Nigerian manufacturing sector. *Ex-post facto* research design and secondary data were utilized for the study. Data were sourced from annual reports of twenty manufacturing companies and Central Bank of Nigeria Statistical Bulletin from 2008 to 2017. The variables utilized were Gross Domestic Product (GDP), Interest Rate (INTR), Inflation Rate (INFR) and Exchange Rate (EXGR) for macroeconomic variables and Leverage (LEV) for Capital Structure. Pooled Ordinary Least Square (POLS) regression analysis was employed to ascertain the effect of GDP, INTR, INFR and EXGR on leverage of manufacturing companies in Nigeria at 0.05 level of significance. The findings revealed that GDP and EXGR had negative significant effect on LEV (β = -0.1847 and -5.4912; p-value = 0.0087 and 0.0008 respectively) while INTR and INFR had positive significant effect on LEV (β = 0.0128 and 3.4567; p-value = 0.0256 and 0.0000 respectively) with the overall result of R^2 = 0.8547, adjusted R^2 = 0.8316 and p-value = 0.0022. It was concluded that macroeconomic variables have significant effect on leverage of the sampled companies and recommended that Nigerian government should create an enabling environment to facilitate manufacturing companies' performance.

Key words: Capital Structure, Exchange Rate, Gross Domestic Product, Inflation, Interest Rate.

JEL Classification Code: E31, E44, L67, O11

Introduction

Conversion of raw materials into finished consumer goods or intermediate goods is the major activity of the manufacturing sector of any economy. Like other industrial activity, manufacturing creates revenues for employment, helps to boost agriculture, diversify the economy and serves as a viable means of foreign exchange earnings for the country (Hanithavijeyaratnam & Anandasayanan, 2015). In addition, this sector helps to minimize the risk of overdependence on foreign trade or imported goods. The manufacturing sector remains one of the most powerful engines for economic growth.

Idowu and Ogundipe (2012) pinpointed that the business world, manufacturing sector inclusive, is susceptible to events that change course of decision making over the years and this is evidenced from the past serious financial crisis such as Asian Financial Crisis (1997-1998), Latin American Debt Crisis (1970-1989) and Japan's Banking Crisis (1990's) amongst other major world economic crisis. The past financial crisis has put great pressure on domestic and international firms, especially underperforming firms. This indicates that in the financially integrated world of today, no firm remains unaffected by what happens in the economy (Idowu & Ogundipe, 2012). The Global Financial Crisis of 2008 was as a result of loss of confidence by investors in the value of mortgages in the United States, and eventually led to a liquidity crisis after which the United States Federal Reserve and the European Central Bank pumped in substantial capital into the financial markets (Idowu & Ogundipe, 2012). This crisis, also referred to as "credit crunch" or "credit crisis", led to a massive drop in equity wealth and a sharp decline in capital investment.

In developed nations, observations over the years have shown that many companies suffered distress and collapse as a result of several lapses, of which inappropriate mix of capital had been identified as one. The wrong mix affected the returns expected by investors (equity holders) and even debt holders found it difficult to get their

interest and principal from the companies. Thus, it led many investors to withdraw their investments from companies and in the final analyses, resulted to their collapse.

The dynamic changes of macroeconomic factors like inflation, gross domestic product, interest rate and exchange rate affect the capital market and thus influence cost of capital of various companies and dictate its capital structure. For instance, -where these macroeconomic variables are unfavourable, the supply of credit drop drastically, while increased risk and cost of capital pressure firms in finding the right balance between debt and equity. These and many more constitute major challenges confronting the improvement of the manufacturing sector especially in the area of capital structure. It is therefore against the forgoing that this study examines the effects of macroeconomic variables on capital structure in the Nigerian manufacturing sector. The subsequent sections of this paper are divided into four sections. In section two, the study reviewed literature related to this area of finance and accounting. In section three, the methodology adopted was explained. In section four, data was presented and analyzed. In section five, the paper concluded and recommendations made.

Objectives of the Study

The main objective of the study is to examine macroeconomic effect on capital structure in the Nigerian manufacturing sector. The specific objectives are to:

i. Examine the effect of Gross Domestic Product (GDP) on capital structure of manufacturing companies in Nigeria;
ii. Examine the influence of Interest Rate (INTR) on capital structure of manufacturing companies in Nigeria;
iii. Determine the effect of Inflation Rate (INFR) on capital structure of manufacturing companies in Nigeria; and
iv. Examine the effect of Exchange Rate (EXGR) on capital structure of manufacturing companies in Nigeria

Research Hypotheses

Based on the objectives mentioned above, the research hypotheses for this study are stated below in null form:

Ho_1: Gross Domestic Product (GDP) has no significant effect on capital structure of manufacturing companies in Nigeria

Ho_2: Interest Rate (INTR) has no significant influence on capital structure of manufacturing companies in Nigeria

Ho_3: Inflation Rate (INFR) has no significant effect on capital structure of manufacturing companies in Nigeria

Ho_4: Exchange Rate (EXGR) has no significant effect on capital structure of manufacturing companies in Nigeria

Literature Review

This section reviewed concepts, theories and empirical studies which are relevant to this study.

Conceptual Review

Tharmila and Arulvel (2013) referred to capital structure as a mixture of a variety of long-term sources of funds and equity shares including reserves and surpluses of an enterprise while Pirashanthini and Nimalathasan (2013) opined that a firm's capital structure is the mix of its financial liabilities. Capital structure is the combination or mixture of company's debt and equity (Lawal, Edwin, Monica & Adisa, 2014) which ensures financial stability, profit generation, growth, and expansion (Kankanda, Bello & Abba, 2016). The availability of these funds to firms is determined by several factors of which include macroeconomic variables.

Macroeconomic variables exist outside the company and are beyond management control. For instance, the interest rate, gross domestic product, inflation and exchange rate of a country affect firms in all sectors through its cost of capital, its ability to access external sources of fund, its after tax net cash flow, the demand for its products, and its survival.

Adebiyi (2002) defines interest rate as the return or yield on equity or opportunity cost of deferring current consumption into the future. Like other prices, interest rates perform a rationing function by allocating limited supply of credit among the many competing demands on it.

Gross domestic product (GDP) is the value of all final goods and services produced in a country in a given period of time (quarterly or yearly). According to Booth, Aivazian, Demirguc-Kunt and Maksimovic (2001), increase in GDP leads to higher real income growth rate by consumers which lead to manufacturers increasing leverage to increase production capacity to accommodate the excess demand.

Inflation is the gradual increase in the general level of prices in the economy. High inflation rates are associated with high loan interest rates and high income. Zwick (1977) theoretically explained that inflation leads to more debt since it lowers the real cost of debt. The demand for corporate bonds increases during inflationary periods.

Exchange rate is the price of one country's currency against another country's currency. A country's exchange rate is determined by the demand and supply of its currency relative to the demand and supply of a foreign currency. Increasing the exchange rate will lead to decrease in cash and increases interest expense and finally increases the debts ratio.

Theoretical Review

Although quite a number of theories have been propounded on capital structure, with Modigliani and Miller theory (1958) forming the basis for others, this study will however focus on signaling and market timing theories because they are closely related to this work.

Signalling Theory

This theory was coined by Ross (1977). Due to asymmetry information about the activities of the firm that exist between managers and stakeholders, the theory assumes that managers have confidence in the future prospects of the firm and signals this certainty to the market by increasing their leverage components. This is done with the intent to increase the values of equities when they are undervalued.

Unlike dividend payments which are not obligatory (Akorsu, 2014), managers, knowing that a fixed set of cash payments is to be made to debt holders over the term of the debt securities and failure to comply could lead to bankruptcy of the firm and invariably loss of their jobs, would do everything possible to avoid it in order to maintain their positions. By so doing, this signals to potential investors the sureness of the managers about the future earnings of the firm and in the long run, increases the value of equities. Thus higher indebtedness is a good signal to the market (Mendros, 2008).

Market Timing Theory

This theory as propounded by Barker and Wurgler (2002) and referred to as "window of opportunities (Ater, 2017) states that capital structure is dependent on the cumulative outcome of past attempts to time the equity market. This explains that firm's capital structure are changed or adjusted according to market valuations, fluctuations and timing (Tomschik, 2015). The theory lay no emphasizes on target capital structure rather, market timing is significant in firm's choice of financing. Share prices and interest rate levels are major determinants for equity and debt issuance respectively.

The theory is in two versions (Barker & Wurgler, 2002). The first version emanated from the dynamic model of Myers and Majluf (1984) and assumes that managers and investors are rational and adverse selection varies across firms, or across time. It is of the assumption that release of information leads to announcements of equity issues, thus, reducing information asymmetry. The second version views managers and investors as irrational which results in mispricing. Firms prefer to issue new shares when the cost of capital is low and their shares overvalued as compared to their market to book and previous market value. As a result, their financial performance and future

viability is enhanced. On the other hand, managers of firms repurchase equities when it is perceived that the cost of capital is irrationally high.

Empirical Review

Gajurel (2005) in a study of the determinants of corporate capital structure of Nepalese companies excluding firms in the finance and banking sectors between the periods 1995 to 2004 examined the macroeconomic influences on debt equity ratio. The study regressed capital structure against certain firm specific variables and the macro economic variables (GDP growth rate, inflation and market capitalization to GDP ratio). Results found that macro-economic variables are significant to form capital structure choice. Specifically, the study concluded that GDP growth rate negatively relates to total debt ratio.

Muthama, Mbaluka and Kalunda (2013) analyzed the influence of the macro economic factors on the capital structure of selected listed companies in Kenya. An econometric model of multiple linear regression was used and leverage (debt ratios) was regressed against GDP growth rate, inflation and interest rate. The study revealed that macro-economic factors have pronounced influence on the capital structure of the listed companies. GDP growth rate was found to have a positive influence on long term debt ratio and a negative influence on total debt ratio and short term debt ratio. Inflation on the other hand had a negative influence on the short term debts while interest rates as measured by the treasury bills have a positive influence on the long term debt ratio and total debt ratio and, a negative influence on the short term debt ratio.

Saddam (2014) examined factors affecting capital structure decision of Ethiopian Insurance Firms. Using a seven year data (2007 – 2013), the regression analysis method utilized was based on random effects model. The results proved that the coefficient of GDP and interest rate variable was positive but statistically insignificant to explain the dependent variable measured as total leverage; and a significant positive relationship between inflation rate and leverage was found. Also, results showed that the coefficients of profitability and liquidity were negative but not statistically significant to explain capital structure of Ethiopian insurance companies. Furthermore, it was found that business risk, firm age and size variable had a positive significant impact on the dependent variable while growth had a positive insignificant impact on the dependent variable (leverage).

Elkhaldi and Daadaa (2015) examined the impact of stock trading on capital structure using a sample of Tunisian publicly traded firms over the period 2002-2012. Utilizing general least square regression, results showed that macroeconomic variables related to monetary policy and fiscal policy have an impact on leverage. The relationship was positive for the case of Interest Rate (INT) and Unemployment Rate (UR) and negative for the case of Inflation Rate (IR). Moreover, it was found that the relationship was robust for short term book leverage. Nevertheless, for the long term, it was discovered that only IR and UR had strong positive impact on leverage.

Rehman (2016) focused on the impact of macroeconomic variables on capital structure decisions of 154 listed textile firms in Pakistan from 2004 – 2013. Employing panel data regression (fixed effects model) for analysis, findings revealed that public debt, exchange rates and interest rates are negatively related while corporate taxes, stock market development, inflation rate and GDP growth rate are positively related with economic leverage. However, the relationship of corporate taxes, stock market development and exchange rates is significant with the economic leverage.

Afang, and Dabo (2017) using multiple linear regression and correlation as a technique of data analysis, investigated the mode and the direction of the relationship between macroeconomic variables and capital structure of listed insurance firms in Nigeria from 2008 to 2015. Findings of the study revealed that macroeconomic variables were among the determinants of the capital structure of insurance firms in Nigeria. Specifically, the study found out that inflation and interest rates had inverse, though weak, relationship with the leverage ratio of

insurance firms in Nigeria. Conversely, gross domestic product growth rate was found to have a rather strong positive relationship with the leverage ratio of insurance firms in Nigeria.

From the forgoing, the findings of these empirical examinations do not reveal consensus among them. Hence, this study contributed to the existing body of knowledge and make up for the paucity of scholarly research work in Nigeria on the effect of macroeconomic variables on capital structure in the Nigerian manufacturing sector.

Methodology

Ex-post facto research design was adopted for the study. Justification for the use of this research design is that inferences were made without direct intervention or control of the independent and dependent variables and the secondary data which were obtained for this study were not manipulated by the researcher. Twenty (20) companies were sampled from the manufacturing companies listed on the Nigeria Stock Exchange (NSE) using simple random sampling technique. Data were obtained from Central Bank of Nigeria (CBN) statistical bulletins and annual reports of the sampled companies from 2008 to 2017. Breusch and Pagan Lagrangian Multiplier (LM) test was utilized to choose between pooled Ordinary Least Square (OLS) and random/fixed effect for the model while pooled OLS regression analysis was used to estimate the specified model for the study.
The variables used in the study and their measurements are stated below.

Table 1: Variables and their Measurements

Variables		**Proxies**	**Measurements**
Independent Variable	Macroeconomic Variables	Inflation Rate	Annual Inflation Rate
		Interest Rate	Average Interest Rate of Banks
		Exchange Rate	Current Exchange Rate at Bureau
		Gross Domestic Product	Logarithm of GDP
Dependent Variable	Capital Structure	Leverage	Long Term Debt/ Total Equity Ratio

Source: Author's Compilation, 2019.

Model Specification

CS = f (macroeconomic variables)

Where: Capital Structure (CS) is proxied by Leverage (LEV) and

Macroeconomic variables are proxied by:

- Inflation Rate (INFR),
- Interest Rate (INTR) ,
- Exchange Rate (EXGR); and
- Gross Domestic Product (GDP)

The model for this study is represented in a functional form as:

LEV = f (INFR, INTR., EXGR., GDP)

In mathematical form, the model is stated as:

$LEV_t = \beta_o + \beta_1 INFR_t + \beta_2 INTR._t + \beta_3 EXGR_t + \beta_4 GD_{it} + \varepsilon_t$ ……equ. i

Where: LEV= Leverage (Measured as long term debt/ total equity ratio)

INFR = Inflation Rate (Measured as annual inflation rate)

INTR = Interest Rate (Measured as average interest rate of banks)

EXGR = Exchange Rate (Measured as current exchange rate at bureau)

GDP = Gross Domestic Product (Logarithm of GDP)
t = Time series variable
ε = Error term
β_0 = Model intercept
β_1 - β_4 = Regression coefficients of the explanatory variables

On apriori, it is expected that: $\beta_0 > 0$; β_1, β_3, $\beta_4 > 0$ and $\beta_2 < 0$

This means that all explanatory variables in the study are expected to be positively related with the dependent variable except β_2 which will be negative.

Data Analysis, Results and Discussions

This section deals with determining the validity and reliability of the data using unit root test, selection of the appropriate analytical tool for the model of the study, analysis of the model and discussion of findings.

Unit Root Test

In order to determine the stationarity properties of the variables used in the study, the Augmented Dickey Fuller (ADF) Test was performed.

Table 2: Result of Unit Root (Stationarity) Test

Variable	ADF Value @ Level	Mackinnon Critical value @ 5%	Order of Integration
LEV	-4.0562	-3.5759	I(0)
GDP	-3.9841	-3.0124	I(0)
EXGR	-4.2546	-2.9862	I(0)
INTR	-5.5316	-2.7883	I(0)
INFR	-4.2237	-3.5849	I(0)

The results of the Augmented Dickey Fuller Test in the table 2 above revealed that all the variables are stationary at level and are integrated of order zero. This implies that, no long run information is lost, thus, the application of ordinary least squares in the estimation process is therefore appropriate and not likely to yield spurious estimates.

Model Estimator Selection

Breusch and Pagan Lagrangian Multiplier (LM) test was conducted to choose between pooled OLS and random/fixed effect for the model (table 3). The result suggests acceptance of null hypothesis indicating that the variance of the random effect is zero as the p-value is greater than 0.05. From the test, the regression analysis and hypotheses testing were made using the pool OLS.

Table 3: Breusch and Pagan Lagrangian Multiplier Test

LEV[year,t] = Xb + u[year] + e[year,t]

	Var	sd = sqrt(Var)
LEV	11.09061	3.324537
E	18.19112	3.441282
U	0	0
Chibar2(Prob)	33.11(0.0624)	

Source: Author's computation (2019)

Result of Regression Analysis

Table 4 depicts the result of the regression tests, based on the model of the study. The model represents the relationship between explanatory variables (INFR, INTR, EXGR and GDP) and dependent variable (LEV). The model shows the coefficient of determination (R-Square) with a value of 0.8547 which means that in Nigeria, about 85% of the total systematic variations in capital structure variables can be explained by the variables namely INFR, INTR, EXGR and GDP. The adjusted R-square shows that even after adjusting for the degree of freedom

the model could still explain about 83% of the total systematic variations in capital structure (LEV). Only about 27% of the systematic variation of segment disclosure was left unaccounted for by the model which has been captured by the stochastic disturbance term in the model.

Moreover, of the overall statistical significance of the model as indicated by the F-statistics, it was observed that the overall model was statistically significant since the calculated F-value of 28.14 was greater than the critical F-value of 5.0 at 5% level of significance. This shows that there exists a significant linear relationship between the independent variables and the dependent variable in the study.
On the basis of individual statistical significance, table 4 further describes the influence of explanatory variables (INFR, INTR, EXGR and GDP) on dependent variable (LEV). The findings revealed that GDP and EXGR had negative significant effect on LEV (β = -0.1847 and -5.4912; p-value = 0.0087 and 0.0008 respectively) while INTR and INFR had positive significant effect on LEV (β = 0.0128 and 3.4567; p-value = 0.0256 and 0.0000 respectively) with the overall result for R^2 = 0.8547, adjusted R^2 = 0.8316 and p-value = 0.0022 at 5% significant level.

Table 4: Macroeconomics Variables and LEV

Dep. Var. (LEV)		***Co-eff.***	***(P-value)***
Constant		6.1481	(0.3019)
GDP		-0.1847	(0.0087)**
EXGR		-5.4912	(0.0008)*
INTR		0.0128	(0.0256)**
INFR		3.4567	(0.0000)*
R^2	0.8547		
Adjusted R^2	0.8316		
F-statistic	286.14		
P-value	(0.0022) *		

Notes: * and ** denote "statistically significant at 1% and 5% significance level respectively". Also, p-values are reported in parentheses. .
Source: Author's computation (2019)

The null hypotheses that macro-economic variables (GDP, EXGR, INTR and INFR respectively) have no significant effect on the LEV of the manufacturing companies in Nigeria were rejected. The result revealed that Gross Domestic Product (GDP) and Exchange Rate (EXGR) have a negative effect on Leverage (LEV), while Interest Rate (INTR) and Inflation Rate (INFR) have a positive effect on LEV.

GDP coefficient of -0.1847 confirms the inverse relationship that exists between GDP and capital structure. This means that one unit increase in GDP will lead to a 0.1847 decrease in capital structure. Also, the probability value of 0.0087 rendered the variable GDP statistically significant at 5%. Hence, GDP is said to have a negative significant effect on capital structure. Muthama *et al*. (2013) study also suggested that GDP growth rate is negatively related to total debt ratio.

EXGR has a coefficient of -5.4912 which explains that it is negatively related with capital structure. It indicates that one unit increase in EXGR will lead to a 5.4912 decrease in capital structure. It has p-value of 0.0008 which is less than 5%. With this, EXGR is considered to have a statistical negative effect on capital structure.

As for INTR, the coefficient 0.0128 shows that it has a positive relationship with capital structure. It indicates that one unit increase in INTR will lead to a 0.0128 increase in capital structure. With P-value of 0.0256 less than 5%, hence, INTR is said to have a statistical positive effect on capital structure. Muthama *et al*. (2013) findings confirm that interest rate has a positive effect on capital structure. However, the study of Antoniou *et al.* (2002) proved that the interest rate has a negative effect on leverage

Lastly, the coefficient of INFR (3.4567) denotes that it is positively related with capital structure. This means that one unit increase in INFR will lead to a 3.4567 increase in capital structure. The p-value 0.0003 which is less than 0.05 signifies that INFR has a significant positive effect on capital structure.

In tandem with the market timing theory, the above findings revealed that firm's capital structure are changed or adjusted according to market valuations, fluctuations and timing. Hence special attention should be paid to macroeconomic variables before issuing or buying equities and debentures.

Conclusion and Recommendations

In this study, empirical analysis was conducted to examine the effect of macroeconomic variables on capital structure (leverage) of manufacturing companies in Nigeria. Based on the findings of this research, it was concluded, with specific reference to the Nigeria manufacturing industry, that macroeconomic variables significantly affect capital structure. It is therefore recommended that the government fiscal and monetary policies should be channeled to correct imbalances and instability of macroeconomic factors (interest rates, inflation, exchange rate and GDP) such that in the short and long run when manufacturing companies make financing decisions, huge transactions costs incurred by these companies would be reduced to the barest minimum. Likewise, there is a need for Nigerian government to create an enabling environment in order to encourage the growth of manufacturing companies in the country. Lastly, while timing the capital structure target, managers should not only consider the firm level characteristics, but due consideration should also be given to the state of the economy.

References

Adebiyi, M. A. (2002). The role of real interest rates and savings in Nigeria. *First Bank of Nigeria Plc, Quarterly Review, March,* 2002.

Afang, H. A. & Dabo, Z. (2017). Impact of macroeconomic variables on the capital structure of listed insurance firms in Nigeria. *The International Journal of Business and Management, 5*(3):91-96

Antoniou, A., Guney, Y., & Paudyal, K. (2002). Determinants of corporate structure: Evidence from European Countries. *Working Papers, University of Durham*.

Akorsu, P. K. (2014). Testing the pecking order and signaling theories for financial institution in Ghana. *Research Journal of Finance and Accounting, 5*(16):77-83

Ater, D. K. (2017). Market timing and capital structure: A critical literature review. *Research Journal of Finance and Accounting, 8*(6):81-94

Baker, M., & Wurgler, J. (2002). Market timing and capital structure. *The Journal of Finance, 57*(1):1-32.

Booth, L., Aivazian, V., Demirguc-Kunt, A. & Maksimovic, V. (2001). Capital structure in developing countries. *The Journal of Finance, 56*(1):87-130

Elkhadi, A. & Daadaa, W. (2015). Economic determinants of corporate capital structure: The case of Tunisian firms. *International Journal of Economics and Finance, 7*(9):193-199

Gajurel, D. P. (2005). Determinants of capital structure in Nepalese enterprises. *Published Master Degree Thesis. Kathmandu: Tribhuvan University, Nepal.*

Hanithavijeyaratham & Anandasayanan, S. (2015). The determinants of leverage of Sri Lanka Manufacturing Companies listed on Colombo Stock Exchange. *International Journal of Research in Business Studies and Management, 2*(2):30-37

Idowu, A. & Ogundipe (2012). Capital structure determinants and financial shock: Empirical evidence from Nigeria. *1st Annual International Conference on Accounting, Finance and Management, July 10-13, 2012/ OAU/Nigeria, Conference Proceedings, 1*

Kakanda, M. M., Bello, A. & Abba, M. (2016). Effect of capital structure on performance of listed consumer goods companies in Nigeria. *Research Journal of Finance and Accounting, 7*(8):211-219

Lawal, B. A., Edwin, T. K., Monica, W. K. & Adisa, M. K. (2014).Effects of capital structure on firm performance: Empirical study of manufacturing companies in Nigeria. *Journal of Finance and Investment Analysis, 3*(4):39-57

Mendros, M. (2008). The impact of thin capitalization rules on capital structure of firms in the Czeech Republic. *Published Bachelor Degree Thesis, Charles University in Prague, Faculty of Social Sciences, Institute of Economics Studies.*

Modigliani, F. & Miller, M. H. (1958). The cost of capital, corporation finance and the theory of investment. *American Economic Review, 48*(3): 261- 297

Muthama, C. Mbaluka, P. & Kalunda, E. (2013). An empirical analysis of macro-economic influences on corporate capital structure of listed companies in Kenya. *Journal of Finance and Investment Analysis, 2*(2):41-62

Myers, S. C. & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics, 13*(2):187 – 221.

Pirashanthini, S. & Nimalathasan, B. (2013). Capital structure and firm value: An empirical study of listed manufacturing firms in Sri Lanka. *Merit Research Journal of Art, Social Science and Humanities, 1*(5):86-91

Rehman, Z. U. (2016). Impact of macroeconomic variables on capital structure choice: A case study of Textile industry of Pakistan. *The Pakistan Development Review, 55*(3):227-239

Ross, S. A. (1977). The determinants of financial structure: The incentive-signalling approach. *Bell Journal of Economics, 8*(1):23-40.

Saddam, M. (2014). Factors affecting capital structure decision: Evidence from Ethiopian Insurance firms. *MBA Thesis, Addis Abba University, Ethiopia*

Tomschik, D. (2015). The impact of macroeconomic variables on capital structure: A comparison between companies in E7 and G7 Countries. *5th IBA Bachelor Thesis Conference, July 2nd , Enschede, Netherlands.*

Tharmila, K. & Arulvel, K. K. (2013). The impact of capital structure and financial performance: A study of the listed companies traded in Colombo Stock Exchange. *Merit Research Journal of Accounting, Auditing, Economics and Finance, 1*(5):106-117

Zhang, X. & Daly, K. J. (2013). The impact of bank specific and macroeconomic factors on China's bank performance. *Global Economy and Finance Journal, 6*(2):1-25

Zwick, B. (1977). The market for corporate bonds. *Federal Reserve Bank of New York Quarterly Review* 2

Owolabi A. Usman (Ph.D) is of the Department of Management and Accounting, Faculty of Management Sciences, Ladoke Akintola University of Technology, Ogbomosho, Nigeria, oausman@lautech.ng.edu, +2348036675099

Khafilat Temitope Olayiwola, is of the Department of Management and Accounting, Faculty of Management Sciences Ladoke Akintola University of Technology, Ogbomosho, temmyteecares@gmail.com, +2348137695493