EFFECTS OF CAPITAL STRUCTURE ON INVESTMENT GROWTH OF LISTED MANUFACTURING FIRMS IN NIGERIA

***JA'AFAR, YUSUF; AND **ADAMU, DAHIRU**
**Department of Accounting, School of Business and Economics, Atlantic International University (AIU), Honolulu-Hawaii, USA. **Department of Accounting, Faculty of Social and Management Sciences, Kaduna State University (KASU), Kaduna-Nigeria*

ABSTRACT

The main objective of the study is to examine the effect of capital structure on investment growth of listed manufacturing firms in Nigeria. The model formulated depicts investment growth (IG) as explained variable, while capital structure proxied by short-term debt, long-term debt, total debt and assets tangibility were used as explanatory variables of the study. The study employed ex-post factor research design which relies mainly on using secondary data. The population of the study consists of all the listed manufacturing firms in the Nigerian Stock Exchange out of which ten (10) listed firms were used as the sample size through filter sampling technique. The study was conducted for a period of eight (8) years ranging from 2012-2019. The study has also adopted the multiple regressions as the technique of data analysis. The result shows a statistical positive and significant relationship between STD, LTD, TD & AT and Investment Growth (IG) all at 1% level of significance except assets tangibility, which is significance at 5% level. Based on these findings, the study recommends that investors, financial analysts, credit rating agencies and the management of listed manufacturing firms as well as the regulatory authorities such as the Securities and Exchange Commission (SEC) should consider the perceived value of firms with high proportion of equity capital in its financing structure when assessing the value of listed manufacturing firms. In addition, the listed manufacturing firms should intensify efforts towards increasing their short-term debt (specifically), as it has been empirically found that there is

statistical positive significant relationship between the explanatory variables and investment growth of listed manufacturing firms in Nigeria.

Keywords: *Short-term Debt, Assets Tangibility, Investment Growth, Manufacturing Firms, Nigeria.*

BACKGROUND ISSUES

Over the years, researchers in corporate finance have long been interested in how capital structures affect and influence investment growth. On the one hand, Myers (1977) argues that if a company has a high-risk debt, stockholders are encouraged to invest less in future growth opportunities. On the other hand, Jensen and Meckling (1976), argue that there are situations in which owners encourage excessive investment in future investment growth opportunities. Since corporate losing is less trivial than the optimal investment incentive, the important question is how financial contracts have developed to reduce conflict-based investment policies.

Interestingly, there is an increasing demand by researchers to understand how the use of debt and equity to finance the operations of a firm influences investment growth. More so, the fact that an optimal capital structure has not been found only reinforces the complexity of the financing choice problem. Specifically, short-term interest bearing debt in conjunction with the current portion of long-term interest debt provides a better measure of a firms need for cash as this debt requires payment in cash or the use of other current assets in the near future. However, research on how the short term interest debt component of capital structure affects investment growth have not yielded desired results (Abor, 2007; Phansamon and Yalcin, 2012; Amjed, 2012; Addae, Nyarko-Baasi and Hughes 2013).

Long-term debt may actually help lower a company's total cost of capital and hence, increase investment growth (Addae, Nyarko-Bassi & Hughes, 2013). This is because borrowing terms are stipulated independent of a company's future business and financial performance. In other words, if a company turns out to be highly profitable, it does not need to pay the lender anything more than the borrowing interest rate. This has a tendency to drive profitability upwards. This is expected to be so because providers of long-term interest debt subject the firm to monitoring which exert pressure on managers to run

the business in a less costly and efficient manner and this should translate into higher investment growth.

Interestingly, manufacturing firms, which constitute the central domain of this study, refer to a category of firms that operate mainly in the real sector of the Nigerian economy. The firms whose businesses cuts across different industry sectors contribute about 48 per cent of the total market capitalization in the Nigerian Stock Exchange (Enekwe, Agu & Eziedo, 2014). In 2012, the Nigerian Stock Exchange reclassified these firms into four industry sectors; (Consumer Goods, Industrial Goods, Healthcare and Natural Resources) as part of its restructuring strategy. The exercise was to ensure among others that industry sectors reflect the nature of the Nigerian economy, firm activities and bring the classification to global industry standards. These changes were expected to facilitate more accurate market-related analysis at the local and global levels, including analysis of industry effects on overall performance that was likely to differ across industry sector. Therefore, it is important for manufacturing firms in Nigeria to know the debt –equity mix that gives better returns on investment growth.

Obviously, management of corporate entities is mostly in confrontation of what combination of capital structure (equity and debt) will maximize returns and value of the firm. Optimal capital structure means a minimum weighted-average cost of capital. The standard of increasing capital in Nigeria becomes higher and thus, difficult to achieve due to associated risk of raising capital. In Nigeria, investors and stockholders do not consider in details, the effect of capital structure in their future investment growth and value. Indeed, the survival and growth of a firm need resources, but financing these resources have associated risks and limitations.

In an era of global health crisis that was brought about by the Covid-19 Pandemic, harmonization of economic policies/financial markets, the choice of a firm's capital structure and how it affects investment opportunities remains a very crucial decision generating a significant amount of interest and controversy both in the local and global financial literature. Moreover, this study selects four explanatory variables; short-term debt, long-term debt total debt and tangibility as determinants of the explained variable. To the best of the researcher's knowledge, little or no studies have captured assets tangibility as regressor or explanatory variable of the study.

Furthermore, capital structure of firms have been widely studied by numerous scholars prominent among which were (Olokoyo, 2012; Chechet and Olaiwola, 2014; Mahfuzah and Raj, 2012; Taghizadeh, Khaqah and Ahmadnia, 2013; Nwankwo, 2014; Sorana, 2015 and Sulaiman and Ahmed, 2016) but the aspect of "Investment Growth" in relation to "Manufacturing Firms" specifically in the context of "Underdeveloped Countries" have been generally neglected in the extant literatures reviewed. Thus, this study will contributes to fill the gap, by examining the effect of capital structure on investment growth of listed manufacturing firms in Nigeria. Consistent with this objective, the study hypothesized in null form that, short-term debt, long-term debt, total debt and assets tangibility have no significant effect on investment growth of listed manufacturing firms in Nigeria.

The study is conducted to examine the effect of capital structure on investment growth of listed manufacturing firms in Nigeria. The study covers the period of Eight (8) years from 2012 -2019. The period was considered appropriate to cover financing challenges faced by manufacturing firms in a post-global financial crisis era. Again, it is expected to reflect the impact of International Financial Reporting Standard (IFRS) adoption in Nigeria especially in relation to IFRS No. 9, "Financial Instruments" which stipulated that convertible debt should be splitted into liability and equity components and reported in the "Statement of Financial Position". This new requirement is indeed, expected to affect the amount of equity and debt reported in the financial statements. Hence, the study focused on manufacturing firms because of the reclassification of manufacturing firms into industry-sectors by the Nigerian Stock Exchange (NSE) in 2012.

Accordingly, it is expected that the research findings will be most useful in the conglomerate and all the manufacturing firms listed on the Nigeria Stock exchange. This study will be of great relevance to a number of individuals such as creditors and investors who recognize the nexus between capital structure and investment growth of a firm and choose appropriate measures to evaluate and analyze the companies' financial status while committing their hard-earned funds for an expected return. This study will make significant contribution to the existing body of literatures in the area of corporate financing and consequently, the frontier of accounting knowledge as a profession in Nigeria.

Similarly, it is hoped that the result of this study will be beneficial to both internal and external stakeholders. This comprises of managers in maximizing investors' return, owners in making an informed decision, creditors in ascertaining credit worthiness of a firm and government in making favorable fiscal and financial policies to improve on the GDP contribution by the manufacturing firms. The government and its agencies will benefit largely from the findings of this study. This is based on the fact that the study will highlight the need to formulate more favorable economic and financial policies that will sustain the operations of Nigerian manufacturing firms and perhaps, contributing to GDP which previously have been on the decline.

Most importantly, students and researchers who will want to develop a future research on this subject will also benefit from the academic value of the study as it will contribute in filling the gaps of existing body of knowledge in accounting, finance and economics regarding capital structure decision. Finally, this research work will provide information to policy makers such as Nigerian Stock Exchange (NSE), Securities and Exchange Commission (SEC), the Corporate Affairs Commission (CAC) and other relevant stakeholders especially in manufacturing and conglomerate regulations to strive hard in improving transparency, growth and a better mix of capital structure for listed manufacturing firms in Nigeria.

REVIEW OF RELATED STUDIES AND THEORETICAL EXPLANATIONS

This section review the empirical studies related to each independent variable with the dependent variable as well as the theoretical frameworks that underpin the study which were discussed as follows;

Short Term Debt and Investment Growth

Short-term debt consist of a portion of capital structure of a firm that is payable within one year, in accounting debt is classified either short-term debt or long-term debt. According to the study conducted by Mahfuzah and Raj (2012) on capital structure and performance evidence from Malaysian listed companies using panel data procedure a sample of 237 Malaysian listed companies from 1995-2011, the data were obtained by consulting ''Data stream 'database and the study used multiple regression as techniques of data analysis. The findings of the study revealed that short- term debt were found

to have significant and positive relationship with firms' investment growth. However, period and environmental gaps were the major loopholes identified in the aforementioned study.

Other studies such as (Uremadu and Efobi, 2012; Rashanak, 2013; Hermuningsih, 2013; Taghizadeh, Kangha and Ahmadnia, 2013; Ayad and Mustapha, 2015; Ubasie, 2016; Hatane and Liske, 2016 and Shehu and Aitimon, 2017) have examined the relationship between short-term debt and investment growth using different study periods and methodologies. The results from their studies shows a statistical significant relationship between short-term debt and investment growth while (Kakanda, Bello and Ahmad, 2016 and Mwagi, Willy and Patrick, 2016) have documented a contrary association between short-term debt and investment of the listed manufacturing firms.

LONG TERM DEBT AND INVESTMENT GROWTH

Interestingly, (Aliu, 2010; Saeedi and Mahmood, 2011; Pouraghjan, Tabari, Mansourinia, Emmagho, Lipour and Majd, 2012; Akinyomi, 2013; Sorana, 2015; Muzaffar, 2015; Rashid, 2016; Sulaiman and Ahmed, 2016; Antonio, Stanley and Tsomocos, 2017) have investigated the relationship between capital structure and performance of listed mafacturing. On the contrary, (Khalaf, 2013 and Shehu and Aitimon, 2017) have documented an insignificant relationship between long-term debt and investment growth.

TOTAL DEBT AND INVESTMENT GROWTH

Interestingly, (Mahfuzah and Raj, 2012; Robert, 2013; Nwanko, 2014; Julius, Barine and Oluwatosin, 2015 and Sedeeq, 2016) have examined the correlation between capital structure and performance of listed firms. It was found that capital structure proxied by long-term debt and total debt have significant relationship with performance of the listed firms. However, they contradicted the findings of (Obi, 2014; Lawal, Edwin, Monica and Adisa, 2014). Indeed, the study suffers from environmental and period gaps. The results from these studies could have been more effective, reliable and different if conducted in an emerging economy like Nigeria.

ASSETS TANGIBILITY AND INVESTMENT GROWTH

Accordingly, Ogbulu and Emeni (2012) investigated the determinant of corporate capital structure of Nigerian firms, using sampling of 110 of the 114 companies listed in the Nigerian stock exchange (NSE) adopting cross-sectional survey research design. Secondary source of data was the major source used in the study from the Nigeria stock exchange. The study used multiple regressions as the technique of data analysis. The research confirmed that there are strong relationships between Size, Profitability, Tangibility, Growth, Age and Capital structure. Similarly, the studies conducted by (Chandrasekaran, 2012; Rathinathi and Madhumathi, 2012; Muller, 2015; Jennifer and Philip, 2015; Songul, 2015; Ajayi and Zuhirudin, 2016 and Mahmoud, 2017) have all documented a significant relationship between assets tangibility and performance of listed firms. However, the overall summary of the review shows that periodical, environmental, contextual and methodological gaps were the major shortcomings encountered in the previous studies. Hence, the results appear to be conflicting and inconclusive.

THEORETICAL EXPLANATIONS

Modigliani and Miller (1958) first presented the novel theory of capital structure. Many researchers carried out studies about capital structure in the following years. During the past decades, some patterns where presented to describe the fluctuations of debt ratio in different companies.

Accordingly, the static trade-off theory and the pecking order theory were posed in late 1970s. Bradely and Jarrel (1984) posed the first version of static trade-off theory. However, the taxation structure presupposed in the pattern mentioned does not accord with the present realities. According to static trade-off theory, firms are looking for an optimal capital structure debt ratio) which maximizes the firm's value. In this theory, firms want to create a balance between the advantages and costs of debt issuances. The advantages of issuing debt can be tax shield and the reduction of the controversies among the benefits of stockholders and managers and the costs of debt issuance can contain the potential costs of bankruptcy and the controversies of the benefits of stockholders and creditors (Fama and French, 2004).

According to pecking order theory that is resulted through the studies carried out by (Myers and Majluf, 1984), there is not any optimal debt ratio and firms

will try to supply financially without paying attention to optimal capital structure and only will consider the predetermined pecking order. In this theory, firms can be financed through internal and external source. It should be noted that the internal source of funding firms investments plan are in priority and external source of fund would be used only when funds raised internally are considered inadequate. In this case, debt issuance will be preferred to stock issuance. In other words, in pecking order theory, when the internal cash flows of a company are not enough to invest and pay the dividend, firms issue debts with high interest rates and the financial crisis cost is high (Sunder and Myers, 1999).

Moreover, Jensen and Meckling (1976) developed the agency theory. In its primitive form, agency theory relates to situations in which one individual called the agent) is engaged by another individual called the principal) to act on his/her behalf based upon a pre-determined legal arrangement. As a result, higher leverage might as well lead to poorer corporate performance. Agency theory can therefore, be used to explain the capital structure of a company and its choices of financing for new investment as it is based on conflicts of interest between the company's owners, shareholders, its managers and major providers of debt capital. Shareholders might prefer debt finance as a new source of funding. Therefore, Jensen and Meckling argued that the capital structure for a company is obtained by trading off not just the marginal benefits and marginal costs of extra debt but also by trading off the 'agency costs of additional debt.

Specifically, the agency costs theory was suitably employed as the major underpinning theory of the study while the pecking order and trade-off theory were used as the supporting theories of the study.

METHODOLOGY AND MODEL SPECIFICATION

For the purpose of this study, correlational and ex-post factor research design were used. Correlational design involves relating two or more variables with the aim of explaining and predicting the relationship between the variables. The designs are considered appropriate for this study, given that the study aims to examine the association between capital structure and investment growth. Indeed, the population of the study comprises of the seventy-four (74) manufacturing firms listed on the Nigerian Stock Exchange (NSE) as at 31st

December, 2017. It comprises firms categorized into consumer goods twenty-seven (27), industrials twenty (20), healthcare eleven (11), conglomerate (6) and natural resources five (5). A filter was employed as the sampling technique in order to arrive at an adjusted population for the study. The sources of data collection for this study were mainly secondary source only. Specifically, the method employed was the annual reports and accounts of the sampled listed firms for the period of the study 2012 to 2019. Panel data using multiple regression technique was employed for data analysis because the study uses time series and cross sectional data hence, it determines the cause and effect of the relationship of each variable.

Moreover, the purpose of this study is to examine the impact of capital structure on investment growth of listed manufacturing firms in Nigeria. Investment growth measures and capital structure are dependent and independent variables respectively. Investment growth (dependent variable) measured as ratio of market value of equity to book value of equity. Furthermore, three measures of leverage including the ratio of short term debt to total assets, long term debt to total assets, total debt to total assets and one financial indicator tangibility, measured as ratio of fixed assets to total assets. In addition, the performance of the firm is considered as control variable.

Variable Measurement

Nature of Variable	Proxy (ies)	Measurement	Sources
Dependent Variable	Investment growth	Ratio of market value of equity to book value of equity	Sorana 2015, Shehu and Aitimon 2017)
Independent Variable IV	Short term debt	Ratio of short term debt to total assets	Abor 2005, Abor 2007, Aliu 2010), Ubasier 2016) and Shehu &Aitimon, 2017)
IV	Long term debt	Ratio of long term debt to total assets	Abor 2005, Abor 2007,Lawal, Ewin, Monica and Adisa, 2014) Shehu and Aitimon, 2017)

IV	Total debt	Ratio of total debt short term plus long term debt) to total assets	Abor 2005, Shehu and Aitimon, 2017)
IV	Tangible Assets	Ratio of fixed assets to total assets	sorana 2015), Jennifer and Philip 2015) , Handoo and Sharma, 2014)
Control variable	Return on Asset	Ratio of Profit after tax to total assets	Lawal, Ewin, Monica and Adisa, 2014).

Source: *Compiled by the Author, 2020*

In order to examine the influence of capital structure on investment growth of listed manufacturing firms in Nigeria, a multiple linear regression model is built. The model encapsulates the contribution of short-term debt, long-term debt, total-debt, tangibility of assets and performance as a control variable of the study.

$IG_{it} = \beta_{0it} + \beta_1 SD_{it} + \beta_2 LD_{it} + \beta_3 TD_{it} + B_4 TAN_{it}\ \beta_4 PERF_{it} + \mu_{it}$

Where;

IG = Investment growth Dependent variable
SD = Short term debt
LD = Long term debt
TD = Total debt
TAN = Tangibility of assets
PERF = Performance
$\beta 0$ = the intercept/constant;
$\beta 1 - \beta 4$ = are the parameters;
μ = the residual or stochastic error term.

RESULTS AND DISCUSSIONS

This section deals with an analysis and interpretation of the results generated from running the data obtained through secondary sources. This is followed by the analysis and discussion of the results for the two models from which relevant inferences are drawn.

Descriptive Statistics

The summary of the descriptive statistics where the minimum, maximum, mean, standard deviation, skewness and kurtosis of the data for the variables used in this study are presented in table 4.1.

Table 4.1: Descriptive Statistics

Variable	Minimum	Maximum	Mean	Std. Dev	N
IG	0.39	11.78	1.753958	1.560005	336
SD	0.1315108	0.6543221	0.2256434	0.0674318	336
LD	0.100128	0.417728	0.152012	0.0422738	336
TD	0.258138	0.841376	0.3770048	0.0892633	336
TANG	0.100369	0.7436626	0.2313803	0.0686047	336
PERF	-0.0987901	0.153907	0.0383928	0.0525798	336

Source: *STATA Output Result*

Table 4.1 shows that the measure of investment growth (IG) has a minimum value of 0.390 and 11.780 as maximum respectively. The mean value of IG N1.754 with a standard deviation of 1.5600 indicates that on the average, for every ₦100 worth of the total book value of equity for the sampled firms, ₦17.54 was earned as investment growth during the study period and that there is a little dispersion of the data from the mean because the standard deviation is lower than the mean. The minimum value of 0.390 is attributable to the gain by the firms during the period of the study. The minimum and maximum value of IG is 0.390 and 11.780, this means that for every one-hundred-naira worth of investment, the industry had made a gain of N3.90k and had at best earned a maximum of N11.780.

The table 4.2 shows that short-term debt has a minimum and maximum values of 0.132 and 0.654 respectively. This means that the minimum percentage of short-term debt proportion is 13.2% for the manufacturing sector, while the maximum component of short-term debt to the total assets is 65.4%. The average percentage of short-term debt to the total assets, raised at about 22.6%. This denotes that most of the manufacturing firms were finance through short-term debts as source of financing their operation. The standard deviation of 6.7% shows that the average value recorded represents the true

mean with a little deviation because the mean value is higher than standard deviation.

Long-term debt recorded a minimum and maximum value of 0.100 and 0.418 respectively. This means that the minimum percentage of long-term debt proportion is 10% for the manufacturing sector, while the maximum component of long-term debt to the total assets is 41.8%. The average percentage of long-term debt to the total assets rose at about 15.2%. This means that most of the manufacturing firms were financing their assets through long-term debts as source of financing their operation. The standard deviation of 4.2% shows that the average value recorded represents the true mean with a little deviation because the mean value is higher than standard deviation.

Furthermore, total debt recorded a minimum and maximum value of 0.259 and 0.841 respectively. This means that the minimum percentage of total-term debt proportion is 25.9% for the manufacturing sector, while the maximum component of total-term debt to the total assets is 84.1%. The average percentage of total-term debt to the total assets, raised at about 37.7%. This indicates that most of the manufacturing firms were finance through both short-term debts and long-term as sources of financing their operation. The standard deviation of 8.9% shows that the average value recorded represents the true mean with a little deviation because the mean value is higher than standard deviation.

Finally, Assets tangibility has an average of 0.231; the range is from a minimum of 0.100 to a maximum of 0.744. This shows that the assets of the manufacturing firms averaged up to 23.1% of the total assets during the reporting period. However, the minimum of 0.100 is an indication that some manufacturing firms had only 10% as tangible assets; while on the other hand, some manufacturing have up to 74.4% as a tangible asset in proportion to total assets. A standard deviation of 0.069 indicates that the data on both sides deviate by 6.9% from the mean, which means that the data is not far from the mean.

CORRELATION MATRIX

The Pearson correlation matrix was used to assess the relation between the dependent and independent variables of the study. The correlation coefficients of the variables are presented in table 4.2.

Table 4.3: Correlation Matrix

Variables	IG	SD	LD	TD	TAN	PERF
sIG	1.0000					
ST	0.5177	1.0000				
LD	0.5843	0.6410	1.0000			
TD	0.5157	0.5040	0.7198	1.0000		
TANG	-0.0337	-0.2692	-0.1195	0.0821	1.0000	
PERF	0.3879	0.6014	0.5807	0.5048	0.0105	1.0000

Source: *STATA Output Results* (Appendix 1c)

Table 4.3 presents the results of the correlation between capital structure (short term, long-term debt, total debt and assets tangibility) and investment growth (ratio of market value of equity to book value of equity) of listed manufacturing firms in Nigeria. The table 4.3 shows that there is positive relationship between short term, long-term debt and total debt and investment growth from the correlation coefficient of 0.5177, 58443 and 0.5157 respectively. The result suggests that an increase in short term, long-term debt and total debt will lead to an increase in investment growth.

Finally, assets tangibility is shown to be negatively correlated with investment growth from the coefficient value of -0.03879, this indicates that the variables move in opposite direction whereby an increase in the fixed assets will lead to a decrease in investment. The correlation coefficients of the independent variables did not exceed 50% which suggests the absence of multi-collinearity among the explanatory variables. It is however not safe to conclude that there is no multi-collinearity issue unless the variance inflation factor (VIF) and tolerance values are tested.

PRESENTATION, ANALYSIS AND DISCUSSION OF REGRESSION RESULTS

This section presents the regression results of the relationship between the dependent variables (IG) and all the independent variables of the study (short term, long term, total debt and assets tangibility). This is followed by analyzing and discussing the relationship between the dependent variables and the individual variables individually and collectively.The summary of the regression results obtained from the parsimonious model of the study *($IG_{it}= \beta_0+\beta_1 SD_{it}+\beta_2 LD_{it}+\beta_3 TD_{it}+\beta_4 TANG_{it}+\beta_5 PERF_{it}+e_{it}$* is presented in table 4.3 as follows:

Table 4.3 Regression Results

Variables	Coefficients	Z-values	P-values
ST	0.6877817	8.23	0.000
LD	0.6319619	6.96	0.000
TD	0.3576593	4.40	0.000
TANG	0.1282409	1.80	0.070
PERF	-0.4252119	-2.90	0.004
Intercept	1.302719	6.80	0.000
R^2			0.3928
Wald Chi Square			586.90
Wald Chi Sig			0.0000

Source: *Stata Output Results*

ANALYSIS OF MODEL 1 AND MODEL 2

The cumulative R^2, which is the multiple coefficient of determination of 0.3928, gave the proportion of the total variation in the dependent variable as explained by the independent variables jointly. Hence, it signified that the proportion of short-term debt, long-term debt, total debt and assets tangibility accounts for 39.3% of the total variation in investment growth of quoted manufacturing firms in Nigeria. The Wald chi square statistics of 586.90 which is significant at one percent (1% level), this shows that the model is fit. The P-value of wald chi Sqaure test which is statistically significant at 0.0000 (1% level) for the model implies that there is 99.9 percent probability that the relationship among the variables were not due to ordinary accidental (that is

by chance). In addition, it implies that the independent variables reliably predict the dependent variable of the study.

SHORT TERM DEBT AND INVESTMENT GROWTH

Looking at the hypothesis 1, which predicts higher short-term debt components to total assets increases the investment growth of manufacturing sector, the result reveals that short term is positively, and significantly associated with investment growth of listed manufacturing firms in Nigeria. From table 4.5 shows, that short-term debt has a positive beta coefficient of 0.688 and a z- values of 8.23 which is significant at 1% level. The result signifies for every unit change in short term debt of the studied firm's is associated with N0.69k increase in investment growth. It is also in line with the a priori expectation of the study, which states that short- term debt offers the firm some degree of flexibility, is relatively less expensive because of the lower interest rates, and this should influence positively on investment growth. Moreover, the result is not surprising because short term debt represents firm's capital structure, therefore, high short term debt indicates that a manufacturing firms uses short term financing more, so that the money is utilize to finance long term firm growth in order to earn profit. This means that an increase in short-term debt finance level will increase IG of the listed Nigerian manufacturing companies because of economic conditions. The result is in line with the static trade-off theory whose underlying claim is that firms with high short-term debt to total assets have high growth rates prospects. According to this theory, a positive relationship is expected between the firm's debt level and investment growth. The finding support those of Addae, Nyarko-Bassi and Hughes (2013), Yeyon, Cheruiyot and Sang (2014), Baum, Schäfer and Talavera (2006). But, contrary to Shehu and Joseph (2017), Khan (2012), Ahmad, Abdullah and Roslan (2014), Appah, Okoroafor and Bariweni (2013), Bokhari and Khan (2013).

LONG TERM DEBT AND INVESTMENT GROWTH

The regression result reveals that long-term debt has a beta coefficient value of 0.632 with a z-value of 6.96, which is positively and statistically significant at 1% level in explaining investment growth of listed manufacturing sector in Nigeria. This implies that long-term debt is significantly affecting the

investment growth of manufacturing firms. The result signifies for every unit change in long-term debt of the manufacturing firm's is associated with N0.63k increase in investment growth. This result is in line with the a priori expectation of the study that the use of long-term debt subjects the firm to monitoring mechanism, shields the firms profit from tax and allows access to better and more productive technologies, which should significantly drive investment growth. The finding is in line with Shehu and Joseph (2017), Nasimi (2016), Leon (2013), Abbasali and Esfandier (2012), Oke and Babatunde (2011). However, the finding contradicts those of Nadeesha and Pieris (2014), Uremadu and Efobi (2012).

TOTAL DEBT AND INVESTMENT GROWTH

The coefficient of total debt is 0.358 while the z statistics value of 4.40, which is significant at 1% level. This indicates positive relationship between total debt and investment growth of listed manufacturing firms in Nigeria. This signifies that a unit increase in total debt will increase growth by N0.36k. Consequently, the significant positive relationship between total debt and investment growth indicates that growth opportunities that a company has can determine how capital is structured into both short term and long-term debt. The finding is in line with Nazir, Saita, Ahmed and Nawaz (2012) who documented positive association between total debt and performance. It is however contrast of Mohammadzadeh, Rahimi, Rahimi, Aarabi and Salamzadeh (2013), Shehu & Joseph (2017).

ASSETS TANGIBILITY AND INVESTMENT GROWTH

Tangibility has a z-value of 1.80 and a beta coefficient of 0.128 with a p-value of 0.071. This implies that Tangibility has a strong significant positive effect on the investment growth of listed manufacturing firms in Nigeria at 5% level. The beta coefficient indicates that an increase of Tangibility by 1% will cause investment growth to increase by 12.8%. This means that debt may be readily used if there are durable assets to serve as collaterals. In addition, the implication of this finding is that the higher the assets tangibility the higher the investment growth of listed manufacturing firms in Nigeria. This also suggests that high assets tangibility of firms is likely to use both short term and long-term debt for financing their investments rather than firms with high

tangibility. Tangibility variable supports consistency of pecking order theory, however practically manufacturing firms with tangible assets have more debt reason being that most of this asset are used as collaterals to finance diversification of operations. The finding is in line the studies of Meckling (1976) and Myer (1977). However, the finding is contrast to the findings of Akhtar and Oliver (2009), Khrawish and Khraiwesh (2010), Zabri (2012) and Wahab et al (2012).

CONCLUSION AND RECOMMENDATIONS

Based on the preceding analysis and discussions, the study concludes as follows:

Short term debt has a positive and statistically significant relationship with investment growth of listed manufacturing firms in Nigeria as such the study concluded that short term debt has impacted positively in enhancing the investment growth of listed manufacturing firms in Nigeria as financing sources.

Long-term debt has significantly affected investment growth of listed manufacturing firms in Nigeria. This confirmed the theoretical belief of some researchers that investment growth raises because of long-term funds. Therefore, it is concluded that investment growth and long-term debt are connected to each other. Indeed, total debt and investment growth of listed manufacturing firms in Nigeria are found to have a positive and statistically significant relationship. The result of the study concluded that investment growth of listed manufacturing firms raises as both short term and long-term debt (total debt) increases.

The assets tangibility has a positive impact on the investment growth of listed manufacturing firms in Nigeria. It is therefore, concluded that assets tangibility increases the level of investment growth of Nigeria listed manufacturing firms.

In line with the findings of the study, the following recommendations are made:

Debt financing for listed manufacturing firms corresponds mainly to short-term borrowing. This means that mode of financing impacts positively and significantly on their investment growth. It is therefore, recommended that managers of listed manufacturing firms should increase the quantum of short

term debts such as overdrafts and short term loans used to fund their operations.

Managers in deciding the capital structure of entities should also consider the industry sector that their firms operate as this significantly influences investment growth. Specifically, investment in the long term projects which requires long term debt can increase investment growth is advisable.

Investors, financial analysts, market regulators as well as credit rating agencies should consider the perceived value of firms with high proportion of equity capital in its financing structure when assessing the value of listed manufacturing companies. This is because the perception of creditors or suppliers about a company with less debt results in favorable credit terms such as low interest charges, extended payment periods and cash discounts.

Tangibility has a strong significant positive effect on the investment growth of listed manufacturing firms in Nigeria at 5% level of significance. It's therefore, recommended that management should endeavour to increase their asset to improve the investment growth.

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