

# Institutional Investors, Board Size and Capital Structure Decisions: Empirical Evidence from Non-Financial Firms in Nigeria

Ahmad B. Abdul-Qadir, PhD, Emilia V. Yaroson\*\*, Maryam Abdu  
Department of Business Administration, Kaduna State University

## Abstract

This paper explores empirically the contribution of institutional holdings in capital structure decisions using firm level annual data for sample period from 2009-2013 of 19 non-financial firms listed on the Nigeria Stock Exchange. The study also examines the effect of board size on financial mix decisions and controlled for traditional determinants of capital structure which include firm size and profitability. The analysis reveals that board size and the control variables have positive and statistically significant effect on capital structure decisions. We also find that institutional shareholding complement leverage but it is not statistically significant. The results therefore suggest that board size, profitability and firms' size are important variables to be looked at when determining optimum financing mix. Furthermore, the insignificant contribution of institutional shareholders to achieving optimum level of capital structure may emanate from the fact that the institutional base of the firms in the study are not strong enough to adequately monitor managerial inefficiencies. More so, these institutions may be handpicked and not independent institutions. Therefore, for institutional investors to have considerable effect in capital structure decisions they should be independent.

**Keywords:** Institutional shareholding, Board Size, Capital Structure, Profitability

## 1. Introduction

Capital structure which is defined as the choice of a firm's long term financing mix is one of the most important decisions managers have to make that has a resounding impact on the firm's profitability and survival (Brealey et al. 2004). The motivation for capital structure management stems from the need to trim down the cost of capital in an attempt to maximize shareholder's wealth. Nonetheless, researchers have failed to reach a consensus as to the level of capital structure at which the cost of capital will equate the benefits accrued to shareholders.

Previous researches have recognized the influence of corporate governance mechanisms such as board size and institutional holdings on capital structure decisions (Berger et.al. 1997; Abor, (2007). Hasan & Butt, (2009)). This is because these tools which entail processes and structures are set up to assuage agency, information asymmetry and tax issues. However, empirical literature does not provide conclusive evidence on the effect and relationship between the two variables. For instance, Ganiyu & Abiodun (2012); Abor et al (2008) and Agyei& Owusu (2014) find board size to have significant impact in determining adequate financing on one hand, Ajanthan (2013); Rehman et al. (2013) find no correlation whatsoever.

More strikingly are Institutional investors, which are often regarded as the most influential set of investors. Their effect on agency costs, asymmetric information and taxes are proposed to alter the manner in which firms structure their capital. Hence, by taking up monitoring roles and threatening to exit, institutional investors lessen the conflicts that may occur between managers and shareholders (Admati& Pfleiderer (2009), and Levit (2012)). More so, by engaging in trading activities based on the information collected, institutions investors reduce information asymmetry problems usually connected with equity (Sias (2004)). In addition, institutional investors as equity holders, have relative tax advantage over individual investors as such ease the burdens associated with tax.

In spite of the fact that institutional investors aid in cushioning the problems mentioned above and as elucidated by many capital structure models, the impact institutional investors have on the capital structure of firms still remains evasive. As Institutional holdings and debt could be either complements on one hand or substitutes on the other (Michelay & Vincent, 2013). For instance institutional shareholders attempt at controlling organizational inefficiencies by threatening to sell shares may be as efficient as committing managers to pledge funds to creditors (Jensen, 1986). Also, gathering of information by institutional shareholders and trading will produce information which may lead to fall in adverse selection costs of equity, as such firms may lean towards increasing equity financing in their capital structures.

Although previous literature has failed to focus on the link between capital structure and institutional investors, the notion that institutions may affect corporate financial policy has not been totally overlooked. Studies in recent times has shown that institutional holders contribute significantly in payout policy (Grinstein and Michaely (2005)), executive compensation (Hartzell and Starks (2003)), CEO turnover (Huson, Parrino, and Starks (2001)), and corporate governance (Gillan and Starks (2000)). Moreover, the empirical literature

examining the effect of institutional shareholders and firms' capital structure decisions are limited especially in Nigeria. Our paper contributes to this strand of literature by providing empirical evidence on the contribution of institutional investors to financing mix decisions amongst listed non-financial firms in Nigeria. This is an introduction to the study, the remainder of the paper is organized as follows; In Section two a review of related theoretical and empirical literature of institutional investors and their impact on capital structure. In Section three the methodological framework is described with the constructions of several important variables. In the next section we present the findings from our empirical analysis and conclude the paper in section five.

## **2. Related Literature and Hypothesis Development**

### **2.1 Theoretical Framework**

In an attempt to investigate the effect of institutional holding on firms leverage, we briefly review the most relevant theories of capital structure which advocate that tax, information asymmetry and agency cost are the problems envisaged when determining financial mix decisions. We also discuss the general institutional holding characteristics which explain the effects of institutional investors when they interact with these frictions, as well as detailed implication of these interactions for firms' financing mix decisions. To address the shortcomings of the debt irrelevance theory proposed by Modigliani & Miller (1958) firms, several theories have been put forward which suggest that taxes, information asymmetry and agency costs are the major frictions that facilitate the selection of an optimal level of capital structure capable of affecting firm value. These theories can be classified into two groups; the tax based theories and the non-tax based theories (Kajanathan, 2012).

The tax based theorists who include the trade-off theorist predicts that target debt ratio will differ from firm to firm. Hence, companies with safe tangible assets and ample taxable income to protect themselves in cases of financial distress should have higher debt ratio while unprofitable companies with risky intangible assets should seek for more sources of financing through equity. But less profitable firms do not have the shield against tax as such need to borrow more. Hence the theorists predict that managers will try to increase debt levels to a point where the value of an additional interest tax shield is exactly offset by the additional cost of financial distress (Brealey, et al.2004). Nevertheless, institutional investors generally have a relative tax advantage over individual investors as many institutions have tax exemptions, while several others pay taxes based on a small portion of the dividends they receive from their investments. Therefore, all things being equal, the more institutional holders in a firm, the more equity shares they issue.

The pecking order theory also referred to as the asymmetry information model on other hand proffers explanation as to why profitable companies borrow less. It is based on asymmetric information as managers are more knowledgeable about the prospects and profitability of the firm than external investors. Hence investors may be unable to assess the true value of the firm when securities are issued. If managers know more than outside investors, they may be tempted to time stock issues when their companies stock is overpriced while optimistic managers will view their companies' shares as underpriced and decide not to issue. All these problems are mitigated if the firm chooses to finance through earnings retained and reinvested. However, if external financing is necessary, firms will issue debts first and issue equity as the last resort (Zurigat, 2009; Ebadi et al., 2011). The theory therefore posits that more profitable firms borrow less because they do not need outside money and that less profitable firms issue debt because they do not have enough inside funds for their capital investments (Ahmad et al, 2012). Azhagaiah and Govoury (2011) buttress further that equity financing is the most expensive and dangerous source of financing in terms of potential loss of control of the firm by its original owners. Institutional holdings however, are used to curtail the issue of information asymmetry because they dedicate substantial resources to collecting information. Many institutions are subject to federal fiduciary and prudential standards urging them to collect information about the firms they invest in in order to lessen the chances of being sued for violating these standards (Michaely & Vincent, 2013). As a result of these processes, institutional investors are armed with more information than other types of investors. More so, adverse selection costs of equity is affected because it reduces the gap in the information outside and inside shareholders have, since at least a portion of the information they collect is reflected in their trading patterns (Sias, 2004).

Whilst the pecking order theory of capital structure decisions does not necessarily suggest that institutional holdings and financing mix decisions will have a positive relationship, the two variables can be inversely related as a result of information asymmetry and mispriced equity (Myers (1984). Here, firms may under - invest in good yielding projects which will result in firms funding investments with financing sources that best minimize adverse selection costs. Hence, firms will choose retained earnings over risky debt and equity. Institutional investors ease the adverse selection costs of equity, to make equity financing comparatively cheaper; firms with high institutional holdings should have lower leverage than those with low institutional holdings. On the other hand, institutional holdings can have a positive impact of capital structure that firms may reject worthwhile projects based on the dilutive costs of issuing equity. As such, a multi - period model will be constructed where firms optimally issue stock today, when information asymmetry is low, to avoid the potential loss of a positive NPV project in the future due to information asymmetry problems at that time (Viswanath,

1993). However, the dilutive cost of future equity narrows the information gap between managers and shareholders. As such, a strong institutional shareholder base may allow firms to avoid issuing equity today, implying a complementary relationship between institutional holdings and leverage (Michaely & Vincent, 2013)

Another set of capital structure theorists posit that the level of conflicts of interests between managers and equity holders lead to a particular leverage ratio (Jensen, 1986). These conflicts are usually costly as they cause managers to overindulge in activities which will benefit only themselves since they bear the whole cost of abstaining from these activities whilst garnering only a fraction of the gains. Debt is proffered to alleviate this inefficiency as Jensen (1986) argues that debt is a moderating tool used to assuage shareholder manager agency conflicts by committing managers to pledge funds to repay creditors. As such, firms will increase their debt portfolio and reduce equity in order to lessen the amount of free cash available for empire building as well as tackle managerial inefficiencies. Nevertheless, Institutional investors can affect the viciousness of firms' agency costs, because institutions engage in monitoring managers ranging from intervention in the company's affairs to more aggressive techniques of shareholder activism, (Parrino, Sias, & Starks (2003); Gillan & Starks(2007); Huson, Parrino, and Starks (2001)). The goal however is to reduce the conflicts of interest that exist between shareholders and managers, and in doing so, institutional investors can potentially influence capital structure decisions (Michelay & Vincent, 2013).

Despite the fact that various models advocate that institutional investors mitigate shareholder - manager agency conflict when determining financial mix decisions, the mode in which this is done remains evasive. Two strands of models exist in this context; institutional investors as substitutes or as outcomes (La Porta et al. (2000). As substitutes, institutions afford protection for investors while acting as substitutes for debts. Therefore if everything is equal, firms, with high level of institutional investors will require low debts and higher equity. With institutional investors as outcomes, for these investors to sufficiently affect the level of debts, ample mechanisms must be put in place, perhaps in the form of laws and regulations, and thereby limiting potential wealth expropriation. This implies that firms with high institutional investors will have more debt.

## **2.2. Empirical Evidence**

Empirical literature centered on the link between institutional holdings and capital structure decisions are rather limited. Whilst the existing literature surroundings the nexus which assess the main characteristics of corporate governance such as board size, board composition, CEO duality and CEO compensation, effects on firms leverage remain inconclusive.

### **Board size and Capital Structure**

Abor (2007) analyzed the link between corporate governance and capital structure for listed firms on the Ghana Stock Exchange and find statistically significant relationship between board size, CEO duality and a higher percentage of non-executive directors and capital structure. The findings generally indicate that firms' with CEO duality pursue higher debt policies since the CEO also acting as the director concentrates decision making. While a larger board size which is more entrenched as a result of superior monitoring may seek higher financial leverage to increase the value of the firm. Also, higher percentage of external directors may seek for higher leverage. In the same vein, Ganiyu & Abiodun (2012) who find that board size, board skills and CEO duality have significant impact in determining debt to equity ratio for the companies under survey in the food and beverage industry in Nigeria. They conclude that larger board sizes and higher profitability may make firms more prone to taking risk and seek external sources of finance for expansion and aggressive exploitation of investment opportunities. Elucidating that larger board sizes may weaken corporate governance practices as a product of conflicts emanating from the failure of the board to reach a consensus in decision making thereby leading to high leverage (Jensen,1986; Berger, et.al. 1997). Also, Abor et al (2008) find board skill and board size significantly positive to the leverage position of oil and gas firms in Nigeria. Agyei& Owusu (2014) explore the relationship between corporate governance and capital structure of listed manufacturing companies in the Ghanaian Stock Exchange. The study covered 8 firm level data for the sample period of 2007-2011. The results show that board size, board composition and ownership structure are positively correlated to the firms' debt to equity ratio, which depicts the importance of corporate governance practices in capital structure mix. In a similar study by, Kajanathan (2012) six corporate governance mechanisms driving capital structure decisions were employed from 28 manufacturing firms listed on the Colombo Stock Exchange as a sample for the periods 2009-2011 in a multivariate framework. The results show corporate governance practices influence a firm's financing mix decisions.

In the same way, Chitiavi et al. (2013) investigated the impact of corporate governance mechanisms on leverage for 30 firms listed on the Nairobi Stock Exchange for a span of 5 years (2007-2011). By employing board size, ownership concentration, institutional share ratio, board independence and CEO duality as proxies for corporate governance, the empirical analysis reveal that the firms under observation had larger board size and preferred internal financing. In addition, Uwigbe (2013), examines the impact of CEO duality and Board size on

capital structure amongst 40 randomly selected firms listed on the Nigeria stock exchange. The findings reveal a negative relationship between board size and capital structure and hence concludes that firms with smaller board sizes employ more amount of debt to lessen agency problem.

Contrastingly, Ajanthan (2013) looked into the relationship between some specific characters of corporate governance (Board Size, CEO duality, Board Composition) capital structure and profitability of 18 listed Hotels and Restaurants companies in Colombo Stock Exchange. The findings show that none of the variables have significant relationship with capital structures. In addition, the study conducted by Rehman et al. (2013) looked into the link between the underlying nexus of 19 randomly selected banks in Pakistan using the multiple regression mode. The results show no relationship between corporate governance and capital structure in the banking sector in Pakistan.

### **Institutional Shareholdings and Capital Structure**

Hasan & Butt (2009) analyze the corporate governance and capital structure decision mix of 58 randomly listed companies in Pakistan. The study covers the period from 2002-2005. Using board size, board composition, CEO duality, and more specifically institutional shareholding, the findings suggest that corporate governance is necessary when making financing mix decision. Furthermore, the results find no significant relationship between institutional shareholding and capital structure explaining that most institutional shareholders in the sample are either handpicked nominees or are family representatives. Therefore for institutional shareholders to have effective control, their nomination should be random and independent.

Al Najjar & Taylor (2004) explore the relationship between capital structure and ownership structure on Jordanian listed firms from 1994-2003 using both single equation and reduced equations for panel data. The findings reveal that assets tangibility, firm size and Business Risk are considered joint determinants of ownership structure and capital structure decisions. In the same vein, Dalvi & Mardanloo (2014) studied the effect of capital structure and ownership while controlling for conservatism using 50 conservative firms listed on the Tehran Stock Exchange. Using a multivariate regression model for panel data, the findings show that ownership structure is insignificant when firm determine their capital structure.

More specifically is the work of Michaely & Vincent (2013) who empirically investigate the relationship between institutional shareholding and capital structure for firms. The study used data of all firm - year observations for U.S. incorporated firms in the CRSP-Compustat merged database between 1979 and 2009, excluding American Depositary Receipts, utility companies., Arrellano & Bond dynamic panel estimation, linear two - stage least squares estimation and S&P 500 treatment in two difference - in - differences estimations were employed to explore the nexus. They find a significant inverse relationship between institutional holdings leverage. In addition, firms lower their debt to equity ratio with an increase in institutional holdings as such they tend to issue more equity but not debt. While these findings are consistent with models in which institutions substitute for debt by monitoring and reducing information asymmetry problems, further evidence suggests that the effect on asymmetric information dominates.

It is pertinent to note that the existing empirical literature on institutional holdings and capital structure decisions is limited and inconclusive. In light of the foregoing, this study hopes to add to exiting literature by providing empirical evidence on the contributions of Institutional shareholding in capital structure decisions.

## **3. Methodology**

### **3.1 Data Description**

In an attempt at investigating the impact of institutional investors on capital structure decisions, this study employed data extracted from the financial reports of non-financial firms (consumer goods) as made available in the Nigeria Stock Exchange Fact Book and the companies' annual reports. The sample is made up of a total of 19 consumer goods companies for a sample period 2009-2013. The choice of the sample time frame is based on the fact that the Code of Corporate Governance for public companies was reviewed in 2008. It is therefore expected that most listed firms will begin complying with the reviewed Code of Corporate Governance by 2009. The initial sample size for consumer goods firms as classified by the Nigeria Stock exchange was 27 (NSE fact book, 2012/2013), but due to the unavailability of data for some listed firms for the period under consideration the sample size was reduced to 19 non-financial firms .

### **3.2 Construction of variables**

In investigating the link between institutional shareholding and capital structure decisions, we construct our variables in line with existing theories and empirical research.

**Capital Structure** is employed as the dependent variable. *Capital Structure* which is the choice of the long term financial mix of debt and equity was arrive at by dividing total debt by total equity as shown below( Ganiyu & Abiodun, 2012; Kajanathan, 2012;)

$$CS = \frac{\text{Total debt}}{\text{total equity} + \text{total debt}}$$

**Board Size:** board size represents the board of directors of the firms. They are at the top of any corporate set up and contribute significantly to strategic decision making such as capital structure mix. In this study, therefore, we employ the variable board size which is the total number of members on the board of directors measured in its logarithm form (Hasan& Butt, 2009; Ganiyu & Abiodun, 2012; Bodaghi & Ahmادpour; 2010)

**Institutional shareholdings** this is measured as a percentage of the shares held by institutions as reported in the annual reports of the firms. The presence of institutional shareholders as equity share holders is said to change the method in which firms structure their capital. In the first instance, institutional shareholders provide a source of long term debts while enjoying strategic influence over the board. Also, they aid in lowering agency costs and lessen managerial opportunism by threats of exit and monitoring management which boost shareholders confidence and raises firm value. Hence, the higher the institutional shareholdings by firms, the higher the ratio of debt to equity (Ajathan, 2013; Hasan& Butt; 2009; Chivati et al. 2013; Agyei& Owosu, 2014)

**Firm size:** We control for firm size as a variable that can affect the structure of a firms capital mix. As there are considerable evidence that the size of a firm plays an important role in the capital structure decision. Large firms tend to be more diversified and less susceptible to bankruptcy. Therefore, a positive relationship is expected between a firm's size and its leverage (Titman and Wessels, 1988; Bhaduri, 2002). Bauer (2004) suggests that the natural log of total asset of the firm can be used to measure the firm's size.

**Profitability:** The study also control for profitability as a major determinant that can affect capital structure decisions when interacting with institutional shareholders. Although theoretical predictions surrounding the impact of firms' profitability are inconsistent, its importance in determining capital structure cannot be overemphasized. From the trade-off theory, firms with higher profitability should have higher leverage which will be used as a shield against higher taxes. However, from the pecking order theory point of view, firms prefer internal financing to external therefore; more profitable companies may have lower need for external financing and therefore should have lower leverage. In this study, profitability is measured as earning per share since the firms are publicly traded companies.

### 3.2 Model Specification

This research work uses multivariate regression analysis in a panel data framework to empirically examine the interactions of institutional shareholding and capital structure of listed non-financial firms. The study adopts the panel data approach as it aids in exploring simultaneously the cross sectional as well as the time series aspects of the data.

The model is developed from existing empirical research and augmented to meet the major objective of the study. It is specified below as:

$$CS_{i,t} = \beta_0 + LNBZ_{it}\beta_1 + FS_{it}\beta_2 + PROF_{it}\beta_3 + \%INSH_{it}\beta_4 + \varepsilon_{i,t} \quad (1)$$

Where CS = Capital Structure

LNBZ = the natural log of board size

FS = is the size of the firm

PROF= Firms profitability

INSH= Institutional Shareholding

*i* denotes the different companies in the sample (*i* = 1...19) and *t* denotes the time period (*t* = 2009...2013).  $\beta_0$ ,

Represents the parameter of the model to be estimated which may vary across firms *and*  $\varepsilon_{i,t}$  is the error term.

### 3.4 Econometric Techniques

The econometric technique used to analyze the coefficients in the study is determined by the Hausman test. The Hausman test, estimates the null hypothesis ( $H_0$ ) that the model is random effect (RE) against the alternative hypothesis ( $H_1$ ) that the model is fixed effect (FE) is tested. The underlying objective is to test if the error term is correlated with the regressors. The absence of such correlation may present the random effects model to be more powerful. The existence of correlation makes the random effects model inconsistent in estimation and the fixed effects model would be the choice model. The fixed effect model is preferred in the presence of correlation as it allows for cross sectional heterogeneity by letting the intercept differ across entities/individuals. It also tries to explain the causes of variation within individuals or entities. If the *p*-value is greater than 0.05 (*p*>0.05) they are termed insignificant and the random effects model is used. However if the *p*-value is less than 0.05 the fixed effect estimator is significant and should be employed.

The Hausman test in these analysis yields  $\chi^2_3$  of 10.95 and *p*- value of 0.9135 which is insignificant at a 5% s level, As such we fail to reject the null of a random effect model. More so, the random effect model is preferred in this study because the control variable the firms' size is time invariant and if employed in the fixed effect model it will be absorbed. The Random effect model is used and is corrected for heteroscedasticity and serial correlation using the robust standard errors.

#### 4. Empirical Results

*Table 1 Descriptive Statistics*

Variables	Obs.	Mean	Std. Dev.	Min.	Max.
<b>BOARD SIZE</b>	81	9.592593	3.216278	6	17
<b>FIRM SIZE</b>	84	4.34E+07	1.636919	10.59863	19.67252
<b>CS</b>	94	33.87234	25.3306	1	79
<b>INSH</b>	74	53.51537	19.46704	10	75
<b>PROFITABILITY</b>	72	15.83333	43.11498	-2	260

Table 1 above reveals that the average size of the board of directors of our sample companies is 9.5 with the largest of 17 members and the minimum board size of 6 members. The average level of institutional holdings is approximately 53.5% with the minimum of 1% and a maximum of 75% which is fairly significant. Also, the average ratio of the firms' capital mix is 33% which denotes the companies on an average are financed by 33.8% long term debt and 66.2% equity.

*Table 2 Correlation Matrix*

Variables	CS	FS	LNBZ	INST	PROF
<b>CS</b>	1.000				
<b>FS</b>	0.7208	1.000			
<b>LNBZ</b>	0.7086	0.6857	1.000		
<b>INST</b>	0.2532	0.1857	0.4428	1.000	
<b>PROF</b>	0.3922	0.4453	0.4725	0.1422	1.000

The results of the correlation matrix from table 2 above indicate a positive relationship between institutional holdings and capital structure which may stem from the effect of monitoring management and agency reduction (Hassan & Butt, 2009). But this relationship is rather weak at 23%. There is also a positive relationship between the firms' leverage (CS) and firms' size. This is logical as the presence of a large asset base is necessary for firms to borrow funds from commercial banks in Nigeria. Also, the size of the board from the analysis is found to be positively correlated with capital structure at 72%. Signifying that larger boards may exert demands on managers to pursue lower risk financing options which will lower cost of capital whilst maximizing shareholder wealth. We find a positive relationship between capital structure and profitability which is line with the trade-off theory

Table 3 below presents the result of the multivariate analysis in a panel framework. The analysis show that a 1% increase in profitability will lead to a 0.8% point increase in capital structure and it is significant at  $\alpha=0.01$ . The results have economic implication and are in line with the trade-off theory that predicts that profitable firms will have high debt servicing capacity and more taxable income to shield and therefore should have higher debt to equity ratio (Petersen and Rajan, (1994).

Similarly, the analysis presents evidence that debt to equity ratio is significantly affected by the size of the firm. Thus an increase in firm size invariably leads to a 6.08% point increase in capital structure. Therefore, larger firm represents larger assets base and the ability to withstand financial pressure in the case of bankruptcy.

The size of the board is also a major determinant of a firm's financing mix decisions. This implies that these large boards will pursue a policy of higher leverage to improve the values of their firms' value which is more entrenched as a result of monitoring by regulatory authorities and institutional shareholders (Wen, (2000); Anderson, (2004)). While a larger board

Furthermore, the contribution of institutional investors to capital structure decisions is a positive one. As a change in institutional shareholding base leads to an increase in debt to equity ratio. Hence the higher the level of institution shareholders a firm has, the more likely the firm will borrow more. As such, institutional investors have a complementary relationship with leverage. But this finding is not statistically significant possible; explanation may be that the institutional shareholders base is not strong enough to mount pressure on managers or threaten to exit when managers assume empire building or due to operational efficiencies. More so, Hasan & Butt (2009) explain that it is because most institutional shareholders are often family members or handpicked nominees as such their effect as corporate governance mechanisms are hardly felt.

The power of model is explained by R, which shows the overall influence of independent variables on the dependent variables. In our results, it states that 55% of dependent variable is influenced by independent variables. More so, the P value and the F statistics is also less than 5% which depicts strong relationship between the variables.

The estimated model can therefore be expressed as follows;

$$CS_{i,t} = -102.76 + 14.98399LNBZ_{i,t} + 6.083FS_{i,t} + 0.082PROF_{i,t} + 0.09051\%INSH_{i,t} + \varepsilon_{i,t} \quad (3)$$

*Table 3*  
*The Effect of Institutional Shareholding on Capital Structure*  
**Dependent variable: Capital structure**

Variables	Coefficient	Std. Error	Z Stats.	P>(Z)
LNBZ	14.98399	7.947168	1.79	0.074*
FS	6.083425	1.57636	3.86	0.000***
PROF	0.0818295	0.0341462	2.69	0.007***
INST	.0905119	0.1996949	0.45	0.650
CONSTANT	-102.7647	26.31519	-3.88	0.000
<b>Wald chi2(4)</b>	<b>28.72</b>			
<b>Prob&gt; chi</b>	<b>0.000</b>			
<b>R<sup>2</sup> within</b>	<b>1.945</b>			
<b>R<sup>2</sup> between</b>	<b>0.5562</b>			
<b>R<sup>2</sup> overall</b>	<b>0.5250</b>			

**Note (\*, \*\*, \*\*\*) denotes significance level at 10%, 5% and 1% respectively**

Source: Stata output

## 5. Conclusion

This paper empirically examines the relationship between board size, institutional holdings and capital structure for 19 non-financial listed on the Nigerian Stock Exchange. The study used a five year time frame 2009-2013, taking into consideration the reinforcing of the Code of Corporate Governance in 2008. Results reveal that, representations of institutional holdings have a positive but insignificant relationship on capital structure decisions. This goes to show that institutional investors acts as complements as with the agency theory predictions but not significant because there is no adequate monitoring by this group. On the other hand the study finds that board size contribute significantly in determining capital structure as larger board sizes lead to higher debt to equity ratio.

The traditional determinants of capital structure like firm size and profitability were found to be statistically significant. Profitability is positively related to capital structure which is line with trade-off theory. Furthermore, larger firms denote larger assets bases and thus the ability to withstand financial pressure and bankruptcy. Also, large firms can arrange debt financing due to long term relationship and better collateral offering. As such we conclude institutional investors contribute to capital structure decisions but this base is not strong enough to make any major impact.

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