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# Corporate Governance and Tax Planning Among Non-Financial Quoted Companies in Nigeria

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**Abstract**

The study examined the impact of corporate governance on tax planning of non-financial quoted companies in Nigeria between 2004 and 2014.A sample of fifty (50) companies out of 151 non-financial quoted companies that covers 10 sectors were purposively selected on stratified random sampling basis. The data used in the analysis were collected from the audited financial statement of the selected non-financial quoted companies in Nigeria and Nigeria Stock Exchange Fact books and analysed using generalizes method of moments (GMM). The result showed that there is positive and significantly relationship between Effective Tax Rates (ETR) and firm value (TobinQ). The positive relationship as shown in the result implies that tax planning activities has not be benefiting the increase in firm value.All the variables such as leverage (LEV), Liquidity (LIQ), Net Working Capital (NWC), Growth opportunities (MTB) and capital intensity (CIN) were found to have a positive and significant relationship with the firm value.The recommendation thus is that firms need to institute more healthy tax planning practices and engage the services of professional tax consultants for higher firm value.

**Key Words:** Tax Planning, Effective Tax Rate, Firm Value, Nigeria

**JEL Code:** H25 H26 H32

**Introduction**

Corporate Effective Tax Rates (ETRs) are often used by policy-makers and interest groups as a tool to make inferences about corporate tax systems because they provide a convenient summary statistic of the cumulative effect of various tax incentive and corporate tax rate changes (Kern & Morris, 1992; Gupta & Newberry, 1997). The ETR, which is the acceptable index for measuring effectiveness in Tax Planning, is based on the actual average tax payable on a taxpayer's pre-tax income, which is different from the statutory tax rate which is imposed on the taxable income.

Riza (2003), Viavo (2007) and Friese and Mayer (2008) have established that tax planning has a significant influence on corporate governance thereby increasing the value of the firm, Prior studies by Desai and Dharmapala, (2006); Desai and Dharmapala, (2009b); Wang (2010) and Lim, (2011) had looked on the effect of corporate governance on taxation but they have not viewed the direct effect towards tax planning. Nurshamimi (2011) in his study emphasised the direct effect of corporate governance on tax planning using corporate ETR as a proxy of tax planning. Desai and Dharmapala (2008) in a literature review on agency theory, corporate governance and taxation, asserted that the tax system can mitigate or amplify the corporate governance problems. They observed that an inverse can also happen, where the nature of the corporate governance environment can influence the nature and consequences of the tax system. For many years, the themes of taxation and corporate governance were considered antagonistic in the literature, but recent studies have concluded that they are related themes, since some corporate governance mechanisms have an important influence on firms' taxation. Furthermore, Desai and Dharmapala (2008) pointed out the impact of tax systems on corporate ownership patterns, and how ownership patterns in turn constrain corporate taxation and describe how tax systems are increasingly influencing corporate decisions.

In Nigeria, studies on tax planning and corporate governance have remained majorly unraveled empirically. In a nutshell, there has been paucity of research specifically focusing on listed firms in Nigeria. However, Okoye and Akenbor (2010) did investigate the effect of accounting policies on corporate tax planning in Nigerian listed firms. The first weakness of the study was that it examined the effect of accounting policies on corporate tax planning only. Another weakness of the study was that it was just a research survey of opinion structured questionnaire without empirical analysis from the company's financial data. Also, in kiabel and Akenbor (2014) study on tax planning and corporate governance in Nigerian banks, the focus was centred on corporate governance using ordinary least square method.

Given the importance of this concept of tax planning for corporate organizations in Nigeria, and the mixed results from other studies outside Nigeria, there is a gap that the present study seeks to bridge by examining the effect of corporate governance on tax planning in Nigeria. Section one presents the introduction to the study, section two focuses on literature reviewed and section three explains the methodology used in this study. Section four presents the results while the conclusion reached in this study is in section five.

## Literature Review

The characteristics of the board of directors have been argued to be most effective mechanism in management monitoring (Ibrahim, Howard &Angelidis, 2003). As such, studies have documented the effect of board characteristics on corporate tax planning (Minnick & Noga, 2010; Lanis & Richardson, 2012; Vafeas, 2010). The tax planning is a significant element of business strategy which requires attention from managers of all functional areas in the firm. Particularly, Desai and Dharmapala (2009b) argued that the existence of information asymmetry between managers and shareholders for tax planning can help managers to manage earnings in their own interest resulting in a negative association between tax planning and firm's value.Management actions designed solely to reduce taxes by setting up tax planning activities are becoming more common in all companies world-wide. Lanis and Richardson (2011) found that taxes are a factor of motivation for many decisions made by managers.

The corporate governance has been playing an important role in monitoring different actors and harnessing on planning procedures. It has a global vision of the activities of management, but the question of its performance had been several debates and disputes in time and in space, as a way to rehabilitate the informational efficiency. In this context, several studies (Desai & Dharmapala, 2006; Hanlon & Slemrod, 2009; Lanis & Richardson, 2011; Chen et al., 2010) have shown that some governance mechanisms affect negatively tax aggressiveness.

The tax practices are not unique to develop countries but are also encountered in developing countries and huge amount of money are lost by such practices. In the Anglo-Saxon context, researchers have studied the relation between tax aggressiveness and some governance mechanisms and found contradictory results.

### Corporate Board's Size

The effectiveness of the board depends on its size (Jensen, 1993). In fact, the size of the board can influence the management policy of the company. For Minnick and Noga (2010), small boards of directors strengthen good tax management, while large boards are proving ineffectiveness because of the difficulties in decision-making about tax aggressiveness policy. Likewise, Lanis and Richardson (2011) reported that the size of the board has a significant effect on the availability of tax aggressiveness which is synonymous to tax planning. In contrast, Aliani and Zarai (2012) reported the non-significance between the size of the board and tax aggressiveness in the American context. They found that the number of directors does not influence the strategies to minimize tax expenses.

### Gender Diversity

The Higgs Derek Report (2003) in the United States argued that diversity could improve the effectiveness of the Board and that companies can benefit from the existence of professional women in their boards. In the findings of Kastlungeret al. (2010), there are the perfectionist feminine values in the processing of tax topics. However, Adams and Ferreira (2009) suggested that women exert intensive monitoring of managers' actions and have a percentage of attendance at meetings actually high. Consistent with the literature on gender differences in risky behavior and tax compliance, Croson&Gneezy(2009) and the findings of Alianiet al. (2011) that there is a negative effect of gender diversity of the board of directors on tax optimization.

**Ownership or Equity Concentration**

Ownership or equity concentration is a way of solving the problem of agency between managers and shareholders; however, it created another type of conflict between minority shareholders and block-holders (Desai & Dharmapala, 2008). Chen et al. (2010) found that family firms are less aggressive in tax than their counterparts. They report that family firm's owners are willing to avoid non-tax costs of a potential price reduction that may result from the concern of minority shareholders as well as the fact that their tax aggressiveness provides an opportunity to extract wealth from them. It supposes that a higher concentrated equity can increase the magnitude of aggressive tax strategies. Ownership concentration allows a sort of block-holders actions during decision making. The presence of block-holders is measured as the cumulative percentage of shares owned by the principal holders (Mitraet al., 2007). Lapointe (2000) pointed out that the choice of a threshold for block-holders is influenced by local regulations.

**Audit Quality**

Auditors of the company could potentially affect the tax rate of the company. McGuire, Omer and Wang (2012) concluded that companies engage in greater tax avoidance when their external audit firm is a tax expert. It is generally believed that the big four auditing firms might have different corporate cultures than the domestic auditing firms, and thus might provide different tax strategies to their audit clients compared with domestic auditing firms.

**Foreign Ownership**

The fact that ownership structure affects Effective Tax Rate could be ascertained from the work of Dyreng, Hanlon, and Maydew (2010) as documented that individual executives have significant influence on effective tax rate. It is suspected that the unique ownership structure of a company could influence effective tax rate of a company for the same reason. According to Ibrahim, Howard and Angelidis (2003); the characteristics of the board of directors have been argued to be most effective mechanism in management monitoring. As such, studies have recognized the effect of board characteristics on corporate tax avoidance (Minnick &Noga, 2010; Lanis & Richardson, 2012; Vafeas, 2010). Their studies therefore proposed an interactive effect of board composition on the relationships between corporate ownership and corporate tax avoidance. Wu, Wang, Luo and Gillis (2012) examined all non-financial public companies listed in China's A-share market between 1998 and 2006 to determine how state ownership, tax status, and firm size affect Effective Tax Rate. They found that privately controlled firms have a higher Effective Tax Rate than state-controlled firms.

Also, Kiabel and Akenbor (2014) investigated tax planning with a view to determine its impact on corporate governance in Nigerian banks. To achieve this purpose, hypotheses were raised and a review of extant literature was made. The population of the study consisted of the twenty-one (21) recapitalized banks in Nigeria. Data for the study were generated from the companies' annual reports and statements of account for a five-year period; 2007 – 2011. The stated hypotheses were statistically tested with regression analysis and Pearson Product Moment Co-efficient of Correlation. Their findings revealed that tax planning has a positive significant impact on corporate governance in Nigerian banks, but the accruable tax savings do not significantly

outweigh tax planning costs. Since tax planning gives excessive powers to management over the resources of the bank, and also violates the rules of good corporate governance, though it increases the market value of banks, it was therefore recommended that audit committee of Nigerian banks should be saddled with the responsibilities of reviewing tax assessment and returns in order to minimize any form of strategic tax behaviour by management; tax authorities should periodically conduct tax audit of the various banks to examine whether there was any form of mischaracterization of financial statements; and any bank that violates the provision of tax laws in the act of tax planning should be properly investigated and prosecuted.

**Tax Planning and Corporate Governance Mechanism**

Tax planning, in form of tax avoidance, incorporates more dimensions of the agency tension between managers and investors. According to agency perspective of tax, the problem that needs to be solved by investors is simply managerial shirking. Avoidance also considers another form of the agency problem: managerial opportunism or resource diversion (Desai and Dharmapala, 2009a). Desai and Dharmapala (2006) argued that complex tax avoidance transactions can provide management with the tools, masks, and justifications for opportunistic managerial behaviours, such as earnings manipulations, related party transactions, and other resource-diverting activities. In other words, tax avoidance and managerial diversion can be complementary.

The earlier study such as Desai and Dharmapala (2009a) find no relation between tax avoidance and firm value; however, they do find a positive relation between the two for firms with high institutional ownership. Their finding suggests that tax avoidance has a net benefit in an environment in which monitoring and control effectively constrain managerial opportunism afforded by tax planning activities. Furthermore, Hanlon and Slemrod (2009) found that the negative reaction is less pronounced for firms with stronger governance; however, this result seems to be sensitive to how governance is empirically measured.

**Methodology**

A sample of fifty (50) companies out of 151 non-financial quoted companies that covers 10 sectors were purposively selected on stratified random sampling basis. The data used in the analysis were collected from the audited financial statement of the selected non-financial quoted companies in Nigeria and Nigeria Stock Exchange Fact books. The data collected cover 2004 to 2014 financial years of the selected companies.

Given the dynamic nature of the panel data that was used in this study and in line with Minnick and Noga (2010), this study imposed a linear relationship between corporate tax planning and the explanatory variables which are firm characteristics that potentially explain variation in effective tax rates. Using a linear regression of Effective Tax Rates on the exogenous variables described above, the model is given by the following equation:

$$ETR_{it} = \beta 0 + \beta_1 SIZE_{it} + \beta_2 LEV_{it} + \beta_3 CINT_{it} + \beta_4 INV_{it} + \beta_5 OWN_{it} + \beta_6 ROA_{it} + \varepsilon_{it} \quad \ldots\ldots\ldots (1)$$

Wintoki, Linck and Netter (2010) argued that most internal corporate governance researches are with endogeneity issues which many researchers take less cognizance

of. Thus, Minnick and Noga (2010) considered endogeneity to be present in corporate tax management issues. In line with this argument, this study controls for potential endogeneity and that accounts for the choice of the models. The inclusion of the lagged dependant variable is to take care of potential endogeneity of the explanatory variables. According to Robert & Whited, (2012), Three sources of endogeneity in corporate finance-related studies have been identified namely omitted variables, simultaneity and measurement errors. These sources can affect tax planning regression estimation; however, simultaneity is the most feasible source in the context of tax management. The prior year avoidance strategies of a tax planning firm do transcend to the subsequent year. As such, the empirical model above control for this endogeneity and assumes the exogeneity of the regressor. Based on these arguments, the model specification controls for potential endogeneity; thus, the model in equation 2.2.

$$\mathbf{ETR_{i,t} = \beta_0 + \gamma ETR^*_{I,t-n} + \beta_1 SIZE_{i,t} + \beta_2 LEV_{i,t} + \beta_3 CINT_{i,t} + \beta_4 INV_{i,t} + \beta_5 ONW_{i,t} + \beta_6 ROA_{i,t} + \varepsilon_{i,t}} \quad \textbf{(2)}$$

Inserting the other firm characteristics in to the above equation, the following model expression shall be generated:

$$ETR^*_{I,t} = \propto_0 + \rho ETR_{i,t-n} + \beta_1 BSI_{it} + \beta_2 BDI_{it} + \beta_3 OCON_{it} + \beta_4 FIN_{it} + \beta_5 AUD_{it} + \beta_6 TOBINQ + \beta_7 LEV_{i,t} + \beta_8 ROA_{i,t} + \beta_9 SIZE_{i,t} + \beta_{10} MTB_{i,t} + \beta_{11} CIN_{i,t} + \varepsilon_{it} \quad (3)$$

where $\alpha = \gamma\beta_{0;}\ \rho = (1-\gamma);\ \beta_k = \gamma\beta_{k;}\mu_{it} = \gamma\varepsilon_{it}$,

$\alpha$ = intercept term i.e. autonomous Effective Tax rate

$\beta_{1\ldots}\beta_{14}$ = the coefficients of the independent variables

$\gamma$ = adjustment required to reach the firm's target Effective Tax rate

| Variables | Code | Measurement |
|---|---|---|
| Effective Tax Rate | ETR | ETR= (Total Tax Expenses/Pre-Tax Income) *100 |
| Liquidity | LIQ | Measured by Cash flow to net assets ratio = Pre-tax profits + Depreciation/ (Total assets – cash and equivalents) |
| Firm Value | TobinQ | Total market value/Total Asset Value of firm |
| Leverage | LEV | Long-term debt/total asset |
| Inventories | INV | investment of Stock/Total assets |
| Profitability | ROA | Operating profits/Total assets |
| Capital intensity | CIN | tangible assets to total assets |
| Net Working Capital | NWC | Net current assets/Total assets |
| Size | SIZE | Natural logarithm of Total Asset =Ln (Total Asset) |
| Board size | BSI | Natural logarithm a number of board of directors serving on firms |
| Board Diversity | BDI | BDI= No of women on board/Total number of Directors on Board of Directors |
| Quality of External Auditor | AUD | If BIG 4, AUD=1 and if not AUD =0 (Big four- PwC, KPMG, AkintolaDellote and E&Y) |
| Managerial Ownership | MOWN | Cumulative percentage of shares the Board of Directors' members. |
| Ownership Concentration | OCON | Cumulative percentage of shares held by major shareholders who own more than 5% of the voting rights |

**Model Predictions to be tested (Apriori expectation)**

| Variables | Code | Sign |
|---|---|---|
| Lagged Effective Tax Rate | $ETR_{t-n}$ | - |
| Board size | BSI | + |
| Board Diversity | BDI | _ |
| Quality of External Auditor | AUD | _ |
| Ownership Concentration | OCON | - |
| Foreign Ownership | FIN | - |
| Firm Value | TobinQ | - |
| Leverage | LEV | - |
| Profitability | ROA | + |
| Size | SIZE | ± |
| Growth Opportunities | MTB | - |
| Capital intensity | CIN | - |

**Source: Researcher's Compilation 2015**

## Result and Discussion

### Descriptive Analysis

Table 1 shows the descriptive statistics of the dependent, independent and Control Variables employed. Basically, the variables are not normally distributed, as shown in the Skewness and Kurtosis as verified by the Jaque-Bera Test.

**Table 1: Descriptive Analysis**

| | ETR | BSI | BDI | OCON | FIN | D(AUD) | TOBINQ | LEV | ROA | SIZE1 | MTB | CIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mean | 20.78 | 2.11 | 0.08 | 50.87 | 33.65 | -0.02 | 11.92 | 0.15 | 0.05 | 14.99 | 12.55 | 0.36 |
| Median | 28.95 | 2.20 | 0.08 | 54.00 | 40.00 | 0.00 | 7.37 | 0.10 | 0.05 | 15.70 | 7.84 | 0.34 |
| Maximum | 102.7 | 2.94 | 0.38 | 91.00 | 89.00 | 1.00 | 112.3 | 3.00 | 0.54 | 19.67 | 112.8 | 0.96 |
| Minimum | -100 | 0.00 | 0.00 | 0.00 | 0.00 | -1.00 | 0.00 | 0.00 | -1.3 | 0.00 | 0.00 | 0.00 |
| Std. Dev. | 26.88 | 0.56 | 0.09 | 23.45 | 29.15 | 0.25 | 13.24 | 0.20 | 0.12 | 4.07 | 14.20 | 0.23 |
| Skewness | -1.06 | -2.53 | 0.92 | -0.74 | 0.03 | -1.18 | 2.53 | 6.80 | -3.76 | -2.79 | 2.58 | 0.30 |
| Kurtosis | 5.57 | 10.3 | 3.23 | 2.90 | 1.45 | 15.92 | 12.87 | 90 | 40.7 | 10.86 | 12.41 | 2.20 |
| Jarque-Bera | 232.5 | 1646 | 712 | 46.28 | 49.85 | 3592.51 | 2566.14 | 161424.7 | 30766.99 | 1935.56 | 2398.43 | 20.632 |
| Probability | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Sum | 10388 | 1053.88 | 38.28 | 25435.12 | 16825.14 | -11.00 | 5960.24 | 77.09 | 22.62 | 7496.17 | 6272.50 | 178.93 |
| Sum Sq. Dev | 360490 | 156.36 | 3.61 | 274988.4 | 423934.4 | 30.76 | 87417.19 | 19.34 | 7.34 | 8257.74 | 100688.9 | 27.295 |
| Observations | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 | 500 |

Source: Author's computation, 2015

**Table 2: Correlation Coefficients**

| Probability | ETR | ETR(-1) | BSI | BDI | OCON | FIN | D(AUD) | TOBINQ | LEV | ROA | SIZE1 | MTB | CIN |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ETR | 1 | | | | | | | | | | | | |
| | - | | | | | | | | | | | | |
| ETR(-1) | 0.20 | 1 | | | | | | | | | | | |
| | 0.00 | - | | | | | | | | | | | |
| BSI | 0.11 | 0.06 | 1 | | | | | | | | | | |
| | 0.01 | 0.18 | - | | | | | | | | | | |
| BDI | -0.06 | 0.02 | 0.18 | 1 | | | | | | | | | |
| | 0.21 | 0.68 | 0.00 | - | | | | | | | | | |
| OCON | 0.09 | 0.05 | 0.38 | 0.02 | 1 | | | | | | | | |
| | 0.04 | 0.31 | 0.00 | 0.63 | - | | | | | | | | |
| FIN | 0.07 | 0.04 | 0.25 | -0.07 | 0.63 | 1 | | | | | | | |
| | 0.10 | 0.40 | 0.00 | 0.13 | 0.00 | - | | | | | | | |
| AUD | 0.09 | -0.01 | 0.28 | 0.06 | 0.20 | 0.09 | 1 | | | | | | |
| | 0.04 | 0.75 | 0.00 | 0.19 | 0.00 | 0.04 | - | | | | | | |
| TOBINQ | 0.08 | 0.07 | 0.26 | 0.20 | 0.18 | 0.09 | 0.08 | 1 | | | | | |
| | 0.06 | 0.13 | 0.00 | 0.00 | 0.00 | 0.04 | 0.08 | - | | | | | |
| LEV | -0.04 | -0.11 | 0.15 | -0.03 | 0.10 | 0.13 | 0.05 | 0.07 | 1 | | | | |
| | 0.37 | 0.01 | 0.00 | 0.47 | 0.02 | 0.00 | 0.26 | 0.11 | - | | | | |
| ROA | 0.28 | 0.24 | 0.16 | 0.16 | 0.00 | 0.00 | -0.02 | 0.40 | -0.15 | 1 | | | |
| | 0.00 | 0.00 | 0.00 | 0.00 | 0.97 | 0.99 | 0.73 | 0.00 | 0.00 | - | | | |
| SIZE1 | 0.16 | 0.10 | 0.68 | 0.12 | 0.31 | 0.26 | 0.16 | 0.25 | 0.20 | 0.19 | 1 | | |
| | 0.00 | 0.02 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | - | | |
| MTB | 0.07 | 0.06 | 0.28 | 0.22 | 0.18 | 0.12 | 0.08 | 0.92 | 0.07 | 0.44 | 0.27 | 1 | |
| | 0.12 | 0.15 | 0.00 | 0.00 | 0.00 | 0.01 | 0.09 | 0.00 | 0.10 | 0.00 | 0.00 | - | |
| CIN | -0.04 | -0.12 | 0.40 | 0.10 | 0.07 | 0.16 | 0.02 | 0.06 | 0.31 | -0.04 | 0.45 | 0.09 | 1 |
| | 0.40 | 0.01 | 0.00 | 0.02 | 0.13 | 0.00 | 0.72 | 0.18 | 0.00 | 0.34 | 0.00 | 0.02 | - |

Source: Author's computation, 2015

### Correlation Analysis

Basic assumption of the linear regression requires that there is no multicollinearity problem in the estimation model, the easiest way to measure the extent of multicollinearity is through the matrix of correlations between the individual variables. High correlation coefficients between pairs of explanatory variables indicate that these variables are highly correlated, and therefore may have severe multicollinearity. As regards to the direction of the correlation between Effective Tax Rates and explanatory variables, both the Corporate Governance and Control Variables had positive correlation except the Board Diversity, Leverage and Capital Intensity that are negatively correlated.

## Panel Unit Root Test

An important concern in data analysis is to know whether a series is stationary (do not contain a unit root) or not stationary (contains a unit root). Therefore, to test for the stationarity, quantitative analysis of unit roots test of Levin, Lin & Chu t (assuming common unit root process), Im, Pesaran and Shin W-stat, Augmented Dickey-Fuller test (ADF) and PP - Fisher Chi-square were used.

Table 3 shows the results from the unit tests. Levin, Lin test assumes common unit root process while the other three tests assume individual unit root process. As all the p-values are smaller than 1%, the null hypothesis is rejected, we conclude that the variables series are stationary. The panel data behaviour of each of the series is presented in Table 3, using the Levin, Lin &Chut test, Im, Pesaran & Shin W-stat, ADF - Fisher Chi-square and PP - Fisher Chi-square tests at level of the series. The results depict that all the variables both explanatory and control variables are stationary at level while Quality of Auditor as variable is homogenous of order one. Therefore, they are made stationary by first difference prior to subsequent estimations to forestall spurious regressions.

**Table 3: Summary of Panel Unit Root Test Results**

| Variables | Levin, Lin &Chut | Im, Pesaran& Shin W-stat | ADF - Fisher Chi-Sq | PP - Fisher Chi-Sq | Status |
|---|---|---|---|---|---|
| BSI | -41.4551*** (0.0000) | -5.27024*** (0.0000) | 142.485*** (0.0023) | 169.365*** (0.0000) | 1(0) |
| BDI | -6.55755*** (0.0000) | -2.19400*** (0.0141) | 135.687*** (0.0021) | 186.966 (0.0000) | 1(0) |
| OCON | -91.3288*** (0.0000) | -8.59740*** (0.0000) | | | 1(0) |
| FIN | -1.38923* (0.0824) | -98.7341*** (0.0000) | 89.9139*** (0.0027) | 102.318*** (0.0002) | 1(0) |
| D(AUD) | -2.38605*** (0.0085) | -1.97178** (0.0243) | 18.9247** (0.0153) | 40.5367*** (0.0000) | 1(0) |
| TOBINQ | -7.58257*** (0.0000) | -2.75222*** (0.0030) | 141.270*** (0.0042) | 174.627*** (0.0000) | 1(0) |
| ETR | -1.95795** (0.0251) | -1.29503* (0.0977) | 123.257** (0.0573) | 212.267*** (0.0000) | 1(0) |
| LEV | -5.25813*** | 1.33844* | 121.210* | 163.248*** | 1(0) |

| | | | | | |
|---|---|---|---|---|---|
| | (0.0000) | (0.0904) | (0.0733) | (0.0001) | |
| ROA | -52.2878*** (0.0000) | -9.42506*** (0.0000) | 174.519*** (0.0000) | 177.961*** (0.0000) | 1(0) |
| SIZE | -18.4810*** (0.0000) | -6.21517*** (0.0000) | 56.020*** (0.0003) | 214.614*** (0.0000) | 1(0) |
| LIQ | -28.9996*** (0.0000) | -7.02961*** (0.0000) | 180.088*** (0.0000) | 180.677*** (0.0000) | 1(0) |
| NWC | -16.3657*** (0.0000) | -4.66287*** (0.0000) | 176.167*** (0.0000) | 187.299*** (0.0000) | 1(0) |
| MTB | -6.25657*** (0.0000) | -2.41931*** (0.0078) | | 162.932*** (0.0001) | 1(0) |
| CIN | -4.95656*** (0.0000) | -1.33811* (0.0904) | 130.129** (0.0231) | 148.698*** (0.0011) | 1(0) |

***, **, * mean significant at 1%, 5% and 10% respectively. P-Values are in parenthesis

**Source: Author's Computation**, 2015

The table 4 presents the results of GMM used to examine the impact of corporate governance on tax planning of non-financial quoted companies in Nigeria. The F-statistics value of 191212.61 ($P<0.05$) shows that all the variables in the model are jointly statistically significant in explaining variations in value of non-financial quoted companies. Sargan test value is statically significant which implies that the model has no problem with the instruments used in the analysis.

The lagged dependent variable [ETR (1)] is significant and positive. This suggests that a current Effective Tax Rate is positively influenced by previous Effective Tax Rate. This has a negative implication for tax planning. This confirms the dynamic behavior of tax planning decision. It is obvious that firms have targeted Effective Tax Rate that balances the cost and benefits of tax planning policy.

The coefficient of lagged dependent variable (ETR) is positive and significantly different from zero at 5% level of significance. This suggests that current Effective Tax Rates are positively influenced by Effective Tax Rate in the previous year. The adjustment coefficient is about 0.941616 (1-0.058384), which provides strong evidence that the dynamic model is reasonable; firms cannot instantaneously adjust towards the target Effective Tax Rate following changes in firm-specific characteristics or random shocks. One possible explanation is that the adjustment process is costly because of the existence of transaction and other adjustment costs.

The result of this study established a significant and positive relationship between the size of board composition and tax planning at 1% level of significance. The findings buttress the findings of Lanis and Richardson (2011) that the size of the board has a significant effect on the availability of tax planning. In contrast, Aliani and Zarai (2012) report the non-significance between the size of the board and tax aggressiveness in the American context.

Conversely, the result of this study showed there is a significant negative relationship between Board Diversity and the tax planning of non-financial quoted companies in Nigeria at $p<0.01$. This implies that an increasing proportion of Board Diversity

associated with decrease in effective tax rate. This indicates an effective and efficient tax planning practice. This finding is in tandem with the literature. For instance, Boussaidi and Hamed (2014) emphasised that women play an important role in compliance with legal aspects and more specifically in tax matters. The earlier report of Higgs Derek (2003) in the United States argues that diversity could improve the effectiveness of the Board and specifically recommends that companies can benefit from the existence of professional women in their boards. The finding supported the results of Aliani *et al.* (2011) found that there is a negative effect between gender diversity on the board of directors and tax optimization in the Tunisian context. Consistent with the literature on gender differences in risky behaviour and tax compliance (Croson & Gneezy, 2009) assumed that women should have higher levels of tax compliance. Also, Aliani and Zarai (2012) result indicates that diversity on the board of directors significantly influences tax planning and shows a positive association

Likewise, the Ownership Concentration is found to have positive and significant impact on the tax planning of non-financial quoted companies in Nigeria at 1% level of significance. This finding supported Liu and Cao (2007) that documented that the higher the shareholder's ownership percentage, the higher the ETR. This positive suggesting that an increasing proportion of any of these variables is associated with higher tax planning.

Conversely, there is a significant negative relationship between foreign investors (FIN) and the tax planning of non-financial quoted companies in Nigeria. This implies that an increasing proportion of foreign investors are associated with decrease in tax planning value. This finding is in contrast with the findings of Stickney and McGee (1982) that revealed that Foreign investors was less important indicators of lower ETR.

**Table 4: Estimation Results of the Dynamic GMM Model for the Impact of Corporate Governance on Tax Planning of Non-Financial Quoted Companies in Nigeria**

| Variables | Coefficient | Std. Error | t-Statistic | Prob. |
|---|---|---|---|---|
| ETR(-1) | 0.058384** | 0.027026 | 2.160267 | 0.0313 |
| BSI | 9.731321*** | 3.444050 | 2.825546 | 0.0049 |
| BDI | -193.0339*** | 18.99774 | -10.16088 | 0.0000 |
| OCON | 0.558799*** | 0.108654 | 5.142915 | 0.0000 |
| FIN | -0.741786*** | 0.113343 | -6.544603 | 0.0000 |
| D(AUD) | -4.059224 | 4.126531 | -0.983689 | 0.3258 |
| TOBINQ | 0.278601 | 0.986212 | 0.282496 | 0.7777 |
| LEV | -1.349266 | 6.254160 | -0.215739 | 0.8293 |
| ROA | 99.14153*** | 27.41412 | 3.616441 | 0.0003 |
| SIZE1 | 1.056478* | 0.556536 | 1.898308 | 0.0583 |
| MTB | -0.310967 | 0.954796 | -0.325689 | 0.7448 |

| | | | | |
|---|---|---|---|---|
| CIN | -8.602795 | 11.31624 | -0.760217 | 0.4475 |
| | Effects Specification | | | |
| Cross-section fixed (first differences) | | | | |
| Mean dependent var-2.487867S.E. of regression36.68249<br>J-statistic34.46137Prob(J-statistic)0.397751<br>S.D. dependent var34.17768 Sum squared resid589375.1<br>Instrument rank45 | | | | |
| TEST ORDER | M.Statistic | Rho | SE(rho) | Prob. |
| AR (1) | -3.5224 | -240846.66 | 68376.26 | 0.0004 |
| AR (2) | 0.5471 | 16603.64 | 30349.87 | 0.5843 |

***, ** and * means significant at 1%, 5% and 10% respectively
**Source: Author's Computation, 2015**

The positive coefficient of the profitability indicates that there is a positive relationship between ETRs and profitability at 1% level of significance. Size of firms has positive and significant relationship ETRs, however, this is at 10% level of significance. The other control variables though insignificant have varying degree of influence on the Effective Tax Rates among Non-Financial Quoted Companies in Nigeria. There is a positive relationship between firm value and Effective Tax Rate. The expected relationship is negative based on the theoretical prediction. However, leverage has a negative influence in line with the expectation. From Table 4, Growth opportunities and capital intensity, also, showed a negative but insignificant influence on Effective Tax Rate.

## Conclusion and Recommendations

The coefficient of lagged dependent variable (ETR) is positive and significantly different from zero at 5% level of significance. This suggests that current Effective Tax Rates are positively influenced by Effective Tax Rate in the previous year. The adjustment coefficient is about 0.941616 (1-0.058384), which provides strong evidence that the dynamic model is reasonable. The result of this study established a significant and positive relationship between the size of board composition and tax planning at 1% level of significance. The result implies that the higher the board size, the higher the effective tax rate. This indicates a negative impact on tax planning; as larger the size of the board the higher the Effective Tax Rate.

There is a significant negative relationship between Board Diversity and the tax planning of non-financial quoted companies in Nigeria at $p<0.01$. This implies that an increasing proportion of Board Diversity associated with decrease in effective tax rate. Likewise, the Ownership Concentration is found to have positive and significant impact on the tax planning of non-financial quoted companies in Nigeria at 1% level of significance. Also, there is a significant negative relationship between foreign investors (FIN) and the tax planning of non-financial quoted companies in Nigeria.

An examination of dynamic result of the audit quality variable showed that Auditing Quality is not significant, suggesting that the type of external auditor had no effect on the corporate tax planning in this study. The study findings should serve as guidance to the board of directors by clarifying their responsibilities and providing prescriptions to strengthen the control on the significant variables identified in the analysis of findings of this study.

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