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## Article

# Corporate tax planning, board compensation and firm value in Nigeria

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Original Research Article

## **Corporate Tax Planning, Board Compensation and Firm Value in Nigeria**

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### **Abstract**

*The study examines the relationship between corporate tax planning, board compensation and firm value and moderating capacity on any association between tax planning and firm value. Consequently, the study used a sample of 71 profitable non-financial and non-oil and gas firms publicly listed on the Nigerian Stock Exchange (NSE) for financial years covering 2008 to 2015. Using the Generalised Least Square (GLS) regression, the result shows that there is a positive relationship between tax planning, board compensations and firm value, while board compensations failed to moderate the relationship between tax planning and firm value. Further, as regards the control variables, firm size showed a positive and significant impact on the firm value, while there was a significant negative relationship between leverage and firm value.*

**Keywords:** Board Compensations, Firm Value, Firm Size, Leverage, Tax Planning

***JEL Classification Codes: G32, H20, J30***

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## INTRODUCTION

Tax noncompliance comes in mainly two forms: tax evasion and tax avoidance (or aggressive tax planning). These are sources of concern to governments, tax authorities and the like not because of its illegality or supposed legality but because it undermines the power of the state to provide social services to the citizens. Besides, it does not only widen unfairness in the tax system but also causes a fiscal imbalance which has generated outcry by different stakeholders such as some non-governmental organisations like Tax Justice Network.

Between these two devices of paying less or no tax legally or illegally – avoidance and evasion respectively – avoidance is more elusive and corporate organisations more often than not capitalise on the subtlety of the scheme and the creativity of its employees or tax agents to pay less tax possible. Tax avoidance could be viewed with a different lens, but one thing is certain – utilising tax gaps and business complexities. According to Hoffman (1961), tax avoidance is a noncompliance scheme achieved through tax planning. In other words, tax planning is basically a means of achieving tax avoidance. Tax planning is, therefore:

*the taxpayer's capacity to arrange his financial activities in such a manner as to suffer a minimum expenditure for taxes. When the designation tax planning is used, it...means effective tax planning. All tax planning does not reduce the tax liability to the desired minimum level. The tax planning that is not appropriately cut to suit the individual taxpayer may have the ultimately adverse effect of maximising the tax. Tax planning involves the use of foresight, and*

*consequently, it is concerned with future matters (Hoffman, 1961, p.274).*

Tax planning scheme has come in different forms including but not limited to the use of tax shelters, transfer pricing, thin capitalisation, and offshore investment in a tax haven. A report by UN Conference on Trade and Development (UNCTAD) has it that developing economies lose over \$100 billion per year to tax avoidance through base erosion and profit shifting (BEP), and special purpose entities (SPEs) (UNCTAD, 2016). Wahab (2010) states that the 2007 report of the National Audit Office of Great Britain shows that over thirty per cent of the biggest companies in the UK were likely making tax planning. This Wahab note is caused by two determinants: ambiguities/loopholes in the tax laws and large companies' unique characteristics. If this is possible in an advanced tax jurisdiction like the UK, the situation in developing economies will be worse.

Whether tax planning is occasioned by tax gaps or unique arrangements/patterns of large firms is not the central heart of the matter in this study; the primary issue is whether corporate managers or directors are doing their shareholders right by this scheme.

A concerted effort by corporate taxpayers to minimise tax expense is a recurring theme globally, and according to Dasei and Dharmapala (2009) has increasingly become a significant issue among US corporations. This steps might come with or without a cost to the shareholders. While tax planning or avoidance may be a process of moving resources from the government to the shareholders by the managers (Dasei & Dharmapala, 2009), it may be dangerous

because managers may pursue their interest under this cover. As noted by Slemrod (2004), agency problem explains what makes the managers pursue their interest at the expense of the shareholders.

Traditionally, tax planning should benefit shareholders' wealth. From the agency perspective, whether tax planning benefits the shareholders or not is debatable. Lee, Dobiyski, and Minton (2015) have emphasised that agency theory should form the basis of any discourse on understanding tax avoidance and how it impacts on the shareholders. Whereas existing research (for instance, Desai & Dharmapala, 2009) has shown that tax planning will positively influence firm value if good corporate governance exists, others (for example, Hanlon & Slemrod, 2009; Wahab, 2010) found no positive relationship between tax planning and firm value even with well-governed firms. This controversy continues. Additionally, studies have considered the moderating role of corporate government measures (commonly board size and board independence) in the relationship between tax planning and firm value (Wahab, 2010; Inger, 2014; Lestari & Wardhani, 2015).

The role of board compensation which is a crucial element of corporate governance, is rarely discussed based on available literature. While prior studies (Taylor & Richardson, 2014; Chee, Choi, & Shin, 2017; Hanlon, Mills, & Slemrod, 2005; Rego & Wilson, 2012) reported a positive association between tax planning and tax avoidance, others (Desai & Dharmapala, 2006; Armstrong, Blouin, & Larcker, 2012) reported otherwise. One concern is even that available literature has rarely considered the moderating role of board compensation on the relationship between tax planning and firm value.

It is from the foregoing that this study is aimed at assessing the relationship between tax planning and firm value as well as the moderating effect of board compensation on this relationship. . The remaining part of this study is structured as: Section 2 contains the literature review and hypothesis development. Section 3 outlines the detail of the research design adopted. Section 4 presents the results from the estimates and analyses the results. Section 5 concludes the study and provides recommendations.

## **LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT**

### **Firm Value**

Firm value is an indication of how prosperous a company is and how the managers of the firm have been able to apply firm resources for the good of the owners. Firm value is an indication of wealth maximisation and performance of a firm (Ilaboya, Izevbekhai, & Ohiokha, 2016). Firm value or performance has been looked at from the dimension of value created by the organisation for its stakeholders (Carton, 2004). It is x-rayed as the performance in the form of returns to stakeholders consistent with the prediction of the stakeholders' theory (Odumeru, 2013). Although firm performance is the actual financial and non-financial results of a firm (Otache, 2015), attention is given to the financial perspectives for its measurability.

Ilaboya *et al.* (2016) posit that when the earning capacity of a firm is positive, a company is seen to be doing well, thereby resulting in profitability. While firm value can be considered from different points of view such as profitability, efficiency, leverage, growth, leverage, and market share (Carton, 2004), it can also be viewed

from the perspective of returns on assets (ROA), returns on equity (ROE), Tobin's Q as well as net profit margin; and the other based on the market price of shares listed on the stock exchange (Ilaboya et al., 2016).

Among the different measures of firm value or performance (profitability, growth, and market value), Cable and Mueller (2008) note that profitability mostly ROA has commonly featured in financial research. The popularity of ROA as a measure of performance is arguably attributable to its ability to precisely and appropriately mirror firm value. As noted by Chen, Cheok, and Rasiah (2016), ROA signifies the capacity of firms to apply its assets to create value through profitable activities.

#### **Tax Planning and Firm Value**

The concept of tax planning had not gained much attention until Hoffman addressed it in 1961. Hoffman's tax planning theory is a model that links the role of tax practitioners with that of achieving the ultimate goal of tax planning. This model has four cardinal viewpoints of tax planning: tax planning is a complex process; it is a beneficial process if "conducted as a formalised procedure"; the highest form of benefits are not always available to tax planner since it is not always practised to the fullest; and despite the benefit of tax planning, few taxpayers have the awareness (Wahab, 2010, p.21). It should be noted that tax planning activities may not continue for a long time as a result of the tax authorities' response to loopholes or ambiguities in tax laws (Hoffman, 1961). Tax avoidance can be broadly seen as acts that are capable of reducing a firm's tax liabilities in relation to profit before tax (Dyreg, Hanlon, & Maydew, 2010). Dyreg, Hanlon, and Maydew (2008) observe that tax planning scheme can continue for a long time under a firm's

peculiar characteristics in a particular industry. This implies that some tax planning schemes are beyond uncertainties or loopholes in the tax laws.

Tax compliance in traditional economic theory is influenced by the tax rate, the likelihood of detection of noncompliance and its inherent punishment, penalties, and taxpayer risk-aversion (Allingham & Sandmo, 1972). Moreover, Hanlon and Heitzman (2010) observe that the disposition of the taxpayer to civic responsibility is an intrinsic determinant to comply. At a corporate level, other motivations arising from agency issue arise. Although aggressive tax planning does not portray agency problem, principal-agent abuse is a mechanism that undermines the relevance of tax planning to firm value. As noted by Slemrod (2004), Chen and Chu (2005), the gap between ownership and management characteristics of publicly listed companies can make managers to act in their interest and consequently diluting tax planning relevance in shareholder wealth creation. Since tax matter is one of the core areas that managers make decisions (Ezeoha & Ogamba, 2010), the managers tend to embark on rent-seeking objectives. This opportunistic tendency of management, as noted by Chyz and White (2014) leads to the "agency view of tax avoidance" which is targeted at x-raying aggressive tax planning under the principal-agent model. This supports the argument of Desai and Dharmapala (2009), and Desai and Dharmapala (2006) who found that corporate governance is central to the role of tax planning in achieving the firm's objective.

Chyz and White (2014) observe that discussions on corporate governance as it relates to corporate tax decisions have

tended towards "potential consequences and non-tax costs" inherent in tax planning when managers of the firm take decisions that are not in congruence with that of the shareholders. Desai and Dharmapala (2009) note also that potential impact on firm value can be eroded by the self-seeking posture of the managers. In essence, tax planning does not translate to improved firm value in the absence of good governance.

Existing literature has considered the relationship of tax planning and firm value (Lestari and Wardhani, 2015; Inger, 2014; Wahab, 2010; Dasei and Dharmapala, 2009; Hanlon and Slemrod, 2009) with some studies showing that tax planning is positively related to firm value (Dasei & Dharmapala, 2009), while others such as Hanlon & Slemrod (2009) and Wahab (2010) found no positive relationship between tax planning and firm value. This leads to the first hypothesis stated thus:

**H<sub>1</sub>: Tax planning and firm financial performance are significantly and positively related.**

### **Tax Planning and Firm Value: Board Compensation as a Moderator**

Discourse on compensation incentives to members of boards of companies has been on for decades. In recent times, compensations to executives have been observed to be outrageous. The debate on excessive pay to executives has made critics in the United States to conclude that the executive labour market exhibits poor conditioning (Bebchuck, Fried, & Walker, 2002). It is argued that executives earning excessive pay is conceivably a product of ill-functioning of the market and has been attributed to fiscal imbalance as some incentives are either not taxed at all or subjected to a lower tax rate (Walker, 2013).

Board and executive compensations have been viewed from different perspectives. For instance, Schmittiel (2014, p.1) posits that executive compensation could include packages such as "a base salary, an annual bonus based on accounting measures, stock options, long-term incentive plans such as restricted stock plans, and other benefits such as perquisites, insurances, pensions, or severance pay". Similarly, Frydman and Jenter (2010) assert that recent happenings have shown that compensations have become standardised in relation to bottom-line earnings and settled in cash or kind (stock). Five essential elements of executive (and board) compensation are salary, annual bonuses, payouts for long-term incentive plans, restricted option grants, and restricted stock grant (Frydman & Jenter, 2010). The rise in these incentives has also received much attention.

Increase in the compensation of the board has been attributed to the overbearing posture of the executive. For instance, Walker (2013) maintains that many listed companies' senior executives have a domineering impact on the remuneration process. Non-executive directors that should moderate the pay-setting process lack the tools and motivation to do so effectively (Bebchuck, Grinstein, & Peyer, 2010). The benefits accruing to the non-executive directors can perhaps be another driving factor behind support for executive pay.

It is crucial to note, however, that compensation issues are an aspect of corporate governance. Central principles guide corporate governance structures of companies one of which is board committee saddled with the responsibility of not only designing compensation benefits for the CEO and other senior management to encourage them to create strategic value but

also developing a framework for remuneration that is tied to the performance of the firm (Business Roundtable, 2016). The board consisting of the CEO and other members dictate the culture of governance in a firm because they set the "tone at the top" for ethical behaviour. This implies that the board takes responsibility for any steps taken by the organisation. To be able to act in any form, compensation will incentivise them to govern in the way acceptable to the firm. Shareholders can encourage the executives to act in their interests by giving them compensation incentives (Schmittiel, 2014).

Consistent with alignment theory, higher executive compensation is argued to have the capacity to increase firm performance (Becher, Campbell, & Frye, 2005). Several studies have examined the relationship between compensation and firm value with mixed findings with some of the studies reported a positive association (Deyssel & Kruger, 2015; Herdan & Szczepańska, 2011). However, Omoregie and Kelikume (2017), Guo, Jalal, and Khaksari (2014), Yusuf and Abubakar (2014), Molyneux and Linh (2014), and Jegede (2012) report that higher executive compensation does not lead to improved value addition of firm. These contradictory findings call for more studies.

Discussions on executive compensation revolve around the central assumptions that are anchored on minimising agency costs and maximising shareholder wealth (Core, Guay, & Larcker, 2008). Focus on executive compensation tends to explain relatively why incentivising managers is necessary for the shareholders' interests. However, clear information about some compensation may not exist in the company, and this can be a means of extracting rents (Bebchuk & Fried,

2004). The principal-agency concern has occupied a central position in governance debate for years. As noted by Bebchuk and Fried (2004), because managers can be self-serving, opportunistic, and having the probability of pursuing their interest at the expense of the shareholders, the shareholders, in turn, set up monitoring mechanisms. One of these strategies is compensation (Jensen & Meckling, 1976); and the executive pay should be a reflection of the set yardstick of shareholder wealth maximisation (Holmstrom, 1982). Managers' efforts to achieve the goal of value addition could lead to the adoption of different mechanisms, such as tax planning to achieve the target. The ability to achieve this goal is, however, dependent on the level of the institutional framework established to guarantee tax compliance in different countries. Part of the institution is tax design and discussions in respect of optimal tax design have led to conclusions about behavioural responses such as tax avoidance when institutional weaknesses are prevalent. These responses are unfortunately not taken seriously in less-developed tax jurisdictions.

A study by Chee *et al.* (2017) examines CEO compensation incentives as a determinant of corporate tax avoidance. They find that CEOs with a level of compensation incentives will act differently from CEOs with a low level of incentives. The study, however, concludes that how disposed CEOs are to tax planning strategies is a product of incentive alignment and risk tolerance levels of the executives. Other studies on the relationship between executive compensation incentives and tax avoidance have reported positive association (Hanlon *et al.*, 2005; Minnick & Noga, 2010; Rego & Wilson, 2012). The core argument of these studies is that the executives are motivated to align the tax

planning schemes with the shareholder value. However, some other studies disagree and argue that there is either a negative or no relationship subsisting between tax avoidance and executive compensation (Desai & Dharmapala, 2006; Armstrong *et al.*, 2012). Desai and Dharmapala (2006) investigate if "high-powered" incentives could influence tax avoidance and conclude that compensation incentives can affect tax avoidance but subject to corporate governance institutions. Desai and Dharmapala (2006) also report that there is an opportunistic tendency of the managers when the compensation structure is favourable. Armstrong *et al.* (2012) report that no association between compensation incentives payable to CEO and corporate tax avoidance. Besides, Wilson (2009) examines the firm value and its association with tax shelter posture of firms and concludes that tax sheltering is a veritable mechanism for value creation for shareholders most, especially in well-governed companies.

CEO and most (or some) board members are typically not tax experts (Dyreng *et al.*, 2010). It is however worthy of note that whatever is done is a product of board decisions; the reason being that the CEO and the board set the tone from the top (Dyreng *et al.*, 2010). Most prior studies have worked on the assumption that compensation packages can improve the alignment between the interests of the managers and those of the shareholders without actually recognising the probability of high incentives serving as a motivation (Chee *et al.*, 2017). Consequently, managers with high incentives could exhibit low-risk tolerance and will, therefore, not indulge in practices that have serious costs on the firm (Low, 2009). Some of these costs are reputational costs resulting from

tax authorities' response to any sign of any aggressive tax avoidance (Hanlon & Slemrod, 2009).

Dyreng *et al.* (2010) study investigated whether individual executive characteristics rather than firm characteristics can have marginal effects on tax avoidance of a firm and concludes that individual executives affect the level of tax avoidance of companies. Philips (2003) adopts a survey method to examine whether the manager's compensation based on pre-tax or after-tax profit can affect tax avoidance using book effective tax rate (ETR). The study finds that compensation for managers of units is a driver for book ETR most especially the after-tax profits.

However, Armstrong *et al.* (2015) report that based on the prediction of the economics of crime theory by Gary Becker in 1968, if the benefits of tax planning exceed its costs, the CEO compensation incentives will be positively associated with tax avoidance, the degree of the relationship, however, is dependent on the corporate governance disposition. Incentive compensation increases the likelihood of fraud and other ethical concerns (Erickson, Hanlon, & Maydew, 2003). Graham *et al.* (2014) find that firms that are publicly listed, largely sized, and recording huge profits have tended to have reputational concerns than unlisted and smaller sized ones. The leads to the second hypothesis stated as follows:

**H2: Board compensation moderates the relationship between tax planning and firm value**

### **Underpinning Theories**

This study is anchored on Scholes and Wolfson's tax planning framework of 1992, otherwise referred to as S-W tax planning



framework. While reviewing this framework, Calegari (1998, p.693) observes that "effective tax planning requires taxpayers to consider the tax implications of a proposed transaction for all parties to the transaction; explicit taxes, implicit taxes, and tax clienteles; and the costs of implementing various tax-planning strategies". This is the view of Shackelford and Shevlin (2001) is built around three fundamental issues of "all parties, all taxes, and all costs". In empirical research, Scholes-Wolfson's framework has gained some level of acceptance and Shackelford, and Shevlin (2001) believe that quality evaluation of studies on this theme is anchored on the extent to which the design incorporates all parties, all taxes, and all costs. The implication of this theory to this paper is that among the stakeholders in a firm are shareholders and the managers. For the managers to improve the value of the firm, incentivisation is perhaps crucial.

Different perspectives exist in studying the interrelationship between tax planning or tax avoidance and agency problems characteristic of publicly listed firms. From the traditional point of view, for instance, Dasei and Dharmapala (2009) argue that some existing literature maintains that firm attributes or characteristics can aid in achieving tax planning objectives through tax shelters. They believe that size is a common firm characteristic that shows a positive correlation. In this case, tax planning is geared towards reducing tax expense, thereby increasing the wealth of the shareholder (Lestari & Wardhani, 2015). From the agency perspective, however, tax planning can be done for the opportunistic objective of managers (Lestari & Wardhani, 2015) which can lead to a reduced firm value (Desai & Dharmapala, 2009). As noted by Khaoula (2013), "agency theory

represents the more adapted theoretical framework to study the practice of tax planning". Agency theory perspective brings in the issue of corporate governance. Desai and Dharmapala (2009) contend that for tax planning to be useful in improving firm value under the agency perspective, corporate governance has to be strong and effective hence "the net effect on firm value should be greater for firms with stronger governance institutions" (p. 539).

## **METHODS**

### **Sample**

The population of this study comprises all profitable non-financial and non-oil and gas listed companies on the Nigerian Stock Exchange (NSE) for the period 2008 – 2015. The sample comprises an unbalanced panel of 71 profitable non-financial and non-oil and gas publicly listed companies on the NSE from the agriculture, conglomerates, construction, consumer goods, healthcare, information technology, industrial goods, natural resources and services sectors over eight years from 2008 to 2015. It covers a sample of 516 firm-year observations.

### **Measurement of Variables**

#### *Dependent Variable*

The dependent variable firm value is captured using the return of total assets measured as a ratio of profit before tax to total assets (ROA) consistent with studies by Ogundajo and Onakoya (2016), Chen et al. (2016), Md Noor, Mastuki, and Bardai (2008), and Adhikari, Derashid, and Zhang, (2006).

#### *Independent variables*

The independent variables in this study are represented by tax planning and board compensation. Tax planning is measured by the ratio of cash paid as tax to pre-tax cash

flow from operations (Hanlon & Heitzman, 2010), while board compensation is measured by the natural logarithm of the total amount paid to board members.

#### *Control variables*

The control variables in this study are firm size and leverage. Firm size is measured by the natural logarithm of total assets, while leverage is measured as total liabilities divided by total assets.

#### **Regression Model**

The empirical analysis involves estimating the relationship between tax planning, board compensation and firm financial performance and the moderating effect of board compensation. Further, some control variables (firm size and leverage) were included because from prior studies (Lestari & Wardhani, 2015; Wahab, 2010; Wilson, 2008), they were noticed to influence the relationship.

Model 1:

*FV = f (tax planning, board compensation, control variables)*

$$FV_{it} = \alpha_0 + \alpha_1TAXP_{it} + \alpha_2BCOMP_{it} + \alpha_3FSIZE_{it} + \alpha_4LEV_{it} + \varepsilon_{it}$$

Model 2:

*FV = f (tax planning, board compensation, tax planning\*board compensation, control variables)*

$$FV_{it} = \beta_0 + \beta_1TAXP_{it} + \beta_2BCOMP_{it} + \beta_3TAXP*BCOMP_{it} + \beta_4FSIZE_{it} + \beta_5LEV_{it} + \varepsilon_{it}$$

Where: FV = Firm Value measured as return on assets; TAXP = tax planning measured as cash paid as tax to pre-tax cash flow from operations; BCOMP = Board Compensation measured as the log of compensation paid to board members; FSIZE = Firm Size measured as the log of total assets; LEV = leverage measured as the ratio of total liabilities divided to total assets;  $\varepsilon$  is the residual; TAXPCOM is the multiplication between TAXP and BCOM; i = corporations 1 through 517; t = the financial year and  $\varepsilon$  = the error term; TAXP\*BCOMP is derived as the residual from the regression for the equation stated as  $TAXPCOM_{it} = TAXP_{it} + BCOMP_{it} + \varepsilon_{it}$  due to the likely problem of multicollinearity. Hence the residual series is generated and used to replace the interaction term to represent the moderating board compensation moderator (Osazuwa, 2016).

#### **RESULTS AND DISCUSSIONS**

The research employed the Generalised Least Square (GLS) regression technique to examine the relationship between the independent variables and the dependent variable. The GLS regression technique was considered appropriate after the post estimation test for heteroscedasticity and autocorrelation on the panel regression fixed and random effects models.

**Empirical Results**

*Descriptive Statistics*

**Table 1: Descriptive Statistics**

	FV	TAXP	BCOMP	FSIZE	LEV
Mean	6.10	0.11	5.88	6.95	56.39
Median	5.48	0.04	7.34	6.87	54.99
Maximum	-88.99	0	0	5.35	4.71
Minimum	89.54	1	9	9.05	188.3
Std. Dev	11.32	0.17	3.13	0.72	21.46
Skewness	-0.23	2.74	-1.28	0.35	1.11
Kurtosis	19.91	12.32	2.80	2.64	7.16
Probability	0.00	0.00	0.00	0.00	0.00
Observations	516	516	516	516	516

Note: FV = Firm Value; TAXP = Tax Planning; BCOMP = Board Compensation; FSIZE = Firm Size; LEV = Leverage

Source: Authors compilation from Stata 14 (2018)

The descriptive statistics of the variables examined are reported in Table 1. For the dependent variable, FV measured as the return on assets (ROA), the mean is 6.10 suggesting that on the average, the return on assets of sampled companies yielded a low return and therefore suggest that the investments in technical and infrastructural facilities by these sampled companies have not yet yielded positive returns.

TAXP showed a mean on 0.11 suggesting that on the average, the tax paid by the sampled companies (11%) was lower than the statutory tax rate of 30% which is the

tax stipulated for listed companies, while BCOMP showed a mean of 5.88 and a median of 7.34.

The control variables, FSIZE and LEV showed a mean (median) of 6.95(6.87) and 56.39(54.99) respectively. Also, the probability from the skewness and kurtosis tests for normality showed that all the variables were normally distributed at 1% level of significance. Hence, any recommendations made, to a considerable extent, would represent the characteristics of the actual population of the study.

*Correlation Results*

**Table 2: Correlation Analysis**

	FV	TAXP	BCOMP	FSIZE	LEV
FV	1				
TAXP	0.05	1			
BCOMP	0.17	-0.02	1		
FSIZE	0.16	0.02	0.29	1	
LEV	-0.36	-0.08	0.02	0.03	1

For variable definition see Table 1

Source: Authors compilation from Stata 14 (2018)

Table 2 reports the correlations between the variables examined. It shows that the correlations are relatively small, indicating the absence of the problem of multicollinearity. However, the maximum correlation is between leverage and firm value (-0.36). The absence of

multicollinearity is further confirmed by the Variance Inflation Factor (VIF) as it shows that there is the absence of serial correlation among the variables with a mean VIF of 1.05 for both models which is below the acceptable threshold of 10.

*Regression Results*

**Table 3: Pooled OLS, Fixed Effects and Random Effects Models**

Variables	MODEL 1			MODEL 2		
	Pooled OLS	FE	RE	Pooled OLS	FE	RE
TAXP	2.41(0.14)	-2.29 (0.33)	-0.18(0.93)	2.47(0.17)	-1.97(0.45)	0.19(0.94)
BCOMP	0.37(0.00)** *	0.07(0.75)	0.23(0.20)	0.37(0.00)** *	0.06(0.77)	0.23(0.22)
TAXPBCM				0.01(0.93)	0.07(0.78)	0.09(0.72)
FSIZE	1.61(0.00)** *	-03.79(0.08)*	1.67(0.10)*	1.61(0.00)** *	-3.79(0.08)*	1.68(0.10)*
LEV	- 0.11(0.00)** *	- 0.32(0.00)***	- 0.25(0.00)** *	- 0.11(0.00)** *	- 0.32(0.00)***	- 0.25(0.00)** *
CONS	-1.62(0.57)	50.71(0.00)** *	7.45(0.29)	-1.64(0.56)	50.66(0.00)** *	7.40(0.30)
R <sup>2</sup>	0.18	0.07	0.16	0.19	0.07	
LM Test		33.51(0.00)			26.77(0.00)	
Hausman Test ( $\chi^2$ )		140.69(0.00)			80.36(0.00)	
F-stat	30.23 (0.00)	6.24(0.00)		24.05(0.00)	6.22(0.00)	
Wald Chi <sup>2</sup>			121.77(0.00)			121.82(0.00)

**Note: The coefficient is presented with the probability values in parenthesis.**

\* Statistical significance at the 0.10 level, \*\* Statistical significance at the 0.05 level, \*\*\* Statistical significance at the 0.01 level. For variable definition see Table 1

Source: Authors compilation from Stata 14 (2018)

In estimating the relationship between tax planning, board compensation and firm value, the panel regression technique was estimated. In doing this, the pooled OLS regression was estimated, and the redundant FE test rejects the null hypothesis of the non-existence of effects in the cross-section units over the period examined for model 1 and 2 with p-values of 0.00 for both models which imply that the pooled OLS technique is not appropriate in estimating firm financial performance. Further, the panel fixed and random effect models were

estimated and the Hausman test conducted to determine which test is more appropriate. The result (p- values of 0.00 for model 1 and 0.03 for model 2) reveals that the FE model is more appropriate than the RE model. Additionally, to confirm the validity and robustness of the models, post estimation tests for heteroskedasticity using the Wald test for heteroscedasticity and autocorrelation using the Wooldridge test for autocorrelation were conducted. The results (P<0.00) for the heteroscedasticity test and (P<0.01) for autocorrelation signify

the existence of heteroscedasticity and autocorrelation in the models.

The post estimation results reveal that the residuals of the models are not constant over time and therefore there is the problem of cross-sectional dependence and serial correlation among the residuals of the model (Ogundajo & Onakoya, 2016). Due to this

limitation, the pooled OLS, fixed and random effect models would not be appropriate in estimating the models. Thus to correct for the presence of heteroscedasticity and autocorrelation, the Generalised Least Square (GLS) is used to estimate the relationship between tax planning, board compensation and firm financial performance.

**Table 4: Generalised Least Square Models**

Variables	MODEL 1	MODEL 2
TAXP	6.17(0.01)**	6.91 (0.01)**
BCOMP	0.47(0.00)***	0.46(0.00)***
TAXPBCOM		0.19(0.53)
FSIZE	2.21(0.00)***	2.25(0.01)***
LEV	-0.18(0.00)***	-0.18(0.00)***
CONS	-12.35(0.60)	-2.70(0.54)
Wald Chi <sup>2</sup>	121.41(0.00)***	121.90(0.00)***
N	516	516

**Note: The coefficient is presented with the probability values in parenthesis.**

\* Statistical significance at the 0.10 level, \*\* Statistical significance at the 0.05 level, \*\*\* Statistical significance at the 0.01 level. For variable definition see Table 1

Source: Authors Compilation from Stata 14 (2018)

The regression results of the GLS models reveals that tax planning is significant and has a positive effect on firm value in both models, suggesting that an increase in tax planning leads to an increase in firm value. This finding insinuates that firms make maximum use of tax planning strategies to reduce their tax burdens and increase their tax savings. While this finding agrees with some studies (Taylor & Richardson, 2014; Chee, Choi, & Shin, 2017; Hanlon, Mills, & Slemrod, 2005; Rego & Wilson, 2012), it contradicts others such as Ogundajo & Onakoya (2016), Dasei & Dharmapala

(2006), and Armstrong *et al.* (2012). It is likely an indication of loopholes in the tax laws which has created an opportunity for tax planners to use the gaps to their advantage.

Board compensation coefficient was found to be positive and significant in both models. Suggesting that, an increase in the compensation of the board members leads to an increase in the financial performance of the sampled firms. This result is in tandem with studies by Deysel and Kruger (2015), Herdan and Szczepańska (2011). It,

however, contradicts the studies by Omoregie and Kelikume (2017), Guo, Jalal, and Khaksari (2014), and Yusuf and Abubakar (2014). This finding is not surprising as it is believed that some of these companies are reported to have owners on both the executive and non-executive positions of the company. Additionally, most non-financial and non-oil companies under study perhaps have less ratio of executive to total board members than financial and oil companies thereby contributing to lower cost of board compensations.

For the moderating effect of board compensation, the coefficient was found not significant in model 2, suggesting that the compensation paid to the board of directors might not influence the relationship between tax planning and firm financial performance. Contrary to conclusions that incentive compensation increases the likelihood of fraud and other ethical concerns such as tax planning (Erickson et al., 2003) and also the proposition that firms that are publicly listed, largely sized, and recording huge profits have tended to have reputational concerns than unlisted and smaller sized ones (Graham *et al.*, 2014), compensations to the board have failed to moderate the association of tax planning and firm value. This is an indication that the boards are not self-seeking and opportunistic based on the evidence provided in this study. This is unarguable as both tax planning activities and board compensation are favourable to firm value even as board compensation cannot moderate the board's disposition to firm's commitment.

The coefficients of the control variables (firm size and leverage) were found to be significant. Firm size showed a positive

effect which implies that an increase in the size of the firm leads to an increase in firm value. This is consistent with existing studies such as Saliha and Abdessatar (2011), and Stierwald (2009) who argued that economies of scale enhance firm value. On the contrary, Banchuenvijit (2012) found a negative relationship on the ground that big size creates additional costs arising from diseconomies of scale. Leverage is reported to have a negative coefficient suggesting that an increase in leverage leads to a reduction in the firm value of the firm. This supports some existing studies by Ruf (2008) and Rajan and Zingales (1995) who concluded that high long-term debts could be burdensome to the firm. Interest payment on loans in Nigeria can be prohibitive to the extent that the profitability of a firm can be affected. Overall, firm characteristics are essential in assessing the impact of tax avoidance on firm value (Inger, 2014).

## **CONCLUSION AND RECOMMENDATIONS**

The study examined the effect of tax planning, board compensation and the moderating effect of board compensation on firm value. Based on a sample of seventy-one companies listed on the Nigerian stock exchange over a period of five years (2008 – 2015), the study employed the GLS regression technique. The regression results show that there is a positive and significant relationship between tax planning, board compensation and firm value. This is suggestive of the loopholes in the tax laws which have created an opportunity for tax planners to utilise for the good of the firm.

Board compensations in Nigeria align with the firm objective by virtue of its positive relationship with the firm performance. One lesson in this is that the board have been able to set compensations of the board

members at a level that is favourable to the firm. Additionally, most non-financial and non-oil companies under study perhaps have less ratio of executive to total board members than financial and oil companies thereby contributing to lower cost of board compensations.

However, the board compensations cannot moderate the relationship tax planning, and board compensation was not significant. It has shown that incentive compensation does not increase the likelihood of ethical concerns such as tax planning of publicly listed, largely sized, and profitable firms. This is an indication that the boards are not self-seeking and opportunistic. This is unarguable as both tax planning activities and board compensation are favourable to firm value even as board compensations do not seem to have any significant impact on the board's disposition to firm's commitment.

While it is believed that ROA is a good measure of firm value and cash ETR one of the acceptable measures of tax planning, using other proxies could prove useful, it is hereby recommended that future studies in Nigeria should adopt other measures for these variables.

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