



## **BOARD OF DIRECTORS' STRUCTURE AND CORPORATE TAX AGGRESSIVENESS OF LISTED INDUSTRIAL GOODS COMPANIES IN NIGERIA**

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### **ABSTRACT**

Taxation plays a vital role in financing all government projects and activities, as such, the studies of tax aggressiveness can assist policy makers and tax authorities in addressing companies' illegal tax schemes and taxing business more equitable in the sense that every entity pays their fair share of taxes. The study examines the effect of board structure on tax aggressive of 15 selected listed industrial goods companies in Nigeria from 2007-2018. Data were obtained from annual report and account of the companies. Descriptive statistics, ordinary least square regression technique was used to estimate the model. Hausman's specification test was also conducted to choose between fixed and random effect, the test favoured random effect over fixed effect. The result reveals that firm size (FSZ) and leverage (LEV) are negatively related to tax rate while board size (BSZ), independent directors (IND) and return on equity (ROE) are positively related to tax rate. It was also found that an independent director (IND) was statistically significant at 1% level, while board size (BSZ) was negatively insignificant. The study concluded that board size (BSZ) has significant role to play in reducing tax aggressiveness of listed industrial goods in Nigeria and as such the study recommends that regulatory bodies should enforce strict compliance to the provisions of the codes of best practices by Nigerian companies.

**Keywords:** Board structure, Tax aggressiveness, Return on equity, Industrial Goods



## **1. INTRODUCTION**

Taxation plays a vital role towards the development of Nigerian economy. It provides revenue for government to finance all the activities, ensures resources redistribution, and generates employment. Payment of tax is a civic duty and an imposed contribution by government on her subjects to enable her finance or run public utilities and perform other social responsibilities. Given this, tax system serves as a fiscal tool used by governments all around the world to achieve her primary objectives such as infrastructural development, enhanced security, ensuring economic growth and sustainable development (Bebeji, Mohammed and Tanko, 2015). Although, there are a lot of anti-avoidance laws in most of the countries around the world, however, companies do employ tax experts (tax accountants) to help them in the preparation of false financial statement in order to pay less tax to the authority concern. (Babayo, 2017)

Desai and Dharmapala (2006) opined that tax aggressive planning involves some levels of obfuscation and complexity to prevent its detection. Thus, if a firm opts for it, it gives room for managers to divert the firm's resource and low level of tax enforcements. Therefore, corporate tax aggressiveness seems to be one of the most challenging issues of our generation as it exposes a company to technical tax and reputational risk; and also represents a serious loss of revenue to the government in (2015). Recently in (2017), there was a lot of malpractices by corporate bodies were by companies adopted different aggressive ways to reduce their tax obligations. This became an alarming cry as the problem of tax aggressiveness (avoidance) bedevilled the tax system of both developed and developing countries. (Mustapha and Nasir, 2018)

The effort made by the government on the implementation of tax laws in Nigeria proved abortive as corporate tax departments were tuned as a profit centre managing a portfolio of tax issues with significant emphasis on minimising the amount of tax to be paid. For instance, in the famous Enron case, the company's tax department had been turned into a revenue centre, having its annual target. It was then revealed that when a company is being taxed aggressive, investors may not be the benefactors as the complicated transactions and professional cost used to avoid taxes were so expensive and cost the company much. As a result, the investors actually do not benefit (Martinez, Ribeiro, & Funchal, 2015). It was also an issue of increasing concern to several parties in the UK, due to the fact that tax planning potentially had



a negative effect on the level of provision of public goods which then contributed to lots of social issues (Hanlon & Slemrod, 2006).

Furthermore, the lack of tax governance-related information made shareholders value tax planning differently. It is generally expected that shareholders prefer tax aggressiveness since ordinarily paying less tax implies that the firm saves money for its shareholders, particularly about risk management of the company's tax affairs thereby misleading investors. This may lead to agency problems as the (board of directors) may not align with the shareholders (investors), thereby making the tax issues complicated (Duke, & Kanlpang, 2011).

As the proliferation of corporate scandal gain its stead in business operations across the globe, investors gradually lost confidence in the Capital Markets. As such, Hanlon, and Slemrod (2006) asserts that on the average, a company's stock price declines when there is news about its involvement in tax aggressiveness. This led to great loss of investment by investors as stock prices gradually declined from a bullish state to a bearish status. Also, Klein and Leffler (1981) argued that customers and suppliers might become wary of dealing with such firms associated with tax aggressiveness, thereby increasing future transaction costs and perhaps causing customers and suppliers to deal with other companies. This is because, engagement in unknown aggressive activity could head to prosecution and associated costs (Khurana & Moser 2013). Desai and Dharmapala (2009) opined that tax aggressiveness may signal dishonesty been extended to the financial accounting statements. In other words, management (agents) is lying to the shareholders (owner); which leads to an agency problem as shareholders get sceptical about the services rendered by the management.

It is against this background that the study undertakes with a view to evaluate the effect of board of directors on the corporate tax aggressive of listed cement companies in Nigeria. The study is significant in the sense that it would be of immense benefit not only to the companies in Nigerian industrial sector, but also to the Nigerian economy in its entirety in improving tax aggressive, enhancing value driving performance for company's survival and in evaluating investment. The study would motivate the regulators in promulgating better corporate governance regulations that would be more encompassing and contribute effectively to enhancing firm values and resolving agency conflict. Also provides tax authority with a better insight on corporate activities that would enable them revise the related



tax law and tax enforcement, which will amount to a huge inflow of revenue for the government in the face of the current economic depression.

### **Research Questions**

From the above discussion, the following research questions became pertinent:

- i. What is the effect of board size on tax aggressiveness in listed Industrial Goods?
- ii. How effect does independent directors have on tax aggressive in listed Industrial Goods?

The study evaluates the effect of board of director's structure on tax aggressiveness of listed industrial goods in Nigeria for the period of twelve (12) years between (2007-2018). However, the specific objectives are to:

- i. evaluate the effect of board size on tax aggressiveness in listed Industrial Goods in Nigeria.
- ii. assess the effect of independent directors on tax aggressiveness in listed Industrial Goods in Nigeria.

## **2. LITERATURE REVIEW**

### **Theoretical Framework and Empirical Evidences**

The study lies on stakeholder's theory as tax aggressiveness become an act aimed at reducing tax liabilities in a planned manner. It is thus important to understand that the interests of stakeholders are not adequately protected as a firm becomes tax aggressive. Companies tend to violate the codes of best practices suggesting that they should be ethically and morally responsible to their stakeholders; thus, they tend not to be socially responsible by minimizing their tax liabilities. For instance, tax aggressiveness affects the stake of the government directly and the public indirectly; as reduction in tax liabilities shrinks government revenue which were to be used in providing infrastructures for the country, which in turns brings about enhanced economic growth and development. (Jiraporn, Kim, & Davidson (2005)

The stakeholders' theory provides that the firm is a system of stakeholders operating within the larger system of the host society that provides the necessary legal and market infrastructure for the firms' activities (Khurana, & Moser, 2013). The purpose



of the firm is to create wealth or value for its stakeholders by converting their stakes into goods and services.

Martinez *et al.*, (2015) investigated the effects of the Sarbanes-Oxley Act (SOX) on the tax aggressiveness of Brazilian firms listed on the BM & FBovespa between 2004 and 2012. The Partial regression analysis model was used to analyse the data collected. In practical terms, the result evidenced that the implementation of more stringent internal control does not inhibit aggressive tax practices of Brazilian firms. Thus, they concluded that despite the strong empirical evidence that better internal controls improve the quality of accounting results, these rules alone did not appear to have a significant effect in reducing the tax aggressiveness of the firms during the period studied.

Bujie (2015) evaluated the effect of board characteristics on tax aggressiveness of listed banks in Uganda. The data was analysed using the regression model and the study finds relationships between corporate governance factors such as directors' average number of shares in the company, board independency, shareholder power, power of minority shareholders and the effective tax rate, but the relationship may be greatly affected by economic environment. The study concluded that corporate governance factors indeed affect the tax aggressiveness of the companies in Germany.

Khaoula (2013) examined the influence of corporate governance on tax planning of selected American companies from 1996 to 2009. Multiple regression analysis was used to analyse the data gathered and the findings of the study revealed directors constitute fundamental factors of corporate tax planning. However, the study found no significant relationship between board size and the corporate effective tax rates. The findings of the study support the positive effect of the incentive compensation plans on the CEO performance; and thus, concludes that the adopted compensations policy motivates the COEs to decrease the corporate fiscal charges.

Jalali and Jalali (2013) determined the impact of board of directors' Structure on Tax Avoidance in companies Listed in Tehran Stock Exchange for the period 2010 to 2012. The logistic regression method was used in order to evaluate the data used. the study revealed that the independence of the board had a significant relation with the aggressive tax policies. However, the ratio of non-executive members of the board did not show a positive and significant relation with tax avoidance policies. Moreover, board change cannot formulate the tax avoidance policies. The study



concluded that a board of increased number of non-executive members apply less aggressive tax policies and also that board changes is not-executive directors that are competent with adequate knowledge on board matters; this will enhance the integrity and independence of the board.

Stavroula (2015) studied the association between corporate governance practices and the extent of tax evasion for the Greek listed companies in Athens from 2000 to 2004; when they operated in an accounting environment characterized by a high level of book-tax conformity. A univariate analysis was used to estimate the data collected. The findings of the study observed that tax evasion is lower when the chairman of the board is also the owner of the company. A strong negative association was reported between tax evasion and the percentage of shares held by the owner and its family members and also percentage of stock held by board members. The remuneration of board members through the distribution of profits was found to significantly decrease the evasion of taxes whereas tax evasion is higher when board members are also employees of the company. The study concluded that the need for the implementation of international codes on corporate governance practices is imperative; as that calls for greater independence of the board.

Zemzem, and Ftouhi (2013) investigated the effects of board of directors' characteristics on tax aggressiveness, using a sample of 73 French companies on the SBF 120 index for the period of 2006 to 2010. A regression analysis was used to estimate the data collected. The findings of the study showed that the board size and the percentage of women in the board affect the activity of tax aggressiveness; while return on assets and size of the firm were significantly and positively associated. It was also revealed that the higher proportion of outside members and duality don't reduce the likelihood of tax aggressiveness. The study created a unique insight into board diversity and its impact on tax aggressiveness.

Based on the reviewed literature the following hypotheses were developed.

**HO<sub>1</sub>:** there is no significant effect between board size and tax aggressiveness on listed industrial goods companies in Nigeria.

**HO<sub>2</sub>:** there is no significant effect between independent directors and tax aggressiveness on listed industrial goods companies in Nigeria.



### 3. METHODOLOGY

#### Method Data Estimation Technique

Since the data is panel in nature the study adopts ex-post factor research design, known as after the fact research design where investigations start after the event has occurred without interference from the researcher. Out of twenty-two (22) listed Industrial goods in Nigeria, 15 companies were selected using simple convenient technique for the period of twelve years from 2007-2018 justifying that the seven (7) industrial goods companies does not have complete annual report and account for the period under investigation as a result of poor capital constraint and insecurity leading to their liquidation and opt them out as quoted companies in Nigeria. The data was estimated and analysed by employing multiple regression using STATA 16 statistical software.

#### Model Specification

The model connecting Tax aggressiveness with board structure is given as:

$$TA = f(\text{Board characteristics}) \dots\dots\dots(1)$$

$$TA = f(\text{BSZ, IND, ROE, FSZ, and LEV}) \dots\dots\dots(2)$$

Equation (2) can also be specified as:

$$TRT_{it} = \alpha_1 + \beta_2 BSZ_{it} + \beta_3 IND_{it} + \beta_4 ROE_{it} + \beta_5 FSZ_{it} + \beta_6 LEV_{it} + \varphi_i \dots\dots\dots(3)$$

Where:

TA = Tax aggressiveness is measured by Tax Rate (TRT)

BSZ = Board size

IND = independent directors

ROE= Return on Equity

LEV=Leverage

FSZ= Size (Natural Log of Total Assets)

$\alpha$ =Constant Term

$i$ =No of Firms

$t$ = Time Period

$\varphi_i$ =Error term

#### 4. DATA ANALYSIS AND DISCUSSION

**Table 1**  
**Descriptive statistics**

Statistics	TRT	BSZ	IND	LEV	ROE	SZE
Mean	0.75	5.42	1.00	1.54	0.01	6.20
Median	0.22	4.28	1.00	0.18	0.02	4.00
Maximum	101.23	11.66	5.00	437.8	1.05	8.00
Minimum	-13.50	4.92	0.00	-1.01	-0.38	2.00
Std. Dev.	12.01	1.11	1.00	15.43	0.11	1.22
Observation	180	180.00	62.00	62.00	179.00	179.00

Source: Authors' Computation, (2020).

In order to examine the characteristics of the series, the descriptive statistics of the variables used in this study for the 15 Industrial Companies over the period twelve (12) years 2007 to 2018 are presented in table 1. The mean values of tax rate (TRT), board size (BSZ), independent directors (IND), leverage (LEV), return on equity (ROE) and firm size (SZE) 0.75, 5.42, 1.00, 1.54, 0.01, and 6.20, while the median values are 0.22, 4.28, 1.00, 0.18, 0.02, and 4.00 respectively.

The descriptive statistics also shows that there are large margins between the minimum and maximum values of the series. This is an indication of enormous fluctuations of the variables over the period considered. In other words, there are significant changes in all the variables over the period as indicated by their standard deviation (TRT)12.01, (BSZ)1.11, (IND)1.00, (LEV)15.43, (ROE)0.11, and (SZE)1.22, respectively. This shows that the variables are not constant over time. Hence, the study examines their relationship and impact on the dependent variable (TRT). Meanwhile, dividing the standard deviation of each variable by its mean value (coefficient of variability), gives the extent of changeability of the variable. In this case, TRT (dependent variable) has highest coefficient of variability. This means, TRT varies over the period (2007 to 2018) more than any other variable considered in this study. Therefore, the choice of panel regression becomes necessary for the estimation of the model.





**Table 2**  
**Correlation Matrix**

VARIABLE	BSZ	TRT	SZE	IND	LEV	ROE
BSZ	1.000					
TRT	0.163	1.000				
SZE	0.144	-0.0225	1.000			
IND	0.583	0.0086	0.312	1.000		
LEV	0.102	-0.0016	0.0808	0.0346	1.000	
ROE	-0.109	0.059	-0.075	-0.155	-0.0123	1.000

Source: Authors Computation, (2020).

In data analysis, test of Multicollinearity via correlation is imperative. Multicollinearity implies interdependence among independent variables in a regression model. It is an economic problem that nullifies the result of least square regression and leads to wrong statistical implications as well as misleading policy decisions in research. To examine the existence or otherwise of interdependence among the variables used in this study, a pair-wise correlation test was conducted. This shows the nature of relationship between each pair of the variables used. the result of the correlation as presented in table above, shows that SZE and LEV are negatively related to TRT while all other variables are positively related to it. Equally, there are mixtures of positive and negative relationship among the variables. Yet, the coefficient of correlations is less than 0.5 for all the variables. Therefore, the correlation among the variables is very weak which indicate the absence of multicollinearity among the variables.



**Table 3**  
**Fixed and Random Effect Regression Result**

VARIABLES	Fixed effect	Random effect
Board Size (BSZ)	-0.01132 (0.2114)	0.0149 (0.2170)
Independent directors (IND)	1.3212*** (1.0549)	1.0289*** (0.1683)
Firm size (FSZ)	-0.1224 (0.2631)	-0.0754 (0.2358)
Return on Equity (ROE)	0.1316 (1.1235)	0.5711 (1.0276)
Leverage (LEV)	2.117e-06 (0.0131)	3.9791e-02 (0.0017)
Constant	8.909*** (1.9596)	15.037*** (2.6134)
R-squared	0.112	15

Source: Authors' computation, (2020). Standard errors in parentheses \*\*\*, \*\* and \* denote 1%, 5% and 10% level of significance respectively

The result of the fixed effect regressions for the investigation of the effect of board characteristics on corporate tax aggressiveness is represented in by TRT while the independent variables are Board size (BSZ), Independent directors (IND), Firm size (FSZ), Return on Asset (ROE) and Leverage (LEV).

The result in table 3 indicates that BSZ and FSZ are negatively related to tax rate (TRT), -0.01132 and - 0.1224, as seen in the coefficient of the variables 0.2114 and 0.2631 respectively. While (IND), (ROE) and (LEV) are positively related to TRT 1.3212, .1316 and 2.11 respectively as also revealed by the coefficient of the variables 1.0549, 1.1235, and 0.01331 respectively. However, an independent director (IND) is the variable that is statistically significant. This implies that the variable independent directors (IND) have significant impact on corporate tax aggressiveness measured by TRT of Listed industrial goods companies in Nigeria.

The extent of the impact of the variables is measured by the values of the coefficients of the variables in (table 3). By size, the estimates of the coefficients show that an increase in independent directors (IND) will respectively lead to 0.2114 and 0.2631 increases in the (TRT). By implication, listed industrial goods companies in Nigeria with higher number of independent directors (IND) would have higher tax rate



(TRT). This indicates that independent directors (IND) have great impact on tax aggressiveness of listed industrial goods companies in Nigeria.

Meanwhile, the random effect result shows that FSZ is negatively related to (TRT) at -0.0754 with a coefficient of 0.2358 while Board size (BSZ), Independent directors (IND), return on equity (ROE) and leverage (LEV) (0.0149, 1.0289, 0.5711 and 3.9791) with coefficients of (0.2170, 0.1683, 0.0276 and 0.0017) are positively related to TRT. This is similar to that of the fixed effect regression except for the FSZ that has negative relationship with TRT in the fixed effect model earlier reported. Meanwhile, the random effect model shows that independent directors are statistically significant at 1% level.

As seen in table above, the significance is indicated by asterisks. The statistical significance implies that, IND is important determinants of TRT. Thus, the coefficient of the variable as stated above indicates that an increase in independent directors (IND 1.0289) will lead to increase in TRT of listed industrial goods companies. Therefore, the random effect regression shows that IND has significant impact on the TRT and subsequently affect the extent of tax aggressiveness listed industrial goods companies in the Nigeria.

**Table 4**  
**Hausman Test**

Model	Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f	Prob.
One	Cross-section random	13.21	4	0.1535

Source: Authors' computation, (2020).

Hausman test was conducted to make a choice between Fixed and Random Effects Model estimates as shown on the table above the calculated p-value is lower than significance level of 5%, we are not inclined to accept the null hypothesis that the differences between the estimated parameters yielded by the two estimation techniques are not systematic. As a result, random effects method produces better results for the model and is therefore adopted for this study.

### **Result Interpretation**

The existence of independent director on the board was examined and the study revealed a positive relationship between both variables, as the existence of independent director has a significant impact on tax aggressiveness of quoted



financial service companies in Nigeria. This implies that the existence of a higher percentage of independent directors on the board increases the effective tax rate (tax aggressive activities are low). In other words, the presence of independent director impacts negatively on tax aggressiveness of Nigeria industrial goods companies; thus, the null hypothesis is rejected. Therefore, finding this study in line with the work of (Mustapha and Nasir 2018), in Pakistan, but contradict the works of (Martinez *et al*, 2015) which showed that the existence of independent directors had no significant effect on the corporate tax planning of Brazil.

## **5. CONCLUSION AND RECOMMENDATIONS**

Based on the findings, the study concludes that significant relationship exists between board characteristics and tax aggressiveness of listed industrial goods companies in Nigeria. Therefore, the study recommends that the listed industrial goods companies in Nigeria should give less attention to the size of their board, and focus on the quality and integrity of the members of the board; in respect to her members having broad cognate experience and expertise on board matters. More so, they should adhere strictly to the provisions of the SEC and CBN code of corporate governance which provides that a company should have one (1) and two (2) independent directors respectively. This is necessitated as the presence of independent directors to ensure independence of the board.

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