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## Article

# Firm size and tax planning : a test of political power or political cost hypotheses

Accounting and taxation review

## Provided in Cooperation with:

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*Reference:* Adejumo, Babatunde Titus/Kadiri, Idris et. al. (2022). Firm size and tax planning : a test of political power or political cost hypotheses. In: Accounting and taxation review 6 (3), S. 58 - 73.  
[https://www.atreview.org/admin/12389900798187/ATR%206\(3\)%2058-73%20no%205.pdf](https://www.atreview.org/admin/12389900798187/ATR%206(3)%2058-73%20no%205.pdf).

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ISSN: 2635-2966 (Print), ISSN: 2635-2958 (Online).

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Available online at <http://www.atreview.org>

Original Research Article

## **Firm Size and tax planning: A test of political power or political cost hypotheses**

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Received: 12/07/2022

Accepted: 26/09/2022

### **Abstract**

*Taxation is essential in financing government expenditure towards achieving its fiscal goals, among which is the redistribution of wealth. As crucial as tax is to the government, it represents a burden on corporate entities, which has a negative tricycle effect on shareholders' wealth maximisation. To reduce this burden, corporate tax managers have often adopted tax planning strategies; this practice has been a significant bane of government tax revenue performance. Arising from this conflicting interest between corporate taxpayers and the government, this study investigated the dynamic effect of firm size on tax planning. The study used the Generalised Method of Moment for data from 17 purposively selected companies from 2012 to 2017. The result of the finding reveals a significant positive effect of firm size on tax planning, while board size has no significant positive effect. Sales were, however, found to exert a significant negative influence on tax planning. The study concludes that firm Size and sales are the significant drivers of tax planning in Nigeria. The study recommends, among others, that companies should always use tax experts and issue more debt to reduce the tax burden.*

**Keywords:** Tax planning, firm Size, board size, sales growth and generalised method of moment.

### **JEL Classification Code: H2, H23, H25, H26**

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**Citation:** Adejumo, B.T., Kadiri, I., Ojurongbe, J.O., & Sanyaolu, W.A. (2022). Firm size and tax planning: A test of political power or political cost hypotheses. *Accounting and Taxation Review*, 6(2): 58-73.

## INTRODUCTION

The main thrust of this study is the dynamic investigation of the nexus between firm size and tax planning of Nigerian listed consumer goods companies, which is one of the concerned areas for government and corporate entities in Nigeria. Corporate tax is of particular relevance to the Nigerian economy arising from the fact that revenue from this source has a significant influence on government activities and, by implication, economic growth and development as it serves as the major fiscal instrument used by the government in achieving its goals and objectives of sustainable growth and development and one of the major sources of domestic revenue to the government for financing its expenditure. The need to optimise government revenue and, by implication, corporate tax revenue is essential in developing countries like Nigeria, characterised by inequitable income distribution, poverty, high unemployment rate, social vices and infrastructural imbalance. The need to tackle these challenges requires high government developmental expenditure intervention from time to time. However, the government cannot spend without revenue, reiterating the need for corporate tax revenue. Corporate tax revenue, therefore, represents a substantial portion of government tax revenue in Nigeria as the country is one of the high corporate taxing countries among the five West African English-speaking countries. Despite the identified benefits of taxation to the economy, lack of compliance, evasion,

fraudulent practices and avoidance are the major prevalent challenges that have limited its contribution to economic progress in most developing economies like Nigeria Modugu, Eragbe and Izedonmi (2012).

The influence of taxation on firms' financial management is growing (Assidi, Aliani & Omri, 2016). Alvarez and Marsal (2012) declare that tax topics represent significant discus areas by financial executives as they are considered in up to 92% of global business decisions. This stand is maintained by Bizna, Juruss, LAIZĀNS and ŠNIKVALDS (2018) by stating that corporate income tax (CIT) has a significant influence on the entrepreneurial activity as advance payments, profit tax and other forms of regular tax charges erode profit and, by implication, reduces cash flow for future investment and businesses development. Government always wish to optimise revenue from tax while tax payers always wish to reduce their tax expense; this dilemma created by the divergent aims of government and taxable entities/individuals on tax matter has made tax avoidance issue a problematic one ever since the inception of tax legislation and are prevalent in every society where taxes are levied (Andreoni, Erard & Feinstein, 1998; Uadiale, Fagbemi & Ogunleye, 2010; Verboon & Dijke, 2007). According to Annuar, Salihu and Obed (2014), this menace is even more prevalent among corporate taxpayers, given the magnitude of the company income taxes. They argued further that the menace might have been sustained from a greater portion of company pre-tax profit claimed

by the government as corporate tax, which reduced their distributable profits and retention ratio for growth and expansion.

Therefore, formulating and adopting strategies that minimise tax liability and cash outflow in the form of tax remains the most crucial responsibility of corporate tax managers (Ogundajo and Onakoya, 2016). They argued further that firms' ability to reduce tax liability is one of the challenging objectives which firms must achieve to maximise profit, as tax liability is directly linked to the volume of profit made. One major strategy a firm can adopt and that is within the permissibility of tax law towards achieving profit maximisation, is 'effective tax planning'.

Effective tax planning is defined by Scholes, Wolfson, Erickson, Maydew, and Shevlin (2009) as strategies that maximise the firm's expected discounted after-tax cash flows. The ETR, according to Salawu and Adedeji (2017), is a good indicator for estimating tax planning effectiveness as it relates to the actual average tax payable on a taxpayer's income before tax as against the statutory tax rate imposed on the taxable income by the government. An entity achieves effective tax planning tailored towards reducing the firm overall tax liability via the use of the service of a tax experts to avoid some forms of tax by exploring every possible opportunity created via the loopholes in the tax system. This practice is different from tax evasion, considered a civil offence as the latter can claim over and above the ordinary tax due to an entity if it is committed and discovered by the relevant tax authority.

To reduce this menace of corporate tax avoidance, virtually all countries have enacted anti-avoidance laws. However,

despite these anti-tax avoidance laws, corporations worldwide, in an attempt to avoid tax, employ expensive accountants to find increasingly complicated ways to pay less (Daily Mail, 2010). As such, Hundal (2011) argued that the loss of substantial tax revenue to the government of both developed and developing countries had made tax avoidance one of the main challenges of the present generation.

A firm ability to reduce tax liability through effective tax planning can reflect some of its attributes. Among these attributes, the one that has enjoyed robust empirical attention concerning effective tax rate is 'firm size'. Firm Size represents the combination of noncurrent and current assets deployed and used in its operating activities. The dynamics between firm size and the effective tax rate have hovered around two main theories over the years. These theories are political power theory and political cost theory. To the former, larger firms are associated with a lesser effective tax rate as they can influence the political process in their favour than their smaller counterparts (Siegfried (1972). On the other hand, the political cost hypothesis assumes that firm Size is expected to translate to a higher effective tax rate which is a reflection of their subjectivity to larger public visibility, and subsequently triggering their exposure to greater regulatory actions by the government or to be expected to be more socially responsible to their host communities (Jensen and Meckling (1976); Zimmerman (1983); Watts and Zimmerman (1986).

The investigation of the effect of firm size on tax planning is therefore informed by the fact that the Nigerian tax administration system is characterised by loopholes which make it possible for companies, most

especially the larger ones, to reduce their tax burden through effective tax rate using their sophisticated resources and ability to engage the service of tax specialists. Also, corporate managers are evaluated by their ability to maximise shareholders' wealth in form of distributable profit and improvement in market value; this quest may therefore propel them towards aggressive tax planning in an attempt to increase profit after tax. There are also alarming cases of high corporate tax evasion being perpetrated by companies arising from a deficiency in tax law through different channels, such as falsification of financial statements by reporting lower profit before tax than usual, and some firms commonly practise the creation of fictitious assets to claim the high capital allowance in Nigeria in a bid to reduce their tax liability.

There is no doubt as to the fact that there exist empirical approaches that have been adopted towards the investigation of tax planning in developed and developing economies as well as in Nigeria. Most empirical attentions on firm Size and effective tax rate have mainly focused on developed countries. There is a dearth of empirical evidence on firm size and tax planning in developing countries like Nigeria. Most common studies on tax planning in Nigeria have mainly focused on the investigation of corporate tax planning and financial performance and firms' value (Apolo, 2014; Ogundajo and Onakoya, 2016). Some have researched corporate governance and tax planning with the divergent empirical outcome (Ugbogbo, Omoregie and Eguavoen, 2019, Ogbeide, Oyesola and Adelabu), while other studies have researched determinants of tax planning using firm Size as one of the proxies (Salaudeen and Eze, 2017) but have not used a unique combination of firm Size

in terms of asset and board size. Besides these apparent gaps in literature, some of the few studies that have been conducted in Nigeria have mainly analysed tax planning from static perspective and have often reported conflicting findings, which makes them confusing for effective decision making on tax planning. To this extent, this study investigates the dynamic effect of firm size and board size on the tax planning of Nigerian listed consumer goods companies to examine the dynamic interaction between firm size and tax planning of the selected companies within a given time frame.

Arising from this, the following research questions were addressed:

- (i) What is the effect of the total asset on the effective tax rate of Nigerian-listed non-financial firms?
- (ii) To what extent does board size influence the effective tax rate of Nigerian-listed non-financial firms?

The second section of this study deals with the conceptual, theoretical and empirical review. The methodology used in the study forms the basis of section three, while sections four and five address the issue of results presentation and discussion of findings, while section five deals with discussion of findings. The conclusion and recommendation were made in the last part based on the outcome of the findings

## **1. LITERATURE REVIEW**

### **1.1 Concept of Tax planning Tax Planning**

The primary reason for establishing an entity is to maximise shareholders' wealth. However, this objective cannot be attained without considering the environment's implication on an entity's operation. Tax payment is one of the civic responsibilities

of any corporate entity. Companies with artificial entities must pay tax to the appropriate tax authority for enjoying some of the state's resources and for operating under the umbrella of any government. Therefore tax revenue is one of the primary sources of revenue for the government, and the government at levels always wants to optimise revenue from this source.

On the other hand, corporate entities always attempt to minimise their tax expense to increase their profit after tax. One of how corporate entities achieve this corporate aim of tax reduction is through tax planning. Tax planning, according to Scholes *et al.* (2009), is defined as strategies that maximise the firm's expected discounted after-tax cash flows by conducting their activities in such a way that some activities that will give rise to high tax are avoided while also organising their activities to claim all reliefs and incentives that are available. In addition, the practice requires the service of a tax expert who uses technical knowledge to achieve minimum tax payments.

### **Firm Size and Tax Planning**

Most empirical studies on firms' size and effective tax rate have reported a significant positive influence of size in terms of the total asset on an effective tax rate (see Ugbogbo, Omoregie and Eguavoen (2019), Salawu and Adedeji (2017), Malaysia, Ariffin (2013), Salaudeen and Eze (2018), Wang, Campbell and Johnson (2014). This implies that larger companies suffer more tax burdens than their smaller counterparts. The justification for this may be that larger firms are under more serious monitoring than their smaller counterparts and may therefore be subject to higher tax rates as postulated by political cost advantage. On the other hand, few studies have established a significant negative influence of firm size

on an effective tax rate (see Poli, 2019; Moreno-Rojas, et al. (2017), meaning that larger firms suffer a smaller tax burden. This may be because larger firms may be more able to influence the political process to their advantage and also have the resources to engage the service of a tax expert as postulated by political power hypotheses than smaller firms and thus bargain for a lower tax burden. Also, this may be attributable to the allowances they enjoy on qualifying capital assets.

### **Board size and effective tax planning**

Board size represents the total number of directors on the board. A larger board is expected to be efficient and thus contribute to the reduction of tax liability. Thus, the relationship between board size and the effective tax rate is expected to be negative. However, most existing studies on board size and effective tax rate have established positive and significant effects (see Osebe, Kirui and Naibei (2019 and Salawu (2019), implying that a larger board is associated with higher tax payment. This may be attributed to agency crises that make appointed managers pursue their selfish interests, which do not align with the principals. Such selfish interest may propel them to take key investing, financing, and operating decisions that will have adverse tax implications, an example being a preference for equity financing against debt financing in the capital structure.

### **Sales and effective tax planning**

Sales represent volumes of revenue generated from an entity's core operating activities. Sales revenue is a prominent determinant of tax expense as companies with larger sales may be associated with more profit, which places a higher tax burden on the entity. In an attempt to reduce their tax arising from profit, Profitable

companies may exploit all available loopholes in the tax system towards paying as low as possible minimum tax. On the other hand, profitable firms may be associated with more tax arising from more government regulation and public and social scrutiny, as suggested by political cost theory.

## **1. 2. Theoretical Review**

### ***Political Cost Theory***

The firm Size and firm's political costs dynamics have generated hot debate in accounting research for several decades (Belz, Hagen and Steffens, 2018). According to Aichian and Kessel (1962) larger and more profitable firms tend to experience increased public policy and state action being directed to them. Public visibility, which makes firms to be exposed to public and social pressure, is more in larger firms than smaller firms Jensen and Meckling (1976). Watts and Zimmerman (1978) posit that the power to redistribute wealth between different groups granted to the political sector makes larger firms transfer more wealth than their smaller counterparts. Watts and Zimmerman (1986) further argued that the susceptibility of larger firms to rigorous public regulations and are prone to public and social pressure account for the reason taxes may increase with size. This theory is thus relevant to this study as

### ***Political Power Theory***

Political power theory was first described by Siegfried (1972). It is based on the philosophy that larger firms are associated with smaller tax payments due to the political they enjoy than smaller firms from size. Thus, a negative association is suggested between which size-ETR. This power accrues to larger firms as they can use their resources and power to negotiate

their tax burden or influence legislation in their favour (e.g., lobbying activities), resulting in lower ETRs for large firms compared to small firms (e.g., Siegfried (1972), 32–36; Stickney and McGee (1982); Gupta and Newberry (1997); Nicodème (2007).

## **1.3 Empirical Review**

Salawu and Adedeji (2017) examined the influence of corporate governance on tax planning of Nigerian listed non-financial firms using a generalised method of moment on data of 50 selected non-financial firms based on stratified random sampling techniques for data that spanned from 2004 to 2014. The result of the study provides evidence in support of the significant positive influence of board size, profitability and firm size on the effective tax rate, meaning that firms with larger numbers of directors, with more profit and larger in terms of total assets tend to pay more tax. All these are indicators of the prevalence of the political cost hypothesis. The major setback of this study is that it is not specific to consumer goods companies

Ogundajo and Onakoya (2016) examined the influence of tax planning on performance in terms of financial of 10 selected consumer goods manufacturing companies in Nigeria. The study used generalised least square regression to examine the influence of tax planning on performance. The result obtained from the generalised least square reveals the significant negative effect of the effective tax rate on financial performance. However, the study suffers from the main problem of selection of small sample size which may make the generalisation of the findings unreliable. Also, the study used a static method of data analysis, which can produce

unreliable estimates arising from the problems of homogeneity, heteroscedasticity and serial dependence problems. In partial contrast with the findings by Ogundajo and Onakoya Ugbogbo, Omoregie and Eguavoen (2019) analysed the effect of firm-specific determinants of tax aggressiveness of 40 companies by obtaining data that spanned from 2013 to 2017. The regression analysis results show that firm size exerts a significant positive effect on tax aggressiveness, while profitability and leverage have a significant but negative influence on the effective tax rate. This study also suffers the same problem as Ogundajo and Onakoya (2016) by the adopted analytical tools.

Silvy (2019) analysed the influence of corporate tax planning on the firm value of 43 selected listed Indonesian companies from 2014 to 2016 by using regression and inferential statistics. The empirical results show that tax planning that is measured by the cash effective tax rate has a negative effect on firm value, while tax planning measured by effective cash rate and tax savings does not affect firm value. One of the major drawbacks of this study is the estimation of Static models instead of dynamic ones. Contrarily, In Malaysia, Ariffin (2013) found from the investigation of the effect of size and profitability on effective tax rate the existence of a significant positive effect of size on effective tax rate while profitability was found to exert a significant but negative influence.

Nwaobia, Kwarbai and Ogundajo (2016) sampled ten consumer goods companies in Nigeria from 2010 to 2014 and adopted regression and inferential statistics to test for the channel of the effect of the effective tax rate on firms' value to analyse data

obtained for the study. The regression analysis results suggest the existence of a significant positive effect of the effective tax rate on firms' value. This study, however, only focused on tax planning and firms' value; it did not consider factors that can influence the effective tax rate in Nigeria. Also, the study suffers from the major setback of estimation of the static model instead of the panel model.

In the United States of America (USA) Francisco, Elena and Antonio (2012) found the existence of no significant effect of size, debt and tangibility on effective tax rate from the estimated regression model.

Fagbemi, Olaniyi and Ogundipe (2019) the influence of tax planning on the profitability of eight systematically important deposit money banks in Nigeria by obtaining data. The regression analysis results suggest the negative effect of the effective tax rate on return on equity. This study has a scope gap as a result obtained from the statistical tools may not be replicated in consumer goods companies due to their peculiarities. Also, the researchers used the static model to analyses the data instead of the estimation of the dynamic model.

Salaudeen and Eze (2018), using regression analysis on 59 sampled non-financial firms from 2010 to 2021, found from the investigation of firms' endogenous determinants of the corporate effective tax rate that sampled companies enjoy tax savings from their effective tax rate being lesser than the corporate tax rate. More so, size and profitability were found to be positive and significantly affect the effective tax rate, while leverage, capital intensity, and tax expert (auditor type) significantly reduce the effective tax rate. This study



suffers from a major setback of using a static model instead of a dynamic one.

Moreno-Rojas, González-Rodríguez and Martín-Samper (2017) in Spain obtained relevant data on the tourism sector from 2008-2013 and found from the result of generalised methods of the moment the existence of the significant negative effect of size, capital structure and entity type on the effective tax rate. This study, however, is not Nigeria-oriented.

Salaudeen (2017) found from the investigation of determinants of the effective tax rate in the financial sector of Nigerian from the result of the regression obtained from data of 24 sampled monetary intermediation, insurance and auxiliary services from 2010 to 2013 the existence of profitability, firm leverage and capital intensiveness as the determinants of the both GAAP ETR and CASH ETR. This model also used a static model instead of a dynamic one. The limitation of this study is the use of regression analysis instead of a dynamic one like GMM.

Wang, Campbell and Johnson (2014) found from the investigation of factors that determines the effective tax rate of 4037 Chinese sampled companies from 2007-2011.companies. The study found evidence supporting the significant effect of leverage, industry type, asset mix, size and state ownership on the effective tax rate, while it could not establish the significant effect of big four audit type and international ownership on the effective tax rate. This study is also not Nigerian-oriented.

Poli (2019) researched the investigation of determinants of the corporate tax rate of Italian companies from 2016 and 2017. The regression results show a significant

negative effect on firm size, profitability, tangibility, and inventory, while an intangible asset, debt, is positive and significant. The major setback, like some previous ones, is the use of regression instead of a generalised method of moment.

#### **1. 4 Gap in Literature**

From the empirical review above, it is apparent that most studies conducted in Nigeria, apart from tat of Salawu and Adedeji (2017) have approached the issue of tax planning from a static perspective. This may make the findings of the studies unreliable for making reliable generalisations about the problem of homogeneity, which may make the result of the findings unreliable. To bridge this apparent gap, the study analysed the dynamic effect of firm size on tax planning of Nigerian listed consumer goods companies using generalised method of moment, which is appropriate when the number of cross sections exceeds time series( $N > T$ )

#### **2. METHODOLOGY**

An *ex post facto* research design was adopted due to the secondary nature of the data obtained for the study by extracting secondary data from the annual financial reports of the 17 sampled companies. This represents almost 60.7 per cent of the entire population. The study adopted a purposive sampling technique.

The data were considered appropriate for the study as the financial reports containing an independent external auditor audited the data, and prior researches like Salawu and Adedeji(2017) have used similar data and produced robust results.

The data for the study were analysed using a generalised method of moment which is the

appropriate estimation technique when  $N > T$ .

The effective tax rate is the only dependent variable of the study—the proportion of firm total tax for a given year to total profit before tax measures it. Empirical investigations by Salawu and Adedeji (2017) and Ogundajo (2016) have used it to

proxy corporate tax planning in their studies. Two proxies have been used to capture the independent variables of the study. The two proxies are firm size and board size. To avoid spurious regression, other variables outside size that are likely to influence tax planning have been introduced. The control variable used in this study is the effective tax rate.

**Table 1. Measurement of variables**

Variable	Acronym	Measure	Expected effect
Dependent variables			
Tax Planning	ETR	Tax payable/profit before tax	
Independent variables			
Firm Size	FS	This is calculated as natural logarithm of firm total asset.	-
Board Size	Bs	Total number of directors on the board	-
Sales	SLS	This is the natural logarithm o sales	-

*Source: Authors' Compilation (2019)*

## 2.1 Research Hypotheses

H<sub>01</sub>: Firm Size has no significant negative effect on tax planning of listed consumer goods companies in Nigeria

H<sub>02</sub>: Firm Size has no negative effect on tax planning of listed consumer goods companies in Nigeria

## 2.2 Model Specification

The specific model of the study is modified from the work of Salawu (2017), and it is presented below:

$$ETR_{it} = \beta_0 + \beta_1 ETR(-1)_{it} + \beta_2 FS_{it} + \beta_3 BS_{it} + \beta_4 SLS_{it} + e_{it} \dots (3.1)$$

Where;

$ETR_{it}$  = Effective Ta Rate of firm I in period t

$ETR(-1)_{it}$  = a period lag of Effective Tax Rate of firm i in period t

$FS_{it}$  = size in terms of total assets of firm i in period t

$BS_{it}$  = Board size of firms i in period t

$SLS_{it}$  = Sales of firm i in period t.

$e_{it}$  = Stochastic error term

## 3. PRESENTATION OF DATA

### 3.1 Descriptive Statistics

Table 2 below shows the descriptive statistic of the variables. The effective tax rate is 62.8%, while the log inverse of firms size, board size and log inverse of sales are 17.7, 9.96 and 17.26, respectively. Most of the variables apart from ETR have a mean value that is so close to their median.

This shows that most of the variables are normally distributed. As to the Kurtosis, only ETR was found in the leptokurtic given the value of 99.5, which is far above 3. Others are platykurtic since their kurtosis value is below 3, meaning the variable has no outlier. The explanation for the high Kurtosis value of ETR is that different firms engage in tax planning activities more than others. The Jarque-Bera

values suggest that most of the variables are relatively evenly distributed. It is to be noted that the outrageous maximum value of 41.08395 is due to lower profit before tax of

405 000 of Northern Nigerian Flour mills of 405,000 with corresponding tax payable of 16639000.

**Table 2: Descriptive Statistics**

	ETR	LSIZE	BS	LSALES
Mean	0.627932	17.66658	9.960784	17.26421
Median	0.278886	17.89629	9.000000	17.76757
Maximum	41.08395	22.39647	15.00000	19.74304
Minimum	-0.668527	14.36926	6.000000	12.87293
Std. Dev.	4.050083	1.507828	2.636085	1.726413
Skewness	9.914979	-0.133376	0.306664	-0.819249
Kurtosis	99.54882	2.842098	2.063277	2.835648
Jarque-Bera	41288.33	0.404379	5.327890	11.29869
Probability	0.000000	0.816940	0.069673	0.003520
Sum	64.04907	1784.324	1016.000	1726.421
Sum Sq. Dev.	1656.720	227.3544	701.8431	295.0695
Observations	102	102	102	102

**Source: Researchers' computation (2019) using E-views 9**

### 3. 2. Correlation Analysis

To examine the pairwise correlations of the dependent variables, the study conducted a correlation coefficient. According to (Saunders *et al.*, 2003), a high correlation coefficient between two variables implies the presence of multicollinearity and thus significantly sapping the empirical power of

the model Multicollinearity can be a problem if the correlation between two variables exceeds 0.80 (Field, 2005). Table 3 below shows that the correlation coefficient between the variables is between -0.101 and 0.53. The highest correlation coefficient is between BS Sales, indicating a strong association.

**Table 3: Correlation analysis**

Variables	ETR	ETR(-1)	LSIZE	BS	LSALES
ETR	1.0000				
ETR(-1)	0.003	1.000			
LSIZE	-0.193	-0.252	1.000		
BS	0.076	-0.254	0.169	1.000	
LSALES	-0.231	-0.101	0.441	0.538	1.000

**Source: Researchers' computation (2019) using E-views 9**

### 4. DISCUSSION OF FINDINGS

The result of the Dynamic GMM used to investigate the effect of firm size on the effective tax rate is presented below in table

4. The J- Statistic value of 61.000 ( $P < 0.01$ ) reveals the joint significance of the explanatory variables of the study on the effective tax rate on listed consumer goods

companies. The adjusted R-square of 0.240 implies that the independent variables of the study account for only 24% of the variation in effective tax rate while the remaining 76% are accounted for by other variables not captured by the study. Other variables outside the scope of this study that may influence effective tax rate are firm age, audit, leverage, asset tangibility, quality, the existence of tax experts and macroeconomic variables like economic growth, inflation and unemployment rate. The coefficient of 59.397 for constant implies that without firm size, board size and sales, the effective tax rate will increase by 59 units.

Including the lagged dependent variable as an explanatory variable in the model avoids the problem of overestimation of the parameters caused by using the static model instead of the dynamic model (Moreno-Rojas et al. 2017). The lagged ETR has no significant negative effect on the effective tax rate. This implies that the previous year's effective tax rate negatively and insignificantly influences the current year's effective tax rate. This is against the dynamic behaviour of tax planning decisions (Salawu & Adediji, 2017).

The study established a significant positive effect of firm size on effective tax rate at 10% significance. This finding supports the political cost hypothesis that larger firms pay more tax due to public scrutiny and commitment to social responsibility than their smaller counterparts, making it difficult for firms to avoid tax. Therefore, the null hypothesis of no significant positive effect of firm size on effective tax rate is rejected. This finding is in line with that of Ugboogbo et al. (2019), Salaudeen and Eze (2018), and Salawu and Adediji (2017), that found a significant positive influence of firm size on the effective tax rate, and by

contrast, Poli (2019) and Moreno-Rojas, et al. (2017) found the existence of the significant negative effect of effective firm size on the effective tax rate.

The finding as to the effect of board size on the effective tax rate is positive but not significant. This implies that firms with larger board sizes are associated with more tax rates. This may be justified on the ground that firms with more directors on the boards are associated with higher tax payments. This may be due to the taxable fringe benefits that directors benefit from, and having more directors benefit from this may attract more tax payments. Also, the positive effect can be linked to the agency problem, which arises from the choice of capital for financing firms' operations. Firms' agents are to adopt capital structure decisions that will maximise shareholders' wealth and thus are expected to opt for debt financing whenever there are investment opportunities which internal funds cannot cater for and issue equity as a financing source of last resort. The rationale for this hierarchy is since interest on debt is tax deductible when computing income tax which assists in reducing taxable profit and, thus, tax payable. However, in practice, managers often opt for equity financing as against debt when there exists a financial gap in protecting their selfish interests. This selfish interest translates to lower debt usage in capital structure and increased company income tax. Therefore, we accept the null hypothesis of no significant positive effect of board size on the effective tax rate of Nigerian-listed consumer goods companies. The result of the finding contrasts with that of Osebe, Kirui and Naibei (2019) and Salawu (2019).

Finding relating to sales as a control variable reveals an existing negative

significant effect of sales on the effective tax rate. This implies that companies with larger sales end up paying lower taxes. The justification for this finding is that as companies make more sales, profitability is

bound to increase, and an increase in profitability increases a firm tax burden. To reduce this tax burden, companies may adopt aggressive tax policies.

### 3.3 Generalised Method of Moment Estimate

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

Regressors	Fixed Effect			Random Effect		
	Coeff	t-stat	p-val	Coeff	t-stat	p-val
Constant	59.397	2.5423	0.014	15.267	2.644	0.009
ETR <sub>t-1</sub>	-0.843	-0.2994	0.765	0.452	0.184	0.854
SIZE	1.788	1.8224	0.073	-0.207	-0.653	0.516
BS	0.872	1.4792	0.144	0.4731	2.359	0.021
SALES	-5.714	-4.883	0.000	-0.908	-2.739	0.008
R-square	0.430			0.1152		
Adj.R-square	0.240			0.069		
J-stat	61.0			77.000		
Prob J-stat	0.00000		0.000	0.0000		0.000
Instrument Rank	22			6		
Durbin Watson			2.3736	1.4012		

Source: Researchers' computation (2019) using E-views 9

Table 5: Post Estimation Test: Hausman Specification

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	21.463147	6	0.003

Source: Researchers' computation (2019) using E-views 9

### CONCLUSION

Considering that tax planning is necessary for maximising shareholders' wealth through effective tax planning to reduce tax payable, this study examined the effect of firm size on tax planning of 17 listed Nigerian consumer goods companies. From time to time, these companies have implemented tax minimisation strategies to reduce tax payable to increase reported earnings through various channels, such as appointing a tax expert who can adequately

examine and utilise loopholes in the tax system to reduce corporate tax.

The result from the study revealed that firms' size significantly positively influences the effective tax rate of Nigerian listed consumer goods companies. This implies that an increase in a firm total asset directly and significantly influence the effective tax rate implying that firms with larger size pay above the corporate tax savings instead of benefiting from corporate tax savings. This may be due to a host of factors, such as the

low use of debt in financing firms' assets and operations. Also, companies may not fully utilise the service of a tax expert in reducing tax expenses, which may reflect their inability to claim all allowable deductions such as capital allowance, tax relief and all other forms of incentives granted by tax authorities to reduce the firm tax burden. Above all is the more visibility and scrutiny of larger firms by the government, society and other relevant authorities than smaller firms. This attention may therefore reduce their tendency towards aggressive tax planning.

As to board size, it was established that board size exerts a positive but no significant influence on the effective tax rate. This means that a board with a larger size pays a higher effective tax rate. This may be influenced by agency problem, which makes appointed managers take decision such as capital structure decision that favours the use of equity over the debt, which has a tax shield

Lastly, the study found that sales negatively and significantly influence the effective tax rate. This may be because more sales may give rise to more profit, making firms develop tactics to reduce their corporate tax payable.

The study concludes that size significantly influences the effective tax rate of Nigerian-listed consumer goods companies. It is therefore recommended from the findings that firms should develop strategies such as capital structure and, in conclusion, more financially literate directors on the board to reduce effective tax rates while government should also enforce strict tax policies that will help bring tax avoidance to the barest minimum. In an attempt to encourage companies to pay more tax, the government

should have more tax justice on the part of the government. The role of tax education should not also be taken for granted

## References

- Alchian, A. A., and Kessel, R., 1962. Competition, monopoly and pursuit of money. In aspects of labor economics. Princeton: Princeton University Press.
- Alvarez and Marsal. 2012. CFO matters: Tax perspectives survey highlights.. Available at [http://www.alvarezandmarsal.com/en/about/action\\_matters/documents/CFOSurvey\\_FINAL\\_002.pdf](http://www.alvarezandmarsal.com/en/about/action_matters/documents/CFOSurvey_FINAL_002.pdf).Ugbogbo,
- Andreoni, J ., Erard, B., and Feinstein, J., 1998. Tax compliance *Journal of Economic Literature*. 33, 818-860.
- Annur, H. A Salihu, I. A and Obid, S. N. S.,2014. Corporate ownership, governance and tax avoidance: An interactive effects. *164*(31), 150-160. <https://doi.org/10.1016/j.sbspro.2014.11.063>
- Ariffin, Z. Z., 2013. Avoiding tax: Does firm size and profitability matter? *Proceedings of the 6th International Conference of the Asian Academy of Applied Business (AAAB) 2013*.
- Assidi, A., Aliani., K., and Omri, M. A., (2016). Tax optimisation and the firm's value: Evidence from the Tunisian context. *Borsa Istanbul Review*, 20, 1-8. <https://doi.org/10.1016/j.bir.2016.04.002>
- Bizna, V., Juruss, M., LAIZĀNS, T., and ŠNIKVALDS, R., 2018. Assessment of impact of corporate income tax on financial performance of businesses *Economics and Business*, 32, 172-181.

- Daily Mail (2010). The Great Tax Heist. 17 December.
- Fagbemi, T. O., Olaniyi, O. F., and Ogundipe, A. A., 2019. The corporate tax planning and performance of systematically important banks in Nigeria. *Economic Horizons*, 21(1), 15-27
- Field, A., 2005. *Discovering statistics using SPSS*. London: Sage Publications Ltd.
- Francisco, J. D., Elena, F., and Antonio, M., 2012. Size and other determinants of corporate effective tax rates in US listed companies. *International Research Journal of Finance and Economics*, 98, 160-165
- Gupta, S. and Newberry, K. (1997). Determinants of the variability in corporate effective tax
- Jensen, M., and Meckling, W., 1976. Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics* 3: 305-360.
- Modugu, P. K., E. Eragbhe, dan F. Izedonmi. 2012. Government accountability and voluntary tax compliance in Nigeria. *Research Journal of Finance and Accounting* 3(5): 69-77.
- Moreno-Rojas, J., González-Rodríguez, M. R., and Martín-Samper, R. C., 2017. Determinants of the effective tax rate in the tourism sector: a dynamic panel data model *Tourism & Management Studies*, 13(3), 31-38.
- Nicodème, G., 2007. Corporate tax competition and coordination in the European Union: what do we know? Where do we stand? in *International Taxation Handbook*, C. Read and G.N. Gregoriou editors, Elsevier, London, chapter 8,171-208.
- Nwaobia, A. N., Kwarbai, J. D., and Ogundajo, G. O., 2016. Tax planning and firm value: Empirical evidence from Nigerian consumer goods industrial sector. *Research Journal of Finance and Accounting*, 7(12), 172-183.
- Ogundajo, G. O., & Onakoya, A. B., 2016. Tax planning and financial performance of Nigerian manufacturing companies. *International Journal of Advanced Academic Research Social & Management Sciences*, 2(7), 64-80.
- Osebe, P. R., Kirui, J. K., and Naibei, I. K., 2019. Impact of corporate governance on effective corporate tax rates among listed firms in Kenya. *Research Journal of Finance and Accounting*, 10(18), 23-33.
- Poli, S., 2019. The determinants of corporate effective tax rate of Italian private companies. *African Journal of Business*, 13(16), 507-518.
- Salaudeen Y .M., Eze U. C., 2018. Firm specific determinants of corporate effective tax rate of listed firms in Nigeria. *Journal of Accounting and Taxation* 10(2):19-28.
- Salaudeen Y. M (2017). Corporate effective tax rates in the financial services sector: Evidence from Nigeria. *International Journal of Accounting and Taxation* 5(1), 68-88
- Salaudeen, Y. M., & Eze, B. U., (2018). Equity ownership structure and corporate tax aggressiveness: The Nigerian context. *Research journal of Business and Management*,5(2), 90-99
- Salawu R. O., and Adedeji, Z. A., (2017). Corporate governance and tax planning

- among non-financial quoted companies in Nigeria. *African Research Review*, 11(3), 42-59.
- Saunders, M. N. K., Lewis, P., and Thornhill, A., 2003. *Research methods for business students*. Harlow: FT Prentice Hall.
- Scholes, M. S., Wolfson, M. A., Erickson, M., Maydew, E. L., and Shevlin, T., 2009. *Taxes and business strategy: A planning Approach*, (4th ed.). Upper Saddle River: Pearson Prentice Hall.
- Siegfried J., 1972. The relationship between economic structure and the effect of political influence: Empirical evidence from the corporation income tax program. Unpublished doctoral dissertation (University of Wisconsin).
- Silvy, C (2019). The effect of corporate tax planning on firm value. *Accounting and Finance Review*, 4 (1) 01 – 04.
- Stickney, C. P. & McGee, V. E. (1982). Effective Corporate Tax Rates. The Effect of Size, Capital Intensity, Leverage and Other Factors. *Journal of Accounting and Public Policy*, 1, 125-152.
- Uadiale, O. M., Fagbemi T. O., and Ogunleye, J. O., 2010. An empirical study of the relationship between culture and personal income tax evasion in Nigeria. *European Journal of Economics, Finance and Administrative Sciences - Issue 20*, 116-126
- Ugbogbo, S. N., Omoregie, N. A. E., and Eguavoen , I., 2019. Corporate determinants of aggressive tax avoidance: Evidence from Nigeria. *IOSR Journal of Business and Management (IOSR-JBM)*, 21(4), 1-9.
- Verboon, P and Dijke, M. V., 2007. A self-interest analysis of justice and tax compliance: How distributive justice moderates the effect of outcome favorability. *Journal of Economic Psychology*, 28(6), 704-727
- Wang, Y., Campbell, M., and Johnson, D., 2014. Determinants of effective tax rate of China publicly listed companies. *International Management Review*, 10(1), 10-20.
- Watts, R., and Zimmerman, J., 1978. Towards a positive theory of the determination of accounting standards. *The Accounting Review* 53: 112–134.
- Watts, R., and J. Zimmerman. 1986. *Positive Accounting Theory*. First edition, Upper Saddle River (New Jersey): Prentice Hall.
- Zimmerman, J., 1983. Taxes and firm size. *Journal of Accounting and Economics* 5: 119-149.



**Appendix 1: List of Sampled Firms**

<b>S/N</b>	<b>Name of firm</b>
1	Nigerian Breweries Plc
2	Guinness Nigeria Plc
3	7up Bottling Company Plc
4	Nigeria Enamelware Plc
5	Flour Mills of Nigeria Plc
6	Vitafoam Nigeria Plc
7	PZ Cussons Nigeria Plc
8	NASCON
9	Honeywell Flour Mills
10	Dangote Sugar
11	Dangote Flour Mills
12	Cadbury Nigeria Plc
13	Unilver Nigeria Plc
14	Nestle Nigeria Plc
15	Northern Nigeria Flour Mills
16	Champion Brewery
17	MC Nicos Nigeria Plc