WWW.IJRPR.COM

International Journal of Research Publication and Reviews

Journal homepage: www.ijrpr.com ISSN 2582-7421

EFFECT OF FIRM ATTRIBUTES ON TAX AVOIDANCE OF FOOD PRODUCTION COMPANIES IN NIGERIA

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ABSTRACT

The study examined the effect of firm attributes on tax avoidance of food production companies in Nigeria. The study employed the, Ex-Post Facto research design for the study. The population of this study covered seven food production companies that are under foods production in Nigeria. Data for the study were extracted from eleven years annual reports and accounts of these companies from 2010 to 2020. The data were analyzed using descriptive statistic; and = regression analysis was used to test the hypotheses. The result showed that firm profitability has a positive and insignificant effect on tax avoidances, while firm size shows a negative insignificant effect on tax avoidance. The study recommends, among others, that given the finding that large enterprises in Nigeria were much less tax evasion, regulatory organizations and tax authorities in both nations should focus their attention on all companies' tax saving measures, regardless of size, in order to discourage tax avoidance.

Keywords: *Firm attributes, Profitability, and Firm size*

1. INTRODUCTION

Taxation is one of the most important weapons of fiscal policy for managing a country's economy. Nigeria's succeeding governments have used tax policy to foster industrial and business growth in the private sector at various times (Nwaobia, 2014). Taxation and tax regulations in Nigeria, on the other hand, function as a deterrent for manufacturing enterprises to produce value for stakeholders and increase the value of their businesses. Taxation, as observed by Gatsi, Gadzo, and Kportorgbi (2013), plays a role in the manufacturing sector's misfortunes since tax laws serve numerous reasons other than collecting income for the state. It can be used to protect young industries and to encourage investors to invest in them (Gatsi, Gadzo and Kportorgbi, 2013). For example, Ihendinihu (2008) in Dickson and Nwaobia (2012) noted that unfriendly tax policies is one of the many reasons for the growth of the underground economy, where law-abiding individuals and corporate citizens seek refuge from wrongs inflicted on them by government. Governments all throughout the world rely heavily on corporate taxation for revenue. Corporate bodies in Sub-Sahara Africa are required to pay Company Income Tax on their assessable profit in accordance with local tax regulations (Offiong) (2013).

Over time, inequalities in tax payment have been noted among businesses. These differences in tax payments point to business tax avoidance strategies. Tax planning refers to any activity carried out in accordance with tax regulations that can lower a company's tax burden as measured by its effective tax rate. It entails taking advantage of the tax laws' flexibilities and loopholes to lower tax liability (Dyreng, Hanlon & Maydew, 2008). It has the ability to reduce a company's tax payments, resulting in a stronger after-tax financial position (Chen, Cheok & Raziah, 2016). Although the methods may be lawful, governments around the world have remained dedicated to opposing them since they move resources from the government to shareholders, restricting the government's capacity to fulfill its constitutional obligations.

Tax evasion has the potential to create an agency conflict between managers' and investors' interests (Jensen & Meckling, 1976). These operations undoubtedly have an impact on shareholders, resulting in a reduction in the information content of the firm's financial statements, indicating the possibility of information asymmetry between the corporation and its shareholders (Lee, Dobiyanski and Minton 2015).

The 2008 financial crisis - and the ensuing recession - focused policymakers' attention on economic and tax reforms. In a time of crisis, a government's capacity to minimize tax evasion is a vital aspect in meeting its obligations to creditors and avoiding bankruptcy (Evangelos, Stergios and Nikolaos, 2018). Nonetheless, corporate tax decisions differ from individual tax decisions because firms follow the principal agent model (Chen and Chu 2005), which means that decisions are made indirectly by their agents rather than directly by the shareholders (Crocker and Slemrod 2005). Although various studies have been undertaken on tax compliance, there is a scarcity of research specifically addressing the impact of corporate governance on tax avoidance (Armstrong, Blouin and Jagolinzer 2015). According to previous studies, the extent of tax evasion varies by company, with some organizations having a higher proclivity for tax avoidance than others (Pratama, 2017; Salman, Anshori and Tjaraka, 2018). Because firm qualities such as tax aggressiveness have an impact on tax reduction efforts, firm attributes should be recognized as a major component in the success or discontinuation of aggressive tax behavior (Richardson, Taylor, and Lanis, 2013). Lisowsky (2010) showed that tax avoidance was positively associated with performance. Rego (2003) also asserted that firms with a higher pre-tax income had lower effective tax rates, ceteris paribus. Profitable companies may have a greater incentive than less- profitable companies to engage in tax planning (Rego, 2003) which should lead to lower effective

rates. A positive association between firms' profitability and ETR was found by Delgado, Fernández-Rodríguez and Martínez-Arias (2018) and Aburajab, Maali, Jaradat and Alsharairi (2019) while Umeh, Okegbe abd Ezejiofor (2020); and Kraft (2014) documented a negative influence of firms' profitability on ETRs.

To represent business qualities, researchers have utilized a variety of proxies. We're interested in the impact of profitability, leverage, capital intensity, company growth, and firm size on effective tax rates, based on recent research (Minnick & Noga, 2010; Richardson et al., 2013). Profitability is viewed as an intuitive indicator of a company's potential to alter the effective tax rate. High-profit firms are more likely to be tax aggressive because they have more resources to invest in tax planning activities and take advantage of tax incentives and regulations to minimize income taxed and income taxes, lowering the effective tax rate (Pratama, 2017). Meanwhile, while some studies have focused on corporate features linked to tax evasion, there has been little research on the role of the individual. This study examines the effect of firm attributes on tax avoidance of food production companies in Nigeria.

2. CONCEPTUAL FRAMEWORK

TAX AVOIDANCE

The deterrent model proposed by Alligham and Sadmo (1972) identifies three primary elements that individuals consider while dodging taxes: the risk of being found, the severity of the punishment, and the degree of risk aversion. Most previous tax evasion research followed Allighman and Sadmo's concept, focusing on individual rather than corporate tax evasion decisions (Crocker and Slemrod 2005). Economists, regulators, accountants, researchers, market analysts, and the investment community have all expressed an interest in tax evasion practices. Adoption of tax planning strategies, on the other hand, is a contentious issue (Santa, 2016). Meanwhile, tax avoidance is one of the most critical managerial decisions that managers make. Complex tax avoidance arrangements always provide a shield for managers to take advantage of themselves without governance controls (Yee, Sapiei and Abdullah 2018).

Tax aggressiveness is generally defined as a strategy for reducing taxable income through tax preparation. Corporate tax aggressiveness, according to Braithwaite, is a system or plan implemented by a firm with the primary or dominant goal of avoiding taxes (Abdulkadirm Issa and Yunusa, 2020). It defines tax aggressiveness as the employment of tax planning tactics to manage taxable income lower. The firm's proclivity to manage its taxable income downwards through more or less active tax planning tactics is evaluated by tax aggressiveness.

EFFECTIVE TAX RATE (ETR)

Tax aggressiveness can be recognized by the effective tax rate "ETR," according to accounting and tax literature (Robinson and Sikes, 2006; Dyreng, Hanlon, and Maydew, 2008; Richardson et al., 2013). Several authors deemed the "ETR" metric to be the most important indicator of a company's capacity to reduce its tax burden (Rego 2003; Ayers, Jiang and Laplante 2009). Minnik and Noga (2010) used average ETR to calculate tax burden and found that it was appropriate for calculating cash flows and the distributional tax burden. According to Rego (2003), the average ETR can be used as a proxy for quantifying a company's tax burden, as well as understanding the efficiency and equity of a tax system. This is known as GAAP ETR in the US context. It is the ETR as recorded in the financial statements. Firms are required to declare the effective tax rate in the footnotes of their financial statements. It's the proportion of pre-tax income to tax expense (Dyreng, et al., 2008). As a result, it indicates the total proportion of accounting income that is taxed. As a result, it compares tax avoidance to accounting earnings. Although accounting ETR has been a popular tool for detecting tax evasion, it does have some drawbacks. Because it evaluates tax avoidance in relation to accounting earnings, accounting ETR could only catch non-conforming tax avoidance. Second, due to the use of aggregate tax expenses, it may not represent tax deferral methods. Thus, the traditional effective tax rate for a given firm i for year t (*ETRit*) is given by:

$$ETR_{it} = \text{Total tax expense}_{it} / \text{Pre-tax income}_{it}$$

FIRM SIZE

Firm growth is another element that can influence tax aggression. An increase in business growth will result in an increase in sales, which will enhance financial and taxable revenue unless expenses climb substantially, in which case the company would incur more tax costs. This situation will encourage the company to pursue an aggressive tax strategy (Goh, Lee, Lim, & Shevlin, 2016). According to Dyreng, Hanlon, and Maydew (2008), the size of a corporation affects tax management since larger companies are more visible and subject to more scrutiny. This will increase the risk of any tax evasion being discovered, providing an incentive to be less tax aggressive in the sake of the company's reputation and success. Firm size is measured as the natural log of total assets. Firm size approximates the degree of capital market frictions where transactions costs are relatively lower for larger firms (Fischer, Heinkel and Zechner 1989). The focus of the debate on corporate size led to a stream of research investigating whether there was a systematic relation between firm size and annual average ETRs.

Empirical studies showed different conclusions relating to the relationship between effective tax rate and company size. Several researchers found a positive relation between ETR-based avoidance proxies and company size (Minnick and Noga, 2010; Aburajab, Maali, Jaradat and Alsharairi, 2019; Ryandono, Ernayani, Atmojo, Susilowati and Indriastuty, 2020; Mihaela, Sergiu Bogdan and Vasile, 2021) which was consistent with the political cost hypothesis, meaning that large firms were characterized by higher visibility and thus subject to a greater regulatory activity (Watts and Zimmerman 1986). According to this theory, effective tax rates are a proxy for political costs for the fact that taxes paid are a means of wealth transfer from firms to other social groups. Effective tax rates are also a proxy for firms' success; therefore, if larger firms are more successful than smaller firms, larger firms would be exposed to more political scrutiny.

As larger firms are subject to deeper scrutiny from tax authorities, they become reluctant to reduce effective tax rates. Consequently, larger firms are expected to have a higher taxation burden when compared with firms which have a smaller dimension since taxes paid represent political costs which are borne by firms. Another competing theory argues that since larger firms have more power and more resources to manage taxes, it is expected that they have lower ETRs. Using a non-ETR measure of tax avoidance, Wilson (2009) similarly found a positive relation between tax

shelter participation (as a proxy for particularly aggressive tax planning) and firm size. Richardson and Lanis (2007) tested the association between firm size and ETRs in an Australian setting. For a sample of publicly-listed firms for the period 1997-2003, the authors' results were in line with the political power theory, and they posited a significant negative association between firm size measured as the natural logarithm of total assets (at book value) and ETRs. However, Richardson and Lanis (2007) also pointed to the limitations of their research design in terms of data unavailability: there was no control for foreign operations and ownership structures and it could not be said whether results would also apply to non-listed firms as there were no such firms included in the sample. Most recent studies confirmed the existence of a positive relationship between firm size and effective tax rate (Richardson *et al.,* 2013; Ryandono *et al.,* 2020; Mihaela *et al.,* 2021). Several authors considered effective tax rate as the most relevant measure of the ability of the company to optimize its tax burden and invariably avoid tax (Chadefaux and Rossignol, 2006).

PROFITABILITY

Profitability of businesses is an intuitive indication that can influence the effective tax rate. When profitability is measured before taxes, it is assumed that more profitable businesses will generate more money and, as a result, pay more taxes. Ribeiro, Cerqueira, and Brando (2015) cite this viewpoint as the most prevalent in the literature. Tax avoidance was linked to corporate profitability in an early research by Gupta and Newberry (2007). Gupta and Newberry (2007) were among the first to look into the relationship between GAAP ETRs and a variety of firm-level variables. ETRs were substantially related with a number of other company variables besides size, such as firm profitability, according to multivariate analyses derived from micro-level panel data. Profitability is commonly measured as either return on assets or cash flow from operations.

The main idea is that more profitable businesses have a greater motivation to decrease their tax burden than less lucrative businesses (Dunbar, Higgins, Phillips and Plesko, 2010). Profitable businesses typically pay greater taxes. On the other hand, one may argue that more lucrative businesses have higher incentives to participate in tax evasion because the potential savings are bigger (McGuire, Omer and Wang, 2012). Manzon and Plesko (2002) also stated that more lucrative businesses might take use of tax breaks, exemptions, and credits. Companies with net operating losses (NOL) had less incentive to employ tax planning measures that reduced effective rates, according to Dhaliwal, Huber, Lee, and Pincus (2012), who found a positive relationship between the existence of an NOL and effective tax rates. This relationship, however, can be complicated by a firm's position with regard to valuation allowances and current taxes payable.

EMPIRICAL REVIEW

Ezekwesili and Ezejiofor (2022) investigated the impact of leverage on tax evasion by Nigerian consumer goods firms. In this study, ex-post facto research was used. Nigerian consumer goods companies listed on the Nigeria Exchange Group were among the study's participants (NGX). Over the period of nine (9) financial years, data was collected from the sampled businesses for the study (2012-2020). In E-view 9.0, descriptive statistics were used to evaluate the data, and regression analysis was used to test the hypothesis. As a result, the study concludes that leverage has little impact on tax evasion by Nigerian consumer goods firms. Ezejiofor, Oranefo, and Ndum (2021) investigated the impact of tax revenue on Nigerian per capita income. Ex post facto research was used in this study. The economy of Nigeria was made up of the population, and data for this study came from the Statistical Bulletin of the Central Bank of Nigeria (CBN) and the Federal Inland Revenue Service (FIRS). The hypothesis was tested using correlation and Ordinary Least Square (OLS) regressions. Customs and excise duties have a non-significant positive impact on Nigeria's per capita income, according to statistical study. Martinez, Brito, and Chiachio (2020) investigated the impact of corporate tax aggression on the replacement of CEOs of companies listed on the Brazilian Stock Exchange B3 between 2010 and 2016. Their results demonstrated considerable low tax aggressiveness using the proxies: - Cash Effective Tax Rate and Long Run Effective Tax Rate for tax aggressiveness. As a result, CEOs who were less tax aggressive were more likely to be replaced. As a result, the findings confirmed that tax preparation is a key element in keeping a job. Ezejiofor and Ezenwafor (2021) look into the impact of CEO duality on the effective tax rate of publicly traded food and beverage industries. Ex post facto research was used in this study. A purposive sample method was employed to choose nine (9) organizations throughout the data collection phase. From 2013 to 2019, data was gathered from the annual reports and accounts of the evaluated companies. The data from the study was analyzed using descriptive statistics, and regression was used with the e-view, which had a 95 percent confidence level at five degrees of freedom (df). CEO dualism was significant and had a positive impact on profitability, according to the study. This study used time series data and an ex-post facto research design. Ordinary Least Square (OLS) regression analysis was used to test the hypothesis, and descriptive statistics were used to interpret the data. According to the data, tax collection has a large beneficial impact on Nigeria's per capita income. The impact of tax preparation tactics on the profit performance of listed manufacturing businesses in Nigeria was investigated by Akintoye, Adegbie, and Onyeka-Iheme (2020). From 2008 to 2017, they employed the Taro Yamani Formula to arrive at a sample of 46 manufacturing enterprises. In analyzing secondary data, they used descriptive and inferential statistics. Their findings revealed that tax planning had no substantial impact on manufacturing firm profitability in Nigeria (as measured by ROA). To balance the source of revenue for manufacturing enterprises, they proposed that tax managers and finance officers reduce thin capitalization and capital intensity. The impact of corporate characteristics on tax aggression in Nigerian listed insurance firms was investigated by Yahaya and Yusuf (2020). As independent variables and indicators of firm characteristics, the researchers focused on firm size, firm age, profitability, and leverage. From 2010 to 2018, their sample included twenty (20) insurance companies that were listed on the Nigerian Stock Exchange. They used the two-step system GMM panel regression model to find that firm size and leverage had positive significant influences on tax aggressiveness, while firm age and profitability had negative significant impacts. For the years 2014 to 2016, Ryandono, Ernayani, Atmojo, Susilowati, and Indriastuty (2020) investigated the numerous factors impacting tax avoidance in food and beverage companies listed on the Indonesian Stock Exchange. Profitability, size, leverage, and capital intensity were used as factors impacting tax avoidance, with profitability having no effect on tax avoidance, size influencing tax avoidance, leverage having no effect on tax avoidance, and capital intensity having no effect on tax avoidance. From 2010 to 2017, Martinez and Rodrigues (2020) investigated whether companies that operated in multiple business sectors were more tax aggressive than companies that only operated in one or a few segments on the Brazilian Stock Exchange. Using a panel regression model with a fixed effect of company year and a logit model, it was discovered that the more companies were diversified, the lower the probability of having low tax aggressiveness. The effect of financial restrictions, investment opportunity set, and financial reporting aggression on tax aggressiveness was explored by Amrie and Reza

(2019). Financial constraints were positively associated with tax aggressiveness, the investment opportunity set was negatively associated with tax aggressiveness, and financial reporting aggressiveness was not associated with tax aggressiveness, according to regression data from 88 non-financial companies listed on the Indonesian Stock Exchange from 2011 to 2015. Umeh, Okegbe, and Ezejiofor (2020) looked into the influence of tax planning on the value of publicly traded consumer goods manufacturing companies in Nigeria. This study relied on ex post facto research. Data from annual public financial and non-financial reports from 2009 to 2018 will be used in the study. E-View 9.0 was used to test the three hypotheses using simple lease square regression. According to this study, the effective tax rate (ETR) has a negative impact on business value, but it is minimal. Nweze, Ogbodo, and Ezejiofor (2021) studied the impact of tax revenue on Nigeria's per capita income from 2000 to 2019. This study used an ex-post facto research design and utilised time series data. The hypothesis was evaluated using Ordinary Least Square (OLS) regression analysis, and the data was analyzed using descriptive statistics. Tax collection has a significant positive impact on Nigeria's per capita income, according to the data. Chen, Ge, Louis, and Zolotoy (2019) looked into the impact of liquidity on business tax avoidance in China. They found that organizations with more liquidity were less likely to engage in extreme (i.e., highly aggressive or conservative) tax avoidance. Across many metrics of tax avoidance and stock liquidity, the effect of liquidity on tax avoidance was economically important and robust. They also found that the impact of liquidity on tax evasion was magnified for companies with a high proportion of activist shareholders, but muted for companies with high stock price informativeness. The data all supported the theory that stock liquidity reduced extreme tax evasion by giving shareholders more control over company management. Oraka, Okegbe, and Ezejiofor (2017) investigated the impact of the value added tax on the Nigerian economy. An ex post facto research design was used in this study. The study used GDP, PCI, and TR to look at the Nigerian economy from 2003 to 2015. The data was evaluated using simple regression analysis. The value added tax has had little impact on Nigeria's GDP, according to the study. Furthermore, a negative relationship between VAT and per capita income has been discovered. Oraka, Ogbodo, and Ezejiofor (2017) investigated the impact of the Tertiary Education Tax Fund (TETFUND) on management in Nigerian higher education. The hypothesis was written with the objectives of the investigation in mind. A timer and a survey were used. Financial ratios were used to acquire data from the National Bureau of Statistics, which was then analyzed with regression analysis using SPSS 20.0 statistical software. ETF fund distributions to Nigerian Tertiary Institutions have little correlation with enrolment rates, according to the statistics. The Corporate Effective Tax Rates (ETRs) of non-financial enterprises listed on the Nigerian Stock Exchange were studied by Salaudeen and Eze (2018). The study also determined the association between ETRs and business specific factors such as size, leverage, profitability, capital intensity, inventory intensity, labor intensity, and auditor type among Nigerian economic sectors. Data on the variables was taken from the financial records of sampled firms and analyzed using ordinary least square (OLS), random effect, and fixed effect models. The findings revealed that ETRs were lower than the statutory tax rate during the study period, and that there were disparities in ETR between sectors of the economy. The study also found that larger and more lucrative companies suffer a higher tax burden, but companies with high leverage face a lower Udeh and Ezejiofor (2018). In Nigerian deposit money institutions, the impact of accounting information on deferred taxation was explored. Ex post facto research was conducted to obtain data from annual reports of Nigerian deposit money institutions. A pooled multiple regression analysis was employed to evaluate the hypothesis. Earnings per share (EPS) and cash flow (CASHFL) have a negative impact on our dependent variable, deferred tax, according to statistics, but book value of equity has a statistically significant impact, but EPS and CASHFL do not. Profitability has a considerable influence on tax avoidance, according to Yuniarwati, Ardana, Dewi, and Lin (2017), however firm size has no significant influence on tax avoidance. From 2013 to 2015, data was gathered from annual reports of all listed manufacturing enterprises on the Indonesia Stock Exchange. In a related development, Putra, Syah, and Sriwedari (2018) used agency theory as the theoretical foundation for a study on the factors driving tax avoidance in Indonesia. Data was gathered from the annual reports of 100 Indonesia Stock Exchange listed companies. Profitability, leverage, and capital intensity all have a significant impact on tax avoidance, according to the regression results. However, the research was carried out in a developed country with a different legal system than Nigeria. The effect of firm size and performance on tax aggression was investigated by Mgbame, Chijoke-Mgbame, Yekini, and Kemi (2017). Data was gathered from annual reports of 50 firms registered on the Nigerian Stock Exchange between 2007 and 2012. The results of the panel regression demonstrated that tax aggressiveness is influenced by firm size and performance. However, a number of economic, political, and regulatory events have cast a pall over the era studied. The study by Irianto, Sudibyo, and Wafirli (2017) looked into the elements that influenced a company's tax avoidance. Size, leverage, profitability, and capital intensity were among the characteristics they considered. The study's goal was to see how business size, leverage, profitability, and capital intensity ratio affected tax avoidance in manufacturing companies listed on the Indonesian Stock Exchange between 2013 and 2015. In the year 2013-2015, the population studied consisted of 156 manufacturing enterprises that were listed on the Indonesian Stock Exchange. The sample was determined using the purposive sampling method, which yielded a sample of 36 manufacturing enterprises based on specified criteria. The findings revealed that size had a beneficial impact on the effective tax rate, whereas leverage, profitability, and capital intensity ratio had no effect on tax evasion. Another study by Seong (2017) looked at the impact of corporate tax avoidance (CTA) on actual and atypical audit hours, with the goal of understanding auditors' perceptions of CTA as a risk factor. The findings, based on 2,588 firm-year observations from the Korean Stock Exchange Market from 2001 to 2010, demonstrated that auditors raised the number of actual audit hours or spent more audit hours than typical to accomplish a given level of audit risk in response to higher audit risks from CTA. According to him, one of the audit risk variables that affected audits was CTA behavior. Kim and Im (2017) showed that the size of a company listed on the Korean Stock Exchange had a negative impact on tax avoidance. Tax avoidance was positively influenced by profitability, leverage, operating cash flow, capital intensity, R&D intensity, and growth rate.

The analysis of related literature reveals that research on tax planning and business value in underdeveloped nations has gotten much too little attention. This neglect is even more pronounced in Nigeria, where few research have looked into the impact of tax planning on business value, the agency cost problem, and the moderating impacts of agency cost mitigating variables. This research can help ensure that tax benefits are maximized.

3. METHODOLOGY

This study adopted an *ex post-facto* research design within a panel data framework. The population of this study covered seven food production companies that are under foods production in Nigeria. The study covered eleven years annual reports and accounts of these companies from 2010 to 2020. The names of these companies under food production in Nigerian manufacturing companies are:

1) Big treat Nigerian Plc
2) Dangote Flour Nigerian Plc
3) Dangote Sugar Nigerian Plc
4) Honeywell Flour mill Nigerian Plc
5) Nestle Nigerian Plc,
6) Cadbury Nigerian Plc
7) UAC Nigerian Plc.

In chosen the sample size, the researcher use stratified Random Sampling to select six foods production companies in Nigeria for the sample size of the study. This company (Big Treat) was not selected for lack of availability of annual reports and audited accounts.

The data were obtained from financial statements of quoted consumer goods sector companies. Data extracted includes: Effective tax rate, return on assets and firm size for the period 2010 to 2020.

MODEL SPECIFICATION

In testing for the value relevance of corporate tax avoidance and in testing for the moderating effect of agency cost mitigating variables on the nexus, the study adapted firm-value model originally derived from Ohlson (1995) and have been widely used in value relevance studies including those that relates to tax avoidance as used by Abdul Wahab and Holland (2012). Their model centered on Tax Planning, and given as:

The study modifies the above model to reveal moderating effects of corporate governance on the impact of tax planning on firm value.

$$FMV = \beta0 + \beta1\ BVEit + \beta2\ CTAit\text{-}1 + \beta3COGit + \beta4\ PFTit + \beta5\ CAPINTit + \beta6\ LEVit$$

$$+ \beta7\ EXGit + \beta8\ CTA\ it\text{-}1\ *COGit + \beta8\ MVEit\ DIV + AGE + \varepsilon it \qquad 1$$

The model was modifies thus:

$$ETRít = \beta0 + \beta1ROAít + \beta2\ FSZít + \mu ít \quad - \quad - \quad - \quad - \quad - \quad - \quad 1$$

Where:

ETR is Effective tax rate

ROA is Return on assets

FSZ is Firm size

e= is error term.

ß0 = Intercept;

ß1 to ß5 = Coefficient of the independent variables;

Є = Error term;

it = Subscript for Panel Data

METHOD OF DATA ANALYSES

Being a panel data study, the study involved a series of analyses like the descriptive statistics, Correlation test. However multiple regression analysis was used in testing the formulated hypotheses using E-View 9.0 statistical software.

DECISION RULE

The decision was based on 5% (0.05) level of significance. The null hypothesis (H_o) will be accepted, if the Prob (F-statistic) value is greater (>) than the stated 5% level of significance, otherwise reject.

4. RESULTS AND DISCUSSION

Table 1: Descriptive Statistics

	ETR	ROA	FSZ
Mean	0.989182	9.176364	2170174.

Median	0.850000	8.880000	2208060.
Maximum	2.750000	10.91000	4017781.
Minimum	0.110000	7.250000	700992.0
Std. Dev.	0.861102	1.094818	1127239.
Skewness	0.856509	0.033716	0.158041
Kurtosis	2.766680	2.175503	1.785124
Jarque-Bera	1.369898	0.313656	0.722255
Probability	0.504116	0.854851	0.696890
Sum	10.88100	100.9400	23871916
Sum Sq. Dev.	7.414974	11.98625	1.27E+13
Observations	11	11	11

Table 1 shows the mean (average) for each of the variables, their maximum values, minimum values, standard deviation and Jarque-Bera (JB) Statistics (normality test). The results in table 1 provided some insight into the nature of the selected Nigerian quoted food production companies that were used in this study.

Firstly, it was observed that on the average over the eleven (11) years periods (2010-2020), the sampled quoted companies in Nigeria were characterized by positive tax avoidance (ETR = 0.989). Also, the large difference between the maximum and minimum value of the effective tax rate (ETR), return on assets (ROA), and firm size (FSZ) show that the sampled quoted foods companies in this study are not dominated by companies with large tax voidance

The Jarque-Bera (JB) which test for normality or the existence of outliers or extreme values among the variables shows that most of the variables are normally distributed at 5% level of significance. This means that any variables with outlier are not likely to distort our conclusion and are therefore reliable for drawing generalization. This also implies that the least square estimate can be used to estimate the pooled regression model.

Table 2: Correlation matrix

	ETR	ROA	FSZ
ETR	1	-0.6171	-0.70174
ROA	-0.6171	1	0.88176
FSZ	-0.701749	0.88176	1

Source:

The use of correlation matrix in most regression analysis is to check for multi-co linearity and to explore the association between each explanatory variable (ROA and FSZ) and the dependent variable (ETR). Table 2 shows a negative correlation between ETR and the independent variables (ROA and FSZ).

Test of Hypotheses

Table 3: the Regression analysis between ROA, FSZ and ETR

Dependent Variable: ETR
Method: Least Squares
Date: 05/09/22 Time: 00:38
Sample: 2010 2020
Included observations: 11

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.108454	3.108534	0.678279	0.5167
ROA	0.006022	0.419989	0.014339	0.9889
FSZ	-5.41E-07	4.08E-07	-1.326806	0.2212

R-squared	0.492447	Mean dependent var	0.989182
Adjusted R-squared	0.365559	S.D. dependent var	0.861102
S.E. of regression	0.685884	Akaike info criterion	2.310784
Sum squared resid	3.763492	Schwarz criterion	2.419300
Log likelihood	-9.709309	Hannan-Quinn criter.	2.242379
F-statistic	3.880951	Durbin-Watson stat	1.862071
Prob(F-statistic)	0.066363		

In Table 3, R-squared and adjusted Squared values were (0.49) and (0.37) respectively. The indicates that all the independent variables jointly explain about 49% of the systematic variations in effective tax rate (ETR) of our samples companies over the eleven years periods (2010-2020). The F-statistics (3.88) and its P_1-value (0.99), and P2-value (0.22), show that the effective tax rate regression model is well specified.

Test of Autocorrelation: using Durbin-Waston (DW) statistics which we obtained from our regression result in table 3, it is observed that DW statistics is 1.86 and an Akika Info Criterion and Schwarz Criterion which are 2.310 and 2.419 respectively also further confirms that our model is well specified. In addition to the above, the specific findings from each explanatory variable are provided as follows:

Hypothesis One

H_O: Firm profitability has no significant effect on effective tax rate of Nigerian food production companies.

Decision Rule

The decision was based on 5% (0.05) level of significance. The null hypothesis (H_o) will be accepted, if the Prob (F-statistic) value is greater (>) than the stated 5% level of significance, otherwise reject. Since the p-value (0.99) is greater than 5% (0.05). the study therefore accept null hypothesis which stated that firm profitability has no significant effect on effective tax rate of Nigerian food production companies.

Hypothesis Two

H_O: Firm size has no significant effect on effective tax rate of Nigerian food production companies.

Decision Rule

The decision was based on 5% (0.05) level of significance. The null hypothesis (H_o) will be accepted, if the P-value is greater (>) than the stated 5% level of significance, otherwise reject. Since the p-value (0.22) is greater than 5% (0.05), the study accept null hypothesis which stated that firm size has no significant effect on effective tax rate of Nigerian food production companies.

5. CONCLUSIONS AND RECOMMENDATIONS

This study examines the effect of firm attributes on tax avoidance of food production companies in Nigeria. Using the ETR measure of tax evasion, the coefficients result of firm size shows that the influence of firm size on tax evasion has a negligible negative sign, implying that large enterprises engage in less tax evasion. Meanwhile, firm profitability had a positive coefficient sign but was not statistically significant, and based on the obtained coefficient signs and statistical significance; highly profitable enterprises were more likely to evade paying taxes. This explains why most major prosperous firms frequently engage in large-scale philanthropy and disaster management to establish relevance and obtain government tax breaks. The study concluded that firm attribute has insignificant effect on tax avoidance of food production firms in Nigeria.

The study made the following suggestions based on the findings and inferences obtained from the study's findings:

1) Given the finding that large enterprises in Nigeria were much less tax evasion, regulatory organizations and tax authorities in both nations should focus their attention on all companies' tax saving measures, regardless of size, in order to discourage tax avoidance schemes.

2) Given that highly profitable firms were highly tax avoidance, as demonstrated by the Nigerian model, management should ensure that strong corporate governance mechanisms are in place to ensure that the intended gains from tax avoidance activities are not opportunistically misappropriated by managers.

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