Firm Attributes and Aggressive Tax Planning Among Listed Manufacturing Companies in Nigeria

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Abstract
This study aims to investigate the effect of firm attributes on aggressive tax planning among listed manufacturing companies in Nigeria. The specific objectives include assessing the extent to which firm liquidity, firm leverage, firm profitability, firm size, firm age, and firm operating efficiency affect the effective tax rates of listed manufacturing firms in Nigeria. Correlation design was deployed in the study based on a population of forty-four listed manufacturing firms. Purposive sampling was used to select firm-year observations of 240. Secondary were extracted from the annual reports of the sampled firms from 2013 to 2022. The test of hypotheses was done using Robust Least Square regression. The findings revealed the following: Firm liquidity has a non-significant and negative effect on effective tax rate of listed manufacturing firms in Nigeria (p-value = 0.1028); Firm leverage has a significant and negative effect on effective tax rate of listed manufacturing firms in Nigeria (p-value = 0.0000); Firm profitability has a significant and positive effect on effective tax rate of listed manufacturing firms in Nigeria (p-value = 0.0029); Firm size has a significant and negative effect on effective tax rate of listed manufacturing firms in Nigeria (p-value = 0.0147); Firm age has a non-significant and positive effect on effective tax rate of listed manufacturing firms in Nigeria (p-value = 0.5425); Firm operating efficiency has a significant and negative effect on effective tax rate of listed manufacturing firms in Nigeria (p-value = 0.0001). The study recommends that managers should implement a comprehensive liquidity management strategy that considers not only short-term financial needs but also incorporates tax planning objectives. This may involve analyzing the timing of income recognition and expenses to optimize tax positions while maintaining a prudent level of liquidity.

Key words: *Firm Attributes, Aggressive Tax Planning, Firm Liquidity, Firm Leverage, Firm Profitability, Firm Size, Firm Age, Firm Operating Efficiency, and Effective Tax Rates*

Introduction

Corporate firms engage in tax planning to minimise tax liabilities. The act involves aggressive tax planning strategies, and has the effects of diminishing or increasing a firm's value but maximises cash flow to the firm (Hutchens & Rego, 2012). The decrease in firm's value is reputational risk (Ogbeide, 2017). Heitzman (2010) describes how reputational risk results from tax planning. In Heitzman's idea, corporate tax planning involves legal tax strategies and low-risk strategies, and in between these strategies is a gap which creates tax evasion and tax sheltering. Tax evasion attracts tax penalties and fines (Okoye & Avwokeni,

2014). Thus, tax authority would like to know the extent to which tax evasion is involved in corporate tax planning activities. This implies that the risk of paying tax fines and penalties is associated with corporate tax planning, and this is what leads to reputational risk. The image that a firm evaded tax leads to decrease in a firm's market value.

Tax practitioners, acting as tax consultants for corporate managers, shade tax planning activities from tax authorities to avoid detection of tax evasion (Hutchens & Rego, 2012). Dodging to disclose tax planning activities has implementation and transaction costs with possible tax evasion from the tax authorities, and when detected, reputational loss, which leads to loss in a firm's market value, becomes an issue. Ogbeide (2017) concurs with the view that transaction costs associated with implementation strategies to shade tax planning activities would invariably lead to reputational loss when tax evasion is detected.

The fundamental question that spurs this study is 'how should tax authorities detect the extent of tax aggressiveness in corporate tax planning activities as a signal to tax evasion?' A plausible clue is that a firm's attributes are good predictors of the extent to which tax aggression is practised to evade tax. In the determination of tax liabilities, interest on debts is an allowable tax expense in the tax law. A possibility is that managers may employ long-term debts in financing operations so as to reap the associated tax benefit. This argument has been reinforced in the literature by several scholars (Laguir, Elbaz, & Laguir, 2015; Ribeiro, Cerqueira & Bran, 2015).

Another plausible determinant of tax aggressiveness in corporate tax planning activities is the size of the firm. The political cost hypothesis (Ogbeide, 2017) holds that larger firms, due to their greater visibility, tend to bear more regulation, and by juxtaposition pay more taxes. The visibility of larger firms, echoed in the political cost hypothesis, implies that larger firms are likely to engage in less tax planning activities. However, larger firms have the wherewithal to engage tax practitioners for tax planning to minimise tax liabilities; therefore, larger firms are most likely to engage in more tax planning activities and hence more likely to evade taxes. This is because almost all companies prefer to pay lower taxes or get some tax savings on tax payable.

Another possible predictor of tax aggressiveness' component in tax planning activities is the level of profit reported by a firm. The amount of tax payable is calculated on the income of the company. This suggests that the more profitable a company becomes the more tax that the company will pay to the government. Therefore, profitable companies are likely to engage in corporate tax planning so as to minimise tax liability (Elbaz, Laguir, & Staglian, 2015). Contrary to this viewpoint, Riebein, Cerqieire and Brendao (2014) argue that profitable firms engage in less tax planning activities. Nevertheless, this position is less appealing to logic and may not hold water.

Given the above background, the fundamental question that spurs this study boils down 'to what extent does liquidity, profitability, and size of the firm predict tax aggressiveness component in tax planning activities?' In answering this question, tax planning activities is surrogated by the amount of debt-tax shield, effective income tax rates and effective cash tax rates. In operational sense, the central question for investigation becomes, 'to what extent does liquidity, earnings, and firm size predict debt-tax shield, effective income tax rate and effective cash tax rate?' This sensitivity approach is adopted to validate results because there is luck and serendipity in research (Avwokeni, 2018). In other words the predictors of corporate planning may hold good for some surrogates and may not hold for others. This multiplicative approach ensures that result from the study is not a fluke.

1.1 Objective of the Study

The general objective of the study is to examine the effect of corporate firms attributes on aggressive tax planning among listed manufacturing companies in Nigeria.

Consequently, the specific objectives are as follows:

1. To examine the effect of firm liquidity on effective tax rate of listed manufacturing firms in Nigeria.

2. To ascertain the effect of firm leverage on effective tax rate of listed manufacturing firms in Nigeria.

3. To examine the effect of firm profitability on effective tax rate of listed manufacturing firms in Nigeria.

4. To investigate the effect of firm size on effective tax rate of listed manufacturing firms in Nigeria.

5. To ascertain the effect of firm age on effective tax rate of listed manufacturing firms in Nigeria.

6. To examine the effect of firm operating efficiency on effective tax rate of listed manufacturing firms in Nigeria.

1.2 Hypothesis

The specific operational hypotheses for confirmation are as follows.

H01: Firm liquidity has no significant effect on effective tax rate of listed manufacturing firms in Nigeria.

H02: Firm leverage has no significant effect on effective tax rate of listed manufacturing firms in Nigeria.

H03: Firm profitability has no significant effect on effective tax rate of listed manufacturing firms in Nigeria.

H04: Firm size has no significant effect on effective tax rate of listed manufacturing firms in Nigeria.

H05: Firm age has no significant effect on effective tax rate of listed manufacturing firms in Nigeria.

H06: Firm operating efficiency has no significant effect on effective tax rate of listed manufacturing firms in Nigeria.

2.0 Literature Review

2.1 Conceptual Review

2.1.1 Tax Planning

The term tax planning, also refers to as ‘tax avoidance’, ‘tax aggressiveness’ or ‘tax

optimisation', is used to describe activities embarked upon to minimize tax liability. This view is in consonance with Wahab and Holland (2012)'s definition which stated that tax planning involved the use of strategies to produce tax benefits. Suandy (2011) defined it as efforts made to save and minimise tax payment without violating the tax laws. It is regarded as the conscious efforts and a method of clever employment of economic affairs of an individual, trust or firm, with a view to securing the desired tax benefits, bearing in mind the legislative and judicial stand (Desai & Dharmapala, 2009). Geetha (2012) viewed tax planning as arrangement of financial affairs to minimize tax liability, using exemptions relating to taxes, rebates, allowances and other benefits or reliefs allowed under the law, without necessarily violating the legal provisions in any form. Geetha argued that tax planning is different from tax avoidance in terms of strategies. To Geetha, tax avoidance includes taking advantage of loopholes in the tax acts to minimise tax liability but tax planning ignores loopholes, relying only on reliefs, incentives, allowances and rebates. In this study, tax planning activities include taking advantage of loopholes in the tax statutes to earn tax savings. This is because a practical and thorough knowledge of the regulation is required to know what to do, what not to do, and when to stop, with the purpose of tax minimization. Tax avoidance is the ultimate aim of tax planning and hence the terms should be used as synonym. Hoffman (2016) also concurred with the view that tax planning refers to the process whereby firms identify legal methods to reduce their tax liability by capitalizing on technical loopholes in tax regulations.

Managers take advantage of the institutional framework and low-risk strategies such as exemptions, allowances, relief, incentives, rebates and other concessions by tax statutes to minimize tax liability (Hanlon & Heitzman, 2010). Allowances, incentives, and reliefs are either used to reduce taxable income or used to reduce allowable expenses (Tatum, 2012). However, available reliefs, allowances, and incentives, depend on the specific types of transaction and the sector of the firm. This suggests that tax planning involves the selection of a set of actions, based on predicted tax consequences. In other words, for a firm to embark upon tax planning, the benefit from tax planning must outweigh its costs (Alstadsaeter & Jacob, 2013).

2.1.2 Firm Size

Firm size refers to the operation scale of a business usually measured as the natural log of total asset (Nworie & Okafor, 2023). Tax laws often use the size of firms to grant tax exemptions and incentives. The current Finance Act (2020) exempts small size companies from tax, and lowered the tax rate for medium size companies. The Finance Act measures the size of a company using turnover. According to the Act, companies reporting turnover of N25 million or less is a small company; companies reporting turnover more than N25 million but less N100 million is a medium company, and for any company that reporting more than N100 million is a large company. This measure of firm size will be adopted in the study to learn its impact of tax planning aggressiveness. Another measure of firm size used by prior researchers is total assets (Dang & Nguyen, 2022). This measure of firm size was also adopted in this study.

2.1.3 Firm Leverage

Financial leverage is the use of funds that forced the company to bear the burden of fixed rate of interest. Leverage premised on the fact that interest payments for debt are tax deductible,

and hence leverage serves as a sort of tax shield for firms. The use of debts to shield tax is legal but could be aggressively exploited to avoid tax. As an example, a company may secure large debts to equity capital so as to incur high interest cost for shield tax. Highly levered firms may likely be financially constrained and as such have a motivation to engage in more tax avoidance (Yoon & Jang, 2005).

The proportion of debt to equity defines leverage. A firm uses leverage to influence earnings without a corresponding increase in the consumption of resources; in other words, leverage is the advantageous condition of having a relatively small amount of cost yield and a relatively high level of returns. Some firms are debt financed; some equity finance; some use a mixture of the two source of capital. The amount of debt in the capital mix is calculated as the ratio of debt to equity. The greater the amount of debt, the greater the financial leverage of a firm. Since interest is a fixed cost which can be written off against revenue, a loan allows an organization to generate more earnings without a corresponding increase in equity capital which will require increase in dividend payment that cannot be written off against the firm's earnings. High leverage may be beneficial in boom periods; and it may cause serious cash flow problems in recession periods, because there might be inadequate sales revenue to cover the interest payment.

2.1.4 Firm Profitability

Firm profitability refers to the extent to which the firm achieves its financial objective of increasing earnings in excess of expenses (Aggreh, Abiahu & Nworie, 2023). The measure of financial performance for tax purpose is the accounting income. Tax is calculated on the amount of tax reported after adjustment to cater to allowances, reliefs and incentives. The return on assets is the accounting income before tax deflated by total assets. Income is deflated by total assets to transform the measure into financial ratio. This measure of profit will also be used in this study in order to compare results. The tax base for income tax is earnings. In other words, tax is calculated on the amount of earnings reported.

Thus, firms with large earnings would tend to engage in tax planning to minimise tax liability (Elbaz, Laquir, & Staglian, 2015; Riebein, Cerqueire & Brendao, 2015). The need to engage in tax planning is necessitated by the availability of exemptions, incentives and relief available to profitable firms. Ogbeide (2017) included reported earnings in explaining tax planning aggressiveness and found a positive relationship between firm profitability and the effective tax rate, suggesting that higher income provoke aggressive tax planning.

2.1.5 Firm Liquidity

The performance of a company can be measured from different dimensions since corporate performance is assessed in relation to established organisational objectives. The determination of liquidity and profitability positions of organisations are vital in evaluating their financial performance and ultimately deciding their survival (Nworie & Mba, 2022), hence significant for tax planning. Studies have shown there exists a relationship between a firm's liquidity position and its profitability as well as tax planning. However, the focus of this study is on liquidity. Liquidity is the ability of any organization to meet its short term obligations using its short term resources. Thus, efficient liquidity management involves planning and controlling current assets and current liabilities in such a manner that eliminates the risk of the inability to meet due short-term obligations, on one hand, and avoid excessive investment in these assets, on the other (Nworie & Ofoje, 2022). This is due in part to the

reduction of the probability of running out of cash in the presence of liquid assets. Liquidity is having enough money in form of cash, to meet ones financial obligations and one of these obligations is tax liability. Liquidity requirement of a firm depends on the peculiar nature of the firm and there is no specific rule on determining the optimal level of liquidity that a firm can maintain.

2.1.6 Firm Age

Firm age refers to the number of years since the establishment or inception of a business entity. It is a metric used to quantify the duration or longevity of a company's existence. The age of a firm is calculated by measuring the time that has elapsed since its founding or incorporation date. Understanding a firm's age is essential for assessing its experience, stability, and potential impact on the market. Firm age can provide hints into various aspects of a business, including its historical development, adaptation to changing market conditions, and overall resilience. A newly established firm is often considered young or in its early stages, while a well-established company with several decades of operation is considered mature or older (Nworie, Mmadubuobi & Muojekwu, 2023).

Analyzing firm age can be valuable for investors, researchers, and analysts when evaluating the risk and potential success of an investment. Younger firms may be characterized by a higher degree of uncertainty and a greater susceptibility to market fluctuations, while older firms may have a track record of performance, established customer bases, and proven strategies. The significance of firm age can vary across industries and sectors. Some industries may see a rapid turnover of new firms, while others may have a higher prevalence of long-established companies. Additionally, the age of a firm is just one factor among many that should be considered when assessing its overall health, competitiveness, and future prospects in the business landscape.

2.1.7 Firm Operating Efficiency

Firm operating efficiency refers to the extent to which a company utilizes its resources effectively and maximizes output while minimizing input costs (Mehzabin, Shahriar, Hoque, Wanke & Azad, 2023). It is a measure of how well a firm manages its internal processes and operations to achieve optimal productivity and profitability. Operating efficiency is a critical aspect of business performance, as it directly influences a company's ability to generate revenue, control costs, and adapt to changing market conditions (Nworie, Anaike & Onyeka, 2023).

Efficient firms make the most of their resources, including human capital, technology, and physical assets. This involves optimizing the allocation of resources to tasks and processes that contribute most effectively to the company's goals. Operating efficiently involves managing costs effectively. This includes controlling both fixed and variable costs, negotiating favorable terms with suppliers, and implementing cost-saving measures without compromising the quality of products or services. According to Mehzabin, Shahriar, Hoque, Wanke and Azad (2023), efficient firms streamline their production processes to minimize waste, reduce downtime, and enhance overall output. Measuring and improving firm operating efficiency is an ongoing process that requires continuous monitoring, analysis, and adjustment of business operations. Companies that prioritize efficiency are better equipped to remain competitive, achieve sustainable growth, and navigate challenges in the dynamic business environment.

2.2 Theoretical Framework

This study is anchored on the legitimacy theory because it provides the conceptual foundation to plan and design it. The theory is used to explain the behaviour of corporate entities in the implementation and development of polices and the communication of the outcomes. The assumption beneath this study is that tax avoidance, which is the purpose for aggressive tax planning, is an act that has no social responsibility because it does adversely affect the economy of any given society. Lanis and Richardson (2012) concur with this observation. Therefore, the structural assumption upon which this study is planned and design, is that managers do not take a positive attitude towards tax payment, and hence adopt aggressive tax planning behaviour to lower tax liability. The thesis is that corporate firms will only gain legitimacy in society if they contribute to the development of society when they pay correct tax.

Legitimacy aside, the study also peripherally sustains a number of theories in management and accounting literature. First, the study lends validity to positive accounting theory, which offers justifications for managers' actions (Watts & Zimmerman, 1978). The theory has three premises: (1) bonus plan hypothesis, (2) debt covenant hypothesis, and (3) political cost hypothesis. The study uses these premises to explain aggressive tax behaviour. Watts and Zimmerman (1990) used the bonus plan premise to explain that managers use bonus plan to shift income to future accounting periods—the bonus plan hypothesis. One of the techniques managers use to shift income from one accounting period to another is aggressive tax planning. The covenant agreement premise holds that managers adopt accounting procedures that will comply with debt-covenants, and the conceptual foundation to implement debt covenant is to shift income to future accounting periods so as to smooth earnings over a period. Aggressive tax planning can be used to spread income over future years. The political cost hypothesis holds that managers would weigh the cost savings against tax cost before embarking on tax planning. Managers hire agents to arrange the financial affairs of their companies to reduce tax liability. The cost should be lower than tax savings for tax planning to occur.

2.3 Empirical Review

Aladesunkanmi (2020) also investigated leverage, firm size, firm age, and profitability on aggressive tax behaviour using deposit money banks from 2012 to 2019 using Correlation Coefficient and detected that firm size, firm age, and profitability positively explain tax aggressive behaviour whereas leverage fail to explain tax aggressive planning.

Timothy, Izilin, and Ndifreke (2020) investigated the relationship between corporate tax planning, board compensation and firm value and moderating capacity on any association between tax planning and firm value, using manufacturing firms from 2015 to 2020 using Regression Analysis. In their study, board compensation was a moderating variable. They found that firm value and board compensation positively explain tax aggressiveness. In addition, firm size and leverage negatively affect firm value.

Madugba, Ben-Caleb, Adedoyin and Uche (2020) investigated tax savings behaviour of firms in Nigeria with the objective of finding out how it affects firm size, from 2012 to 2018 using Descriptive Statistics and Data Regression Test to analyze the data. The result revealed that interest tax savings behaviours have negative but significant relationship with firm size while effective tax rate has negative and insignificant relationship with firm size. The study

concluded that the lower the firm size the higher the tax savings behaviour and vice versa of quoted companies in Nigeria.

Mita and Indriani (2020) investigated the influence of company size, company age, sales growth, and profitability on tax avoidance, using pharmaceutical companies from 2016 to 2019 using Regression Analysis. The study found that all firm characteristics fail to explain aggressive tax behaviour when corporate governance is introduced as a moderating construct.

Olabisi, Kajola, Oladejo, Ajayi, and Hamzat (2019) investigated firm size, firm age, accounting income and financial leverage as explanatory factors of tax aggressive behaviour, using oil and gas firms from 2012 to 2018 and Regression Analysis to analyse the data. The study finds that firm size, leverage and financial leverage explain tax aggressive behaviour.

Chytis, Tasios, Georgopoulos and Hortis (2019) investigated the relationship between tax avoidance and company characteristics from 20111 to 2015 companies listed on the Athens Stock Exchange using Regression Analysis. The attributes investigated were profitability, return on capital employed, liquidity, and leverage and company size. The corporate governance variables were board independence, auditing firm type, and ownership concentration. The study found that corporate governance variables do not affect tax planning behaviour.

Masnawaty (2019) investigated the effect of profitability and company size on tax avoidance in companies from 2014 to 2018 using Multiple Linear Regression Method. The study found that profitability and firm size jointly affect tax aggressive behaviour.

Ogbeide (2018) investigated corporate governance mechanisms and tax aggressiveness of listed firms in Nigeria from 2012 to 2017 using Regression Analysis. The results obtained reveal that corporate governance mechanisms exert significant impact on tax aggressiveness in Nigeria. Specifically, ownership concentration and managerial ownership were positive and significantly impact tax aggressiveness of listed non- financial firms in Nigeria whereas board size negatively and significantly impact tax aggressiveness over the reference period. Board gender diversity and board independence were significant and exert negative influence on tax aggressive behaviour.

Sasiska, Didik and Luk, (2018) investigated the effects of the corporate's characteristics on tax avoidance with earnings management as a moderating variable from 2012 to 2016 using Panel Data Regression with Random Effect Model. The corporate characteristics in this study were profitability, leverage, and size. The study found that accounting income and firm size negatively affect tax aggressiveness behaviour whereas leverage positively explains tax behaviour when earnings management is held constant.

Uniamikogbo, Atu, and Atu (2018) investigated the effect of firm attributes on tax aggressiveness in Nigeria from 2013 to 2017 using Regression Analysis. The attributes investigated were firm size, profitability, liquidity and leverage, using data from money deposit banks. The study found that firm size, leverage, and liquidity have a significant impact on tax aggressiveness while profitability has an insignificant impact on tax aggressiveness in the Nigerian banking sector.

Inua (2018) carried out a study to identify how some corporate governance attributes (board size and board independence), as well as firm characteristics factors such as size and leverage, can determine the effective tax rate of manufacturing firms in Nigeria from 2011 to

2016 using Linear Regression for data analysis. Results reveal that firm leverage, board independence and board size were negatively and significantly related to effective tax rate whereas firm size was negatively but insignificantly related to effective tax rate. This implies that the higher the firm leverage, board independence and board size, the lower the effective tax rate paid by manufacturing firms in Nigeria.

Salaudeen (2017) studied the effects of the size, the leverage, the capital intensity, the profitability, and the nature of business on tax planning of fifty-five companies listed on the floor of the Nigerian Stock Exchange from 2010 to 2016 using Descriptive Statistics and Data Regression Analysis. The results revealed that the size, the leverage, the capital intensity, the profitability, and the nature of business negatively affected tax avoidance.

Irianto, Sudibyo and Wafirli (2017) investigated the influence of firm size, leverage, profitability and capital intensity ratio on tax avoidance in manufacture companies from 2013 to 2015 using Regression Analysis. They found that firm size positively influences the effective tax rate whereas leverage, profitability and capital intensity do not significantly influence the tax avoidance.

3.0Methodology

A correlation design is conceived for the conduct of this study. A correlation design is appropriate to evaluate behaviour. The study is focused on manufacturing industry which has 43 firms as of 2022. Of the 44 firms, 20 firms were dropped because of unavailability of financial statements in their websites and in the Nigeria Exchange Group Limited Library; of the 43 firms, twenty-four (24) were selected while twenty (20) firms were dropped.

Table 3.1 described the sample selection procedure.

Table 1: **Sample Selection: Manufacturing***

MANUFACTURING COMPANIES	COUNT[%]
Manufacturer of consumer goods	21 [47.7]
Manufacturers of industrial goods	13 [29.5]
Manufacturer of pharmaceutical products	10 [22.7]
Total (*N*)	44 [100]
Eliminated for incomplete annual report	20 [45.5]
Number of participating companies	24 [54.5]

*Manufacturing companies listed before 2013 were eliminated

Each company in the sample produced data for 10-year period (2013 – 2022), which produced a sample size of 240 observations. In this study, a pool data collection scheme is followed to secure data from each company in the sample (2013 −2022); this yields a sample size of 240 observations (i.e. 10 years × 24 companies).
The variable description is shown below:

Table 3.2 Operationalization of Variables

Variables	Type of Variables	Measurement
Effective tax rate	Dependent	Tax expense/Earnings Before Tax
Firm Age	Independent	Number of years the firm has existed
Firm Size	Independent	Natural log of total assets
Firm Profitability	Independent	Profit before tax divided by total assets
Firm leverage	Independent	Total liabilities divided by total assets
Firm Liquidity	Independent	Current asset divided by current liabilities
Firm Operating Efficiency	Independent	Operating expense divided by total sales

Source: Researcher's Compilation (2023)

In order to determine whether a variable significantly explains aggressive tax behaviour, a regression equation was adapted from the study by Zubairu, Adigizey and Tivde (2022).

$ETR_{it} = \beta_0 + \beta_1 PROF_{it} + \beta_2 CIR_{it} + \beta_3 FS_{it} + Ɛ_{it}$ ....…….……...…….. i

Where:

CTA = Corporate Tax Aggressiveness

ETR = Effective Tax Rate (ETR)

PROF = Profitability

CIR = Capital Intensity Ratio

FS = Firm Size

β_0 = Intercept

$\beta_1, \beta_2, \beta_3$= Coefficients of the respective independent variables;

Ɛ = Error term;

it = Subscript indicating ith firm in time t.

The above model was modified thus:

$ETR_{it} = \beta_0 + \beta_1 LIQ_{it} + \beta_2 LEV_{it} + \beta_3 PRO_{it} + \beta_4 SIZ_{it} + \beta_5 AGE_{it} + \beta_6 FOE_{it} + Ɛ_i$

Where ETR stands for effective tax rate

LIQ = Liquidity

LEV = Leverage

PRO = Profitability

SIZ = size of the firm

AGE = Firm age

FOE = Firm operating efficiency

The measure of size effect is the regression coefficients ($\alpha_1 ... \alpha_4$). All size effects are interpreted to be significant at alpha level of 0.05 or highly significant at 0.01, these being the decision rules. The variable with the highest regression coefficient that is significant is interpreted to be the one that offer the highest explanation.

4.0 Result and Discussion

4.1 DescriptiveAnalysisTable4.1DescriptiveAnalysis

	ETR	LIQ	LEV	PRO	SIZ	AGE	FOE
Mean	0.436861	1.240976	1.127252	0.119428	7.425663	50.66667	0.179874
Median	0.297432	1.191551	0.559072	0.068938	7.545997	50.00000	0.170876
Maximum	41.08395	3.492682	20.01988	5.834239	9.424631	99.00000	2.001536
Minimum	-4.715152	0.005775	0.193620	-1.795168	4.758056	8.000000	0.000000
Std. Dev.	2.724748	0.647011	2.902803	0.473314	1.022615	18.00201	0.163131
Skewness	14.01251	0.559158	5.132863	8.120726	-0.467619	0.195588	6.535649
Kurtosis	208.5267	3.633494	28.94718	97.47908	2.748874	3.223299	69.75334
Jarque-Bera	430266.2	16.51947	7786.414	91900.82	9.377350	2.028804	46268.67
Probability	0.000000	0.000259	0.000000	0.000000	0.009199	0.362619	0.000000
Sum	104.8466	297.8343	270.5404	28.66273	1782.159	12160.00	43.16972
Sum Sq. Dev.	1774.396	100.0510	2013.878	53.54219	249.9322	77453.33	6.360183
Observations	240	240	240	240	240	240	240

Source: Eviews 10 Software

The mean effective tax rate (ETR) for the listed manufacturing companies in Nigeria is 0.436861, with a median of 0.297432. However, the data exhibits a high degree of variability, as indicated by the standard deviation of 2.724748. The skewness value of 14.01251 suggests a rightward skew, indicating a longer tail on the right side of the distribution, potentially influenced by extreme values. The kurtosis value of 208.5267 further confirms the presence of heavy tails and extreme values, contributing to a leptokurtic distribution. The Jarque-Bera test, with a probability of 0.000000, rejects the null hypothesis of normality, reinforcing the non-normal distribution of the ETR data.

The mean of firm liquidity is 1.240976, and the median is 1.191551, indicating a relatively balanced distribution. The standard deviation of 0.647011 suggests moderate variability. The skewness of 0.559158 indicates a slight rightward skew, while the kurtosis of 3.633494 suggests a distribution with slightly heavier tails than a normal distribution. The Jarque-Bera test, with a probability of 0.000259, rejects the assumption of normality, indicating some departure from a normal distribution in the LIQ data.

The mean leverage is 1.127252, with a median of 0.559072. The data exhibit substantial variability, as reflected in the high standard deviation of 2.902803. The skewness of 5.132863 indicates a pronounced rightward skew, suggesting an asymmetric distribution with a longer tail on the right. The kurtosis of 28.94718 confirms the presence of heavy tails and extreme values, contributing to a leptokurtic distribution. The Jarque-Bera test, with a probability of 0.000000, rejects the null hypothesis of normality, indicating a departure from a normal distribution in the LEV data.

The mean profitability is 0.119428, with a median of 0.068938. The data show moderate variability, as indicated by the standard deviation of 0.473314. The skewness of 8.120726 suggests a pronounced rightward skew, indicating a distribution with a longer tail on the right. The kurtosis of 97.47908 confirms the presence of heavy tails and extreme values, contributing to a leptokurtic distribution. The Jarque-Bera test, with a probability of 0.000000, rejects the

assumption of normality, indicating a departure from a normal distribution in the PRO data.

The mean firm size is 7.425663, with a median of 7.545997, indicating a relatively symmetric distribution. The standard deviation of 1.022615 suggests moderate variability in firm size among the listed manufacturing companies in Nigeria. The skewness value of -0.467619 suggests a slight leftward skew, indicating a distribution with a longer tail on the left side. The kurtosis value of 2.748874 indicates a distribution with moderately heavy tails. The Jarque-Bera test, with a probability of 0.009199, rejects the null hypothesis of normality, suggesting some departure from a normal distribution in the firm size data.

The mean firm age is 50.66667, with a median of 50.00000, suggesting a relatively balanced distribution. The standard deviation of 18.00201 indicates substantial variability in firm age among the listed manufacturing companies in Nigeria. The skewness of 0.195588 indicates a slight rightward skew, suggesting a distribution with a longer tail on the right. The kurtosis value of 3.223299 suggests a distribution with moderately heavy tails. The Jarque-Bera test, with a probability of 0.362619, does not provide strong evidence against the assumption of normality, suggesting that firm age data may conform to a normal distribution.

The mean firm operating efficiency is 0.179874, with a median of 0.170876, indicating a relatively balanced distribution. The standard deviation of 0.163131 suggests moderate variability in operating efficiency among the listed manufacturing companies in Nigeria. The skewness value of 6.535649 indicates a pronounced rightward skew, suggesting an asymmetric distribution with a longer tail on the right. The kurtosis value of 69.75334 confirms the presence of heavy tails and extreme values, contributing to a leptokurtic distribution. The Jarque-Bera test, with a probability of 0.000000, strongly rejects the assumption of normality, indicating a departure from a normal distribution in the firm operating efficiency data.

4.2 Hypotheses Testing

Robust Least Square regression was deployed in testing the hypotheses so that the violation of normality assumption could be addressed and corrected for more efficiency and reliability.

Table 4.2 Hypotheses Testing with Robust Least Square Regression

Variable	Coefficient	Std. Error	z-Statistic	Prob.
LIQ	-0.015226	0.009332	-1.631462	0.1028
LEV	-0.028708	0.002502	-11.47313	0.0000
PRO	0.033037	0.011102	2.975815	0.0029
SIZ	-0.014851	0.006085	-2.440623	0.0147
AGE	0.000180	0.000296	0.609055	0.5425
FOE	-0.135663	0.033894	-4.002575	0.0001
C	0.461137	0.057121	8.072934	0.0000

Robust Statistics

R-squared	0.118277	Adjusted R-squared	0.095572
Scale	0.097390	Deviance	0.009485
Rn-squared statistic	206.8532	Prob(Rn-squared stat.)	0.000000

Source: Eviews 10 Software

The result of the regression analysis shows that the R-squared value is 0.118277, indicating that approximately 11.83% of the variability in the effective tax rates of listed manufacturing firms in Nigeria is explained by the independent variables included in the model. R-squared represents the proportion of the dependent variable's variance that is captured by the model. In this case, the relatively low R-squared suggests that the model may not fully account for the variation in effective tax rates, and there may be other factors influencing tax planning that are not included in the model.

The adjusted R-squared is 0.095572, which adjusts the R-squared value for the number of predictors in the model. The adjusted R-squared is lower than the R-squared, indicating that the inclusion of some variables may not significantly contribute to explaining the variability in effective tax rates. The robust Rn-squared stat is 206.8532. This statistic is a robust version of the R-squared, designed to be less sensitive to the influence of outliers and heteroskedasticity. The magnitude of this statistic provides information about the overall fit of the model, considering the potential impact of influential observations. Its associated probability is 0.000000, which is extremely low. This low probability suggests that the model, as evaluated by the robust R-squared statistic, significantly deviates from a situation where the predictors have no explanatory power. In other words, there is strong evidence that the model, accounting for robustness, provides a better fit than a model with no explanatory power. In summary, while the traditional R-squared and adjusted R-squared values indicate a modest explanatory power of the model, the robust R-squared statistic suggests that the model, when considering robustness, performs significantly better than a null model. The table also presents the coefficients and associated probabilities (Prob.) for each independent variable in the regression model, showing the magnitude and significance of their effect on effective tax rates among listed manufacturing firms in Nigeria.

4.2.1. Test of Hypothesis 1

$H0_1$: Firm liquidity has no significant effect on effective tax rate of listed manufacturing firms in Nigeria.
The coefficient for firm liquidity is -0.015226, indicating that, on average, a one-unit increase in firm liquidity is associated with a decrease of 0.015226 units in the effective tax rate. However, the associated probability of 0.1028 is greater than 5% significance level of 0.05, suggesting that the effect of firm liquidity on effective tax rates is not statistically significant. The null hypothesis was accepted that Firm liquidity has a non-significant and negative effect on effective tax rate of listed manufacturing firms in Nigeria (*p*-value = 0.1028).

4.2.2 Test of Hypothesis 2

$H0_2$: Firm leverage has no significant effect on effective tax rate of listed manufacturing firms in Nigeria.
The coefficient for firm leverage is -0.028708, suggesting that a one-unit increase in firm leverage is associated with a decrease of 0.028708 units in the effective tax rate. The associated probability of 0.0000 is less than 0.05, indicating that firm leverage has a statistically significant impact on effective tax rates. The alternate hypothesis was accepted that Firm

leverage has a significant and negative effect on effective tax rate of listed manufacturing firms in Nigeria (*p*-value = 0.0000).

4.2.3 Test of Hypothesis 3

$H0_3$: Firm profitability has no significant effect on effective tax rate of listed manufacturing firms in Nigeria.
The coefficient for firm profitability is 0.033037, indicating that a one-unit increase in firm profitability is associated with an increase of 0.033037 units in the effective tax rate. The associated probability of 0.0029 is less than 0.05, signifying that firm profitability has a statistically significant impact on effective tax rates. The alternate hypothesis was accepted that Firm profitability has a significant and positive effect on effective tax rate of listed manufacturing firms in Nigeria (*p*-value = 0.0029).

4.2.4 Test of Hypothesis 4

$H0_4$: Firm size has no significant effect on effective tax rate of listed manufacturing firms in Nigeria.
The coefficient for firm size is -0.014851, implying that a one-unit increase in firm size is associated with a decrease of 0.014851 units in the effective tax rate. The associated probability of 0.0147 is less than 0.05, indicating that firm size has a statistically significant impact on effective tax rates. The alternate hypothesis was accepted that Firm size has a significant and negative effect on effective tax rate of listed manufacturing firms in Nigeria (*p*-value = 0.0147).

4.2.5 Test of Hypothesis 5

$H0_5$: Firm age has no significant effect on effective tax rate of listed manufacturing firms in Nigeria.
The coefficient for firm age is 0.000180, suggesting a minimal impact of firm age on effective tax rates. The associated probability of 0.5425 is greater than 0.05, indicating that the impact of firm age is not statistically significant. The null hypothesis was accepted that Firm age has a non-significant and positive effect on effective tax rate of listed manufacturing firms in Nigeria (*p*-value = 0.5425).

4.2.6 Test of Hypothesis 6

$H0_6$: Firm operating efficiency has no significant effect on effective tax rate of listed manufacturing firms in Nigeria.
The coefficient for firm operating efficiency is -0.135663, indicating that a one-unit increase in firm operating efficiency is associated with a decrease of 0.135663 units in the effective tax rate. The associated probability of 0.0001 is less than 0.05, demonstrating that firm operating efficiency has a statistically significant impact on effective tax rates. The alternate hypothesis was accepted that Firm operating efficiency has a significant and negative effect on effective tax rate of listed manufacturing firms in Nigeria (*p*-value = 0.0001).

4.3. Discussion of Findings

The study found that firm liquidity has a negative and non-significant effect on the effective tax

rate of listed manufacturing firms in Nigeria. Higher liquidity implies that the firm has more cash and assets that can be easily converted into cash. Firms with high liquidity may strategically manage their tax liabilities by maintaining more liquid assets. They could delay recognizing income or accelerate deductible expenses, resulting in a lower effective tax rate. Aladesunkanmi (2020) realised similar finding.

It was also found that firm leverage has a negative and significant effect on the effective tax rate of listed manufacturing firms in Nigeria. Firms with higher leverage (debt) may benefit from interest deductions, which can reduce their taxable income. This is because interest payments on debt are often tax-deductible. Therefore, higher leverage can lead to a lower effective tax rate as the firm can leverage debt to reduce its taxable income. This negates the results by Yahaya and Kabir (2020).

Thirdly, firm profitability has a positive and significant effect on the effective tax rate of listed manufacturing firms in Nigeria. Profitable firms generally have higher taxable income. The positive relationship suggests that as a firm becomes more profitable, its taxable income increases, leading to a higher effective tax rate. This could be because profitable firms have fewer opportunities or incentives to use tax planning strategies to reduce their tax burden. Similar result was found by Aladesunkanmi (2020).

Firm size has a negative and significant effect on the effective tax rate of listed manufacturing firms in Nigeria. Larger firms may have more resources and expertise to engage in tax planning, allowing them to optimize their tax positions and reduce their effective tax rates. Additionally, larger firms might benefit from economies of scale, which could positively impact their financial performance, leading to a lower effective tax rate. Yahaya and Kabir (2020) and Aladesunkanmi (2020) found an opposite result that firm size is positively associated with tax aggression.

Firm age has a non-significant positive effect on the effective tax rate of listed manufacturing firms in Nigeria. Older firms may have accumulated tax credits, losses, or other deferred tax items over time. These deferred tax items may have a positive impact on the effective tax rate as they are recognized or utilized over the firm's lifespan. Younger firms may not have such accumulated tax items, resulting in a higher effective tax rate. This negates the results by Yahaya and Kabir (2020) but agrees with that of Aladesunkanmi (2020).

Finally, it was found that firm operating efficiency has a negative and significant effect on the effective tax rate of listed manufacturing firms in Nigeria. Efficiently operated firms may have better control over their costs and expenses, allowing them to optimize their tax positions. This efficiency could result in lower taxable income, leading to a lower effective tax rate. Efficient firms may also be more adept at employing tax planning strategies to minimize their tax liabilities.

5.0 Conclusion and Recommendation

The study reveals useful findings regarding the effect of specific corporate attributes on the tax aggressive behaviour of listed manufacturing firms in Nigeria. Firstly, the investigation indicates that firm liquidity exerts a negative influence on effective tax rates. The negative coefficient implies that heightened liquidity is associated with a decrease in the effective tax rate, suggesting that companies with greater liquidity may strategically manage tax liabilities,

potentially engaging in tax planning to minimize overall tax burdens. Secondly, the study observes a negative relationship between firm leverage and effective tax rates. The negative coefficient signifies that an increase in firm leverage correlates with a reduction in the effective tax rate. This aligns with expectations that firms utilizing higher leverage may implement debt-related tax strategies, contributing to a decrease in their overall tax obligations.

Furthermore, the research underscores a positive association between firm profitability and effective tax rates. The positive coefficient indicates that as firm profitability rises, the effective tax rate tends to increase. This finding raises questions about whether profitable firms face higher tax liabilities due to increased taxable income and prompts exploration into the tax planning strategies employed by such companies. Additionally, the study identifies a negative connection between firm size and effective tax rates. The negative coefficient suggests that larger firms tend to exhibit lower effective tax rates. This finding implies that larger companies, equipped with more resources and expertise, may engage in sophisticated tax planning strategies, potentially leveraging tax incentives or deductions.

The investigation also reveals a counterintuitive relationship between firm age and effective tax rates, with older firms displaying higher effective tax rates. The positive coefficient challenges expectations, and further exploration is warranted to discern the specific dynamics influencing this unexpected correlation. Lastly, the study uncovers that more operationally efficient firms tend to have lower effective tax rates. The negative coefficient suggests that operationally efficient firms navigate tax regulations adeptly, identifying and implementing strategies to optimize their tax positions. In conclusion, the attributes of a corporate entity significantly determine the firm's behaviour towards tax aggression.

5.3. Recommendation

1) Managers should implement a comprehensive liquidity management strategy that considers not only short-term financial needs but also incorporates tax planning objectives. This may involve analyzing the timing of income recognition and expenses to optimize tax positions while maintaining a prudent level of liquidity.

2) Manufacturing firms should explore a balanced approach to capital structure by optimizing debt levels for tax advantages while considering the overall financial health of the company.

3) Directors in manufacturing firms should develop a proactive tax planning strategy that aligns with increasing profitability. This could involve assessing available tax credits, deductions, and incentives to offset the impact of higher taxable income.

4) Managers should leverage the resources and expertise of larger firms to engage in sophisticated tax planning strategies. However, ensure that these strategies align with ethical and legal considerations. They should consider establishing a dedicated tax planning team or seeking external tax advisory services to optimize tax incentives and deductions.

5) Financial managers should conduct a detailed analysis of the historical tax positions and assess the utilization of accumulated tax credits and losses. They should also explore tax planning opportunities tailored to the unique circumstances of older firms to potentially mitigate their higher effective tax rates.

6) Manufacturing firms should continue to prioritize operational efficiency, but integrate tax planning into operational decision-making. This may involve training operational teams on tax implications related to their activities and ensuring collaboration between finance, operations, and tax departments.

References

Aggreh, M., Abiahu, M. C. & Nworie, G. O. (2023). Cost Reduction and Financial Performance of Listed Consumer Goods Firms in Nigeria. *Journal of Banking, 11*(1), 1-38. https://www.researchgate.net/publication/376956491

Aladesunkanmi, A. J. (2020). *Effect of firm's characteristics on tax planning in the Nigerian listed deposit money banks.* (Unpublished doctoral dissertation), Kwara State University, Malete, Nigeria

Alstadsaeter, D.,& Jacco, L. (2013). Does gender diversity on corporate boards reduce information asymmetry in equity markets*? BRQ Business Research Quarterly, 20*(3), 192-205.

Avwokeni, J. A. (2016). *Impact of International Financial Reporting Standards on Financial Statement Elements and Accounting Quality in Nigeria* (Unpublished doctoral dissertation). Nnamdi Azikiwe University, Nigeria.

Avwokeni, J. A. (2018). On the value relevance argument: Do market participants place a premium on future prospect of the firm? *Journal of Financial Reporting and Accounting*, 15(2), 201−220.

Avwokeni, J. A. (2021*a*). *A First course in research methods*. Lagos, Nigeria: University of Lagos Press.

Avwokeni, J. A. (2021b). *Analysis of research data using EViews*. Lagos, Nigeria: University of Lagos Press.

Chytis, J. A., Tasios, R. Georgepoulos, T. &Hortis, F. B. (2019). Can paying "too much" or "too little" tax contribute to forced CEO turnover? *The Accounting Review*, 93(1), 103−130.

Dang, M.A., &Nguyen, L. (2022). Theft and Taxes.*Journal of Financial Economics* 84(3), 591-623.

Desai, M. A. & Dharmapala, D. (2009a). Corporate tax avoidance and firm value. *The Review of Economics and Statistics*, 91, 537-546

Desai, M. A. & Dharmapala, D. (2009b). Earnings management, corporate tax shelters,and book-tax alignment. *National Tax Journal*, 62, 169-186

Desai, M. A., & Dharmapala, D. (2006). Corporate tax avoidance and high powered incentives. *Journal of FinancialEconomics*, 79(1), 145–179.

Desai, M. A., Foley, F. C., & Hines, J.R. (2002). Do Tax Havens Divert Economic Activity? *Economics Letters, 90* (2), 219–224.

Elbo, M., Laquri, S. & Staglian, S. (1970). A theoretical framework for monetary analysis. *Journal of Political Economy, 78*(2),193-238.

Geetha, Y. (2012). *Tax havens, international tax avoidance and evasion. Congressional Research Service*, 201-213.

Hanlon, M. & Slemrod, H. (2010). A theory of board control and size. *The Review of Financial Studies*, *21*(4), 1797–1832.

Hanlon, M., & Heitzman, S. (2010).A review of tax research. *Journal of Accounting and Economics*, *50*, 127–178.KPMG. (2018). Nigerian Tax Journal, (February), 1–36.

Hoffman W. (2016). Tax avoidance and corporate capitals Structure. *Journal of Finance and Accountancy*, 1- 20.

Hutchens, C. & Rego, S. (2012). Corporate tax: what do stakeholders expect? *Journal of Business Ethics*, 158(2), 403-426.

Inua, O. I. (2018). Determinants of corporate effective tax rate: empirical evidence from listed manufacturing companies in Nigeria. *Accounting & Taxation Review, 2*(3), 48−61

Irianto, G., Sudibyo, M., & Wafirli, F. (2017). *Corporate governance and auditor choice. Bicentenary Conference – Lecce, Italy, September 19-21*

Laguir, S., Elibaz, S., &Laguir, G. (2015). The relation between board size and firm performance in firms with a history of poor operating performance. *Journal of Management & Governance, 14*(1), 61–85

Lanis, R., & Richardson, G. (2012). Corporate social responsibility and tax aggressiveness: An empirical analysis. *Journal of Accounting and Public Policy, 31*(1), 86–108.

Lanis, R., & Richardson, G. (2015). Corporate social responsibility and tax aggressiveness: An empirical analysis. *Journal of Accounting and Public Policy, 31*(1), 86–108.

Lannis, S.(2007). The relation between board size and firm performance in firms with a history of poor operating performance. *Journal of Management & Governance*, *14*(1), 61–85

Madugba, C. O., Ben-Caleb, M. A., Adedoyin, S., & Uche, Y. C. (2020). Corporate social responsibility performance and tax aggressiveness. *Journal of Accounting and Taxation*, *9*(8), 101–108.

Masnawaty, L. (2019). Book-Tax Differences and internal revenue service adjustments. *Journal of Accounting Research*, 36(2), 343−356.

Mehzabin, S., Shahriar, A., Hoque, M. N., Wanke, P., & Azad, M. A. K. (2023). The effect of capital structure, operating efficiency and non-interest income on bank profitability: new evidence from Asia. *Asian Journal of Economics and Banking*, *7*(1), 25-44.

Mita D. &Indriani, J. (2020). Influence of company size, company age, sales growth, and profitability on tax avoidance: Empirical Study on Pharmaceutical Sub-SectorCompanies Listed on the Indonesia Stock Exchange for the 2016−2019 Period.

Indonesian College of Economics, 1−18.

Nworie, G. O. & Mba, C. J. (2022). Modelling financial performance of food and beverages companies listed on Nigerian exchange group: the firm characteristics effect. *Journal of Global Accounting, 8*(3), 37 - 52. https://journals.unizik.edu.ng/index.php/joga/article/view/1418/1142

Nworie, G. O., & Okafor , T. G. (2023). Nigeria public manufacturing firms' adoption of computerised accounting system: the firm size and firm capital turnover effect. *Journal of Global Accounting*, *9*(1), 324–345. Retrieved from https://journals.unizik.edu.ng/index.php/joga/article/view/2071

Nworie, G. O., Anaike, C. L. & Onyeka, C. M. (2023). Computerised Accounting System: A Catalyst for Improved Operating Performance of Listed Industrial Goods Firms in Nigeria. *Journal of Accounting and Financial Management, 8*(4), 22-33. https://www.iiardjournals.org/get/JAFM/VOL.%209%20NO.%204%202023/Computerised%20Accounting%20System.pdf

Nworie, G. O., Mmadubuobi, L. C. & Muojekwu, H. O. (2023). Determining Return on Investment in Listed Nigerian Oil and Gas Firms: the Role of Company Traits. *Central Asian Journal of Innovations on Tourism Management and Finance*, *4*(10), 69-85. https://cajitmf.centralasianstudies.org/index.php/CAJITMF/article/view/628/679

Nworie, G.O & Ofoje, B. C. (2022). Liquidity as an antecedent to the financial performance of listed food and beverages firms in Nigeria. *International Journal of Advances in Engineering and Management. 4*(12), 192-200. DOI: 10.35629/5252-0412192200

Ogbeide, (2018).Corporate governance mechanisms and tax aggressiveness of listed firms in Nigeria.*Mity Journal of Corporate Governance 3* (1), 1-14.

Ogbeide, S. O. (2017). Firm characteristicsand tax aggressiveness of listed firms inNigeria: Empirical evidence.*International Journal of Academic Research in Public Policy and Governance,* 4(1), 556 – 569.

Okoye, E. & Avwokeni, A. J. (2014), 'Cashless economy, tax evasion and the behaviour of self-employed and professionals in Nigeria", *ICAN Journal of Accounting & Finance*, 3(1), 80−87,104

Olabisi, J., Kajola, S. O., Oladejo, D, A., Ajayi, J. A.&Hamzat, I. A. (2019). Corporate tax planning and performance of Nigerian listed oil & gas firms. *The Journal Contemporary Economy, 4*(1), 12−24.

Riebein, M. H., Cerqieire, A., & Brendao, A. (2014). Determinants of strategic information disclosure – Malaysian evidence. *International Journal of Business and Society*, *13*(3), 547–572

Salaudeen, M. S. (2017). Equity ownership structure and corporate tax aggressiveness: the Nigerian context. *Research Journal of Business and Management,* 5(2), 90−99.

Sasiska R., Didik S., & Luk, L. F. (2018). The Effects of the corporate's characteristics on tax

avoidance moderated by earnings management (Indonesian Evidence). *Journal of Accounting, Finance and Auditing Studies 4/3* (2018) 149-169.

Suandy, H. A. (2011). Measures of corporate tax avoidance: empirical evidence from an emerging economy. *International Journal of Business and Society, 14* (3), 412-427.

Tatum, C. (2012). The implications of organizational legitimacy for corporate social performance and disclosure. *Critical Perspectives on Accounting Conference*. New York.

Timothy, O.U., Izilin, M.O., & Ndifreke, B. A. (2020).Corporate tax planning, board compensation and firm value in Nigeria. *Accounting and Taxation Review, 4*(3): 11−28.

Uniamikogbo, A., Atu, D. M. &Atu, H. (2014).Gender and ethnic diversity on boards and corporate information environment. *Journal of Business Research, 67*(11), 24−41.

Wahab, J. &Holland, D. (2012). Entrepreneurial orientation and small business performance: A configurationally approach. *Journal of Business Venturing, 20; 71-91*

Watts, R. L., & Zimmerman, J. L. (1990).Positive Accounting Theory: A Ten-Year Perspective. *The Accounting Review*, 65, 131–156.

Yahaya, A. K. & Kabir Y. (2020). Impact of company characteristics on aggressive tax avoidance in Nigerian listed insurance companies. *Jurnal Administrasi Bisnis,* 9(2), 101−111.

Yoon, N. & Jang, T. (2015). The effect of accounting conservatism and corporate governance mechanism on tax avoidance. *Academic Research International*, 9(3), 68 – 76

Zubairu, A., Adigizey, J., & Tivde, J. K. (2022). Effect of firm attributes on tax aggressiveness of listed industrial goods companies in Nigeria. *UMM Journal of Accounting and Financial Management, 2*(1), 1-21.