

Board Structure on Tax Aggressiveness: A Focus on Non Financial Listed Firms in Nigeria

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DOI: <https://dx.doi.org/10.47772/IJRISS.2025.908000367>

Received: 14 September 2024; Accepted: 21 September 2024; Published: 11 September 2025

ABSTRACT

The study examined the effect of board structure on tax aggressiveness in listed firms in Nigeria. The objective of the study was to examine various corporate board measures affect the level of tax aggressiveness in Nigerian firms. The study employed board size, independence, diligence and board ownership as the independent variables, while tax aggressiveness was employed as the dependent variable. The study employed the use of secondary data collected from the 76 listed nonfinancial firms on the Nigerian Exchange Group (NXG) from 2012 – 2022. The data were analyzed using the descriptive statistics, inferential statistical tools and robust regression was used in testing the study hypotheses. The findings revealed that board diligence, board independence and board ownership have significant effect on tax aggressiveness of listed firms in Nigeria. On the other hand, board size recorded an insignificant relationship with tax aggressiveness of listed firms in Nigeria. The study recommended that fostering a culture of meticulousness and reinforcing the autonomy of boards in decision-making processes could be pivotal. Strategies aimed at enhancing board effectiveness and independence might significantly contribute to more responsible tax practices within Nigerian listed firms.

Keywords: Board Size, Board Diligence, Board Independence, Board Ownership

INTRODUCTION

Nigeria's vibrant corporate landscape, brimming with potential yet grappling with complexities, presents a captivating case study in the intricate dance between board structure and tax aggressiveness. While listed firms contribute significantly to the nation's economic engine, concerns surrounding their tax optimization strategies have cast a shadow on financial transparency and ethical conduct. At the heart of the debate lies the concept of "tax aggressiveness," encompassing legal yet potentially reputational-damaging tactics employed by companies to minimize their tax liabilities (Bashiru, Ba'aba & Bukar, 2020; Dariuni, Zohdi & Jamdi, 2019; Dauda, 2022). These tactics can range from aggressive accounting practices to exploiting loopholes in tax codes. In Nigeria, recent years have witnessed a surge in public scrutiny surrounding such optimization strategies adopted by listed firms (Ezejiofor & Ezenwafor, 2020).

Furthermore, the Nigerian tax landscape itself is undergoing a period of significant transformation. The introduction of the Voluntary Assets and Income Declaration Scheme (VAIDS) in 2016 signaled a government crackdown on tax evasion, while the ongoing implementation of the Base Erosion and Profit Shifting (BEPS) project aims to curb tax avoidance through loopholes and aggressive transfer pricing. These developments highlight the increasing importance of responsible tax practices for listed firms, placing board structures at the forefront of the conversation (A'zizah, 2023; Kadir, 2018).

The composition, size, and independence of boards are all crucial factors influencing a company's tax aggressiveness. A board with a majority of independent directors, for instance, is generally seen as less prone

to engaging in aggressive tax practices due to its heightened focus on shareholder value and regulatory compliance (Hairul, Ibrahim & Siti, 2014; Hasibuan & Khomsiyah, 2019). Conversely, boards with a strong presence of insiders or those lacking adequate financial expertise may be more susceptible to succumbing to the allure of aggressive tax strategies (Nwezoku & Egbunike, 2020; Obi, 2018; Ofoegbu, Akwu & Oliver, 2016).

However, the relationship between board structure and tax aggressiveness is far from straightforward. Recent research (Aburajah, Maali, Jaradat & Alsharairi, 2019; Akintoye, Adegbe & Itheme-Onyeka, 2020; A'zizah, 2023) suggests that the impact of specific board characteristics can vary depending on the firm's industry, size, and ownership structure. Moreover, the effectiveness of board oversight in mitigating tax aggressiveness may be contingent upon the strength of corporate governance frameworks and regulatory enforcement mechanisms within the national context (Ba'aba & Bashiru, 2019; Dauda, 2022).

Ultimately, understanding this complex interplay requires looking beyond the static structure of boards. As highlighted by research examining board meeting attendance (Barro & Samento, 2020) and CEO compensation (Halioui, Neifar & Abdelaziz, 2016), the dynamics of board engagement and the alignment of interests between board members and shareholders play a crucial role in shaping tax practices. Further research, drawing on the insights of studies within the Nigerian context (Ebimobowei, 2022) and beyond (Hairul et al., 2014; Hasibuan & Khomsiyah, 2019; Imuetinuan, Soomon & Jonathan, 2019; Kadir, 2018), can shed light on these often-hidden dynamics and pave the way for crafting effective corporate governance models that promote responsible tax practices in Nigeria.

It is against this backdrop of evolving tax policies, heightened public scrutiny, and complex board dynamics that this study emerges. Recognizing the existing gap in research concerning the specific influence of various board structure measures on tax aggressiveness in Nigerian listed firms, this study aims to bridge the knowledge divide. By employing a comprehensive analysis of firm-level data and relevant corporate governance frameworks, the study seeks to shed light on the intricate interplay between board composition, size, and independence, and the tax optimization strategies adopted by listed firms in Nigeria. The findings of this study will contribute valuable insights to the ongoing debate on corporate governance, tax transparency, and ethical business practices in the Nigerian context, paving the way for more responsible and sustainable corporate behavior.

LITERATURE REVIEW

Board Structure

The concept of board structure in Nigeria has undergone a complex evolution, reflecting both the dynamic growth of its corporate landscape and the persistent challenges of governance and transparency (Minnick & Noga, 2010; Nwezoku & Egbunike, 2020; Obi, 2018; Ofoegbu, Akwu & Oliver, 2016; Odoemela, Ironkwe & Nwaiwu, 2016; Ogbeide & Iyafekhe, 2018; Ogbeide & Osaretin, 2018; Olayiwola & Okoro, 2021; Onyali & Okafor, 2018). This multifaceted construct encompasses the composition, roles, and responsibilities of a company's board of directors, influencing its decision-making processes and ultimately impacting corporate performance and social responsibility.

One dominant perspective on board structure in Nigeria emphasizes the importance of compliance and regulatory frameworks (Ogbeide, Anyaduba & Akogo, 2022; Minnick & Noga, 2010; Nwezoku & Egbunike, 2020). The Companies and Allied Matters Act (CAMA) 2020, alongside the Securities and Exchange Commission (SEC) Code of Corporate Governance, set minimum standards for board composition, including mandatory inclusion of independent directors and provisions for diversity considerations (Obi, 2018). These regulations aim to ensure that boards possess the necessary expertise, objectivity, and independence to effectively oversee management and safeguard stakeholder interests.

However, alongside this compliance-driven approach, a growing body of research and stakeholder discourse highlights the need for a more nuanced understanding of board structure (Ogbeide, 2017; Ogbeide et al., 2022). This perspective emphasizes the interplay between board composition and firm-specific factors, such as industry, ownership structure, and risk profile. For instance, studies suggest that larger boards, while promoting diversity and stakeholder representation, may face coordination challenges, while smaller boards may lack the requisite breadth of expertise (Ogbeide & Iyafekhe, 2018). Similarly, the effectiveness of independent directors depends not only on their formal qualifications but also on their capacity to actively challenge management and foster informed decision-making (Onyali & Okafor, 2018).

Furthermore, the concept of board structure in Nigeria is increasingly being shaped by emerging trends and global best practices (Olayiwola & Okoro, 2021). The growing focus on environmental, social, and governance (ESG) principles necessitates boards with directors possessing relevant expertise and a commitment to sustainable practices (Ogbeide & Osaretin, 2018). Additionally, the rise of technology and digital platforms is influencing boardroom communication, collaboration, and risk management strategies (Ogbeide, 2017). These trends necessitate continuous adaptation of board structures and governance practices to ensure effective oversight and responsiveness in a rapidly evolving environment.

The concept of board structure in Nigeria remains a dynamic and multifaceted construct (Ogbeide & Iyafekhe, 2018). While regulatory frameworks play a crucial role in ensuring minimum standards and compliance, a deeper understanding of the interplay between board composition, firm-specific factors, and emerging trends is essential for optimizing board effectiveness and promoting responsible corporate behavior in the Nigerian context. As the corporate landscape continues to evolve, so too must the conceptualization and practice of board structure, ensuring that it serves as a robust foundation for sustainable growth, stakeholder value creation, and responsible governance in Nigeria.

Tax Aggressiveness

The concept of tax aggressiveness in Nigeria occupies a complex space within the broader discourse on corporate governance and ethical business practices (Aburajah et al., 2019; Akintoye et al., 2020; A'zizah, 2023; Ba'aba & Bashiru, 2019; Barro & Samento, 2020; Bashiru et al., 2020; Boussaidi & Hamed, 2015; Dariuni et al., 2019). It sits at the intersection of legitimate tax optimization strategies and potentially harmful maneuvers that exploit loopholes and push the boundaries of legality, raising concerns about fairness, equity, and sustainable revenue generation for the government.

Conceptualizing tax aggressiveness in Nigeria requires acknowledging its multifaceted nature. It encompasses a range of legal and near-legal practices employed by corporations to minimize their tax burden (A'zizah, 2023; Ba'aba & Bashiru, 2019; Dariuni et al., 2019). These strategies can range from transfer pricing manipulation and creative accounting techniques to exploiting tax havens and utilizing complex legal structures. While utilizing some of these methods can be considered legitimate tax optimization, the ethical gray area emerges when they are employed aggressively, primarily driven by maximizing short-term profits at the expense of long-term societal well-being.

The consequences of tax aggressiveness in Nigeria are far-reaching (Akintoye et al., 2020; Barro & Samento, 2020; Bashiru et al., 2020). It can lead to significant revenue losses for the government, hindering its ability to invest in critical areas like infrastructure, education, and healthcare. Additionally, it creates an uneven playing field for businesses, as those engaging in aggressive tax practices gain an unfair advantage over their more compliant counterparts. Furthermore, it can erode public trust in the tax system and foster a culture of non-compliance, further exacerbating the revenue shortfall.

Understanding the motivations behind tax aggressiveness is crucial for developing effective countermeasures (Boussaidi & Hamed, 2015; Dariuni et al., 2019). Common drivers include pressure from shareholders for

short-term profits, a lack of transparency in corporate governance structures, and weak enforcement mechanisms by regulatory bodies. Additionally, the complexity of the tax code and the presence of loopholes can create opportunities for aggressive tax planning.

Board Size and Tax Aggressiveness

The optimal size of a board of directors in Nigerian companies is a subject of ongoing debate, with its complexities spanning expertise, communication, and decision-making processes (Dauda, 2022; Ebimobowei, 2022; Ezejiofor & Ezenwafor, 2020; Hairul et al., 2014; Halioui et al., 2016). While larger boards offer broader expertise and stakeholder representation, they may struggle with communication, coordination, and the potential for groupthink. Conversely, smaller boards, though more agile, may lack diversity of perspectives and suffer from knowledge gaps. This complexity extends to the realm of tax aggressiveness, where the influence of board size remains ambiguous (Dauda, 2022; Ebimobowei, 2022; Ezejiofor & Ezenwafor, 2020; Hairul et al., 2014; Halioui et al., 2016). Some studies suggest larger boards, with their diverse range of views, are more likely to challenge aggressive tax strategies. Others argue that smaller, more cohesive boards can be more effective in implementing coordinated tax optimization plans. Ultimately, the relationship between board size and tax aggressiveness in Nigeria likely hinges on a combination of factors, including board composition, ownership structure, and the company's specific risk profile.

H₀₁: there is no significant relationship between board size and tax aggressiveness of listed firms in Nigeria.

Board Independence and Tax Aggressiveness

The presence and influence of independent directors on Nigerian boards is a crucial element in mitigating tax aggressiveness (Hasibuan & Khomsiyah, 2019; Imuetinuan et al., 2019; Kadir, 2018; Minnick & Noga, 2010). These non-executive outsiders, free from conflicts of interest with management, are expected to act as objective guardians of shareholder interests and challenge potentially harmful tax strategies.

Studies suggest a positive correlation between board independence and lower tax aggressiveness, as independent directors bring diverse perspectives and hold management accountable for ethical decision-making (Hasibuan & Khomsiyah, 2019; Kadir, 2018; Minnick & Noga, 2010). However, the effectiveness of independent directors depends heavily on their qualifications, level of engagement, and the overall board dynamics. In Nigeria's context, strengthening the independence of board committees dedicated to audit and risk management, while fostering a culture of active questioning and dissent within the boardroom, can further enhance the role of independent directors in curbing aggressive tax practices.

H₀₂: there is no significant relationship between board independence and tax aggressiveness of listed firms in Nigeria.

Board Diligence and Tax Aggressiveness

The concept of board diligence in Nigerian companies delves into the active and conscientious oversight exercised by directors in fulfilling their fiduciary duties (Nwezoku & Egbunike, 2020; Obi, 2018; Ofoegbu et al., 2016; Odoemela et al., 2016). This encompasses their due care in understanding the company's business, financial health, and risk profile, as well as their commitment to scrutinizing critical decisions, including those related to tax strategy. Studies suggest a positive association between strong board diligence and reduced tax aggressiveness (Ogbeide & Iyafekhe, 2018; Uniamikogbo, Benee & Adeusi, 2019). Diligent directors are more likely to identify and address potential red flags, advocate for responsible tax planning, and hold management accountable for compliance with regulations and ethical standards (Yinka & Uchenna, 2018). In Nigeria's context, strengthening the board's due diligence processes, through regular training, access to independent advisors, and transparent communication channels, can play a crucial role in curbing aggressive tax practices in Nigerian companies.

H₀₃: there is no significant relationship between board diligence and tax aggressiveness of listed firms in Nigeria.

Board Ownership and Tax Aggressiveness

Board ownership in Nigerian companies, encompassing the distribution of shareholding among directors, adds another layer of complexity to the equation of tax aggressiveness (Ogbeide & Osaretin, 2018; Olayiwola & Okoro, 2021; Peter & Tijjani, 2020; Richardson & Roman, 2011). Studies have shown a mixed relationship, with some suggesting that boards dominated by controlling shareholders exhibit higher levels of tax aggressiveness due to the pursuit of short-term profits and personal wealth maximization.

Others argue that dispersed ownership can incentivize aggressive tax strategies as directors may prioritize returns for a diverse set of stakeholders over long-term sustainability. Additionally, the presence of institutional investors on boards, known for their focus on responsible governance and long-term value creation, can potentially mitigate aggressive tax practices (Pratama, 2017; Radu, Georgeta & Stefan, 2016). Ultimately, the impact of board ownership on tax aggressiveness likely depends on the specific dynamics of each company, including the level of ownership concentration, the alignment of interests between shareholder groups, and the effectiveness of board oversight mechanisms (Salawu & Adediji, 2017). Understanding these intricate relationships is crucial for designing governance frameworks that encourage responsible tax behavior and discourage the exploitation of ownership structures for aggressive tax planning in Nigeria.

H₀₄: there is no significant relationship between board ownership and tax aggressiveness of listed firms in Nigeria.

Theoretical Framework

The relationship between board size and tax aggressiveness in Nigeria can be explored through two prominent theoretical frameworks: agency theory and resource dependence theory. Agency theory posits that a conflict of interest exists between shareholders, the principals, and management, the agents. Shareholders entrust management with the responsibility of maximizing their wealth, but potential agency problems can arise when management prioritizes personal gains over shareholder interests. In the context of tax aggressiveness, management might engage in aggressive tax strategies to boost short-term profits, even if it comes at the expense of long-term shareholder value and ethical considerations (Tandean & Winnie, 2016; Tanko & Siyanbola, 2019).

Board size plays a crucial role in mitigating agency problems. Large boards, with their diverse viewpoints and expertise, are viewed as more effective monitors and overseers of management actions. This increased oversight can deter aggressive tax maneuvers by creating a more risk-averse environment and fostering greater scrutiny of tax decisions. Additionally, larger boards may be more likely to include independent directors who, free from conflicts of interest with management, can advocate for responsible tax practices aligned with long-term shareholder interests (Ying, Wright & Huang, 2017; Yinka & Uchenna, 2018).

However, resource dependence theory presents a countervailing perspective. It suggests that organizations operate within an environment of resource scarcity and rely on external resources to achieve their goals. Boards play a key role in securing these resources, particularly by leveraging their networks and relationships with external stakeholders. In the case of tax aggressiveness, boards may utilize their connections to influence tax authorities, secure favorable tax rulings, or exploit legal loopholes, ultimately reducing the company's tax burden (Peter & Tijjani, 2020).

Large boards, with their potential for diverse connections and access to a broader range of resources, can be advantageous in this respect. However, this advantage comes with the risk of increased influence from powerful stakeholders who might prioritize short-term tax benefits over long-term sustainability and ethical

considerations. Additionally, large boards can face coordination and communication challenges, potentially hindering their effectiveness in monitoring and controlling management actions regarding tax strategies.

Empirical Review

Ogbeide and Iyafekhe (2018) examined tax aggressiveness of Nigerian non-financial firms between 2012 and 2016, this study found that 30% of the sampled firms were highly or moderately aggressive in minimizing their tax payments. Interestingly, 42% maintained equilibrium with the standard tax rate, while only 18% seemed non-aggressive. To address this widespread aggressiveness, the study recommends establishing dedicated tax departments staffed with experienced professionals to optimize tax strategies and potentially reduce tax burdens.

Olayiwole and Okoro (2021) analyzed the interplay between tax planning, corporate governance, and financial performance in 50 Nigerian non-financial companies from 2007 to 2018. It found that ownership structure and capital intensity positively impacted return on assets, highlighting the importance of ownership structure in leveraging capital for improved financial performance. However, board diversity and thin capitalization negatively affected return on assets. The study recommends implementing strong corporate governance systems to monitor and regulate tax planning activities and ensure they contribute to, rather than hinder, financial performance in Nigerian companies.

Dauda (2022) conducted a study which examined the impact of board composition on how aggressively oil and gas companies in Nigeria paid taxes between 2011 and 2020. All 13 listed companies were included, even if they started or stopped being listed during the period. Using data from their financial reports, the study found that having more women and more financial experts on the board led to lower effective tax rates, meaning the companies paid less tax. This suggests that gender diversity and financial expertise encourage tax aggressiveness. The study recommends that oil and gas companies should put more women and financial experts on their boards to take advantage of this effect.

Ebimobowei (2022) examined the impact of various corporate governance features on tax planning for listed pharmaceutical firms in Nigeria between 2015 and 2020. While none of the analyzed characteristics had a statistically significant impact on tax savings (measured by book-tax difference), some interesting tendencies emerged. Board financial expertise seemed to promote higher book-tax differences, suggestive of a possible role in tax planning, while other aspects like board size, compensation, and gender diversity showed inconclusive findings. To encourage effective tax planning and mitigate potential agency problems, the study recommends ensuring board members have proper financial incentives aligned with shareholder interests.

Ogbeide, Anyaduba and Akogo (2022) explored how firm characteristics influence tax aggressiveness in Nigerian banks from 2012 to 2020. Analyzing data from 13 banks, the study found that larger and more complex banks were more aggressive in minimizing their tax burdens, while older and more profitable banks were less aggressive. Based on these findings, the study recommends that regulatory bodies pay closer attention to smaller banks' tax strategies to prevent aggressive avoidance, and increase monitoring of older firms to encourage responsible tax practices and ensure compliance.

A'zizah (2023) examined the impact of tax aggressiveness on various factors in Indonesian food and beverage companies between 2018 and 2021. Analyzing 67 companies, the study found that profitable, larger, and those with higher institutional ownership were more aggressive in minimizing taxes. Conversely, companies with higher leverage and stronger independent boards were less aggressive. This suggests that regulators might consider targeting smaller, less profitable companies with lower institutional ownership to curb aggressive tax avoidance, while also encouraging strong independent boards and responsible leverage practices to promote tax compliance.

RESEARCH METHODOLOGY

This study used an ex-post facto research design to examine the effect of board structure on tax aggressiveness of listed Nigerian firms. The study selected 76 listed non-financial companies from the Nigerian Exchange Group from 2012 to 2022. The independent variables employed in this study are board size, board diligence, board independence and board ownership. The dependent variable is tax aggressiveness. While firm size was employed as the control variable. The data analysis tools employed are descriptive statistics, correlation matrix and diagnostic tests to ensure the robustness of the data. Finally, the study used robust regression to identify the most suitable regression model and to assess the impact of the independent variables on the dependent variable.

Model Specifications

$$TAX = f(BSIZE, BDIL, BIND, BOWN, FSIZE) \quad - \quad \text{Eqn 1}$$

$$TAX_{it} = a_{0it} + a_1 BSIZE_{it} + a_2 BDIL_{it} + a_3 BIND_{it} + a_4 BOWN_{it} + a_5 FSIZE_{it} + U_t \quad - \quad \text{Eqn 2}$$

Table 1: Measurement of Variable

Variables	Symbols	Measurement
Tax Aggressiveness	TAX	Measured using Effective Tax Rate (ETR) of firm i in year t.
Board Size	BSIZE	Measured using the number of directors in the corporate board of firm i in year t.
Firm Size	FSIZE	Measured using the log of Total Assets of firm i in year t.
Board Diligence	BDIL	Measured using number of meetings held by members of the board of firm i in year t.
Board Ownership	BOWN	Measured using the percentage of shares owned by members of the board of the firm i in year t.
Board Independence	BIND	Measured by the number of non-executive directors in the board of firm i in year t.

Source: Researcher's compilation, 2024.

DATA PRESENTATION

Table 2: Summary of Descriptive Statistics

Variable	Mean	Std. Dev.	Min	Max	Skewness	Kurtosis
TAX	3.31493	4.42299	0	48.3931	3.71225	26.26023
BSIZE	8.96838	2.65403	4	19	0.76071	3.68086
BDIL	4.61842	1.22197	1	15	1.77284	11.51585
BIND	67.34077	14.82081	16.6667	94.4444	-0.54632	3.00854
BOWN	18.28018	23.74158	0	94.35	1.29835	3.62495
FSIZE	6.90915	0.92994	3.738	8.9548	-0.07827	2.76942

Source: Researcher's compilation, 2024.

The descriptive statistics table provides insights into the relationship between board structure and tax aggressiveness of listed firms in Nigeria. The average tax aggressiveness is 3.31493. The data points are spread around the mean by approximately 4.42299. The tax aggressiveness ranges from 0 to 48.3931. The skewness value of 3.71225 suggests a right-skewed distribution, indicating a tail extending towards higher tax aggressiveness. The kurtosis value of 26.26023 indicates heavy-tailedness, implying extreme values exist in the dataset.

The mean board size is 8.96838, with a standard deviation of 2.65403. The range spans from 4 to 19. The mean board diligence is 4.61842, with a standard deviation of 1.22197. The values range from 1 to 15. The mean board independence is 67.34077, with a standard deviation of 14.82081. The values range from 16.6667 to 94.4444. The mean board ownership is 18.28018, with a standard deviation of 23.74158. The range goes from 0 to 94.35. The mean firm size is 6.90915, with a standard deviation of 0.92994. The values vary from 3.738 to 8.9548.

The descriptive statistics showcase the variability in board structure variables and tax aggressiveness. Higher skewness and kurtosis in tax aggressiveness indicate a possibly non-normal distribution with outliers impacting tax behavior. Variability in board size and diligence might suggest differing levels of decision-making capacities and commitment among boards, potentially influencing tax strategies. Higher board independence might positively impact tax compliance, while ownership dispersion might reflect diverse stakeholder interests, potentially affecting tax management. The controlled variable of firm size may indicate its potential role in influencing tax strategies within different-sized companies.

Table 3: Correlation Analysis Result

Variable	TAX	BSIZE	BDIL	BIND	BOWN	FSIZE
TAX	1.0000					
BSIZE	-0.0610	1.0000				
BDIL	0.0830	0.1668	1.0000			
BIND	0.0102	0.1445	0.0279	1.0000		
BOWN	0.0333	-0.1343	-0.0447	-0.0975	1.0000	
FSIZE	-0.0482	0.4680	0.1910	-0.0180	-0.2270	1.0000

Source: Researcher's compilation, 2024.

The correlation matrix provides valuable insights into the relationships between the dependent variable, tax aggressiveness (TAX), and the independent variables representing board structure in Nigerian listed firms. When focusing on tax aggressiveness as the dependent variable, it is evident that the correlations with board structure variables (BSIZE, BDIL, BIND and BOWN) are generally weak. Notably, a negligible negative correlation with board size (BSIZE) suggests a subtle tendency for smaller boards to exhibit slightly higher tax aggressiveness. However, overall, the limited correlations indicate that changes in tax aggressiveness are not strongly tied to systematic shifts in these board structure measures.

Shifting the focus to the independent variables representing board structure, we observe varying degrees of correlation among them. Board size (BSIZE) displays a moderately positive correlation with firm size (FSIZE), suggesting that larger firms tend to have larger boards, potentially influencing decision-making processes. Board diligence (BDIL) shows a slight positive correlation with tax aggressiveness, implying that firms with more diligent boards may exhibit slightly higher tax aggressiveness. On the other hand, board independence (BIND) and board ownership (BOWN) demonstrate very weak correlations with tax aggressiveness, indicating that these variables may not have a substantial linear impact on tax management strategies in the context of the examined Nigerian listed firms.

Table 4: Test of Multicollinearity

Variance Inflation Factor (VIF) Test						
Variables	FSIZE	BSIZE	BOWN	BDIL	BIND	Mean VIF
VIF	1.37	1.33	1.07	1.05	1.04	
1/VIF	0.73117	0.75190	0.93792	0.95556	0.95971	1.17

Source: Researcher's compilation, 2024.

Lower VIF values (close to 1) for all variables—ranging from 1.04 to 1.37—indicate minimal multicollinearity among the predictors. The 1/VIF values, indicating how much the variance of an estimated regression coefficient is increased due to multicollinearity, range from approximately 0.73 to 0.96. Overall, these results suggest that the independent variables (FSIZE, BSIZE, BOWN, BDIL and BIND) included in the analysis exhibit low multicollinearity. This implies that these variables contribute relatively independent information when predicting the dependent variable, supporting the reliability of the regression model.

Table 5: Test of Heteroscedasticity

Breusch and Pagan Lagrangian Multiplier test	
Decision Rule	If p-value is statistically significant, then reject H_0 and accept H_A
Result	$\chi^2(1) = 168.32$; Prob> $\chi^2 = 0.0000$

Source: Researcher's compilation, 2024.

The Breusch-Pagan Lagrangian Multiplier test assesses the presence of heteroscedasticity in a regression model, where the variance of the errors may not be constant across observations. The test statistic $\chi^2(1)$ is 168.32 with a p-value of 0.0000. With a p-value of 0.0000 (which is less than any conventional significance level like 0.05), it indicates strong evidence against the null hypothesis. Therefore, we reject the null hypothesis of homoscedasticity in favor of the alternative hypothesis, suggesting the presence of heteroscedasticity in the regression model. The presence of heteroscedasticity implies that the variance of the errors or residuals in the regression model is not constant across all observations, which could affect the reliability of the model's predictions and the accuracy of statistical inferences. As a result of the above, the robust regression will be used in testing the study model.

Table 6 Robust Regression Analysis

Tax Aggressiveness (TAX)					
Variables	Symbols	Coefficient	Std. Err.	t-stats	p> t
Board Size	BSIZE	0.00763	0.03935	0.19	0.849
Board Diligence	BDIL	-0.15769	0.07578	-2.08	0.038
Board Independence	BIND	-0.01829	0.00624	-2.93	0.003
Board Ownership	BOWN	0.00913	0.00393	2.32	0.021
Firm Size	FSIZE	0.26933	0.11476	2.35	0.019
Constant	_cons	2.14732	0.88044	2.44	0.015
F (5, 752)					4.84
Prob > F					0.0002

Source: Researcher's compilation, 2024.

H_{01} : there is no significant relationship between board size and tax aggressiveness of listed firms in Nigeria.

The coefficient of 0.00763 with a high p-value of 0.849 suggests that board size has a minimal and statistically insignificant impact on tax aggressiveness. A one-unit change in board size is associated with a very small change in tax aggressiveness, which is not deemed significant based on this analysis.

H_{02} : there is no significant relationship between board diligence and tax aggressiveness of listed firms in Nigeria.

The coefficient of -0.15769 with a p-value of 0.038 indicates a significant negative relationship between board diligence and tax aggressiveness. A one-unit increase in board diligence is associated with a decrease of

approximately 0.16 units in tax aggressiveness, suggesting that more diligent boards may be associated with lower tax aggressiveness.

H₀₃: there is no significant relationship between board independence and tax aggressiveness of listed firms in Nigeria.

With a coefficient of -0.01829 and a low p-value of 0.003, board independence exhibits a significant negative relationship with tax aggressiveness. A one-unit increase in board independence corresponds to a decrease of about 0.02 units in tax aggressiveness, suggesting that more independent boards may be associated with lower tax aggressiveness.

H₀₄: there is no significant relationship between board ownership and tax aggressiveness of listed firms in Nigeria.

The coefficient of 0.00913 with a p-value of 0.021 indicates a significant positive relationship between board ownership and tax aggressiveness. A one-unit increase in board ownership is associated with an increase of approximately 0.009 units in tax aggressiveness, implying that higher board ownership might be linked to slightly higher tax aggressiveness.

The coefficient of 0.26933 with a p-value of 0.019 suggests a significant positive relationship between firm size and tax aggressiveness. A one-unit increase in firm size corresponds to an increase of approximately 0.27 units in tax aggressiveness, indicating that larger firms might tend to exhibit higher tax aggressiveness. According to this robust regression analysis, board diligence, independence, and firm size show statistically significant relationships with tax aggressiveness. More diligent and independent boards are associated with lower tax aggressiveness, while larger firm size is linked to higher tax aggressiveness. Board size and ownership, however, do not demonstrate statistically significant impacts on tax aggressiveness in this model. The overall model's statistical significance ($F(5, 752) = 4.84$, $\text{Prob} > F = 0.0002$) indicates that at least one of the predictors is significantly related to tax aggressiveness.

DISCUSSION OF THE FINDINGS

The insignificant relationship between board size and tax aggressiveness suggests that, within Nigerian listed firms, the sheer numerical size of the board might not directly influence tax management strategies. This finding challenges the common assumption that larger boards lead to more diverse perspectives and better oversight, impacting tax decisions. In this context, firms in Nigeria might benefit from focusing on other board-related factors rather than solely aiming to increase the board size to mitigate tax aggressiveness. This contradicts the findings of Michael and Udeh (2019) and Dauda (2022) who reported a significant relationship between board size and tax aggressiveness of firms in Nigeria. The finding aligns with those of Ebimobowei (2022) and Akims and Akims (2023) who reported that board size has insignificant effect on tax aggressiveness of firms in Nigeria.

The negative relationship between board diligence and tax aggressiveness indicates a compelling association. Firms with more diligent boards tend to exhibit lower tax aggressiveness, implying that a board's commitment, thoroughness in decision-making, and scrutiny of tax strategies contribute to more conservative tax practices. Encouraging a culture of meticulousness and attention to tax-related matters within boards could potentially lead to more compliant tax strategies for Nigerian listed firms. The finding agrees with those of Dauda (2022) who reported a significant relationship between board diligence and tax aggressiveness of firms in Nigeria. This contradicts the findings of Ebimobowei (2022) who reported an insignificant relationship between board diligence and tax aggressiveness of firms in Nigeria.

The negative relationship between board independence and tax aggressiveness is a significant finding. It suggests that boards with greater independence from management or external influences might contribute to lower tax aggressiveness. Such independence likely fosters unbiased scrutiny of tax strategies, reducing the

tendency for aggressive tax planning that could raise ethical or regulatory concerns. For Nigerian firms, reinforcing board independence through diverse expertise and autonomy in decision-making might contribute to more responsible tax practices. The finding agrees with those of Michael and Udeh (2019) and Dauda (2022) and Akims and Akims (2023) who reported a significant relationship between board independence and tax aggressiveness of firms in Nigeria.

The positive relationship between board ownership and tax aggressiveness implies that higher ownership stakes among board members might somewhat elevate tax aggressiveness within listed firms in Nigeria. This finding challenges the presumption that higher ownership aligns interests with shareholders, potentially leading to more conservative tax approaches. Instead, it suggests a nuanced effect where increased ownership could spur a push for tax strategies aimed at maximizing benefits for stakeholders, possibly leading to a more aggressive tax stance. The study findings contradict those of Uniamikogbo, Bennee and Adeusi (2019) who reported an insignificant relationship between board ownership and tax aggressiveness.

The positive relationship between firm size and tax aggressiveness highlights an intriguing aspect. Larger firms tend to exhibit higher tax aggressiveness, possibly due to increased complexity in operations, more extensive resources, and international dealings, leading to sophisticated tax planning. For Nigerian listed firms, managing tax aggressiveness becomes crucial as they grow, necessitating robust oversight and compliance measures to align with regulatory and ethical standards.

CONCLUSION

Based on the comprehensive analysis of board structure variables and firm size in relation to tax aggressiveness within Nigerian listed firms, the findings shed crucial light on the nuanced interplay between these factors. While board size and ownership exhibited minimal influence, board diligence, independence, and firm size emerged as significant determinants. Diligent and independent boards correlate with lower tax aggressiveness, underscoring the importance of meticulous oversight and autonomy in decision-making. Conversely, larger firm size is associated with heightened tax aggressiveness, emphasizing the challenges posed by complexity in tax management strategies. These insights provide a foundation for rethinking governance practices and tax policies within Nigerian listed firms.

Recommendations and Further Suggestions

Given the observed impact of board diligence and independence on tax aggressiveness, fostering a culture of meticulousness and reinforcing the autonomy of boards in decision-making processes could be pivotal. Strategies aimed at enhancing board effectiveness and independence might significantly contribute to more responsible tax practices within Nigerian listed firms.

Future research could explore the qualitative aspects behind these quantitative findings. Investigating the specific mechanisms through which board diligence and independence influence tax strategies, considering cultural, regulatory, and industry-specific factors, could offer deeper insights. Additionally, examining the impact of these variables over different time frames or within specific industry sectors could provide a more nuanced understanding of their implications for tax management strategies. Furthermore, exploring how external factors like regulatory changes or economic conditions interact with board dynamics to influence tax aggressiveness could yield valuable insights for policymaking and corporate governance practices in Nigeria.

REFERENCE

1. Aburajah, L., Maali, B., Jaradat, M. & Alsharairi, M. (2019). Board of directors' characteristics and tax aggressiveness: Evidence from Jordanian listed firms. *Theoretical Economics Letters*, 9, 2732-2745.
2. Akims, M.A. & Akims, K.A. (2023). Board of directors' characteristics and corporate tax planning: Evidence from manufacturing and allied firms listed at the Nairobi securities exchange, Kenya. *Asian Journal of Economics, Finance and Management*, 9(1), 19-30.

3. Akintoye, I.R., Adegbe, F.F. & Ihome-Onyeka, C.V. (2020). Tax planning strategies and profitability of quoted manufacturing companies in Nigeria. *Journal of Finance and Accounting*, 8(3), 148-157.
4. A'zizah, L.O.F. (2023). The determinant factor of tax aggressiveness: Evidence from Indonesia. *Jurnal Publikasi Ekonomi dan Akuntansi*, 3(3), 366-376.
5. Ba'aba, S. & Bashiru, M. (2019). The impact of corporate governance attributes on tax planning of listed manufacturing companies: A comparative study between Nigeria and Malaysia. *Review of Politics and Public Policy in Emerging Economies*, 1(2), 105-112.
6. Barro, V. & Samento, J.M. (2020). Board meeting attendance and corporate tax avoidance: Evidence from the UK. *Business Perspectives and Research*, 8(1), 51-66.
7. Bashiru, M., Ba'aba, S. & Bukar, M. (2020). The impact of corporate governance attributes on tax planning of listed Nigerian conglomerate companies. *International Journal of Academic Research in Business and Social Sciences*, 10(5), 229-238.
8. Boussaidi, A., & Hamed, M. S. (2015). The impact of governance mechanisms on tax Aggressiveness: Empirical evidence from Tunisian context. *Journal of Asian Business Strategy*, 5(1), 1-12.
9. Dariuni, N.H., Zohdi, A.R. & Jamdi, A.H. (2019). Corporate governance and relationship between ownership structure, social responsibility and tax avoidance. *International Journal of Business Management*, 4(1), 126-141.
10. Dauda, U. (2022). Corporate board attributes and tax aggressiveness among listed oil and gas firms in Nigeria. *TSU-International Journal of Accounting and Finance*, 1(2), 248-275.
11. Ebimobowei, A. (2022), Corporate Governance Attributes and Tax Planning of Listed Pharmaceutical Companies in Nigeria. *British Journal of Management and Marketing Studies* 5(1), 1-38.
12. Ezejiofor, R.A. & Ezenwafor, E.C. (2020). Corporate governance and tax avoidance: Evidence from Nigerian quoted food and beverage companies. *Macro Management & Public Politics*, 2(4), 40-47.
13. Hairul, A.A., Ibrahim, A.S. & Siti, N.S.O. (2014). Corporate ownership, governance and tax avoidance: an interactive effect. *Journal of Social and Behavioural Sciences*, 164, 150 – 160.
14. Halioui K., Neifar S. & Abdelaziz, F.B. (2016). Corporate governance, CEO compensation and tax aggressiveness: Evidence from American firms listed on NASDAQ 100. *Review of Accounting and Finance*, 15(4), 445 – 462.
15. Hasibuan, D. & Khomsiyah, O. (2019). Do corporate governance affect tax aggressiveness? Evidence from Indonesia. *Journal of Accounting, Business and Financial Research*, 7(1), 8 -16.
16. Imuetinuan, I.B., Soomon, E.A. C. & Jonathan, A. (2019). Effects of board characteristics, firm performance and tax planning in Nigeria food manufacturing sector. *FUO Quarterly Journal of Contemporary Research*, 7(3), 1-12.
17. Kadir, O.A. (2018). The impact of corporate governance mechanisms on corporate tax avoidance in Nigeria listed manufacturing companies. *Global Journal of Contemporary Research, Auditing and Business Ethics*, 4(9), 622 – 636.
18. Khamoussi, H., Souhi, N., & Fouad, B.A. (2016). Corporate Governance, CEO Compensation, and Tax Aggressiveness: Evidence from American Firms listed on the NASDAQ 100. *Review of Accounting and Finance*, 15(4): 445-462.
19. Michael, A.J.A. & Udeh, F.N.P. (2019). Corporate governance (CG) structure and tax aggressiveness of quoted manufacturing companies in Nigeria. *Proceedings of the 7th Annual International Academic Conference on Accounting and Finance*.
20. Minnick, K., & Noga, T. (2010). Do corporate governance characteristics influence tax management? *Journal of Corporate Finance*, 16, 703-718.
21. Nwezoku, N.C. & Egbunike, P.A. (2020). Board diversity and corporate tax aggressiveness behaviour of quoted healthcare manufacturing firms in Nigeria. *International Journal of Advanced Academic Research*, 6(2), 66-95.
22. Obi, C.K. (2018). Revenue generation in Nigeria: Diversifying from primary sectors to non-primary sectors. *ACTA Universitatis Danubius*, 14(1), 168-178.
23. Ofoegbu, G.N., Akwu, D.O. & Oliver, O. (2016). Empirical analysis of effect of tax revenue on economic development of Nigeria. *International Journal of Asian Social Science*, 6(10), 604-613.

24. Odoemela, U. Ironkwe, U.I., & Nwaiwu, J.N. (2016). Corporate Governance Mechanism and Tax Planning in Nigeria. *International Journal of Advanced Academic Research*, 2(9), 45-59.
25. Ogbeide, S. O. (2017). Firm characteristics and tax aggressiveness of listed firms in Nigeria: Empirical evidence. *International Journal of Academic Research in Public Policy and Governance*, 4(1), 556–569.
26. Ogbeide, S.O. & Iyafekhe, C. (2018). Empirical assessment of tax aggressiveness of listed firms in Nigeria. *Accounting & Taxation Review*, 2(3), 13-29.
27. Ogbeide, S. O., & Osaretin, O. (2018). Corporate governance mechanisms and tax aggressiveness of listed firms in Nigeria. *Amity Journal of Corporate Governance*, 3(1), 1-12.
28. Ogbeide, I.O., Anyaduba, J.O. & Akogo, O.U. (2022). Firm attributes and corporate tax aggressiveness in Nigeria. *American Journal of Finance*, 7(2), 64-87.
29. Olayiwola, J. & Okoro, S. (2021). Tax planning, corporate governance and financial performance of selected quoted non-financial Companies in Nigeria (2007-2018). *Organizations and Markets in Emerging Economies*, 12(2), 332-352.
30. Onyali, C., & Okafor, T. (2018). Effect of corporate governance mechanisms on tax aggressiveness of quoted manufacturing firms on the Nigerian Stock Exchange. *Asian Journal of Economics, Business and Accounting*, 8(1), 1-20.
31. Pratama, A. (2017). Company characteristics, corporate governance and aggressive tax avoidance practice: A study of Indonesian companies. *Review of Integrative Business and Economics Research*, 6(4), 70-81.
32. Persons, O.S. (2015). Corporate Governance Characteristics of most Admired Companies. *International Journal of Business and Social Science*, 6(3); 11-18
33. Peter, Z., & Tijjani, B. (2020). Ownership structure and tax planning of listed firms: Evidence from Nigeria. *Journal of Accounting and Taxation*, 12(3), 99-107.
34. Radu, A.P., Georgeta, V., & Stefan, C.G. (2016). Exploring the Link between Corporate Governance Characteristics and Effective Corporate Tax Rate: A Panel Data Approach on U.S. Listed Companies. *Journal of Financial Studies & Research*: 1-16.
35. Richardson, G., & Roman, L., (2011). The Effect of Board of Directors Composition on Corporate Tax Aggressiveness. *Journal of Accounting and Public Policy*, 30: 50-70.
36. Salawu, R.O., & Adediji, Z.A. (2017). Corporate Governance and Tax Planning Among Non-Financial Quoted Companies in Nigeria. *African Research Review*, 11(3): 42-59.
37. Tandean, V. A. & Winnie (2016). The effect of good corporate governance on tax avoidance: an empirical study on manufacturing companies Listed in IDX period 2010-2013. *Asian Journal of Accounting Research*, 1(1), 8 – 15.
38. Tanko, U.M., & Siyanbola, A.A. (2019). Audit committee and financial reporting quality: evidence from listed firms in Nigeria. *Journal of Accounting, Finance and Management Discovery*, 2(2), 92-105.
39. Uniamikogbo, E., Binee, E. & Adeusi, S.A. (2019). Corporate governance and tax aggressiveness in Nigeria. *AE-FUNAI Journal of Accounting, Business and Finance*, 4(1), 20-33.
40. Ying, T., Wright, B. & Huang, W. (2017). Ownership structure and tax aggressiveness of Chinese listed companies. *International Journal of Accounting and Information Management*, 2, 1-28.
41. Yinka, M.S., & Uchenna, C.E. (2018). Firm Specific Determinants of Corporate Effective Tax Rate of Listed Firms in Nigeria. *Journal of Accounting and Taxation*, 10(2): 19 – 28.