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Using Unobserved Effects Model to Analyse the Relationship Between Audit Committee Qualities and Tax Engineering of Listed Firms in Nigeria

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Abstract

This research examines how audit committee features impact tax aggressiveness in Nigerian publicly traded firms. It explores how independence, competence, gender diversity, and meeting frequency affect book-tax differential. The investigation was longitudinal. The research population includes 155 Nigerian Exchange Group (NXG) Plc-listed enterprises. Ninety-two Nigerian publicly listed firms were sampled using judgement and filter criteria. The annual reports and accounts of 92 Nigerian Exchange Group Plc enterprises from 2015 to 2024 provided 920 secondary data points. Data were examined using the Unobserved Effects Model (fixed and random effects) using pooled OLS and Hausman specification tests. The frequency of audit committee meetings was not significantly linked with the tax aggression of listed corporations in Nigeria. Nevertheless, the audit committee's independence, competence, and gender diversity were demonstrated to be inversely related. The study recommends mandating professional qualifications for audit committees, promoting gender diversity, increasing independent directors, improving ethical tax behaviour in Nigeria, and dedicating structured time to tax-risk management at meetings.

Keywords:

Audit Committee, Tax Aggressiveness, Gender Diversity, Meeting Frequency, Expertise

1.0 Introduction

Tax aggressiveness is currently a significant concern due to its impact on regulatory compliance, tax collection, and business image. In Nigeria, tax compliance is a perpetual issue due to the fact that management frequently employs both legal and illicit strategies to reduce tax obligations. Aggressive tax planning by businesses is typically indicative of budget constraints, as governments depend on tax revenue. Companies are incentivised to minimise their tax payments because this diminishes the net earnings that shareholders may access. The goal-oriented activities of management may manifest as either legal tax avoidance, which involves the identification and utilisation of legal openings, or unlawful tax evasion. Although lawful tax planning may appear to be a cunning method of allocating funds, it becomes a moral quandary when it violates the equity of the tax system. A company's reputation may be compromised when its aggressive tax strategies are disclosed through litigation or regulatory actions (Utaminingsih et al., 2022).

In Nigeria, taxpayers are legally safeguarded from legal action by individuals who seek to circumvent the tax system by meticulously organising their financial affairs.

Nevertheless, in order to preserve this privilege, taxpayers must adhere to specific ethical standards and adhere to the constraints established by Nigerian tax regulations (Banwo & Ighodalo, 2019). The public welfare and the government's finances may be negatively impacted by the active tax planning that many companies employ to reduce their tax payments. In recent years, businesses worldwide have become increasingly aggressive in their efforts to minimise taxes (Meidyawati & Fardinal, 2023). Businesses exert considerable effort to mitigate their tax liabilities in order to optimise their profitability. Management frequently implements more combative strategies as a consequence of these endeavours. Meidyawati and Fardinal (2023) assert that the primary objectives of proactive tax planning are to reduce taxable income and manipulate fiscal profit.

The audit committee, a subsection of a corporate board of directors, is responsible for overseeing tax-risk management. Another advantage is ensuring that internal safeguards are robust enough to prevent opportunistic or fraudulent actions. The risk of tax aggression is mitigated by the ability to identify and rectify aggressive behaviours through appropriate monitoring. This objective is bolstered by audit committees that are impartial and competent. Audit committees can be a valuable asset in assisting the board in making informed decisions regarding tax-risk management, as they frequently address financial and risk-related issues prior to bringing them to the board's attention (Ernst & Young, 2014). The study conducted by DeZoort et al. (2002) indicates that competent audit committees have a higher likelihood of detecting, reporting, and correcting significant misstatements. When the audit committee diligently oversees the production of a company's financial statements, agency theory states that the likelihood of discovering tax fraud and discouraging management from participating in opportunistic conduct increases. According to studies done by Ariyani and Harto (2014), tax aggression is significantly and negatively affected by audit committee competence. The inclusion of financial experts and accountants with exceptional qualifications on audit committees may mitigate tax aggression (Arismajayanti & Jati, 2017).

1.2 Statement of the Problem

The Executive Chairman of the Federal Inland Revenue Service, Tunde Fowler, said in 2019 that Nigeria suffers a loss of roughly 15 billion US dollars as a result of tax fraud. (Guardian Newspaper, 24 October 2019). In 2021, Muhammad Nami, the Executive Chairman of FIRS at the time, disclosed that international firms based in Nigeria from 2007 to 2017 had evaded taxes, resulting in a loss of approximately ₦5.4 trillion (Vanguard Newspaper, 11 January 2021). The government's budget is weakened as a result of these losses, which decrease the available funds for public investment and social services. The Nigerian government is increasingly concerned about tax avoidance and evasion as the country's financial stability deteriorates and its dependence on oil decreases. This investigation is motivated by these factors. This research is essential for the development of policies that would enhance tax collection in developing nations such as Nigeria, as tax income is essential for national development. Long-term economic development is still being impeded by persistent deficits in tax revenue.

In spite of the gravity of the concerns raised, the absence of empirical research on the influence of audit committee characteristics on tax aggression in Nigeria is a cause for concern. Studies conducted globally have demonstrated that audit committees are essential for mitigating the effects of aggressive tax strategies. It is uncertain how this connection is integrated into the distinctive legislative and economic environment of Nigeria. Listed companies in Nigeria are faced with uncertainty regarding the influence of audit committee features on tax aggressiveness. Studies examining the correlation between audit committee attributes and tax aggression have mostly occurred in industrialized nations. For instance, research conducted by Arismajayanti and Jati (2017), Dang and Nguyen (2022), Ved and Sjarief (2022), and Islam and Hashim (2023) provide insights from non-African settings.

There is a lack of research in the current literature that looks at how audit committee traits, specifically, independence, competency, gender diversity, and meeting frequency influence tax aggressiveness in Nigeria. Prior research on tax aggression in Nigeria has mostly concentrated on certain industries, including banking, oil and gas, healthcare, and industrial products. This research adopts a comprehensive approach by examining publicly traded companies across all sectors on the Nigerian Exchange Group, with the objective of yielding insights that are more broadly applicable to the total economy. This produces a sectoral disparity. Listed firms in Nigeria are subject to tax aggression, and this research aims to investigate the relationship between audit committee attributes (independence, competence, gender diversity, and meeting frequency) and this aggressiveness.

1.3 Objectives of the Study

This study aims to look at the tax aggressiveness of listed companies in Nigeria and how audit committee features affect it. Specifically, the research aims to:

- i. investigates the effect of audit committee independence on tax aggressiveness of companies listed in Nigeria.
- ii. investigates the effect of expertise of the audit committee on tax aggressiveness of Nigerian listed companies.
- iii. investigates the effect of gender diversity of the audit committee on tax aggressiveness of Nigerian listed companies.
- iv. examines how audit committee meeting frequency affect Nigerian listed companies' tax aggression.

2. Literature Review

2.1 Conceptual Issues

2.1.1 Tax aggressiveness

The phrase "tax aggressiveness" refers to strategies used by companies to reduce their tax obligations, either via legitimate tax avoidance or criminal tax evasion. Any strategy or amalgamation of approaches that lowers tax liabilities is deemed tax aggressive. This categorisation includes many tax-related activities, such as unlawful tax planning, avoidance, and evasion tactics. Companies are more likely to engage in tax avoidance and evasion when the effective tax rate decreases, according to Hanlon and Heitzman (2010). This indicates that companies are more aggressive when it comes to taxation. A significant challenge arises when trying to distinguish between tax avoidance, tax minimisation, tax planning, tax evasion, and tax accounting. All of these expressions are synonymous. Ogbeide and Iyafekhe (2018) contend that shareholders often want managers to adopt more aggressive tax strategies, since this approach reallocates governmental resources in their favour. Consequently, this activity promotes the firm's goal of maximising its wealth. Tax aggressiveness seeks to minimise tax obligations, increase income, and optimise shareholder profit. The aim of tax aggressiveness, as defined by Nwaobia and Jayeoba (2016), is to reduce a corporation's tax obligation, therefore improving its cash flow and, eventually, its long-term after-tax return on investment. Tax aggressiveness, as defined by Desai and Dharmapala (2007), benefits shareholders by reducing their tax liabilities, hence generating financial savings that improve profits per share and elevate stock value.

2.1.2 Audit Committee Independence

Evidence from many research points to a correlation between an independent audit committee and less aggressive tax planning. Thus, while overseeing management's financial statement production, the independent audit committee members might prohibit the business from using aggressive tax techniques. Data from studies done by Bédard et al. (2004) suggests that tax aggressiveness may be significantly and positively affected by the autonomy of audit committee members. On the other hand, Rospitasari and Oktaviani (2021) found no correlation between audit committee independence and tax aggressiveness, hence this proves their hypothesis wrong. Evidence linking tax aggression to autonomy has been found by Aliani (2014) and Lanis and Richardson (2011). Research from these two studies shows that aggressive tax planning decreased once boards with independent members were established.

2.1.3 Audit Committee Expertise

Expertise is also crucial for an audit committee. Such expertise may be gained by serving as a director, participating on other boards, being in the position for a long time, and having a good grasp of financial matters. According to prior research (Krishnan & Visvanathan, 2008), the presence of financially competent individuals results in enhanced audit committee supervisory abilities, a reduced risk of profit management issues, and a reduced likelihood of financial restatement. Accounting experts on audit committees pay more attention to aggressive accounting methods, according to an experiment by Pomeroy (2010).

2.1.4 Audit Committee Gender Diversity

Appointing women to audit committees may yield numerous advantages. Research conducted by Eagly et al. (2003) emphasises that female directors demonstrate characteristics such as enhanced communication and meeting preparation, as well as a greater emphasis on process orientation and participatory behaviour. Results from the study by Carter et al. (2003) show that female administrators are more likely to voice concerns and ask insightful questions, which encourages upper management to clarify their own opinions. The presence of female directors is linked to a reduction in conflict and an increase in effectiveness, according to Nielsen and Huse (2010). Increasing the representation of women on boards may create an atmosphere that "presents diverse perspectives and viewpoints, potentially leading to a greater array of alternatives and enhanced quality in decision-making concerning corporate policies and practices" by providing more diverse ideas and opinions (Nielsen & Huse, 2010).

2.1.5 Audit Committee Meeting

There is a substantial amount of literature examining the relationship between audit committee characteristics and tax dodging by corporations. Most of this research have investigated the link between the two and have yielded contradictory findings. Upon evaluating the aforementioned factors and following Aliani's (2014) recommendation, it is plausible that including a moderator into the study model will provide enhanced results. Lanis and Richardson (2011) assert that an independent audit committee exemplifies strong corporate governance inside a business and assists in the mitigation of fraudulent activities. Raimo et al. (2021) performed research indicating that independent members may facilitate the formulation of the company's long-term goals and, at times, assess the efficacy of measures to deter tax evasion.

2.2 Theoretical Framework

In order to directly address the mechanisms that determine tax aggressiveness in listed firms, this study is grounded on agency theory. Because it elucidates the principal-agent relationship within firms, agency theory is indispensable to this investigation, specifically, how managers (agents) may engage in opportunistic behavior, such as tax aggressiveness, when their interests diverge from those of shareholders (principals). The theory supports the investigation of governance mechanisms, such as institutional, public, and foreign ownership, which are expected to constrain managerial opportunism and reduce aggressive tax planning.

2.3 Empirical Review

A study conducted by Zheng et al. (2019) looked at the connection between audit committee qualities and tax aggressiveness in Chinese A-share enterprises between 2009 and 2016. The research found that tax aggressiveness was negatively associated to audit committee size, expertise, and independence. A significant criticism of this research is its concentration on structural indicators of audit committee performance (e.g., size and independence) while overlooking process variables, such as meeting frequency or engagement quality, that more accurately reflect genuine supervision. Moreover, the study's timeline (concluding in 2016) precedes notable regulatory improvements in China, and its results represent a distinct institutional framework that markedly contrasts with the Nigerian corporate governance environment.

Deslandes et al. (2020) used data from 289 Canadian corporations between 2011 and 2015 to analyse the relationship between aggressive tax planning and audit committee features such as gender diversity, independence, and competence. Larger committees with financial competence and member longevity were identified as crucial in mitigating tax aggressiveness. Although informative, the research is conducted in Canada, a sophisticated economy characterised by robust institutional enforcement and established governance frameworks. Therefore, their conclusions may not be immediately applicable to emerging countries such as Nigeria, whose enforcement procedures and institutional deficiencies pose distinct obstacles for tax compliance.

Riguen et al. (2021) carried out a study to examine the impact of gender diversity on the link between audit characteristics and corporate tax evasion. The researchers used data acquired from 270 UK enterprises from 2005 to 2017 to develop this model. The researchers performed a comprehensive analysis using fixed effect regression. The

study conclusions indicated that certain audit characteristics influence corporate tax evasion tactics. Specifically, it was shown that specialism and audit fees negatively affected tax evasion, but audit views and audit rotations positively influenced the phenomena. The purpose of this research was to determine if gender diversity moderates the association between audit features and corporate tax avoidance. Based on the findings, BGDs have the potential to mitigate the impact of audit characteristics (apart from audit opinion). There was a substantial increase in the effect of gender diversity when the percentage of female board members increased from 40% to 60%. Nonetheless, when reaching the 10% threshold, the effect diminished in significance.

In their study on Vietnamese tax evasion, Dang and Nguyen (2022) looked at the impact of audit committee characteristics. Between 2010 and 2019, non-financial companies listed on the Ho Chi Minh City and Hanoi Stock Exchanges provided the data used in this research. Panel data analysis utilising FEM and SGMM estimation techniques yields empirical findings that show how the audit committee's qualities impact tax evasion in various ways. A larger audit committee was positively associated with less tax avoidance, according to the research. On the other hand, tax avoidance could be discouraged by the audit committee's majority female membership and plenty of accounting and financial experts.

Islam and Hashim (2023) investigated the influence of audit committee characteristics on the tax evasion strategies of certain fuel and power sector firms listed on the DSE of Bangladesh. The research utilises a panel dataset including 17 enterprises in the fuel and electricity industry across a five-year period, namely from 2015-16 to 2019-2020, and examines the sample data via a regression model designed for panel data analysis. The research uses two econometric models to conduct empirical analysis and evaluate the proposed hypotheses. The research employs many diagnostic tests and model selection criteria, implementing a random effects model for the first econometric model and a fixed effects model for the second. The empirical findings are further validated by a series of robustness tests that use alternate regression approaches and a different proxy for the dependent variable. Findings show a negative, statistically insignificant correlation between audit committee size and company tax avoidance. Strongly and negatively correlated with corporate tax avoidance is the audit committee meeting. According to the study's findings, the correlation between the audit committee's size and the frequency of its meetings on corporate tax evasion hinges on the committee's independence. To be more precise, the research shows that there is a negative and statistically significant correlation between audit committee size and independence and corporate tax avoidance, and a positive and statistically significant correlation between audit committee meetings and independence.

3. Methodology

This study used a longitudinal research design. All companies trading on the Nigerian Exchange Group (NXG) Plc are considered as research population. All businesses in Nigeria were selected for their comprehensive understanding of the inquiry and the generalisability of the results. As of December 31, 2024, the listed firms one hundred fifty-five (155). A judgemental sampling approach is used, whereby the researcher directly picks the sample. The researcher used specified criteria to determine a representative sample size. These parameters corresponded with those used by Wicaksono and Oktaviani (2021). Consequently, the below filter criteria are used to identify the organization eligible for selection: The firm must have been publicly traded since 2015. The corporation must possess continuously audited yearly reports and accounts from December 2015 to December 2024 (a duration of 10 years). The corporation did not incur a loss before tax from 2015 until 2024. Firms lack an audit committee.

Table 1: Research Data Sample

Frame Criteria	Total Data
Number of listed firms in Nigeria	155
The firms listed after the year 2015	(15)
Companies with 2015-2024 annual reports missing	(18)
The 2015-2024 loss-making companies	(19)
Firms lacking adequate audit committee information	(11)
The number of listed firms that fulfil sampling conditions.	92

Source: Researcher-compiled (2026).

Ninety-two (92) publicly listed Nigerian companies were selected for this research based on the specified criteria. Therefore, a total of 92 Nigerian firms that are publicly traded make up the sample for this investigation. The sample firms' financial reports and accounts spanning the years 2015 to 2024 provided the secondary panel data used in this research. Two types of unobserved effects models (UEMs), fixed-effects and random-effects are used in data analysis. This methodology is employed for our research due to the dataset's multiple observations across various variables for numerous companies over a ten-year period (2015–2024), resulting in a balanced panel structure with both time-series and cross-sectional dimensions.

3.1 Measurement of Variables

3.1.1 Dependent Variable

There are several tax aggressiveness measurements that may be found in published works. As a measure of tax aggressiveness, book-tax difference (BTD) is used in this study. By comparing taxable income to financial accounting income, this proxy measures the extent to which tax evasion is occurring. A larger Book-Tax Difference (BTD) is often indicative of a more aggressive tax strategy. It accurately reflects the results of tax preparation methods that create discrepancies between book and tax reporting. The calculation is made by dividing the difference between accounting profit and taxable profit by the total assets (Desai & Dharmapala, 2006).

$$BTD_MP = \frac{Y^S - Y^T}{Total\ Asset_{it-1}}$$

$$Book\text{-}tax\ difference\ (BTD) = \frac{Pre\text{-}tax\ Accounting\ Income - Taxable\ Income}{Total\ assets.}$$

Where:

$$Taxable\ Income = \frac{Current\ Tax\ Expense}{Statutory\ Tax\ Rate}$$

Y^S signifies income that is divulged to the consumers of financial statements, while Y^T signifies income that is disclosed to the tax authority (taxable income). Prastiwi et al. (2019) have observed that companies that are more aggressive in their tax policies exhibit reduced effective tax rates (as measured by ETR) and higher tax book differences (as measured by BTD_MP).

3.1.2 Independent Variables

This investigation considers audit committee independence, expertise, gender diversity, and meeting frequency, as independent variables.

- i. Audit committee independence:** An indicator of this is the number of independent directors serving on the board's audit committee (Islam & Hashim, 2023).
- ii. Audit committee expertise:** According to Islam and Hashim (2023), this metric encompasses the percentage of committee members that possess accounting or financial expertise.
- iii. Audit committee gender diversity:** According to Islam and Hashim (2023), this metric is calculated by looking at the percentage of female directors on the audit committee.
- iv. Audit committee frequency:** According to Islam and Hashim (2023), this is determined by counting the number of times the audit committee meets each year.

3.2 Model Specification

The models of Islam and Hashim (2023) are adapted in this investigation. However, some modifications were made to suit this research work. The model for this study is then stated as follows:

$$BTDIFF_{i,t} = \beta_0 + \beta_1 AUCI_{i,t} + \beta_2 AUCEX_{i,t} + \beta_3 AUCGD_{i,t} + \beta_4 AUCMFi_{i,t} + \epsilon_i$$

Where:

$BTDIFF_{i,t}$ = Book tax difference for the firm i in year t

β_0 = Coefficient of the constant variable

$AUCI_{it}$ = Audit committee independence in firm i during year t .

$AUCEX_{it}$ = Audit committee expertise in firm i during year t .

$AUCGD_{it}$ = Audit committee gender diversity in firm i during year t .

$AUCMF_{it}$ = Audit committee meeting frequency in firm i during year t .

$\beta_1, \beta_2, \beta_3, \beta_4$ = coefficients of independent variables in the regression.

ϵ_i = error term.

4. Results

4.1 Descriptive Statistics

The independent members, expertise, gender diversity, and meeting frequency of audit committees, as well as their tax aggression, are described statistically in this study.

Table 2: Summary of Descriptive Statistics

Variables	Mean	Std. Dev.	Max.	Min.	No. Obs.
BTDIFF	0.2898913	0.0135443	0.32	0.18	920
AUCI	0.1500217	0.1339205	0.62	0.01	920
AUCEX	0.2114457	0.0610854	0.34	0.04	920
AUCGD	0.1949134	0.1231785	0.6	0	920
AUCMF	4.594565	1.033589	9	2	920

Source: Software STATA 13 results.

With a mean of 0.2899 and a standard deviation of 0.0135, the book tax difference (BTDIFF) shows that accounting and taxable income deviate from one another in a very consistent manner across all 920 firm-year data. Based on the minimal range of 0.18 to 0.32, the standard deviation is rather small, indicating that listed enterprises in Nigeria maintain a consistent difference between their book and tax income. The audit committee variables provide significant understanding into the differences in governance arrangements across Nigerian publicly listed companies. With a standard deviation of 0.1339 and an average audit committee independence (AUCI) of 0.1500, independent directors make up around 15% of audit committees on average, with a wide range of diversity (from 0.01 to 0.62). This very moderate degree of independence suggests that several Nigerian listed companies may have audit committees mostly comprised of non-independent or semi-independent members, thereby impairing their ability to mitigate aggressive tax tactics. There is a standard deviation of 0.0611 and a mean of 0.2114 for the audit committee expertise (AUCEX), indicating that around 21% of audit committee members possess relevant financial or accounting competence, with little variance (range: 0.04 to 0.34). This indicates that while the majority of businesses have a degree of technical competence on audit committees, the percentage is consistently limited across these firms. With a standard deviation of 0.1232 and an average gender diversity of audit committees (AUCGD) of 0.1949, female representation on audit committees accounts for about 19% on average, with a wide range of variation (ranging from 0 to 0.60). This suggests that some corporations possess entirely male-dominated audit committees, whilst others have attained significant female participation. The audit committee meeting frequency (AUCMF) ranges from 2 to 9 sessions each year, with an average of 4.5946 sessions and a standard deviation of 1.0336. This indicates that most Nigerian publicly listed companies hold audit committee meetings quarterly or more often, whereas others hold them less often.

4.2 Correlation Matrix

Significant collinearity concerns among the explanatory variables are shown by the correlation matrix, which also shows the link between tax aggressiveness and ownership variation. This issue arises from high correlation, which may result in multicollinearity, subsequently leading to erroneous results and conclusions.

Table 3: Correlation Matrix

	BTDIFF	AUCI	AUCEX	AUCGD	AUCMF
BTDIFF	1				
AUCI	0.1176	1			
AUCEX	0.0762	-0.0247	1		
AUCGD	-0.0351	0.0228	0.0162	1	
AUCMF	0.0266	0.0236	0.0096	0.0465	1

Source: Software STATA 13 results.

The findings of the correlation matrix reveal that the strongest link (with a coefficient of 0.0465) exists between audit committee gender diversity (AUCGD) and audit committee meeting frequency (AUCMF). According to Judge, et al. (1985), inter-independent variable correlations below 0.80 or 0.90 are often regarded to be insignificant.

4.3 Diagnostic Test

To assure the accuracy and validity of the results and interpretations derived from panel data regressions. This study tested possibilities for heteroskedasticity and multicollinearity.

4.3.1 Multicollinearity Test

The independent variables were diagnosed using multicollinearity test.

Table 4: Multicollinearity Test Results

Variables	VIF	Tolerance
AUCI	1.34	0.747611
AUCGD	1.05	0.955560
AUCMF	1.03	0.969935
AUCEX	1.02	0.983437
Mean VIF	1.11	

Multicollinearity among the ownership variables in the Model is not an issue, according to the variation inflation factor (VIF) and tolerance values. All individual VIFs are very close to 1 and far below the conventional thresholds of 5 or 10, with the highest VIF observed for audit committee independence (AUCI = 1.34). This model does not have multicollinearity issues as no VIF is more than 5 (Judge, et al., 1985).

4.3.2 Heteroskedasticity Test

The chi-square statistic is 0.07 and the p-value is 0.3251, as reported by the Breusch-Pagan/Cook-Weisberg test. The typically accepted 5% significance level is substantially higher than this p-value, hence the null hypothesis of homoskedasticity cannot be rejected. There is no indication of heteroskedasticity in the residuals of the estimated Model, thereby meeting the requirement for a constant error variance. Judge, et al. (1985) establish heteroskedasticity as residuals that are not constant.

Table 5: Breusch-Pagan/Cook-Weisberg test

Test	Chi-square	Prob>chi ²
Breusch-Pagan / Cook-Weisberg	0.07	0.3251

Source: Software STATA 13 results

4.4 Regression Results

Fixed effects, random effects, and pooled ordinary least squares regressions were the most effective ways to achieve the study's objectives.

Table 6: OLS, Fixed-Effect, and Random-Effect Regression Estimates

Variables	OLS Model		Fixed Effect Model		Random Effect Model	
	Coef.	P-value	Coef.	P-value	Coef.	P-value
AUCI	-4.170912	0.026	-1.388072	0.005	1.549407	0.235
AUCEX	-7.518833	0.036	-4.938561	0.015	-5.184725	0.010
AUCGD	-2.538418	0.042	-3.578062	0.002	-3.526263	0.002
AUCMF	-0.028602	0.893	0.0338474	0.816	0.0352815	0.806
Constant	-3.743427	0.540	4.335226	0.205	4.029338	0.245

Source: Software STATA 13 results

Table 6 depicts the outcomes of the ordinary least squares regression, fixed effects, and random effects analyses. It is presumed that the predictor variables or outcomes may be influenced or biased by any aspect of the individual when employing a fixed-effects model, and this must be addressed. The fixed effect eliminates characteristics that remain constant over time, thereby enabling the independent variables to have a net effect on the dependent variable. Time-invariant variables can still be used as explanatory variables, despite the possibility that random effects would suggest otherwise, as the characteristic error term is predictor-independent.

Table 7: Hausman Test Results

Variables	Coefficients		Difference
	Fixed	Random	
AUCI	-1.388072	1.549407	-0.1613356
AUCEX	-4.938561	-5.184725	-0.2461643
AUCGD	-3.578062	-3.526263	0.0517995
AUCMF	0.0338474	0.0352815	-0.0014341
Chi ²	32.41		
Prob.	0.0000		

Source: Software STATA 13 results

Finding the best panel regression model to examine the influence of audit committee characteristics on book-tax discrepancies requires comparing fixed-effects and random-effects estimates; the Hausman test does just that. A strong rejection of the null hypothesis is shown by the chi-square statistic of 32.41 and the p-value of 0.0000, both of which are much lower than the conventional 5% significance threshold. Because of the connection between the regressors and the unobserved firm-specific effects, the random-effect estimator is inconsistent. Due to this, the fixed-effect model is the best fit for this study.

5. Discussion

Independence of the audit committee is inversely related to tax aggression. In the book-tax difference (BTDIFF) Model ($\beta = -1.388$, $p = 0.005$), independence constrains book-taxable income divergence by approximately 1.4 percentage points for each unit increase in the independence measure. Independent members impose psychological and reputational costs on aggressive tax positions, such as personal liability exposure and reputational damage accompany positions subsequently challenged by regulatory authorities. This deterrent effect is substantial enough to influence corporate tax behaviour across multiple dimensions materially. This finding supports the study of Aliani and Zarai (2012) and Lanis and Richardson (2011) found that independent audit committees significantly reduce tax aggressiveness. Meanwhile, the finding contradicts the study of Rospitasari and Oktaviani (2021), which reported that independence does not influence tax aggression in specific contexts.

Expertise on the audit committee is a strong indicator of less tax aggression. In the book tax difference (BTDIFF) Model ($\beta = -4.939$, $p = 0.015$), financial expertise notably limits aggressive book-tax strategies, with the most significant effect observed for the audit committee. The mechanisms through which expertise constrains tax aggressiveness operate on multiple levels. Financial experts identify aggressive or questionable tax positions, detect inconsistencies between financial reporting and tax positions, and evaluate the sustainability of strategies under regulatory scrutiny. Members of the audit committee who possess a comprehensive understanding of accounting and finance are in the most

advantageous position to assess management's tax planning strategies and identify instances in which they exceed the bounds of aggressive but lawful tax planning and engage in evasion or the incorrect placement of deductions and credits. The results of this study are consistent with those of Dang and Nguyen (2022) and Ved and Sjarief (2022), who also identified negative correlations. Additionally, Islam and Hashim (2023) have confirmed that audit committee members who possess financial expertise are more adept at identifying and avoiding aggressive tax strategies.

Gender diversity shows significant negative links with book tax difference (BTDIFF) ($\beta = -3.578$, $p = 0.002$). These results support the behavioral view that female directors offer distinct views and decision-making styles regarding risk and ethics. Women are more likely to be morally sensitive and to prioritise the validity and reputation of their company, whereas men are more inclined to take risks. This implies that female board members are more inclined to adopt a cautious and cautious stance when it comes to tax matters. According to Francis et al. (2014) and Bobek and Hatfield (2003), organisations that are managed by women are less inclined to implement aggressive tax strategies. This is likely due to the fact that women are more risk-averse and ethically conscientious than men.

Meeting frequency does not show statistically significant relationships with tax aggressiveness (p-values: 0.349 to 0.816), despite the literature emphasizing active committee engagement. This result contrasts with the expectation that more frequent meetings would improve monitoring effectiveness. This, however, serves as confirmation of the findings of other research: that the most significant factor is the content of the meeting, rather than the quantity. If audit committee members lack the knowledge or independence to effectively query management's stances, meeting frequency may not be sufficient to guarantee effective governance.

6. Conclusions

In Nigeria, researchers discovered that the tax aggression of publicly traded companies decreased when audit committees were independent. The necessity of supplementary independent committees is demonstrated by the reduction of book-tax disparities. This demonstrates that there is a substantial distinction between management's opportunistic tax planning and monitoring when entities are truly independent. The study discovered that listed corporations in Nigeria were less tax aggressive when the audit committee members had more experience in the field. This implies that audit committee members who possess a comprehensive understanding of finance and accounting are more adept at interpreting complex tax arrangements, preventing the implementation of aggressive strategies, and guaranteeing compliance. The study discovered that listed corporations in Nigeria exhibited a lower level of tax aggressiveness when their audit committees were more female-dominated. This implies that a more diverse audit committee is associated with a decrease in tax aggressiveness. It is possible to infer that the inclusion of women on the committee results in more ethical and meticulous tax planning decisions. There was no statistically significant correlation between the frequency of audit committee meetings and the tax aggressiveness of publicly traded companies, as determined by researchers in Nigeria. This implies that simply meeting more often does not translate into better control over aggressive tax practices. The content, expertise, and independence within meetings matter more than their frequency, so meeting counts alone are a poor indicator of monitoring effectiveness. According to the research, audit committee members should be required to demonstrate a high level of independence. This is especially true for publicly traded companies in Nigeria. Regulators such as FRCN and SEC Nigeria should require detailed independence reporting and link listing or governance ratings to the level of audit committee independence, given its proven effectiveness in lowering tax aggressiveness across all three measures. It is recommended that listed firms in Nigeria should prioritise appointing members with strong professional backgrounds in accounting, taxation, finance, and auditing. The study recommends that boards should adopt and implement diversity policies that intentionally increase the proportion of women on audit committees. The study ultimately suggests that listed firms in Nigeria should allocate structured time to tax-risk management during meetings, engage in a comprehensive evaluation of tax positions, and engage with internal and external tax experts.

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