Innovations

Effect of Audit Committee Characteristics on Tax Aggressiveness of Listed Financial Firms in Nigeria

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Abstract

This study examines the effect of audit committee characteristics on tax aggressiveness of listed financial firms in Nigeria. The population comprises all the listed financial firms in Nigeria and filtering method was used to arrive at forty-three (43) sampled firms covering the periods of 2012 to 2021. The data were analysed using Pearson correlation matrix, Variance Inflation Factor, Doornik Hansen Normality Test, Heteroskedasticity test, Breusch-Pagan Lagrangian Multiplier Test, Hausman Specification Tests and Wald Test while hypotheses were tested using robust random effect (REM) regression model. The results show that audit committee financial expertise has a significant negative effects on tax aggressiveness of listed financial firms in Nigeria for the period under review. The results also show that audit committee diligence has an insignificant negative effects on tax aggressiveness of listed financial firms in Nigeria for the period under review. The study recommends that the audit committee meetings should be carried out regularly at least one (1) in every quarter to attend to some urgent issues that arise in the organization. This will increase the level of diligence of the audit committee members and subsequently reduce tax aggressive of quoted financial firms in Nigeria. The study also recommends that the number of the audit committee members with financial knowledge should be increased to two-third to enhance the level of diligence in their works and reduce the level of tax aggressiveness of quoted financial firms in Nigeria.

Keywords: *Audit Committee Characteristics; Audit committee diligence; Audit committee financial expertise; Financial Firms; Tax Aggressiveness.*

Introduction

The audit committee is a crucial component of corporate governance as it assumes responsibility for overseeing the financial reporting process, ensuring the accuracy and transparency of financial statements. It usually consists of independent directors who possess financial expertise and a deep understanding of accounting principles. In recent times, there has been increasing attention given to examining the connection between the attributes of the audit committee and tax aggressiveness. The audit committee's role is pivotal in upholding the integrity and precision of a company's financial reporting. It ensures that the organization's tax planning strategies align with tax laws and regulations, maintaining compliance.

Frequent audit committee meetings contribute to increased diligence within the committees. According to the Company and Allied Matter Act 2004 as amended in 2020, every organization is required to hold a minimum of four audit committee meetings annually to effectively address challenging issues. Researchers Abbott *et al*. (2004) have found that regular meetings of the audit committee are linked to a decreased occurrence of fraudulent activities. Additionally, Saleh et al. (2007) and Xie *et al*. (2003) suggest that audit committee meetings demonstrate the committee's commitment and provide opportunities for meaningful engagement with external auditors, resulting in reduced accounting manipulation.

Financial expertise is a crucial attribute for an effective audit committee. It encompasses the knowledge and experience necessary to comprehend financial statements, accounting principles, and the complexities of financial reporting. In the context of tax aggressiveness, the audit committee must be well-informed about the associated risks and consequences of aggressive tax planning. By possessing financial expertise, the audit committee is equipped to identify any inconsistencies between the information presented in financial statements and the actual financial state of the organization. Consequently, they can detect instances of fraud perpetrated by management in the reporting of financial information. According to Badolato (2014), the financial expertise of the audit committee is linked to earnings management. The study suggests that when audit committee members possess expertise in accounting and finance, they can act as a deterrent to earnings management in financial firms, thereby reducing tax aggressiveness.

Tax aggressiveness refers to a company's inclination to employ assertive strategies for tax planning with the aim of reducing its tax obligations. Although certain tax planning approaches are within the bounds of the law, others may veer into the realm of tax evasion, which is unlawful. The objective of tax aggressiveness is to exploit legal loopholes in order to evade or minimize tax payments. However, if this objective is achieved through illicit means, actions, or procedures, it is considered fraudulent and criminal. According to Kiabel and Nwikpas (2001), tax aggressiveness entails the deliberate planning and execution of business activities in compliance with existing legislation, in a manner that enables the business to attain the most advantageous or optimal tax position while accomplishing its predetermined objectives.

The management of corporate organizations takes into account the size of the firms, as larger companies tend to have different priorities and interests compared to smaller companies. Therefore, to ensure the accuracy of this study, the influence of firm size has been taken into consideration and controlled for. The primary objective of this study was to address the gaps in the existing literature by addressing the methodological limitations of previous studies. Additionally, the focus of this study was on Nigeria, whereas most prior research has primarily been conducted in other countries. Furthermore, this study aimed to analyze the impact of the International Financial Reporting Standard (IFRS) implementation in Nigeria, specifically examining both pre-IFRS and post-IFRS periods, which is in contrast to previous studies in Nigeria that predominantly focused on either one of these periods.

Tax avoidance can yield economic benefits, as highlighted by Scholes *et al*. (2009), and it can serve as a relatively cost-effective means of financing, as mentioned by Armstrong *et al*. (2012). However, engaging in aggressive tax avoidance strategies can have noticeable costs both in terms of observable consequences, such as fines and legal fees, as well as unobservable ones like increased risk and damage to corporate reputation. In Nigeria, the country has faced various forms of financial distress over several years, with the Central Bank of Nigeria (CBN) audit report identifying eight banks that were severely affected by manipulations and aggressive tax practices. Dabari and Saidin (2015) argue that these instances of poor performance within Nigerian financial institutions can be attributed to inadequate corporate governance practices.

Menon and Williams (1994) and Bryan *et al*. (2004) have emphasized the positive impact of frequent meetings of the audit committee on the transparency and accuracy of earnings reporting, thereby improving the overall quality of earnings. Conversely, when audit committee members fail to meet regularly, the effectiveness of their oversight functions is compromised. DeZoort (1997) has highlighted the importance of recognizing the oversight functions performed by audit committees. However, it is worth noting that the ability of many committees to fulfill these crucial functions is hindered by a lack of necessary knowledge and expertise.

These empirical works have also shown that most of the studies like Bashiru *et al*. (2020), Manon *et al*. (2020), Riguen *et al*. (2021), Yenni *et al*. (2020) carried out in recent times, regarding audit committee diligence, audit committee and effective tax rate in Nigeria and other countries of the world were not current enough in their data used for the analysis as all their data were within 2018. Furthermore, these type of studies conducted in Nigeria were very scanty while most of these studies were done in other countries of the world. These gaps in literature call for further study in this area which necessitated this study effect of audit committee characteristics on tax aggressiveness of listed firms in Nigeria, to update the data up to 2019 and add to the scanty literature in this area in Nigeria.

The main objective of this study is to examine the effect of audit committee characteristics on cash effective tax rate of listed financial firms in Nigeria. The study specifically intend to: (i) determine the effect of audit committee diligence on cash effective tax rate of listed financial firms in Nigeria; and (ii) evaluate the effect of audit committee financial expertise on cash effective tax rate of listed financial firms in Nigeria. The hypotheses were formulated thus:

Ho1: Audit committee diligence has no significant effect on cash effective tax rate of listed financial firms in Nigeria.

Ho2: Audit committee financial expertise has no significant effect on cash effective tax rate of listed financial firms in Nigeria.

Review of Literature

Audit Committee

An audit committee plays a vital role in supervising the financial reporting procedures of an organization. Its main objective is to guarantee the accuracy, completeness, and compliance of the organization's financial statements with relevant laws and regulations (Financial Reporting Council [FRC], 2020). Typically, the audit committee is composed of independent members of the board of directors who are not part of the management team.

The important of an audit committee has been acknowledged by regulatory bodies worldwide. For instance, in the United States, publicly traded companies are mandated by the Securities and Exchange Commission (SEC) to establish an audit committee consisting of independent directors. Similarly, in Nigeria, the Financial Reporting Council (FRC) recommends that companies have an audit committee comprising independent non-executive directors.

The responsibilities of an audit committee encompass several key aspects, including but not limited to: The committee ensures that the organization's financial statements are accurate, complete, and adhere to applicable laws and regulations. The committee selects and monitors the performance of external auditors to ensure their independence and effectiveness. The committee assesses and monitors the effectiveness of the organization's internal controls and risk management systems. The committee ensures that the organization has a robust whistleblowing mechanism in place, encouraging employees to report any misconduct or unethical behavior. The committee reviews and approves the organization's financial statements before they are released to the public, providing an additional layer of assurance and oversight. By fulfilling these responsibilities, an audit committee helps safeguard the integrity of the organization's financial reporting process, enhances transparency, and promotes the trust of stakeholders in the organization's financial information.

Audit Committee Diligence

Xie *et al*. (2003) and Mohamad *et al*. (2010) suggest that the diligence of an audit committee can be observed through the number of meetings conducted annually. According to Wasukan (2015), the frequency of meetings can continually provide valuable knowledge and information to the audit committee, particularly in areas such as accounting, auditing, and other relevant domains. Conversely, an inadequate number of meetings may indicate a lack of effective corporate governance. Menon and Williams (1994) argue that the quantity of audit committee meetings serves as a proxy for diligence, as an inactive committee is less likely to fulfill its monitoring responsibilities effectively. In Nigeria, the Companies and Allied Matters Act (CAMA) of 2004, as amended in 2020, mandates that audit committees meet at least four times a year, with no more than four months between each meeting. This requirement aligns with the recommendations of the Blue Ribbon Committee (1999) in the United States, which suggests four audit committee meetings annually to coincide with the review of quarterly financial statements. Abbott et al. (2004) mention that the frequency of audit committee meetings can be perceived as a measure of their diligence in overseeing quarterly financial statements. They conclude that a higher level of committee activity, defined as a minimum of four audit committee meetings, is significantly associated with a reduced occurrence of financial misstatements. Meeting frequency can indirectly signal the diligence of the board (Abbott *et al*., 2004). Diligence is regarded as one of the factors contributing to the effectiveness of audit committees (DeZoort *et al*., 2002). For the purpose of this study, an audit committee meeting is defined as the total number of meetings held by an audit committee within a year.

Audit Committee Financial Expertise

Having an audit committee in a company serves multiple purposes, including enhancing oversight of management performance, ensuring the accuracy and reliability of information, and aiding the board of commissioners in analyzing financial statements (Pertiwi, 2016). One of the primary responsibilities of an audit committee is to identify, assess, and manage financial uncertainties, while also striving to improve the financial system, maintain the integrity of financial statements, and enhance financial disclosures (Moeller, 2016). In order to fulfill these responsibilities, audit committee members are categorized as financial experts by Felo and Solieri (2009) if they possess relevant employment experience in finance or accounting, hold professional certifications in accounting, or have other financial oversight backgrounds that contribute to their financial sophistication. It is crucial for audit committee members to possess solid knowledge in finance and accounting. Various definitions of financial expertise have been utilized in previous studies. For instance, Mangena and Pike (2005) define financial experts as individuals who hold certifications such as Certified Financial Analyst (CFA) or Certified Public Accountant (CPA), or those with significant experience in finance or accounting. Adeptness in finance and accounting empowers audit committee members to exhibit professionalism and swiftly adapt to business changes and innovations (Badolato *et al*., 2014). Consequently, this expertise enables audit committees to comprehend the risks encountered by the company (Goodwin, 2003). This study defines audit committee financial expertise as the proportion of directors within the audit committee who possess accounting and financial knowledge.

Tax Aggressiveness

Tax aggressiveness refers to the deliberate efforts made by a company to reduce its tax payments through aggressive tax planning strategies and tax avoidance measures. According to Frank (2009), aggressive tax returns involve manipulating income figures in order to minimize tax obligations, which can be seen as a form of tax management. Engaging in tax aggressiveness often involves engaging in tax planning activities that may ultimately lead to tax evasion. In their study, Frank *et al*. (2009) described tax aggressiveness as intentionally lowering taxable income through the implementation of aggressive tax practices. Frischmann et al. (2008) provided a narrower definition, stating that tax aggressiveness encompasses significant tax-related actions undertaken without substantial supporting evidence.

In Frank *et al*. (2009) and Chen *et al*. (2013) studies, corporate tax aggressiveness is described as the deliberate management of taxable income through various tax-planning activities. This concept encompasses both legal strategies and those that may exist in a gray area, as well as illegal practices. Tax aggressiveness can be understood as a continuum, with numerous cases falling into a disputed gray zone, as highlighted by Hanlon and Heitzman (2010). Braithwaite (2005) defines tax aggressiveness as a "plan or arrangement established for the sole or dominant purpose of avoiding tax." According to Bruce et al. (2007), tax aggressiveness refers to actions taken by companies to reduce their public debts, thereby shaping and influencing their overall financial strategy. Hoffman (1961) defines tax aggressiveness as the taxpayer's ability to organize their financial affairs in a way that minimizes tax liability. Pniowsky (2010) defines tax aggressiveness as the process of arranging one's financial matters to delay, reduce, or even eliminate the amount of taxes owed to the government. This study adopts Pniowsky's (2010) definition of tax aggressiveness, which emphasizes the arrangement of one's affairs to minimize the taxes payable to the government.

Empirical Review

Audit Committee Diligence and Tax Aggressiveness

Manon *et al*. (2020) conducted a study investigating the relationship between audit committee characteristics and tax aggressiveness. The research utilized archival data from 289 Canadian listed companies spanning the period from 2011 to 2015. To examine the hypotheses, the study employed Tobit regression analysis. The findings indicated that audit committee expertise and diligence demonstrated a significant association with tax aggressiveness. Financial expertise, tenure on the audit committee, and having a larger audit committee were identified as crucial factors in constraining tax aggressiveness. The study employed appropriate statistical tools to analyze the data. However, it is important to note that despite being conducted in 2020, the study relied on data only up until 2015, which may affect the currency of the findings. Additionally, the study's generalizability is limited due to its focus on a different environment, namely Canada, which may differ from the Nigerian context. Furthermore, it is necessary to update the data to encompass the current period in Nigeria for a more relevant analysis.

Yenni *et al*. (2020) conducted a research study focusing on the relationship between governance structure, tax avoidance, and firm value. The study examined a sample of 132 publicly listed Indonesian manufacturing firms that were listed between 2014 and 2018. To analyze the data, the study employed ordinary least square multiple regression analysis and path analysis using the Sobel test. The findings of the study indicated that the size of independent commissioners played a significant role in supervising and providing consultation, which positively influenced both firm value and tax avoidance. However, other elements of good corporate governance, such as board size, board diversity, and audit committee meetings, did not demonstrate a significant impact on firm value. Additionally, the study did not find sufficient evidence to support tax avoidance as a mediating factor. It is important to note some limitations of the study. The study was conducted in an Indonesian context, which limits the generalizability of the findings to other environments, such as Nigeria. Additionally, the study's time frame only covered the period up to 2018, highlighting the need for an update to encompass the current situation in Nigeria.

Audit Committee Financial Expertise and Tax Aggressiveness

Riguen *et al*. (2021) conducted a study investigating the influence of audit characteristics on corporate tax avoidance, with a focus on the moderating role of gender diversity. The research utilized a sample of 270 UK firms over the period of 2005-2017 and employed fixed effect regression to estimate their model. The findings of the study revealed that certain audit characteristics indeed have an impact on corporate tax avoidance. Specifically, specialization and audit fees were found to have a negative effect, while audit opinion and audit rotation had a positive effect on tax avoidance. The study explored the moderating role of gender diversity (BGDs) on the relationship between audit characteristics and corporate tax avoidance. The results indicated that BGDs do moderate the effects of audit characteristics, except in the case of audit opinion. The impact of BGDs was observed to increase as the presence of women on the board increased from 40% to 60%. However, the influence weakened at the 10% level. The study employed appropriate statistical tools, in line with Hausman's (1978) specification, to analyze the panel data. It is worth noting that while the study was conducted in 2021, the data utilized only covered the period up to 2017. This limitation affects the currency of the findings. Moreover, since the study was carried out in the UK, it may not be directly applicable to the Nigerian context due to environmental differences. Furthermore, to enhance the study's relevance, it would be beneficial to update the data to encompass the current period in Nigeria.

Bashiru *et al*. (2020) investigated the effect of corporate governance attributes on the tax planning strategies of conglomerate companies listed in Nigeria. To achieve this, the study used an ex-post facto research design and gathered panel data from the annual reports and accounts of these listed companies over a five-year period (2014-2018). The researchers utilized panel regression analysis to assess the impact of various independent variables on the dependent variable. Additionally, the study conducted a Hausman specification test to determine whether fixed or random effect estimation was more appropriate, with the resulting p-value of 0.9863 indicating insignificance. Consequently, the researchers interpreted the results from the random effect estimation model. The findings of the study revealed a negative and significant relationship between the variables CEO Tenure (CEOT) and Firm Size (FSIZE) and the Effective Tax Rate (ETR). On the other hand, the study found a positive relationship between Board Size (BSIZE) and ETR. The researchers employed appropriate statistical tools, consistent with the approach suggested by Hausman (1978), to analyze the panel data. It is important to note that the study was conducted after the implementation of the International Financial Reporting Standards (IFRS) in Nigeria, and the data collected extended up until 2018, thereby ensuring the relevance and currency of the findings.

In their study titled "Audit Committee Independence, Financial Expertise, Share Ownership, and Financial Reporting Quality: Further Evidence from Nigeria," Muhammad *et al*. (2016) investigated the influence of various factors on the quality of financial reporting in non-financial listed companies on the Nigerian Stock Exchange. The research utilized a sample of 101 firm-years, resulting in a longitudinal panel of 505 observations covering the period 2010-2014. To test their hypotheses, the authors employed a random effects model. In order to assess the impact of monitoring mechanisms on financial reporting quality, the study adopted the McNichols (2002) measure of earnings quality. The findings of the study indicated that both company age and company size had significant effects on the quality of financial reporting. Additionally, the presence of an audit committee (AC), share ownership, and financial expertise were also found to be significant factors, implying that the monitoring mechanisms employed by ACs influence the financial reporting quality of listed non-financial firms in Nigeria. Particularly, share ownership was identified as a motivating factor for AC members, leading them to be more vigilant, enthusiastic, and active in fulfilling their monitoring responsibilities. The study employed appropriate statistical tools, as recommended by Hausman

(1978), to analyze the panel data. However, it should be noted that the research combined data from both pre (2010-2011) and post (2012-2014) implementation of the International Financial Reporting Standards (IFRS) in Nigeria, which may have affected the findings. Moreover, it is important to acknowledge that the study was conducted in 2016, and therefore may not fully reflect the current economic landscape. Consequently, there is a need for an update to capture the most recent data pertaining to the periods under investigation in Nigeria.

Theoretical Review

Agency Theory

The agency theory was propounded by Stephen Ross and Barry Mitnick in (1973). The agency theory defines the problem of interest's divergence that represents a crucial subject to all economic entities due to the separation of ownership and control. The agency conflicts arise from the separation of ownership and management, performed by the firm's CEO, which leads to a loss of value for shareholders. The nature and extent of agency conflicts can affect the level of tax aggressiveness. There are particular potential agency costs recognized as rent extraction by CEOs as an additional income between tax aggressiveness and accounting manipulation (Desai & Dharmapala, 2006). However, in the concentrated ownership concentration s, agency problems mainly arise between block-holders and minority shareholders. The block-holders, interested by the protection of their interests and supported information's asymmetry, aren't concerned by protecting the interests of minority shareholders.

It can be possible that the agency theory does not provide a full and adequate explanation of the association between corporate governance and tax aggressiveness. Specifically, agency theory focuses on the link between managers and shareholders. Contrary to the agency theory that points out shareholders' governance model drawing a unique relationship established between shareholders and CEOs or between block-holders and minority shareholders.

The primary agency relationships in business are those between shareholders and managers. However, agency problems do not just occur between shareholders and management; such relationships also exist between different classes of shareholders. Oso and Semiu (2012) note that minority ownership in firms can lead to a new type of agency problems in the shape of conflicts between majority shareholders and minority shareholders. Agency theory is concerned with the conflicts of interest between the principal and the agent and how the conflicts can be resolved (Oso & Semiu, 2012).

In most public firms, shareholders (principal) want to maximise their share value, while management (agent) wants to maximise their utility. Extant literature has shown that board of directors (agents) sees tax aggressiveness as a veritable investment for firms and shareholders, and as a result may have the incentive to engage in it (Wahab & Holland, 2012; and Lisowsky *et al*., 2013). On the other hand, shareholders (principal) may not support the activities due to the likely future costs to the firm (Ilaboya *et al*., 2016; and Chen *et al.* 2013). The agency theory viewpoint of tax aggressiveness holds that tax aggressiveness can lead to managerial opportunism (Minnick & Noga, 2010; and Desai & Dharmapala, 2009), therefore, suggests that higher levels of effective corporate governance such as (board independence and board size) are related to lower aggressive tax actions by management (Jiang *et al*., 2008).

This study is anchored on the agency theory as it views that tax aggressiveness can lead to managerial opportunism and suggests that higher levels of effective corporate governance such as (audit committee diligence and audit committee financial expertise) are related to lower aggressive tax actions by management.

Methodology

A longitudinal research design is used considering the specific objectives, the population and the panel data. This design is considered appropriate for this study because the variables are related. The population of the study is made up of fifty (50) financial sector companies quoted on the Nigerian Exchange Group as at 31st December 2021 calendar year. The sample size comprises 43 firms quoted in the financial sector, at least one year before the 2012 Implementation of International Financial Reporting Standards (IFRSs) in Nigeria covering 2012-2021 based on the filter criteria stated below. This sector is used for this study because it is one of the most capitalized sectors in the Nigerian capital market. The choice of the period is because of the implementation of International Financial Reporting Standards in Nigeria which has brought a lot of details disclosure in the financial statements. The filter criteria for the firms included in the study from the financial sectors are stated below:

(i) A firm must have been quoted on the floor of the Nigerian Exchange Group (NEG) at least a year before the 2012 IFRS implementation in Nigeria.

(ii) A firm must be listed on the Nigerian Exchange Group and its shares traded on the floor of the exchange during and after the periods covered by the study.

Based on the criteria, seven (7) firms were eliminated, the sample size for this study comprises of forty-three (43) firms. The study employed panel data from secondary sources which are quantitative in nature. The data were extracted from the audited annual reports and accounts of the quoted companies submitted to the Nigerian Exchange Group within the study periods.

This study used Robust Random Effect Model analysis. The study employed this technique to examine the effect of audit committee characteristics (audit committee diligence and audit committee financial expertise) on tax aggressiveness of the quoted financial firms in Nigeria. The data were analyzed with the aid of STATA 15 software and the outcomes were used to test the formulated hypotheses. This study adapt the econometric models of Bashiru *et al*. (2020) and Muhammad *et al.* (2016).

Tax aggressiveness is proxied by cash effective tax rate (CETR) which is measure through tax expenses divided by profit before tax and is a function of two explanatory variables such as audit committee diligence (ACD) and audit committee financial expertise (ACFE) with firm size (FSZ) as a control variable.

Therefore;

CETR = *f*(ACD, ACFE, FSZ)

The expression in the equation is expressed econometrically as follows into different models:

$CETR_{it} = \alpha_0 + \beta_1 ACD_{it} + \beta_2 ACFE_{it} + \beta_3 FSZ_{it} + \varepsilon_{it}$…………………………………………..(1)

Where:

β_1 and β_2 are parameters to be estimated with a-priori expectations < 0.

CETR= Cash Effective Tax Rate

ACD = Audit Committee Diligence

ACFE = Audit Committee Financial Expertise

FSZ = Firm Size

α = Constant

e = Error term

i = Firms

t = Periods

Variables Measurement and Justification

Table 1 below explains the variables measurement under study.

Variable	Acronym	Type of variable	Measurement	Justification
Cash Effective Tax Rate	CETR	Dependent	Total tax cash expenses/profit before tax.	Bashiru *et al*. (2020) and Manon *et al*. (2020).
Audit Committee Diligence	ACD	Independent	This is the number of meetings held by audit committee members in a financial year.	Manon *et al.* (2020); and Yenni *et al.* (2020).
Audit Committee Financial Expertise	ACFE	Independent	This is the ratio of audit committee members who have accounting and financial knowledge to the total number of audit committee members.	Riguen *et al.* (2021).
Firm Size	FSZ	Control	This is the natural logarithm of total assets.	Bashiru *et al*. (2020) and Muhammad *et al.* (2016).

Source: Researcher's Compilation.

Results and Discussion

The data of forty-three (43) financial firms regarding the cash effective tax rate (CETR), audit committee diligence (ACD), audit committee financial expertise (ACFE) and firm size (FSZ) were analysed with the aid of Stata 15 software using Descriptive Statistics, Doornik Hansen Normality Test, Pearson Correlation, Variance Inflator Factor (VIF), Heteroscedasticity test, Hausman Specification Test, Breusch-Pagan Lagrangian Multiplier test and robust random effect regression model.

Descriptive Statistics

Table 2 Summary of Descriptive Statistics of the Entire Data Set

Variable	Obs	Mean	Std. Dev.	Min.	Max.
CETR	344	0.2003	0.1713	0.0016	0.9097
ACD	293	3.9011	1.1446	1	8
ACFE	323	.2508	.1067	.0476	0.5700
FSZ	348	7.5356	0.9845221	3.614	9.8541

Source: Researcher's Computation using STATA 15 software

Table 2 shows that the cash effective tax rate (CETR) has a minimum value of 0.0016319, a maximum value of 0.9097 and a mean value of 0.2003 that is within the minimum and maximum values indicating a good spread within the period studied. The table also reveals that CETR has a standard deviation of 0.1713 that is less than the mean, which implies that it had slow growth for the period under review. Table 2 also shows that audit committee diligence (ACD) has a minimum value of 1, a maximum value of 8 and a mean value of 3.9011 that is within the minimum and maximum indicating a good spread within the period studied. The table also

reveals that ACD has a standard deviation of 1.1446 that is less than the mean, which implies that it had a slow growth during the period under review.
Table 2 further shows that the audit committee financial expertise (ACFE) has a minimum value of .04762, a maximum value of .5714 and a mean value of .2508 that is within the minimum and maximum values indicating a good spread within the period studied. The table also reveals that ACFE has a standard deviation of .1067 that is less than the mean, which implies that it had slow growth for the period under review. Table 2 finally shows that firm size (FSZ) has a minimum value of 3.6140, a maximum value of 9.8541 and a mean value of 7.5358 that is within the minimum and maximum indicating a good spread within the period studied. The table also reveals that FSZ has a standard deviation of 0.9845 that is less than the mean, which implies that it had a slow growth during the period under review.

Pearson Correlation

Table 3 below is the Pearson correlation matrix for the data set to show the extent of associations between the variables.

Variable	CETR	ACD	ACFE	FSZ
CETR	1			
ACD	-0.1852	1		
ACFE	0.0020	-0.2431	1	
FSZ	-0.1444	0.2048	-0.2141	1

Source: Researcher's Computation using STATA 15 software.
The correlation matrix determines the degree of relationships between the proxies of an independent variable and the dependent variable. It is also used to show whether there is an association among the proxies of independent variable themselves, to detect if a collinearity problem exists in the model. The table 3 indicates 19% negative and weak relationships between audit committee diligence (ACD) and cash effective tax rate (CETR) of quoted financial firms in Nigeria, from a correlation coefficient of -0.1852. The table indicates .2% positively and weak relationships between audit committee financial expertise (ACFE) and cash effective tax rate (CETR) of quoted financial firms in Nigeria, from a correlation coefficient of 0.0020. The table also indicates 14% negatively and weak relationships between firm size (FSZ) and cash effective tax rate (CETR) of quoted financial firms in Nigeria, from a correlation coefficient of -0.1444. Finally, the relationships between proxies of independent variable themselves have low coefficients which are below the threshold of 0.80 as suggested by (Gujarati, 2003).

Doornik Hansen Normality Test
Table 4 below shows the results of the normality test conducted with the use of the Doornik Hansen method.

Variable	Chi2	Prob. Chi2
Doornik Hansen	36.849	0.00

Source: Researcher's Computation using STATA 15 software.

Table 4 shows the probability value of the residual which is not normally distributed. This indicates that one of the basic assumptions of the linear regression technique is violated. This was corrected in this study using robust regression technique as specified by (Gujarati, 2003).

Variance Inflator Factor (VIF) Results

Table 5: Variance Inflator Factor (VIF)

Variable	VIF	I/VIF
ACD	1.10	0.905929
ACFE	1.06	0.939538
FSZ	1.05	0.949909
Mean VIF	1.07	

Source: Researcher's Computation using STATA 15 software.

In a bid to further test the absence of multicolinearity problem among the exogenous variables, colinearity diagnostics test were observed as the Variance Inflation Factors (VIF) and the Inverse Variance Inflation Factors (I/VIF) values portray no multicolinearity problem in the data as their values are less than 10 and more than 1 respectively (Gujarati, 2003) as presented in table 5. This point to the fact that the variables are well selected and fitted in the same regression model because the multicolinearity problem is absent in the model, which is one of the requirements for regression analysis.

Heteroscedasticity test

Table 6: Heteroscedasticity test

Type of test	Chi2	P-Value
Heteroscedasticity Test	3.84	0.0502

Source: Researcher's Computation Using STATA 15 software.

To establish that the data for this study was robust for the model, a heteroscedasticity test was carried out. However, the study revealed that data is heteroscedastic; as such the basic linear regression model is not reliable. This is confirmed from the heteroskedasticity result in table 6 which revealed the chi2 value of 3.84 with a p-value of 0.0502. This anomaly is corrected using robust regression technique.

Hausman Specification Test

Table 7 below presents the result of a Hausman specification test conducted.

Chi2	3.27
Prob. Chi2	0.3518

Source: Researcher's Computation using STATA 15 software.

The data for this study is panel and panel data can lead to an error term that is clustered and possibly correlated over time. This is because each financial firm may have its entity-specific characteristic that can determine its information (i.e. unobserved heterogeneity). And this may bias the outcome variable or even the explanatory variables. As such, there is a need to control that. The Hausman test conducted shows that the random effect model is more appropriate. This can be confirmed from the Chi2 value of 3.27 with a p-value of 0.3518 in table 7 which is not significant at all levels of significance as suggested by (Hoechle, 2007).

Breusch-Pagan Lagrangian Multiplier Test
Table 8 below presents the result of the Breusch-Pagan Lagrangian Multiplier test conducted.

Variable	Chibar2	P-Value
CETR	108.27	0.00

Source: Researcher's Computation using STATA 15 software.

Considering the result of Random Effect Model (REM) regression, the Breusch-Pagan Lagrangian Multiplier test was conducted to give an insight into an actual test to be carried out between Random Effect Model and Pooled Ordinary Least Square Regression. From the Breusch-Pagan Lagrangian Multiplier test, the chibar2 value of (108.27) and the probability of (0.00) in table 8 above, therefore, suggests that REM is more appropriate instead of Pooled Ordinary Least Square.

Audit Committee Characteristics and Cash Effective Tax Rate using Robust Random Effect Model (REM)

Table 9 below is the robust random effect regression model conducted for the estimation of this model.

Variable	Coefficients	z-value	Prob.
Cons.	-3.755974	-1.59	0.112
ACD	-.200022	-1.24	0.213
ACFE	-8.15916	-4.80	0.000
FSZ	2.294888	7.68	0.000
R-sq overall	0.4604		
Wald chi2	85.41		
Prob. > chi2	0.0000		

Source: Researcher's Computation using STATA 15 software.

Table 9 indicated that 46% variation of the cash effective tax rate (CETR) is predicted by the combined effect of audit committee diligence (ACD), audit committee financial expertise (ACFE) and firm size (FSZ) with (Overall R-sq of 0.4604). This indicates that the study is fit and the independent variables are properly combined and used. The Wald chi2 value of 85.41 with a P-value of 0.00 signified that the model is fit for the study. The result further shows that the z-value of -1.24 and the corresponding p-value of 0.213 shows that audit committee diligence (ACD) has an insignificant negative effect on cash effective tax rate (CETR) of quoted financial firms in Nigeria for the period under review. This implies that an increase in audit committee diligence will decrease the cash effective tax rate (CETR) of quoted financial firms in Nigeria by -.1471397. The finding is in line with the a-priori expectation of the researcher because the audit committee diligence negatively reduces the cash effective tax rate of quoted financial firms in Nigeria. The finding is also in line with the agency theory as it views that tax aggressiveness can lead to managerial opportunism and suggests that higher levels of effective corporate governance such as audit committee diligence is related to lower aggressive tax actions by management. The audit committee diligence has an insignificant negative effect on cash effective tax rate of quoted financial firms in Nigeria for the period under review. This finding is in line with the finding of Yenni *et al.* (2020).

The result also reveals that the z-value of -4.80 and the corresponding p-value of 0.000 shows that audit committee financial expertise (ACFE) has a significant negative effect on cash effective tax rate (CETR) of quoted financial firms in Nigeria for the period under review. This implies that an increase in audit committee financial expertise leads to -8.15916 decrease in the cash effective tax rate (CETR) of quoted financial firms in Nigeria. The finding is in line with the a priori expectation of the researcher because audit committee financial expertise (ACFE) negatively reduces the cash effective tax rate of quoted financial firms in Nigeria. The finding is also in line with the agency theory as it views that tax aggressiveness can lead to managerial opportunism and suggests that higher levels of effective corporate governance such as audit committee financial expertise is related to lower aggressive tax actions by management. The audit committee financial expertise (ACFE) has a significant negative effect on cash effective tax rate (CETR) of quoted financial firms in Nigeria for the period under review. This finding is in agreement with the finding of Manon *et al*. (2020), but not in line with the finding of Muhammad *et al.* (2016).

Conclusion and Recommendations

The audit committee must hold their meetings regularly to ensure diligent in their assignment to reduce the tax aggressiveness of quoted financial firms in Nigeria. An increase in the frequency of meetings will reduce the tax aggressiveness of quoted financial firms in Nigeria. Also, the number of the audit committee members with financial knowledge must be increased to enhance the level of diligence in their works to reduce the tax aggressiveness of quoted financial firms in Nigeria. An increase in the number of audit committee members with financial knowledge will reduce the tax aggressiveness of quoted financial firms in Nigeria. Based on the above conclusion, the following recommendations are proffered:

- **i.** The audit committee meetings should be carried out regularly at least one (1) in every quarter to attend to some urgent issues that arise in the organization. This will increase the level of diligence of the audit committee members and subsequently reduce tax aggressive of quoted financial firms in Nigeria.
- **ii.** The number of the audit committee members with financial knowledge should be increased to two-third to enhance the level of diligence in their works and reduce the level of tax aggressiveness of quoted financial firms in Nigeria.

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