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Chief Executive Officer's Attributes And Tax Avoidance Of Listed Consumer Goods Companies In Nigeria

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ABSTRACT
Excessive imposition of tax can discourage investment as most of the hard earned profits of firms would be used in paying taxes yet there are no compensating amenities or incentives from government to ameliorate this tax burden. The main objective of this study was to examine the effect of chief executive officer's (CEO) attributes on the tax avoidance of listed consumer goods companies in Nigeria from 2019 to 2023. The research design adopted for this study was ex-post facto and secondary data were used. The population of the study comprised 21 listed consumer goods firms in Nigeria and the sample size of 16 was purposively selected. Robust least square regression analysis was employed and the statistical package used was STATA 17. The findings of the study revealed that CEO educational qualification (coeff. = 0.063[0.001]) has significant positive effect on capital intensity; CEO financial expertise (coeff. = 0.084[0.000]) has significant positive effect on capital intensity and CEO tenure (coeff. = -0.025[0.000]) has a significant negative effect on capital intensity on capital intensity of listed consumer goods companies in Nigeria. Therefore, it was concluded that CEO attributes are key determinants of tax avoidance practices of listed consumer goods companies in Nigeria. Thus, based on these findings, it was recommended amongst others that the management of consumer goods companies in Nigeria should consider the academic qualifications of CEOs when making hiring and succession plan decisions, as higher educational attainment enhances their ability to implement effective tax-saving strategies.
Keywords: Chief Executive Officer, tax avoidance, CEO academic qualification, CEO financial expertise, CEO tenure

INTRODUCTION

Any company that wants to remain afloat and achieve the wealth maximization objective must adopt all strategies available to reduce all expenses, and tax is one of the major expenses affecting the distributable profit of any firm. One of such strategies taken by managers as part of their series of internal mechanism is tax saving through tax avoidance activities. Tax avoidance becomes more pronounced among corporate

entities when they are driven by shareholders wealth maximization. For companies, taxes reduce profits and must be avoided by the company, so firms try to minimize the tax burden as efficiently as possible. According to Chyz et al. (2019), business managers will do everything to get a competitive edge, and cut costs by avoiding taxes using every available opportunity. The Chief Executive officer (CEO) is saddled with the responsibility of making the strategic decisions of the firm. The CEO holds a pivotal position in a firm and wields significant influence on its financial and non-financial decision-making processes (Bouaziz et al., 2020). The decision-making process and success of the company are influenced by the personal characteristics and qualities of the CEOs which is referred to as CEO attributes.

CEO attributes refer to the inherent traits that distinguish one CEO from another and these traits are skills, competencies, abilities and requisite expertise that an organistion needs to function efficiently. CEO attributes are considered to be influential hence affect the strategic decisions of the firm. There is widely accepted notion that a well balanced CEO in terms of academic qualification, expertise, tenure, age and gender diversity would effectively and efficiently affect the operational and financial performance on the firm (Akpan, 2024). The decision-making process and success of the company are influenced by these personal characteristics and qualities of the CEOs. Education is the foremost criterion in placing a person in a position. Honaker (2013) posited that education is a tool or means by which an individual acquires and develops the skills and knowledge needed for performance. That is, education serves as a basic requirement for performance, although, it may not be the only requirement.

A financial expert is a person with accounting, finance, or supervisory expertise and this knowledge can help the CEO increase their capacity to analyze a firm's financial situation and corporate tax planning strategies. Aliani (2014) explained that CEOs who earned degree on finance and accounting, have a theoretical basis that can increase the capacity of financial analysis and corporate taxation. CEO tenure has to do with the duration or number of years served by the CEO and this is usually determined in the general meeting of shareholders. Long-serving CEOs, according to Chen (2011), may bring to the top management team more stability, experience, efficiency, lower conflict, and better interpersonal communication, leading to social cohesiveness and shared social knowledge.

Corporate tax avoidance is viewed as consisting of a wide range of actions and strategies employed by corporate entities to minimise explicit tax liability and enhance shareholders' value. According to Soepriyanto et al. (2024) tax avoidance can provide benefits to companies in terms of increased net income and cash flow, but it can also cause reputational problems if it is seen as an act that ignores corporate social obligations. Tax avoidance was measured using capital intensity because capital investments create opportunities to legally reduce taxable income. Although the CEO is not a tax expert and cannot directly influence the company's tax policies, the CEO is the ultimate decision-maker, whose position is higher than that of the tax director and CFO (Luo & Tung, 2017). The CEO can use tone at the top to indirectly influence tax policies, which suggests that the decision-making is affected by the CEO's characteristics. CEOs with advanced degrees (MBA, MSC, PhD, or professional qualification) are more likely to understand tax incentives related to capital investment. They can design investment strategies that maximize capital allowances, depreciation benefits, and tax credits to reduce taxable income. Financially knowledgeable CEOs understand that investing in capital assets (such as machinery, equipment, and buildings) allows firms to claim depreciation expenses. By increasing capital intensity, they can reduce taxable income through accelerated depreciation methods. The length of time that CEO served the company can impact on the strategic decision made by that person

Upper echelons theory discovered by (Hambrick, 2007) explains that managers can influence the creation of corporate values through their management style and personal abilities. This theory shows that the more complex a decision, such as strategy size, the more important personal characteristics of decision makers such as age, tenure and special expertise. Based on this foundation and given the fact that consumer goods companies rely on capital intensive production processes and CEO decisions regarding capital allocation can influence capital intensity through depreciation and investment tax shields, this study was carried out to ascertain the effect of CEO attributes on tax avoidance of listed consumer goods companies in Nigeria.

The consumer goods industry in Nigeria is characterized by high tax burdens, regulatory complexities, and evolving tax policies, making tax planning a crucial aspect of financial management. Excessive imposition of tax can discourage investment as most of the hard profits would be used in paying taxes yet there are no compensating amenities or incentives from government to ameliorate this tax burden. According to James (2020), while tax avoidance may reduce tax liability and optimize financial performance, it can also lead to reputation risk, penalties and fine. Thus, the CEO who is the chief decision maker must possess basic demographic attributes or qualities such as higher academic qualification, financial expertise, tenure, age and gender diversity to help him to be effective and efficient in their tax planning activities. The related empirical studies were reviewed and some gaps were identified (Ado et al. 2021). It was realised that some studies used other measures of CEO attributes such as CEO overconfidence, CEO narcissism, CEO power, CEO greed, founder or descendant CEOs, masculine-faced CEOs, CEO publicity, CEO stock options, CEO duality, and CEO hometown ties (Sagita et al., 2024; Abata et al., 2023; Harymawan et al., 2023; Aronmwan et al., 2023). It was also found out that some of the studies examined the effect of CEO attributes on other performance measures such as profitability, financial performance and market value (Akpan, 2024; Essien, M. D. & Akpan, 2021023; Mihail et al., 2022). Worst still, another notable gap found in the empirical studies was that most of the studies on tax avoidance or tax aggressiveness use effective tax rate as the measure of tax avoidance and aggression without considering other measures of such as capital intensity and thin capitalization (Abata et al., 2023; Hermawan, 2024; Makokha et al., 2024). It was also found out that some of the prior studies focused on other sector of the economy such as nonfinancial firms (Harymawan et al. 2023; Razali et al., 2022; Mukherjee & Sen, 2022), manufacturing companies (Tanko et al., 2022; Obarolo et al., 2023). Unfortunately, there is no unanimous agreement on the effect of CEO attributes on tax avoidance as a result of different findings. Thus, it was as a result of these identified gaps that this study was undertaken to ascertain the effect of CEO attributes on tax avoidance of listed consumer goods companies in Nigeria using capital intensity as a measure of tax avoidance.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

CEO attributes

The CEO is an officer appointed by the board of directors and is in charge of the over all day to day management of the entity. The Chief Executive Officer (CEO) is one of the critical players in responsible for making the major corporate decisions and setting the companies' strategic directions. The authority of overseeing the company's overall operations, making crucial strategic choices, and assessing the efficient use of the company's resources is entrusted to the CEO. Sitting in the top positions of the management teams in firms, CEOs are able to guide the firms to actively pursue opportunities (Saidu, 2019), and control the structures and strategies of the firms. They are accountable to the board of directors or stakeholders of the company and are often the face of the organization. According to Donaldson (1997), the CEO is the main strategy architect of the organization who holds responsibility for the company's performance outcomes. Effective CEOs not only focus on the success of the company, but also build a strong foundation for long-term sustainability. There is widely accepted notion that a well balanced CEO in terms of quality and reputation affect the value of the firm because of skills and expertise they contribute to the effective and efficient functioning of the firms (Emenyi et al. 2020).

Tax avoidance

Tax avoidance is a legally legitimate attempt to reduce tax liabilities owed, usually by exploiting loopholes in tax regulations. It is also referred to as tax planning, aggressiveness and tax management. According to Sagita et al. (2024) tax avoidance is tax planning designed to minimize tax liabilities without breaking the law. He also emphasized the difference between legal tax avoidance and tax evasion, where the former is the use of legal loopholes, while the latter is a violation of the law. Sun et al. (2021) noted that tax aggressiveness is considered a rewarding activity because it involves a transfer of government wealth to the shareholders of a company. According to Soepriyanto et al. (2024) tax avoidance can provide benefits to companies in terms of increased net income and cash flow, but it can

also cause reputational problems if it is seen as an act that ignores corporate social obligations. The decision of strategy selection is made by the company's executive manager, especially the CEO. Capital intensity is one of the tax avoidance methods used by firms. Capital intensity refers to the amount of capital (such as machinery, equipment, buildings, and other physical assets) required to produce a unit of output or revenue. It is a measure of how much investment in capital assets is needed to generate a certain level of sales or income. According to Oeta et al., (2019), capital allowances results to tax savings that increases after tax returns of a firm.

CEO educational qualification and capital intensity

CEO educational qualification refers to the highest level of education attained by the CEO such as post graduate degrees and professional qualification. According to Bhagat et al. (2021), the education of CEOs potentially increases their knowledge, perspective and the ability to understand abstract techniques and concepts.CEOs with advanced degrees (MBA, MSC, PhD, or professional qualification) are more likely to understand tax incentives related to capital investment. They can design investment strategies that maximize capital allowances, depreciation benefits, and tax credits to reduce taxable income. Instead of engaging in aggressive tax avoidance (e.g., offshore tax havens), an academically qualified CEO may prefer legal tax-saving mechanisms like increasing capital investment in property, plant, and equipment (PPE). This allows firms to benefit from accelerated depreciation, investment tax credits, and tax shields. Highly educated CEOs may combine capital investment with debt financing, taking advantage of interest tax shields while increasing capital intensity. This lowers effective tax rates while ensuring sustainable growth. CEOs with strong academic backgrounds tend to be forward-thinking, meaning they are more likely to invest in capital-intensive projects that provide long-term tax benefits rather than short-term earnings manipulation.

Oktaviani et al. (2022) investigated how CEO characteristics affect tax aggressiveness in Indonesian family-owned firms and discovered that the educational background of the CEO does not matter when it comes to aggressive tax practices. Conversely, Astutik and Venusita (2020) explored the influence of the demographic attributes of CEOs on tax aggressiveness in Indonesia and found a significant effect between the educational background of the CEO on aggressive tax management. Gottesman, and Morey (2010) found no significant association between the educational backgrounds of CEOs of 390 US companies and firm performance, justifying that the time between the acquisition of the educational qualification and becoming the CEO may be lengthy such that the benefit from such education is eroded. Thus, based on these facts, it was hypothesized that;

Ho_1: CEO educational qualification does not have significant effect on capital intensity of listed consumer goods companies in Nigeria

CEO financial expertise and capital intensity

CEO financial expertise refers to the CEO knowledge, skills and experience in accounting and financial management. As noted by Essien and Akpan (2024), financial expert is defined according to Section 407 of the Sarbanes-Oxley Act of 2002 (SOX) as a person with accounting, finance, or supervisory expertise. Financially knowledgeable CEOs understand that investing in capital assets (such as machinery, equipment, and buildings) allows firms to claim depreciation expenses. By increasing capital intensity, they can reduce taxable income through accelerated depreciation methods. According to Astutik and Venusita (2020).CEOs with financial expertise can apply accelerated depreciation methods, such as the Modified Accelerated Cost Recovery System (MACRS), to maximize depreciation deductions in the early years of an asset's life (Duan et al., 2018). CEOs with financial expertise can revalue assets to reflect changes in their market value, resulting in higher depreciation deductions and increased tax savings. CEOs with financial expertise can work closely with tax advisory teams to ensure that their capital intensity tax planning strategies are optimized and compliant with tax laws and regulations. Harymawan et al. (2023) found that that CEO finance expertise has no effect on tax avoidance. Qin et al. (2023), using a panel sample of Chinese listed companies from 2009 to 2018 found that as performance rises above aspiration, firms increase tax avoidance at first, but from a certain point onward, they reduce such activities. Gounopoulos and Pham (2018) examined the linkage between the expertise of CEOs and

earnings manipulation of US companies during the period of initial public offerings for the years 2003 to 2011 and found that CEOs who are regarded as financial experts are associated with a lesser likelihood of engaging in accrual and real earnings management. Thus, based on these facts, it was hypothesized that;

Ho2: CEO financial expertise does not have significant effect on capital intensity of listed consumer goods companies in Nigeria

CEO tenure and capital intensity

CEO tenure refers to the length of time a Chief Executive Officer has been in office, leading a company. It is one of the demographic characteristics that affects a company's decision making. CEO tenure has to do with the duration or number of years served by the CEO. Oktaviani et al. (2022) showed that CEO tenure can be seen from how long a person occupies a position as CEO in the company he leads. **A** Long-tenured CEOs have a deeper understanding of the company's operations, assets, and tax history, enabling them to make more informed decisions about capital intensity tax planning. Long-tenured CEOs are more likely to take a long-term view when making capital investment decisions, considering the potential tax benefits and implications over an extended period. Astutik et al. (2020) found positive influence between CEO tenure toward tax aggressiveness and stated that as CEO tenure increases, he/she will be more aggressive in tax planning Duan et al., 2018), also evidence that CEO tenure has negative influence toward tax avoidance and implied that at earlier tenure CEO will receive more attention from investors and public and be more aggressive in doing tax planning to meet the investors expectation which is higher return, On the other hand Aliani (2014), proved that the length of time that someone held the position of CEO in the company has no significance on tax planning. Thus, based on these facts, this study hypothesized that;

Ho_3: CEO tenure does not have significant effect on capital intensity of listed consumer goods companies in Nigeria

Theoretical Framework

Upper Echelon theory by Hambrick and Mason (1984),

This theory was propounded by Hambrick and Mason in 1984. Upper echelons theory emphasizes the role of managers in creating corporate value with their management style and personal abilities (Aliani, 2014). The personal ability of manager will have an impact on the company outcomes-strategic choices taken by top manager. The theory explained about the concept that company outcomes-strategic choices and performance levels-are partially predicted by managerial background (**Hambrick & Mason, 1984)**. Both company outcomes- strategic choices and effectiveness are considered as a reflection of the values and cognitive basis of the authorities in the company which is the top managers. According to Hambrick and Mason (1984), it is expected that top management attributes matter when it comes to strategic organisational outcomes because the organisational decisions made are largely influenced by the behavioural attributes of the manager who is assigned with the responsibility and authority for decision making (Hambrick& Mason, 1984).Hambrick (2007) describes upper echelon theory by emphasizing that top executives rely on their personal perspectives in understanding the company's strategic situation, including opportunities, threats, available options, and possible outcomes. Upper echelons theory discovered by (Hambrick, 2007) explains that managers can influence the creation of corporate values through their management style and personal abilities. This theory shows that the more complex a decision, such as strategy size, the more important personal characteristics of decision makers such as age, tenure and special expertise (Hambrick & Mason, 1984)

This understanding is shaped by the executives' experiences, values, personalities and other human factors. Therefore, this theory states that an organization essentially reflects the character and outlook of its leaders at the top. Upper echelons perspective of organizations figured that characteristics of upper echelons or top-level management especially CEO both psychological and observable would be used to respond to a given objective situation both external and internal that would be captured in company strategic choices then affect the company performance (Hambrick et al., 1984). Tax is one of the expenses that would affect profitability as one of the company performance. The characteristics of the manager

affect the decision making that will affect the choice of strategy taken. Due to limitation on the standard psychological dimensions (values and cognitive basis), the upper echelon perspective observes only on the tangible background of managers such as age, education and others.

This theory is relevant to this study because according to this theory the personal characteristics of top leaders, such as the CEO and other senior executives, significantly influence the organization's strategic decisions and its performance outcomes. The theory is based on the premise that leaders do not act objectively, but bring their personal worldview, experiences and values to the decision-making process.

Empirical review

Sagita et al. (2024) examined the effect of chief executive officer (CEO) on tax avoidance. The findings of this study comprehensively present the developments, types of variables and measurements. According to the study, there are several types of CEO variables, including CEO overconfidence, CEO narcissism, CEO power, CEO greed, contractual and behavioral CEO attributes, founder or descendant CEOs, masculine-faced CEOs, CEO publicity, CEO stock options, CEO duality, and CEO hometown ties. Oktaviani et al. (2024) analyzed the effect of CEO characteristics on tax aggressiveness based on the upper echelon's theory perspective and found out that CEO tenure, educational background, and gender partially and simultaneously affected tax aggressiveness. Akpan (2024) examined the effect of CEO education, CEO shareholding and CEO tenure on shareholders' value of listed health care firms in Nigeria from 2013 to 2022. The research design adopted for this study was ex post facto, secondary data were used and 12 health care firms constituted the population of the study. The result of the analysis showed that CEO education, CEO shareholding and CEO tenure have significant effect on shareholders' value added of listed health care firms in Nigeria

Hermawan (2024) determined the influence of CEO gender variables, CEO age, as well as CEO gender reassignment on tax aggressiveness. This research applied cross sectional and time series methods. The result of empirical analysis revealed that CEO gender diversity significantly affect tax aggressiveness, while CEO age did not have any discernible relationship with tax aggressiveness. Arthur et al. (2024) specifically examined the impact of CEOs' tenure, CEOs' share ownership, CEOs' gender, and CEOs' nationality on tax avoidance over a 10-year time frame (2012 – 2021) for listed non-finance firms in Nigeria. The robust regression analysis revealed mixed evidence suggesting that the effect of CEOs' attributes on tax avoidance typically depends on the observed or unobserved traits of the CEO. Le et al. (2024) investigated the association between CEO age and corporate tax planning. Using a sample of 11,537 firm-year observations. They found out that CEO age exerts an economically significant influence on firms' tax policies, incremental to economic determinants identified in prior research.

Robert et al. (2024) examined the impact of Chief Executive Officer (CEO) characteristics on corporate tax planning of listed financial service firms in Nigeria from 2018-2022. The result of the analysis revealed that CEO age and CEO financial expertise have positive impact on corporate tax planning of listed financial firms in Nigeria. The study also found that CEO tenure have negative impact on corporate tax planning of listed financial firms in Nigeria. Makokha et al. (2024) provided empirical evidence on the relationship between CEO attributes and tax avoidance among listed firms in the East Africa. The regression results further revealed a positive relationship between CEO expertise and tax avoidance. CEO gender has no effect on tax avoidance. Soepriyanto et al. (2024) evaluated the potential impact of CEO age on the involvement of companies in tax amnesty programs among publicly traded companies in Indonesia and found a negative association between the age of the CEO and their readiness to participate in tax amnesty, indicating that older CEOs may view tax amnesty as a dangerous endeavor and be less inclined to take part.

Harymawan et al. (2023) conducted a study to investigate the correlation between CEO facial masculinity and tax avoidance. The findings revealed that the CEO's facial masculinity is positively associated with tax avoidance. Aronmwan et al. (2023) evaluated the relationship between chief executive officers' (CEO) attributes and corporate tax avoidance (CTA) in selected listed companies operating in the sub-Saharan Africa (SSA) region. The study found that the gender of the CEO exhibited a significant negative

relationship with corporate tax avoidance. The tenure of the CEO was found to have a significant positive relationship with corporate tax avoidance.

METHODOLOGY

The research design adopted in this study was ex-post facto design. The ex-post facto research design was employed since the event had already taken place and the data already existed. The population of this study consisted of 21 consumers goods companies listed on the floor of the Nigerian Exchange Group for the period 2019-2023. The sample size of 16 consumer goods firms was purposively selected. Robust least square regression technique was used in analyzing the data and the statistical software employed was STATA 17. The econometric model used in this study was adapted and modified from the work of Ilaboya and Aromwan (2023), and this is presented below;

Tax avoidance =f (CEO attributes)

Capital intensity =f (CEO educational qualification, CEO financial expertise, CEO tenure)

$$\mathbf{CAIN_{it} = \beta_0 + \beta_1 CEOE_{it} + \beta_2 CEOF_{it} + \beta_3 CEOT_{it} + £_{it}}$$

Where:

CAIN = Capital intensity
CEOE = CEO educational qualification
CEOF = CEO financial expertise
CEOT = CEO tenure
β_0 = Model intercept
β_1-β_4 = Coefficient to be estimated in the study
it = Cross section of listed consumer goods firms with time variant
$£_{it}$ = Stochastic error term

ANALYSIS AND DISCUSSIONS

Descriptive

Table 4.1 Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Cain	160	.457	.228	0	.903
Ceoe	160	1.681	.857	1	4
Ceof	160	.244	.75	0	3
Ceot	160	3.55	2.651	1	13

Source: Author's computation (2025)

Table 4.1 presented the descriptive statistics for the key variables in this study. At the top of the table is capital intensity (cain), which was the dependent variable. The minimum value recorded for capital intensity was 0, although the actual figure was 0.0004388, it was rounded off due to formatting. This suggests that, in at least one of the consumer goods firms studied, non-current assets made up only about 0.4% of total assets. On the other hand, the maximum value observed was 0.903, meaning that for some firms, non-current assets accounted for as much as 90% of their total assets. The standard deviation of 0.228 further shows a high range spread in the data, suggesting that the level of capital intensity varies significantly across firms. This variation may actually reflect differences in tax avoidance strategies among the studied firms. The CEO education (ceoe), had an average score of 1.681, which rounds up to about 2. This implies that, on average, most CEOs in the consumer goods sector possessed an MBA degree. The standard deviation of 0.857 shows that there's an expansive spread in their educational backgrounds. On the other hand, the highest observed value was 4, indicating that some CEOs held a

Ph.D. It is safe to say that educational qualifications were taken seriously in the consumer goods sector, especially in the appointment of CEOs. Similarly, CEO financial expertise (ceof), had a minimum value of 0, indicating that some CEOs in the consumer goods sector did not possess any professional or finance-related certifications such as ICAN, ANAN, CFA, or their equivalents. On the other hand, the maximum value recorded was 3, meaning that at least one CEO held as many as three different finance-related professional qualifications. The mean value was 0.244, which showed that, on average, most CEOs had less than one financial certification suggesting that financial expertise among CEOs in the sector is relatively low. CEO tenure, which was used to captured the number of years a CEO has held their current position, ranged from a minimum of 1 year to a maximum of 13 years among the consumer goods firms studied. This minimum value of 1 means that those CEOs were relatively new in their roles.

Table 4.2 Shapiroâ€“Wilk W test for normal data

Variable	Obs	W	V	Z	Prob>z
cain	160	0.975	3.070	2.551	0.005
ceoe	160	0.920	9.829	5.198	0.000
ceof	160	0.867	16.298	6.349	0.000
ceot	160	0.884	14.228	6.040	0.000

Source: Author's computation (2025)

Table 4.3 shows the normality test for each variable in the study. From the result, it was observed that all of the variables did not follow a normal curve. In detail, it was observed that the dependent proxy; capital intensity (cain) did not follow a normal curve marked by its Prob>z value of 0.005 which was less than 0.05 level of significance. For independent variable; CEO academic qualification (ceoe), null hypothesis was rejected (Prob>z value of 0.000). The probability value was less than 0.05 implying that it does not follow a normal curve. Null hypothesis was also rejected for CEO financial expertise (ceof) (Prob>z value of 0.000). Evidently, p value was less than 0.05 meaning that it follows a normal distribution or curve. Rejection of null hypothesis was the case for a CEO tenure (ceot) with Prob>z value of 0.000<0.05 level of significance. As such, it did not follow a normal curve.

Table 4.3 **Spearman's rank correlation coefficients**

Variables	(1)	(2)	(3)	(4)
(1) cain	1.000			
(2) ceoe	0.108	1.000		
(3) ceof	0.205	0.036	1.000	
(4) ceot	-0.224	0.034	0.035	1.000

Source: Author's computation (2025)

Table 4.3 presents the Spearman correlation coefficients for the variables in the study. As expected, each variable showed a perfect correlation with itself, with a coefficient of 1.000. Looking at the associations, CEO academic qualification (ceoe) had a weak positive correlation with capital intensity (0.108). This suggests that as the level of CEO academic qualification increases, capital intensity tends to rise slightly but this relationship is weak and should not be interpreted as causal. Similarly, CEO financial expertise (ceof) showed a weak positive correlation with capital intensity (0.205), implying that firms led by CEOs with more finance-related certifications tend to have slightly higher capital intensity, though again, this relationship is not strong. CEO tenure (ceot), on the other hand, had a weak negative correlation with capital intensity (-0.224).

Regression

Specifically, to examine the cause-effect relationships between the dependent variable and independent variables as well as to test the formulated hypotheses, the study used a panel regression. The table below presents output for pooled OLS, random effect GLS model and the robust least square regression. The robust least square was used because as earlier stated, most variables did not follow normal distribution, as well as presence of heteroscedasticity of the data.

Table 4.4 Regression Results

	(1) Pooled-OLS cain	(2) Random Effects cain	(3) Robust LS cain
ceoe	0.026	0.026*	0.063***
	(0.200)	(0.098)	(0.001)
ceof	0.084***	0.084***	0.084***
	(0.001)	(0.001)	(0.000)
ceot	-0.025***	-0.025***	-0.025***
	(0.000)	(0.000)	(0.000)
Constant	0.577***	0.577***	0.577***
	(0.000)	(0.000)	(0.000)
r^2	0.151	0.151	0.351
n	160.000	160.000	160.000
f/w	5.466	27.333	11.019
p	0.000	0.000	0.000
lagrange		0.000(1.000)	
vif	1.16		
hettero	4.13(0.042)		

p-values in parentheses

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Source: Author's computation (2025)

The result obtained from the multivariate regression analyses is presented in the table above. The robust regression model presented above shows an F-statistic of 11.019 with p-value of 0.000 indicating that overall, the robust regression model is fit for statistical inference and also that overall, the relationship between CEO attributes and tax avoidance is statistically significant. The model gave an R-squared value of 0.351 which means that 35.1% of the changes in capital intensity can be explained by the proxies of CEO attributes in the model. However, the unexplained part (64.9%) is captured in the error term.

Checks for regression assumptions and other diagnostics

Homoscedasticity

The homoscedasticity assumption of the pooled ordinary least squares (OLS) model is tested using the Breusch-Pagan module in Stata 14. The assumption of homoscedasticity specifically indicates that if the errors exhibit heteroscedasticity, it becomes challenging to rely on the standard errors of the least square estimates. Therefore, the confidence intervals will either be very narrow or excessively large. The results presented in table 4.4 above however, indicated that the assumption of homoscedasticity in the OLS regression model was violated, as evidenced by the p-value from the heteroscedasticity test (Hettest = 4.13, p-value = 0.042<0.05). Therefore, the researcher had to respecify the model using robust least squares regression analysis. The robust regression brings uses robust standard errors which is suitable to control for heteroscedastic datapoints as well as address possible outliers (Stuart, 2011).

Multicollinearity

The regression model assumes the absence of multicollinearity between the independent variables. It is a situation where one or more independent variable can be expressed as a combination of other independent

variables. This can be detected by observing the Variance Inflation Factor (VIF). The VIF should be less than 10 for this assumption to hold. From the mean VIF presented in table 4.4 above (1.16), it is safe to say that there were no multicollinearity problems in the dataset.

Lagrange Multiplier LM test

This test is applied to test between the random-effect GLS and pooled OLS which one is suitable for the data (Breusch & Pagan, 1980). The null hypothesis is that there are no random effects; thus, the variation across entities is zero, and OLS is sufficient; and is to be accepted or rejected in line with the probability value (greater than 0.05) or rejected (less than 0.05). The result presented in table 4.4 above shows a statistic of 0.000 with a corresponding p-value of 1.000; indicating the acceptance of null hypothesis. This implies that the pooled OLS was sufficient. This is why the pooled OLS was chosen and made robust to handle heteroskedasticity and outliers problems.

Test of hypotheses

Hypothesis one

$H0_1$: CEO academic qualification does not have any significant effect on capital intensity of listed consumer goods companies in Nigeria.

Results from the robust regression model showed that CEO academic qualification (ceoe) with coefficient and p-value of 0.063 and 0.001 respectively, has a significant positive effect on capital intensity of listed consumer goods firms in Nigeria. These warranted the rejection of the null hypothesis stated above and the acceptance of the alternate hypothesis.

Hypothesis two

H_{02}: CEO financial expertise has a significant effect on capital intensity of listed consumer goods companies in Nigeria.

Output for the robust OLS in table 4.4 also presented 0.084 and 0.000 as coefficient and p-value respectively. It is evident that the p-value is statistically significant at the 5% level. Therefore, the null hypothesis was rejected and alternate hypothesis was accepted. This indicates that CEO financial expertise (ceof) has significant effect on capital intensity of listed consumer goods firms in Nigeria.

Hypothesis three

H_{13}: CEO tenure has a significant effect on capital intensity of listed consumer goods companies in Nigeria.

Output for the robust linear regression for CEO tenure and capital intensity in table 4.4 also presented -0.025 and 0.000 as coefficient and p-value respectively. It is evident that the p-value is significant at the 5% level. Therefore, the null hypothesis was rejected and alternate hypothesis was accepted. This indicates that CEO tenure (ceot) has a significant effect on capital intensity of listed consumer goods firms in Nigeria.

DISCUSSION OF FINDINGS

CEO educational qualification and capital intensity

The robust regression results revealed that CEO academic qualification (ceoe) had a coefficient of 0.063 and a p-value of 0.001. This suggests that CEOs with higher academic qualifications are more likely to adopt strategies that increase capital intensity, thereby reducing taxable income and ultimately lowering tax liabilities. Capital-intensive firms typically benefit from higher depreciation expenses, which serve as a tax shield, allowing firms to legally minimize their tax burden. This outcome aligns with the upper echelon theory which posits that firms with highly skilled and knowledgeable leaders can leverage their expertise to optimize financial strategies, including tax planning. Highly educated CEOs are likely to have a better understanding of complex tax regulations and strategic financial management, enabling them to implement effective tax avoidance mechanisms. CEOs with advanced degrees, may possess specialized knowledge that allows them to structure corporate investments in a way that maximizes tax efficiency. Furthermore, this finding is consistent with prior studies of Oktaviani et al. (2024) who found that CEOs

educational qualification influences corporate decision-making, including financial and tax-related policies.

CEO financial expertise and capital intensity

The result from the regression output in table 4.3 shows that CEO financial expertise (Coef. 0.084 a; p-value = 0.000) has significant positive effect on capital intensity of listed consumer goods companies in Nigeria. This indicates that CEOs with strong financial backgrounds are more likely to implement strategies that increase capital intensity, thereby reducing taxable income and minimizing corporate tax liabilities. Financially knowledgeable CEOs possess a deeper understanding of tax regulations, financial structuring, and investment strategies, enabling them to make informed decisions that optimize tax efficiency. This finding aligns with the upper echelon's theory, which posits that executives' characteristics, including financial expertise, significantly influence corporate decision-making. CEOs with financial expertise—gained through education in finance, accounting, or economics, or through professional experience are better equipped to leverage depreciation allowances, capital investments, and tax incentives to legally minimize tax obligations. Their expertise allows them to balance tax efficiency with overall firm performance, ensuring sustainable financial management. This result is consistent with prior study of Robert et al. (2024) who found that CEOs with strong financial acumen are more likely to engage in strategic tax planning. However, this study contracdicts the work of Harymawan et al. (2023) who found out that CEO finance expertise has no effect on tax avoidance

CEO tenure and capital intensity

The robust linear regression results for CEO tenure and capital intensity, as shown in Table 4.4, revealed a coefficient of -0.025 and a p-value of 0.000 which indicates that CEO tenure (ceot) has a significant negative effect on capital intensity among listed consumer goods firms in Nigeria. This implies that frequent leadership turnover is associated with higher capital intensity, possibly due to new CEOs initiating more capital-intensive projects as part of their strategic agenda which in turn helps in tax avoidance or reduction of tax liability. This is contrary to the apriori expectation of this study as it was expected that CEO tenure would yield a positive result to capital intensity as evidence in past research proved. What this result points at is that newer CEOs, especially those early in their tenure may be more inclined to pursue capital-intensive investments as part of structured tax planning schemes, such as maximizing capital allowances or depreciation benefits to reduce taxable income. On the other hand, CEOs with longer tenure might focus more on more stable, conservative financial strategies that could still increase profits instead of just aggressive tax moves. This is in line with the position of Goldman et al. (2017) which was that the shorter tenured CEOs tend to more careful in doing tax planning, on the other hand, the longer-tenured CEOs are more courageous in taking risks in tax reporting. Similar to this study's finding, Robert et al. (2024) found that CEO tenure have negative impact on corporate tax planning of listed financial firms in Nigeria. Also, Makokha et al. (2024) established that tenure is negatively associated with tax avoidance. Be it as it may, the study's finding was contrary to Abata et al. (2023) who stated that longer tenured CEOs possess the requisite learning curve that can reduce effective tax rates. It was also contrary to Kartadjumena and Nuryaman (2024) which was that CEO tenure and family ownership have a significant positive effect on tax aggressiveness.

CONCLUSION AND RECOMMENDATIONS

This study examined the impact of CEO characteristics—academic qualification, tenure, and financial expertise on corporate tax avoidance, measured through capital intensity. The findings revealed that all three CEO attributes significantly contribute to tax avoidance, emphasizing the crucial role of executive leadership in shaping tax strategies. Highly educated CEOs, long-tenured executives, and financially knowledgeable leaders are better positioned to implement tax-efficient policies that legally minimize tax liabilities. While these strategies can enhance firm financial performance, they also raise concerns about corporate transparency and regulatory compliance. Thus, it was concluded that CEO attributes significantly affect tax avoidance of listed consumer goods companies in Nigeria. Based on the findings of this study, it was recommended that management of consumer goods companies in Nigeria should

consider the academic qualifications of CEOs when making hiring and succession planning decisions, as higher educational attainment enhances their ability to implement effective tax-saving strategies. Also, these firms should provide continuous tax-related training for executives to enhance their understanding of evolving tax laws and strategic financial management.

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