



## Overconfident CEOs and Corporate Tax Avoidance

Ofuan James Ilaboya<sup>1</sup>, Edosa Joshua Aronmwan<sup>2</sup>

**Abstract:** The upper echelon theory predicts that the personalities, attributes, and skills of the managerial cadre should have an influencing role on the culture, practices, and outcomes within an organisation. In light of this prediction, this paper examines how overconfident CEOs may affect tax avoidance practices. Tax avoidance was captured using the novel measure developed by Henry and Sansing while CEO overconfidence was captured using firm-level investment. Based on the analysis of 660 firm-year observations of 66 non-financial firms, the study found that overconfident CEOs are associated with corporate tax avoidance. This finding is consistent with the upper echelon theory and provides understanding on the influence that an overconfident CEO has towards tax avoidance. The study recommends that tax regulators can employ the technique of CEO profiling as a preliminary selection tool that can be used to select companies for random tax audits and investigations.

**Keywords:** CEO attributes; Tax aggressiveness; Optimism; Upper echelon; Narcissism

**JEL Classification:** M14; M49

### 1. Introduction

Nations all over the world exist to cater for the welfare of its populace amongst other things. In order to do this, the government is expected to spend on various activities such as education, defence, health, transportation, and communication. In addition, as a nation develops, it becomes more complex in structure, administration, legal and diplomatic relations. To properly carry out its functions, adapt to complexities, and maintain its sovereignty, it must therefore be able to match its expenditure with its revenue generating ability.

Taxes are compulsory levies on income, wealth, consumption, or gains. They are imposed by a constituted authority on its citizens and those residing within its jurisdiction for the purpose of raising revenue, redistribution of income, and fiscal exchange (Okafor, 2012; Worlu & Nkoro, 2012). Taxes are tools through which engineering and restructuring of a country's economy are carried out (Sanni, 2007). Nevertheless, despite the good intentions for taxation, one major bottleneck in the system is the issue of tax avoidance and this is common to both developed and developing nations.

Individuals and corporate entities are expected to take the payment of taxes seriously as this constitutes one of their civic responsibilities. For corporate bodies, the payment of taxes is a

<sup>1</sup> University of Benin, Nigeria, E-mail: ofuanwhyte@gmail.com.

<sup>2</sup> University of Benin, Nigeria, Corresponding author: edosa.aronmwan@gmail.com.

significant and necessary operating cost that must be incurred (Salihu, Obid, & Annuar, 2013). Consequently, being a line item charged against profit (Hanlon & Heitzman, 2010), managers are likely to plan the activities of their companies in order to reduce the impact of taxes on the wealth of the shareholders. Hence, the issue of tax avoidance, which, according to Hanlon and Heitzman (2010) can be defined broadly as any act by a taxpayer to reduce the explicit tax liability payable to the tax authority.

Earlier studies on tax avoidance (Allingham & Sandmo, 1972; Andreoni, Erard, & Feinstein, 1998; Slemrod & Yitzhaki, 2002) document that tax avoidance is motivated by economic reasons. However, further researches reveal that tax avoidance can also be motivated by other conditions such as behavioural factors; socio-demographic factors (Torgler & Schaltegger, 2007); and fiscal exchange factors (Okoye, Akenbor & Obara, 2012). Thus, foreclosing on behavioural factors, we expect that the attitude and disposition of whoever directly or indirectly determines the corporate tax payment decision should influence the decision to engage in tax avoidance. This is equally in line with the upper echelon theory that posits that executives or managers have an influencing role on the performance and value creation of a company via their managerial attributes, skills, and traits (Aliani, 2014; Hambrick, 2007).

Drawing also from the agency theory, a company is a nexus of relationship wherein the principal (shareholders) employs the services of agents (managers) to run the business on their behalf. Thus, the manager is empowered to make decisions on behalf of the owners, though he may not be an expert in all areas (Dyreg, Hanlon & Maydew, 2010). The Chief Executive Officer (CEO), who can be seen as the primary manager, dictates the ethical atmosphere, corporate culture, tone at the top (Aliani, Mhamid & Rossi, 2016); and is directly or indirectly responsible for making strategic decisions (Chyz, Gaertner, Kausar, & Watson, 2019). As the primary agent, his attributes, personality, behaviour, and attitude influences the various corporate strategies undertaken by a company, including decisions on corporate tax avoidance (Aliani et al., 2016). This is further buttressed by Zhu and Chen (2015) who assert that researchers in psychology generally agree that the personality of an individual significantly influences information processing and the decisions made by that individual. In a similar manner, Hambrick (2007) asserts that in understanding why organisations operate the way they do; it is pertinent to consider the dispositions and biases of their most powerful employees- the CEOs.

Extant literature documents the influencing role of CEOs and directors on various strategic decisions made by companies. For example, managerial traits and personalities have been found to influence financing decisions; investing decisions (Ho & Chang, 2009; Malmendier & Tate, 2008); dividend policy decisions; financial reporting decisions (Ham, Lang, Seybeth, & Wang, 2015; Hribar & Yang, 2016; Schrand & Zechman, 2012), and earnings and liquidity management decisions (Richardson, 2006). Thus, if these aforementioned decisions are influenced by the managerial traits and personalities of CEOs, then the decision to engage in tax avoidance should equally be influenced by the managerial traits and personalities of CEOs. Hanlon and Heitzman (2010) note that very limited studies have examined managerial effects on tax avoidance and therefore called for further researches in this area. In response, studies (Chyz, 2013; Chyz et al., 2019; Dyreg, et al., 2010; Hsieh, Wang & Demirkan, 2018; Olsen & Stekelberg, 2016) have been conducted using data from developed countries with limited research (Aliani et al., 2016) in less developed countries. Thus, studies on how CEO personality traits affect tax avoidance in less developed countries are quite scanty.

In 2018, the Central Bank of Nigeria (CBN) imposed sanctions on some banks such as Stanbic IBTC and changed the management of others such as the former Skye bank and Platinum Habib Bank. We

believe the decision to change the management infers the influencing roles that CEOs play as regards firms' decisions and performance in the banking industry in particular and Nigeria in general. An empirical investigation on how CEOs' attributes in general and their confidence level in particular affects tax avoidance in a developing country like Nigeria is therefore necessary to provide hard-core evidence to substantiate this type of regulatory decision. Consequently, the objective of this paper is to investigate how the confidence level of the CEO would impact on tax avoidance.

To test our hypothesis, tax avoidance was captured using the measure developed by Henry and Sansing in which avoidance is calculated as cash tax minus the product of pre-tax accounting income and corporate tax rate, divided by book value of total asset. CEO overconfidence was determined by regressing total asset growth on sales growth by industry-year and then categorise the residual as a dummy variable. The findings revealed that overconfident CEOs are associated with corporate tax avoidance thereby supporting the prediction of the upper echelon theory on the effect of managerial attributes on organisational outcomes. This study contributes to recent trend in literature on the physiological determinants of corporate tax avoidance and provides empirical evidence to support this assertion using data from a developing nation. It also helps tax authorities and officers understand the roles the innate attributes of the CEO such as overconfidence may contribute to tax avoidance.

The remainder of the paper is divided into sections. Section 2 relates to literature and hypothesis formulation; section 3 bothers on methodology; section 4 on results and discussion; while section 5 deals with the conclusion and recommendations.

## **2. Literature Review and Hypothesis Formulation**

### **2.1. Tax Avoidance**

There seem to be no generally accepted definition for tax avoidance (Gebhart, 2017). Nevertheless, the widely held view sees tax avoidance as the act by a taxpayer aimed at reducing the burden of tax within the provisions of the law. Hanlon and Heitzman (2010) put it in a broad perspective by describing tax avoidance as any act purported by the taxpayer with the intention of reducing the explicit tax liability.

As a research area, tax avoidance has long been in existence, but the quantum of research increased right from the study of Shackelford and Shevlin (2001) who notice a prevalence of practices by firms to reduce their tax burden, the essence of which was to increase shareholders' wealth and ultimately firm value (Salihu et al., 2013). Such practices may include investment in bonds, use of tax reliefs and exemptions, lobbying activities such as tax sheltering and other uncertain tax positions (Hanlon & Heitzman, 2010).

In the opinion of Chen, Chen, Cheng, and Shevlin (2010), actions by taxpayers to reduce their tax liabilities can be grouped into three (3) vis legal, grey, or illegal actions. While those actions that fall into the legal circle may be seen as tax avoidance, they could equally merge in description with the grey circle when done aggressively. This may account for why Slemrod (2004:4) asserts that tax avoidance as a concept can be opaque because it can mean "anything that corporations do to reduce their tax liability" and the "anything" in the context of morality versus legality can be very contentious. In support of this claim, Lee, Dobiyski, and Minton (2015) argue that the legality of a tax arrangement or transaction is not easily determined and most often requires an ex ante analysis.

That is, the tax arrangement or transaction would sometimes need to be first carried out and then analysed as an after-event to really determine the underlying rationale behind it.

Slemrod and Yitzhaki (2002) posit that being aggressive in tax reporting is a subset of tax avoidance that relates to engaging in tax practices with the sole aim of minimising tax liability without any real business effect. The position by the Chartered Institute of Taxation of Nigeria (CITN, 2017: section 2) is that tax avoidance is a subset of tax planning and it involves a reduction in tax liability that is done within the “spirit of the law” and does not involve “bending the rules of the tax system to enjoy gains from a tax position not intended by law”. Therefore, due to the murky nature of tax avoidance, various terms have emerged in literature in an attempt to capture the true essence of tax avoidance. These terms as used interchangeably by researchers include tax planning (Graham, Hanlon, Shevlin, & Shroff, 2014); tax aggressiveness (Chen et al., 2010); tax management (Salihu et al., 2013); tax sheltering (Richardson, Taylor & Lanis, 2013) and even tax evasion (Boussaidi & Hamed, 2015). Based on all these, this study aligns with the widely held opinion as broadly defined by Hanlon and Heizman (2010) that tax avoidance is any act by a taxpayer with the aim of reducing explicit tax liability.

## **2.2. Chief Executive Officer’s Overconfidence**

The concept of overconfidence has its root in psychology (Malmendier & Tate, 2015) although its usage has gained serious attention in finance and economics. As a concept, CEO overconfidence relates to a heightened perception that the CEO has about his abilities. Put differently, overconfidence deals with the propensity of individuals to consider themselves more highly than they really are in terms of characteristics such as skills, judgment, or forecasts, and predictions (Hirshleifer, Low & Teoh, 2012). Furthermore, though the terms overconfidence and over-optimism have been used interchangeably in literature, a difference can be inferred in that overconfidence stems from an internal assessment of one’s ability while over-optimism relates to an external assessment of events and situations (Chyz et al., 2019).

Broadly speaking, overconfidence can be better understood from a two dimensional plane (Hribar & Yang, 2016). On one hand, overconfidence can be viewed from the angle of over-optimism and on the other hand, from the angle of miscalibration. Although the illusion of control effect has been used to explain overconfidence, it is possible to subsume it into the over-optimism dimension. Over-optimism dimension of overconfidence comprises of the ‘better than average’ syndrome and the illusion of control effect. The former is when an individual overestimates his or her ability and ranks it on a higher level relative to the average ability of others (Larwood & Whittaker, 1977). In addition, this overly optimistic perception can be created based on an illusion of being able to control uncertain outcomes (Hribar & Yang, 2016). The irony is that uncertain events ordinarily are non-controllable because they usually originate from the external environment of the company, thus, they are to be managed. However, when an individual has a strong belief of being able to control the outcome of uncertain events, such gives rise to an aspect of over-optimism that stems from a false sense of control. Therefore, by virtue of the CEO’s educational background (Aliani, 2014; Hambrick & Mason, 1984), managerial hubris (Roll, 1986), and expertise (Hsieh et al., 2018), there is a tendency for some CEOs to exaggerate their abilities and capabilities even when the possible outcome of events are uncertain with high unfavourable odds. It is this behavioural pattern that is referred to as the over-optimism dimension of overconfidence.

Apart from this, a second dimension of overconfidence is miscalibration. Miscalibration focuses on the aspect of uncertain outcomes. An outcome is uncertain if the probability of its occurrence or acceptance is low. Miscalibration occurs when uncertain outcomes are underestimated (Hsieh et al., 2018). Individuals miscalibrate when they make unrealistic underestimations in the process of forecasting or making predictions. Miscalibration as it relates to CEOs can easily be seen from the angle of risk in decision making. The overconfident CEO tends to underestimate the uncertainty surrounding an outcome and goes ahead to make risky decisions.

Based on the foregoing, overconfidence is a behavioural tendency associated with decision making. It expresses itself in the form of over-optimism and miscalibration. As a behavioural tendency, it may result from the level of education, expertise, managerial hubris, and experience. Also, based on the upper echelon theory, if this behavioural tendency is exhibited by managers and CEOs, there is a high likelihood that strategic decisions made would be affected. For example, engaging in tax avoidance is risky in that there is a cost implication of being caught by the tax authority as well as the penalties and damage to reputation. However, despite these cost implications, an overconfident CEO is likely to miscalibrate by underestimating the likelihood of being audited or overestimate his ability that aggressive tax avoidance would not be detected or that the benefits associated with a successful tax avoidance scheme such as reduction in cash outflow would be significant. Consequently, decisions would be made to engage in aggressive tax avoidance.

Hambrick and Mason's upper echelons theory is known for its prediction that the attributes of the echelon cadre in any organisation would influence strategic outcomes. Furthermore, Hambrick (2007) asserts that executives act based on how they perceive the strategic environment and this perception is premised on their values, experience, and personality. In other words, to understand tax avoidance behaviour of organisations, it is important to consider among other factors, the values, experiences, bias, and perceptions of the upper echelon cadre. Therefore, drawing from this theory, it is expected that the attributes of the executives either collectively (BoD) or individually (CEO, CFO, Chairman of BoD) should affect tax avoidance as a strategic outcome.

### **2.3. Chief Executive Officer's Overconfidence and Tax Avoidance**

The CEO is seen as the primary agent of the shareholders who is tasked with decision making and it is only natural for any decision maker to be confident. Hsieh et al. (2018) document that confidence in business is rewarded because CEOs that show confidence tend to be promoted over those that do not. Thus, the trend is for CEOs to become confident which unfortunately as time progresses, reaches the level of overconfidence. In addition, being overconfident has been linked to a desire for higher/risky investments (Hirshleifer et al., 2012) which equally depends on availability of cash flow. Consequently, Hsieh et al. (2018) posit that "overconfident CEOs need to generate higher levels of income to meet their earnings expectations; meanwhile, they also need to allocate more economic resources for additional investments and business expansion" (p. 9). Therefore, a positive relationship is most likely to be experienced when tax avoidance practices and the confidence of CEOs are examined since such practices may "alleviate corporate tax burdens and provide additional financial resources to satisfy their investment plans" (Hsieh et al., 2018, p. 9).

To further demonstrate the link between CEO overconfidence and tax avoidance, several studies have been carried out. Some of these include Aliani et al. (2016) who using data obtained from companies operating on the floor of the Tunis Stock Exchange, examined the relationship between CEO

characteristics and tax planning. They measured CEO overconfidence using a principal factor analysis of data gathered from a questionnaire survey and found that CEO overconfidence is positively linked with tax planning strategies of the firm. Nonetheless, a likely limitation of the study was in the measurement of CEO overconfidence as well as the reliability and validity of the questionnaire used, which according to Radhakrishna (2007) is an issue with any survey-based research.

Using the archival net stock purchase measure of CEO overconfidence, Hsieh et al. (2018) in their study on the influencing roles of the CEOs and CFOs on the relationship between overconfidence and tax avoidance, discovered that (1) overconfident CEOs have a positive relationship with tax avoidance as measured using long-run effective tax rate; (2) overconfident CFOs also have a positive relationship with tax avoidance; and (3) companies with overconfident CEOs and CFOs engage more in tax avoidance strategies than companies without overconfident CEOs or CFOs. The implication of their findings is not far fetched as they assert that overconfidence displayed by top executives indeed influences tax avoidance as a corporate decision.

Similarly, based on a combined dataset from Compustat's XpressFeed, Compustat Research Insight CDs, Factiva searches and Standard and Poor's Execucomp database, Chyz et al. (2019) investigated the association between CEO overconfidence and tax policy. They measured overconfidence using various methods [option exercise timing, net stock purchase, press coverage, firm investment, factor analysis (questionnaire)] and discovered that overconfident CEOs as defined by all these measures are linked to a tax policy characterised by a decrease in cash effective tax rate (increase in tax avoidance). They also found that the presence of overconfident CEOs (when measured using a variant of firm-level investment) is inversely related to cash effective tax rate as well as directly linked to likelihood of tax sheltering. These suggest that tax avoidance decision is one that overconfident CEOs would normally engage in.

Based on the foregoing, it is observed that most of the above studies report that CEO overconfidence predicts tax avoidance practices of firms and this is premised on the theory that overconfident CEOs are likely to overestimate their performance prowess in decision making as it relates to avoiding taxes, overestimate the returns associated with successful tax savings, and underestimate the associated cost of tax avoidance such as the likelihood of been caught by the tax authority as well as the penalties and reputation damages.

We therefore hypothesize that there is a significant relationship between CEO overconfidence and tax avoidance.

### **3. Methodology**

#### **Data**

The data for this study was gotten from the annual reports of listed non-financial firms in Nigeria for the year 2009 to 2018. We began with all the companies listed on the Nigerian Stock Exchange and applied filters to exclude oil and gas companies that are taxed using a different tax rate because the higher tax rate may be a reason for a relatively higher propensity to engage in tax aggressiveness (Alms, 2018); companies in the financial sector due to the peculiarity of their reporting; companies incorporated after 2008; companies in their first five years because of their eligibility for pioneer status and other tax concessions (PKF, 2018); and companies with missing data. The final sample therefore comprises 660 firm-year observations.

## Operationalisation

Tax avoidance can be measured using effective tax rates, book-tax difference and other specific measures (Aronmwan & Okafor, 2019). Popular within the effective tax rate measures are the GAAP and cash ETRs which have been criticized based on the selection and truncation bias associated with using a negative denominator or only profit firms (Henry & Sansing, 2018). Therefore, this study measures tax avoidance using the Henry and Sansing measure which is calculated as cash tax minus the product of pre-tax accounting income and corporate tax rate, all divided by book value of total asset. Furthermore, we multiply the result by -1 so that higher values translate into higher tax avoidance.

Overconfidence has been measured using variety of measures including the time options rights are exercised (long-holder or holder67 measure), net stock purchase, and firm-level investment (Malmendier & Tate, 2008, 2015). Based on availability of data, this study uses the firm-level investment. First, we regress total asset growth on sales growth by industry-year and then categorise the residual using dummy variable (1 if positive to capture overconfidence, otherwise, 0).

In order to capture the effect of CEO overconfidence on tax avoidance, we control for other variables that affect tax avoidance such as firm size (Chyz et al., 2019; Hsieh et al., 2018), firm age (Hsieh, 2012; Okaiwele & Amake, 2018), corporate governance (Minnick & Noga, 2010).

## Model specification

The model for the study was estimated using the panel regression technique and is specified below

$$CTA_{it} = \beta_0 + \beta_1 CEOOV_{it} + \beta X_{it} + \varepsilon_{it}$$

Where: CTA is tax avoidance; CEOOV is CEO overconfidence; X is a vector of firm attributes (FSIZE = log value of total assets; FAGE = number of years listed on the stock exchange; GOVERNANCE = ratio of independent directors to board size).

## 4. Results and Discussions

**Table 1. Descriptive and Correlation Analyses**

	Mean	Median	Std. Dev.	CoV	1	2	3	4
1. CTA	-0.01	0.00	0.04	4.00				
2. CEOOV	0.34	0.00	0.47	1.39	0.17*			
3. FAGE	24.00	25.00	13.46	0.56	0.05	-0.04		
4. FSIZE	6.91	6.82	0.76	0.11	0.11**	0.07***	0.13*	
5. GOVERNANCE	0.67	0.67	0.16	0.24	0.02	0.04	0.12*	-0.04

Source: Researcher's compilation (2020) \* $p \leq .01$ . \*\* $p \leq .05$ . \*\*\* $p \leq .10$

The descriptive and correlation analyses are presented in Table 1. However, the interpretations would only focus on the dependent and independent variables. Corporate tax avoidance (CTA) is captured using the Henry and Sansing measure and then inversed (multiplied by -1) to allow higher values to mean higher levels of tax avoidance. The mean of -0.01 suggests on the average that companies pay higher than the product of their pretax income and the statutory rate, thus, they are tax disfavoured. This is similar to the findings of Henry and Sansing (2018) who found that tax favoured companies when using only profit firms are actually tax disfavoured when the sample contains loss firms. However, the standard deviation of 0.04 and coefficient of variation of 4 suggests a large disparity in

tax practices amongst the companies. Consequently, not a large number of these companies are actually tax disfavoured.

CEO overconfidence has a mean value of 0.34 suggesting that 34% of CEOs are overconfident. This is similar to the findings of Chyz et al. (2019) who also discovered a reasonable number of overconfident CEOs in their sample. The standard deviation of 0.47 and coefficient of variation of 1.39 suggest large disparity in the confidence level of CEOs.

The correlation coefficient of 0.17 reveals a significant positive association between corporate tax avoidance and CEO overconfidence at 1% significance level. This finding provides support for our hypothesis within a univariate setting. To properly validate the hypothesis, we present a multivariate analysis in the next section.

**Table 2. Multivariate Analysis (Dependent variable: Corporate tax avoidance.)**

Variable	Pooled		Random		Fixed	
	Coefficient	t-Statistic	Coefficient	t-Statistic	Coefficient	t-Statistic
CEOOV	0.015*	4.348	0.012*	3.544	0.008**	2.069
FAGE	0.000	1.078	0.000	0.281	-0.003*	-2.993
FSIZE	0.005**	3.709	0.006**	2.914	0.038*	2.047
GOVERNANCE	0.003	0.538	0.001	0.085	-0.004	-0.309
C	-0.054*	-3.873	-0.054*	-2.847	-0.202*	-1.706
Adjusted R <sup>2</sup>	0.035		0.020		0.169	
F-statistic	6.946*		4.315*		2.930*	
LM Test (p-value)	0.000					
Hausman Test (p-value)			0.001			
Obs	655		655		655	

Source: Researcher's compilation (2020) \* $p \leq .01$ , \*\* $p \leq .05$ , \*\*\* $p \leq .10$ .

Table 2 presents the estimation results from three regression techniques. First, we pooled the data and estimated the model using the OLS. The results show that the relationship between CEO overconfidence and tax avoidance is positive and statistically significant at 1% significance level. Of all the control variables, only firm size is significant. The Lagrange Multiplier test for effects has a significant p-value, suggesting that either the fixed or random effect is more appropriate.

The panel least squares was then used to estimate the model. The results of the random effect are also shown in Table 2 and they are not statistically different from the results from the OLS technique. To determine which effect is more appropriate, the Hausman test was conducted and the significant p-value therefrom suggests that the fixed effect is more appropriate. From the results in the fixed effects column, it is observed that at the 5% significance level, CEO overconfidence positively relates with tax avoidance and the relationship is statistically significant. Also, all the control variables except for governance are statistically significant. The model is statistical significant based on the F-statistic and all the variables jointly explain 16.9% of the systematic variation in corporate tax avoidance after adjusting for degree of freedom. Consequently, the results from the multivariate analysis supports the hypothesis that CEO overconfidence significantly relates to corporate tax avoidance.

Consistent with prior studies (Aliani et al., 2016; Chyz et al., 2019; Hsieh et al., 2018), this study finds that CEO overconfidence has a significant and positive relationship with corporate tax avoidance and therefore lends support to the upper echelon theory which presupposes that the attributes of the chief decision maker in an organisation affects organisational outcomes. By implication, this finding reveals that the decision of the Nigerian apex bank to change the managerial cadre of some banks in order to



regulate negative organisational outcomes is not only good managerial practice but also one founded on theoretical and empirical evidence.

## 5. Conclusion and Recommendations

The upper echelon theory predicts that the attributes of top management affect organisational outcomes. Therefore, in this study, we investigated how CEO overconfidence may affect tax avoidance practices using a dataset comprising non-financial companies operating on the floor of the Nigerian Stock Exchange. CEO overconfidence was measured using firm-level investment which was derived by regressing total asset growth on sales growth by industry-year and then categorising the residual into dummy while corporate tax avoidance was measured using the relatively new Henry and Sansing measure that allows for inclusion of loss firms in a sample and overcomes the truncation bias associated with effective tax rate. The study shows that engaging in corporate tax avoidance can be explained by the innate attributes of the CEO. Therefore, on one hand, those charged with governance can harness the strategic advantage associated with tax minimisation and avoidance by specifically targeting CEOs who in their opinion are overconfident. On the other hand, if their intention is to prevent corporate tax aggressiveness, it follows that CEOs who are deemed as overconfident may either be replaced or put in check by instituting strong governance mechanisms. The result from this study may equally help tax authorities and officers understand the roles that an overconfident CEO may contribute to tax avoidance. Consequently, tax regulators can employ the technique of CEO profiling as a preliminary selection tool that can be used to select companies for random tax audits and investigations. The study contributes to literature on determinants of corporate tax avoidance and confirms the prediction of the upper echelon theory on the effect of managerial attributes on organisational outcomes. Despite the impressive result, this study is not without limitations. Due to limited access to data, CEO overconfidence was measured using firm-level investment. Therefore, future studies can use other robust and less noisy proxy to corroborate our findings. Also, apart from the CEO, another important decision maker is the CFO; therefore, future studies can investigate the role that CFOs can play in using tax avoidance as a strategic financing choice or on other accounting/finance related organisational outcomes.

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