

# Managerial Ownership and Tax Avoidance of Listed Companies in Nigeria with Profitability as Mediating Variable

Moses Babatunde Olanisebe<sup>1\*</sup>  
Sadiq Rabi Abdullahi<sup>2</sup>  
Kabiru Isa Dandago<sup>3</sup>

<sup>1</sup>Bursary Department, University of Maiduguri, Borno State-Nigeria

<sup>2,3</sup>Professor, Department of Accounting, Bayero University Kano, Kano-Nigeria

\*E-mail : [walemose@gmail.com](mailto:walemose@gmail.com)

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## Abstract

This paper examines the mediating effect of profitability on the relationship between managerial ownership and tax avoidance of listed companies in Nigeria. The study employed a correlational research design using data from the Nigeria Exchange Group (NGX) over the period of twelve years (2010-2021). Data was extracted from the annual report and accounts of the 121 out of 156 companies that were listed for the period. The data collected were analyzed using descriptive statistics, correlation and Structural Equation Modeling (SEM) were used as techniques for data analysis while Monte Carlo model was used to determine the level of significance of the indirect effects and the hypotheses formulated were tested. The study's findings demonstrate that managerial ownership affects tax avoidance behavior and that the relationship between managerial ownership and tax avoidance is mediated by the level of profitability. Based on these findings, the study recommended that shareholders need to pay closer attention to corporate tax matters to verify that the business has complied with its tax duties accurately and completely. Also, to reduce the level of principal-agent conflicts and enhance tax avoidance by monitoring management activities, listed companies in Nigeria should encourage managerial shareholding because some directors do not have share in sampled companies. Furthermore, the findings could be employed to inform policy makers on effective managerial shareholding on tax avoidance among listed companies in Nigeria.

**Keywords:** Managerial ownership, Profitability, Tax avoidance, listed firms on NGX.

## 1.0 Introduction

Over and over, government and companies were not viewing tax avoidance strategy from the same angle, although it is legal. Tax avoidance is quite unique, because on the one hand the company is allowed to engage in tax avoidance activities, but on the other

hand it can reduce state revenue. Government frowns at tax avoidance as it hinders the realization of the

Companies Income Tax (CIT) revenue target based on the report of Federal Inland Revenue Service (FIRS).

The statistics from the FIRS revealed that the targeted revenue in 2020 was (₦1,767.8865b) but only realized (₦1,275.3806b) which means 72.1% achievement. In 2021 the authority planned to generate (1,476.870b) which is below the previous year targeted notwithstanding the realized amount was above (₦1,747.990b) which implied 118.4% achievement level (FIRS tax statistics report, 2022). This shows that over the past years, revenues from the CIT have been the backbone of government revenues. Tax avoidance is among the factors that cause the negative variance between amount of corporation tax actually collected and the amount that should be collected.

A company engaging in tax avoidance automatically reduces government revenue, so governments with a stricter anti-avoidance stance seek to prevent tax avoidance or keep it within limits. The obvious way to do this is to frame tax rules so that there is a smaller scope for avoidance. In practice this has not always been achievable and has led to an ongoing battle between governments amending legislation and tax advisors finding new scope/loopholes for tax avoidance in the amended rules as one the reasons why Nigeria government keep reviewing Companies Income Tax Act (CITA) every year (Chitimira & Animashaun, 2021).

The percentage of shares owned by management is known as managerial ownership (Sholikhah & Nurdin, 2022). It is the units of shares owned by the management of the business. Management is directly in charge of

running the business; including choosing the accounting principles that will be applied. The importance of management in driving business growth is likewise rising, and the more stock that management owns, the more they can influence tax avoidance strategies. As a result, the management will take caution while establishing corporate policies to avoid harming their share price. Because of the potential profitability for the company, the size of managerial ownership will also boost tax avoidance activities. A manager's ability to maximize earnings for the business and their own compensation is a major obligation (Prasetyo & Pramuka, 2018). If there is a significant in percentage of shares owned by management in the organization, conflicts between managers of different parties inside it can be diminished (Rejeki et al., 2019).

Profitability is one of the primary objectives when starting a business. Every manager strives to increase performance in order to present a favorable image to shareholders and the general public. When a corporation can make more money, this is one of the things that can show investors a positive image. In a firm with shareholder managers, increasing profits will undoubtedly be welcomed by the shareholders. Managers therefore constantly strive to boost their profitability. The concept of signaling theory, which holds that managers always want their organizations to look good in front of shareholders and the public, is consistent with this situation. One of the strategies managements

adopt to achieve the anticipated profit is tax avoidance (Tamburaka et al., 2022).

Since the empirical findings of the previous studies are divided into negative and positive significant relationship between managerial ownership and tax avoidance-measurements, it is not out of context to conclude that, the previous findings are inconsistent. Therefore, there is a need to adopt a mediating variable to observe its interactive effect on managerial ownership and tax avoidance practice. Thus, the motivation of this study is to adopt profitability to observe its interactive effect on the relationship between managerial ownership and tax avoidance practice of listed companies in Nigeria, because when the company earns a large profit, company the tax liability also increases. This is in accordance with the increase in company profits so that the company tends to do tax avoidance to minimize tax payments that must be borne (Nurjanah & Nurdin, 2018).

The remainder of the paper proceeds as follows. Section two develops the theoretical review, review the literature and development of the hypotheses. Section three explains the methodology adopted, while Section four presents results and discussion. Finally, the conclusions and recommendation of the paper are found in section five.

## 2.0 Literature Review and Hypotheses Development

In order to understand the perspectives on the relationship among the variables under study, especially the mediating

effect of profitability on the relationship between managerial ownership and tax avoidance, numerous theoretical models and frameworks have been developed in order to identify the relationship and the impacts of managerial ownership trending towards profitability. This paper draws its theoretical review from agency theory that best identifying, explains and also resolved the disputes that arises between the managers and shareholders, due to problems in the separation of firm management and ownership.

### *Theoretical Review*

Jensen and Meckling developed agency theory in the year 1976. This theory emphasizes on the separation of firm management and ownership. It is the correlation of interests between the agent and principal. The theory was born as the consequences of conflict of interest between principal and agents and due to problem in separation of firm management and ownership (Abdul-Jamal et al., 2013). The perspective of agency theory confirms that the separation of ownership and corporation control will certainly lead to agency issues when manager's motives is not to maximize company performances such as: ignoring his responsibility, enriching his own properties, and rent extraction (Badertscher et al., 2013).

Managerial ownership is the owner of the company as well as the manager of the company. The greater the proportion of managerial ownership shares, the smaller the chances of conflict, because if the owner acts as the manager of the

company, he will be very careful in making decisions on tax avoidance in order not to harm the company. If managerial ownership is small, there will be fewer shareholders involved in managing the company, so the higher the emergence of agency problems due to differences interests (Sari & Rahyuda, 2021). Therefore, agency theory concept is a linkage between the management interest and shareholders in achieving good performance of company (Jensen & Meckling, 1976).

### ***Managerial Ownership and Profitability***

Managerial ownership may affect firm performance positively as it is expected that directors will make good decisions because they partly own the firm hence their interest in the decisions made. This approach is motivated by agency theory (Jensen & Meckling, 1976) who suggested that managerial participation in share ownership will limit management's proclivity for opportunistic behaviors that may harm shareholders. However, differing views on whether increase in shares held by directors can lead to increase on profitability or otherwise with aimed to reduce agency problems.

Studies conducted by Din et al. (2021) and Dakhllalh et al. (2021) states that managerial ownership can increase the company's profitability, this is because the owner who is also the manager of the company certainly wants a good return, because the peacock is part of the recipient of the return. One way to increase the return is to increase the company's profitability. Following this,

major empirical studies on this subject show mixed results, in line with earlier findings, Alkurdi et al. (2021) concluded that an increase in managerial shares in listed firms on the Amman Stock Exchange (ASE), resulted to an increase in market share, which is positively reflected firms' return on assets.

Such a result concurs with Dakhllalh et al. (2021) who examine the relationship between the ownership structure and firm performance in developing countries like Jordan for the period of nine years (2009-2017). The result shows that managerial ownership has significant and positive effects on firm performance. Similarly, Oyedokun et al. (2020) examined the effect ownership structure on the firms' value of quoted manufacturing firms in Nigeria for a period of nine years (2010-2018). Data were collected from secondary sources through the annual reports and accounts of sampled consumer goods firms in Nigeria. The study adopted a panel regression technique as a tool of analysis. The result shows a negative effect of managerial ownership on firm value.

Furthermore, Din et al. (2021), Alabdullah (2018), Hossain (2016) and Kamardin (2014) concluded that managerial ownership improves financial performance for the period under study. This implies that profitability is increased when managers are an integral part of the company's board. In a nutshell, managerial ownership is the owner of the company as well as the manager of the company. The likelihood of conflict decreases as managers' ownership of equity increases,

because if the owner acts as the manager of the company, he will be very careful in making decisions so as not to harm the company. The formation of agency issues due to growing interest disparities will be stronger if managerial ownership is minimal because there would be fewer shareholders active in managing the business (Alkurdi et al., 2021).

On the contrary, Ali et al. (2022) studied this relationship, and the result found that managerial ownership has a significant and negative effect on a firm's performance of seventh (70) listed non-financial firms on Pakistan Stock Exchange for a period of nine-year from 2010 to 2016. Similarly, Mohammed (2018) concluded that managers' low level of shares related negatively with financial performance FP. This is in line with agency theory assumption which says that managerial ownership or separation of ownership control increase agency cost. The study, therefore, hypothesized that:

H0<sub>1</sub>: Managerial ownership does not have significant effect on profitability of listed companies in Nigeria.

### *Managerial Ownership and Tax Avoidance*

Ownership by corporate board members creates an incentive to protect their financial interest in the company. Having interest in the equity formation of a company, the manager tends to act more in the best interest of shareholders. Fama and Jensen (1983) predict that managers and owners will be less likely to participate in risky enterprises if capital ownership and corporate

decision-making are concentrated in a few hands. Previous studies have provided mixed evidence for the relationship between managerial ownership and tax avoidance.

Boussaidi and Hamed-Sidhom (2021) found a significant negative association between managerial ownership and tax aggressiveness strategies of firms in Tunisian. In addition to that, Alkurdi and Mardini (2020) assessed the impact of ownership structure and the board of directors' composition on tax avoidance strategies. The sample consists of all the Jordanian first market companies that were listed on the Amman Stock Exchange for a period of six years (2012-2017). The regression result shows that managerial ownership has negative and significant impact on tax avoidance. This signals that incentive measures dedicated to managers may encourage them to protect firms from potential risks for their owned incentive measure related to firms' performance. This study was conducted outside Nigeria, the result of which may not be the same in the Nigerian context, given the differences in corporate governance codes and tax regulations.

Various studies have indicated a negative and significant effect of managerial ownership on the tax avoidance, these include Multazam and Rahmawaty (2018), Yuniarsih (2018) and Desai and Dharmapala (2006). The negative results imply that management's share ownership has been effective in overseeing the company's activities and can discourage

management attitude towards tax avoidance. This can happen allegedly because management owns shares in the company; it will act carefully in making decisions so that the decisions taken do not have a negative impact on their shares, including decisions in implementing tax avoidance that contains risks in the future. This suggests that the higher the ownership of a firm's shares by its managers, the stronger it is to prevent management from carrying out tax planning which is called tax avoidance.

Also, Andari et al. (2022), Deef et al. (2021), Ogbeide and Obaretin (2018) and Mohammed (2017) and Boussaidi and Hamed (2015) documented a positive and significant relationship between managerial ownership and tax avoidance. This means self-interested managers engage in tax avoidance to hide managerial diversion of corporate resources. Other studies concluded that there is no significant relationship between managerial ownership and tax avoidance (Kibiya 2021; Rakayana et al., 2021; Mayang & Silvy, 2020; Tanko 2020; Tijjani & Peter 2020; Resti et al., 2020; and Jamei, 2017). It is worth pointing out that the studies reviewed on the impact of managerial ownership on tax avoidance activities have been unglamorous, thus their claims cannot be generalized. In this predicament of contradictory opinions and evidences from the literature in which some studies support the link between managerial ownership and tax avoidance, and others did not.

Therefore, further investigation is needed in order to determine whether

this element is effective or not. Bearing in mind the above conflicting views, this study still believes that there is a potential relationship between managerial ownership and tax avoidance. Although, it is reasonable to expect that the holding of a significant share in a company by directors of the board and managers can reduce the level of tax avoidance activities. For this reason, we present our second hypothesis as follows:

HO<sub>2</sub>: Managerial ownership has insignificant effect on tax avoidance of listed companies in Nigeria.

#### ***Profitability and Tax Avoidance***

Financial performance is the achievement of the company's financial goals and objectives. It is a measure of how well a company is performing financially and achieving its desired outcomes in terms of profitability, growth, and value creation for a certain period covering the collection and allocation of finance measured by profitability. Profitability indicates management performance in managing company's resources, which reflected by profit. Profitable companies have higher earnings and consequently pay more taxes. Company profitability is closely related to tax avoidance because the greater the level of profitability, the greater the amount of tax to pay so the tendency of company engaging in tax behavior also increase.

In the works of Putri and Halmawait (2023) and Dewi and Yasa (2020) stated that high profitability will increase the level of tax avoidance practices in any

company. High profitability in a company maximally indicates that the company can manage assets efficiently to earn a profit (Tamburaka et al., 2022). Tax avoidance is accomplished by increasing expenditures that potentially lower taxable revenue, such as amortization and research and development costs. Naturally, companies that are more profitable pay more taxes than those that are less profitable (Tamburaka et al., 2022). As a result, companies that are highly profitable tend to avoid paying taxes.

Based on the studies conducted by Putri and Halmawait (2023), Ogbeide et al. (2022), Tansuria and Nelwan (2022), Ananggadipa and Sari (2021) and Darsani and Sukartha (2021) discovered a correlation between profitability and tax avoidance practices. The means the higher the profit the companies generated each year, the more aggressive it is to practice tax avoidance and also planning for the future. In other studies, conducted by Ernawati et al. (2021), Fatimah et al. (2021), Umar et al. (2021) and Urrahmah and Mukti (2021) revealed that profitability has negative and significant effects on tax avoidance practices. Likewise, Sibarani et al. (2023) and Rambe and Utami (2021) concluded that profitability has insignificant effect on tax avoidance practices. However, based on the direction of the relationships, it is evident that the larger the profit in the study's sample firms, the more aggressive they tend to be in terms of tax avoidance. In light of the aforementioned rationale, the

researchers come up with the following assertion:

Ho<sub>3</sub>: Profitability has insignificant effect on tax avoidance of listed companies in Nigeria.

### *The Mediating Effect of Profitability on the Relationship between Managerial Ownership and Tax Avoidance*

As earlier mentioned, managers who own shares in a company will act in their interest. Managers want a high return to accomplish their wish. As a shareholder who also desire high return, he will work optimally so that the company generates higher profit. If this is achieved, in order to maintaining the profit, they also take advantages in tax laws to reduce tax encumbrances that are considered to be legal and thence to increase profit for shareholders. It is argued that there is not any direct relationship between ownership structure and tax avoidance, but that the impact occurs through profitability (Tamburaka et al., 2022). These studies contend that managerial ownership does not impact on tax avoidance in a straightforward way, but instead affects tax avoidance in a roundabout way through profitability. It is argued that managerial ownership is required to affect profitability, which has been observed in the literature to be related.

Meanwhile, profit is one of the main goals of establishing a company. Every manager always works with the aim of improving their performance in order to have a positive image in front of shareholders and the public. One of the things that can give a positive image is

when the company can generate profits. In companies with shareholder management, shareholders will undoubtedly appreciate an increase in business profits. Therefore, managers always want to work hard to increase their profitability. This situation is in line with the signaling theory, which states that managers always want their companies to look good in front of shareholders and the public.

The present study fills the research gap in the corporate finance literature by validating the existing relationship between managerial ownership and tax avoidance taking profitability as a mediator. It is clear from the literature that an effective monitoring and involvement of managers in day to day running of the business helps in reducing the information asymmetry and agency costs, this could increase the firm's profitability and ultimately affect the tax avoidance activities. The significant contribution of this paper is to analyze the influence of monitoring and involvement of managerial ownership as policy makers on how to take the loophole in tax law to reduce the tax liability and the mediating effect of profitability in analyzing the impact of managerial ownership and tax avoidance. So, based on this objective, we propose the following hypothesis:

H0<sub>4</sub>: Profitability does not mediate the relationship between managerial ownership and tax avoidance of listed companies in Nigeria.

### **3.0 Methodology**

This study is designed to be descriptive in nature. The data used in this study

were secondary data obtained from the listed companies on the Nigeria Exchange Group (NGX) in the form of financial statements. Accordingly, the data of financial statements used was extracted from the income statements and statement of financial position as at financial year ended 31<sup>st</sup> December of the period under review. Moreover, the selection of the unit of analysis was made based on the satisfaction of the following criteria: First, the companies must be listed under NGX without for once been deleted from the list on any circumstance throughout the period under review and secondly, having uninterruptedly published financial report for 12 years, from 2010 to 2021.

From the 165 listed companies on NGX from 2010 to 2021, a total of 141 companies were qualified as members of the study sample. The annual financial reports of the selected companies were sourced from the portal of the NGX. Based on the primary objective of this study as to analyze the pattern of relationship among variables to determine the indirect or direct effect of a set of exogenous variables on the endogenous variables, descriptive and inferential analysis tools were employed to prove the examined relationship among the four variables under the study. The data will furthermore be analyzed using Structural Equation Model (SEM) through STATA version 15. The use of SEM in this study is justified based on the fact that, in SEM, the model is regressed structurally and all-important values in the model are estimated simultaneously.



**Regression Equation**

This study proposed two econometric models in the analysis. Model one tests the effect of managerial ownership on profitability. Model two tests how profitability mediates the relationship between managerial ownership on tax avoidance of listed companies in Nigeria.

$$ROA_{it} = \beta_0 + \beta_1 MO_{it} + \chi_1 AGE_{it} + \chi_2 LEV_{it} + \varepsilon_{it} \dots \dots \dots (1)$$

Profitability variable is defined to be ROA, managerial ownership (MO) with Firm Age (AGE) and Financial Leverage (LEV) are the control variables. The parameters of the model are  $\beta_0$ ,  $\beta_{1it}$ ,  $\chi_{1it}$ , and  $\chi_{2it}$ . The intercept is  $\beta_0$  while  $\beta_{1it}$ ,  $\chi_{1it}$  and  $\chi_{2it}$  are partial slope of regression coefficients for managerial ownership, firm age and leverage respectively while  $\varepsilon$  is the error term.

The next equations were developed to establish whether the direct relationship between the managerial ownership and tax avoidance is mediated by profitability. The following equations define the individual proxies of tax avoidance:

These two models were formulated as proposed by Memon et al. (2018), Mackinnon et al. (2012) and Zhao et al. (2010) in testing the mediation. The equation below was developed to examine the effect of managerial ownership on profitability of listed companies in Nigeria.

$$ETR_{it} = \beta_0 + \beta_1 MO_{it} + \beta_2 ROA_{it} + \chi_1 AGE_{it} + \chi_3 LEV_{it} + \varepsilon_{it} \dots \dots \dots (2)$$

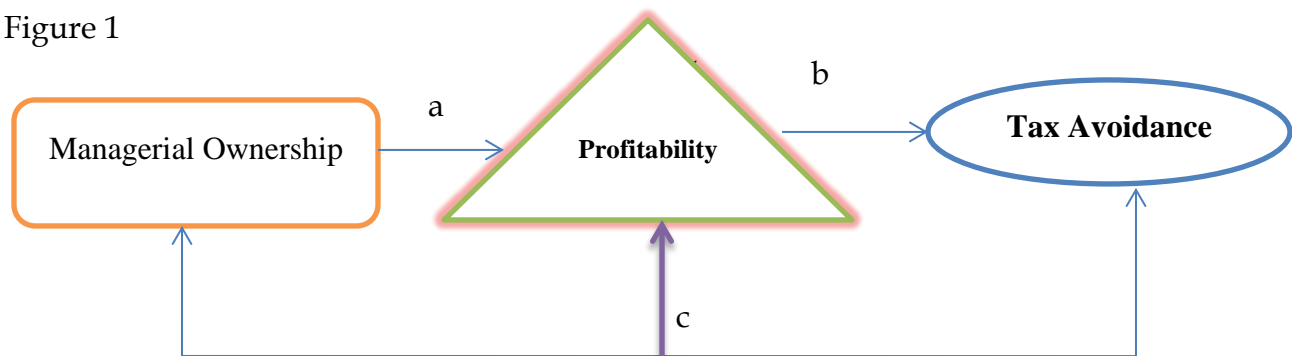
$$HSM_{it} = \beta_0 + \beta_1 MO_{it} + \beta_2 ROA_{it} + \chi_1 AGE_{it} + \chi_2 LEV_{it} + \varepsilon_{it} \dots \dots \dots (3)$$

Tax avoidance is defined to be Effective Tax Rate and Henry & Sansing's Measure, Managerial Ownership (MO) represents independent variable, profitability is proxied with ROA while AGE and LEV represent control variable. The parameters of the model are  $\beta_0$ ,  $\beta_{1it}$ ,  $\beta_{2it}$ ,  $\chi_{1it}$  and  $\chi_{2it}$ . The intercept is  $\beta_0$  while  $\beta_{1it}$ ,  $\beta_{2it}$ ,  $\chi_{1it}$ , and  $\chi_{2it}$  are partial slope of regression coefficients for managerial ownership, ownership concentration, profitability, firm age and leverage respectively while  $\varepsilon$  is the error term.

**Methods of Data Analysis**

The study used descriptive statistics to summarize the data into a manageable

Figure 1



form and provide a description of the research variables individually, while a correlation matrix shows the association between the dependent and explanatory variables. This study also used Structural Equation Model (SEM) because it provided an opportunity to test multiple relationships simultaneously, as used by Tamburaka et al. (2022), Dakhli (2021), Kibiya (2021) and Sunarto et al. (2021).

Figure 1 shows the direct and indirect paths. Point (a) represents the direct relationship between managerial ownership and profitability. Point (b) shows the influence of profitability on tax avoidance, while the indirect effect of share held by managerial on tax avoidance through profitability represented by point (c).

**Table 1: Variables of the Study and their Measurement**

Variables	Proxies	Symbol	Measurement	Source/Justification
Tax Avoidance (DV)	Effective Tax Rate	ETR	Tax liability divided by profit before tax	Putri and Halmawait (2023), Jaffar et al. (2021), Tijjani and Peter (2020) and Putra et al. (2018),
	Henry and Sansing's Measure	H & S M	Cash tax paid less the product of pre-tax income and statutory rate divided by total assets	Gebhart (2017) and Henry and Sansing (2014).
Managerial Ownership (IV)	Managerial Ownership	MO	The proportion of shares held by managers to the total of shares issued	Sholikhah and Nurdin (2022), Deef et al. (2021), Tanko (2020), Tijjani and Peter (2020) and Salaudeen and Ejeh (2018).
Profitability (MV)	Return on Assets	ROA	PBT to Total Assets	Jaffar et al. (2021), Sari et al. (2020), Otuedon (2021), Ibobo et al. (2019)
Age (CV)	Age	AGE	Number of years since the firm's establishment	Alkurdi and Mardini (2020) and Farooq and Zaher (2020)
Leverage (CV)	Debts Ratio	LEV	Total interest-bearing debt divided total assets	Kibiya and Aminu (2019), Sani (2016)

#### 4.0 Statistics and Discussion

This sub-section presents the summary statistics of the data generated on the dependent, mediating and explanatory

variables of the study. Table 2 shows the summary statistics relating to the mean, standard deviation, minimum, and maximum of the research variables.

**Table 2: Descriptive Results**

Variables	Obs.	Mean	Std. Dev.	Min.	Max.
ETR	1,452	0.1400	0.2371	-0.981	0.6793
HSM	1,452	-0.0004	0.0234	-0.043	0.0574
MO	1,452	0.2257	0.2667	0	0.9716
ROA	1,452	0.0356	0.0955	-0.179	0.2261
AGE	1,452	42.2959	19.3769	5	131
LEV	1,452	0.1396	0.1815	0	0.8622

Source: STATA Output, 2023

The descriptive statistics in Table 2 shows the attributes of the variables from the one hundred and twenty-one (121) selected companies that formed the overall sample of the study. As observed, the mean value of the dependent variable Effective Tax Rate (ETR) and Henry and Sansing's Measure showed mean value of 0.1400 and -0.0004 respectively. Suggesting that the sample companies tend to practice tax avoidance because the value is below the statutory tax rate of 30% using ETR and the negative Henry and Sansing's Measure indicates that companies have a negative tax preference.

More so, on average, directors own about 23% of the total equity shares of the companies. This shows that 77% of the total equity shares of the companies are owned by shareholders who are not directors with standard deviation of 27%, this is higher than the mean value. This

implies that the deviation of the mean from actual value was too grievous indicating that the mean does not represent the true average for the companies, signifies that managerial shareholding of the companies is widely diverse, as shown by the minimum managerial shareholding of 0% (some directors do not own share in the company) and maximum managerial shareholding of about 97% (CWG-2012) among the sampled companies for the period of the study. Also, the mean value of institutional shareholding is about 42% of the total equity shares issued by the sampled companies for the period of the study. This implies that the remaining 58% of the total equity shares of the companies were held by individual shareholders of the companies.

Furthermore, firm age, the average firm age is approximately 42 years. This

shows that on the average the sampled companies are 42 years with a standard deviation of 19 years and minimum and maximum values of 5 and 131 years respectively. This indicates that, whereas some of the listed companies are incorporated Nigeria in 2005, First Bank Plc. was incorporated since 1890, and this gives an insight as to whether being incorporated earlier will result in companies engaging tax avoidance activities. In the case of debt-bearing interest of the sampled firms in Nigeria, the result shows that leverage has a mean of 14%, which implies that the firms that

constitute the sample size are highly geared. This affords them to take advantage of tax shield arising from interest expenses to minimize tax liability since interest expense on leverage is tax deductible. It is also noteworthy that, some sampled companies do not have debt bearing interest as by 0% with a maximum value of 86% debt bearing interest ratio among the sampled companies. The standard deviation value is 0.1815, this value is above the mean, and this implies that the data is homogeneous. The Table 3 below presents the results of correlation matrix.

**Table 3: Correlation Result**

Var.	ETR	HSM	IO	ROA	FS	LEV	VIF
ETR	1.000	-					
HSM	-	1.000					
MO	-0.0439	0.0844	1.000				1.06
ROA	0.5092	-0.7590	-0.1486	1.000			1.11
AGE	-0.0181	0.0484	-0.2562	-0.0249	1.000		1.07
LEV	-0.0873	0.1660	0.1541	-0.2294	0.0061	1.000	1.10

Source: STATA Output, 2023

The results in Table 3 show the Pearson correlation coefficients of the variables of managerial ownership, return assets and the control variables firm age and leverage and tax avoidance (measured by effective tax rate and HSM) of the listed companies in Nigeria. The result indicates negative association between tax avoidance proxies and managerial ownership and the control variable firm age and leverage from the correlation coefficient of -0.0439, -0.0181, -0.0873 respectively, while profitability shows a positive relationship with tax avoidance proxies used in this study from the coefficient of 0.5092. In addition, the result of the variation inflation factor

(VIF) test for multi-collinearity problems shows that the VIF values among all the variables are less than 10%, and this indicates the absent of a multi-collinearity problem in the regression models (Barde, 2009).

### *Structural Equation Modeling (SEM)*

#### *Results*

This sub-section presents the regression result of the effect of managerial ownership on tax avoidance of listed companies in Nigeria and mediating effect of profitability, using Structural Equation Modeling (SEM). Table 4 shows the estimation result of direct effects (managerial ownership and profitability).

**Table 4: Model I - Direct Effects (MO and ROA)**

Path	Coefficient	Z-value	P-value
MO → ROA	-0.0442	-4.81	0.000
AGE → ROA	-0.0002	-1.44	0.150
LEV → ROA	-0.4488	-11.31	0.000
CONS	0.0741	11.01	0.000
R-square	0.1025		
P-value	0.000		
Likelihood	-4415.9497		
Obs.	1,452		

**Source:** STATA 14.0 outputs (2023).

Table 4 presents the regression estimates of the direct effect of managerial ownership on profitability. The test reveals a cumulative R<sup>2</sup> of 0.1025 (10%), this means that variables that were included in the model explain about 10% of the variation in ROA, and other variables not include in model carry about 90% of the variation in dependent variable. The likelihood ratio (F-statistics), which statistically is significant ( $p < .001$ ), indicates that the model is fit to describe the change in the explanatory variables (MO, AGE and LEV) and mediating variable (ROA).

The SEM regression shows that managerial ownership has negative and significant effect on profitability of listed companies in Nigeria. This implies that managers with a significant ownership stake in listed companies in Nigeria satisfied their own interests ahead of the overall interest of the other shareholders of the companies, leading to decisions that are not in the best interest of the company's profitability. This is in agreement with the core argument of the agency theory proposition that conflict of

interest exist between the agent and managers due to the separation of ownership and control. This finding is consistent with the findings in Ali et al. (2022), Alkurdi et al. (2021) and Adamu and Haruna (2020) who reported a negative and significant influence of managerial ownership and profitability, meaning that MO exploited opportunistic activities to serve their interest, which eventually results "to" increase in agency costs level. On the contrary, it contradicts the findings of Yahaya and Lawal (2018) who documented insignificant influence of managerial ownership on Return on Assets (ROA) and Return on Equity (ROE) respectively as proxies of financial performance.

In the same vein, firm age has negative and insignificant relationship with profitability as shown in the Table 4 while financial leverage shows significant negative impact on profitability of the sampled firms. Table 4 showed the estimation result of total effects of managerial ownership on tax avoidance).

**Table 5: Total Effects (MO) and Tax Avoidance (ETR and HSM)**

Paths	ETR			Paths	HSM		
	Coef.	Z-value	P-value		Coef.	Z-value	P-value
ROA → ETR	1.1105	17.96	0.000	ROA → HSM	-0.2051	-55.59	0.000
MO → ETR	0.0499	2.29	0.022	MO → HSM	-0.0026	-2.02	0.043
AGE → ETR	-0.0002	-0.65	0.516	AGE → HSM	-7.1200	0.40	0.687
LEV → ETR	0.0018	0.06	0.956	LEV → HSM	0.0014	0.73	0.467
CONS	0.0971	5.89	0.000	CONS	0.0069	7.06	0.000
R <sup>2</sup>		0.1957		R <sup>2</sup>		0.7034	
P-value		0.000		P-value		0.000	
Likelihood		-4415.9497		Likelihood		-329.40203	
Obs.		1,452		Obs.		1,452	

**Source:** STATA 14.0 outputs (2023).

Table 5 shows the result of the two models, in general, the two models seem to be a good fit, as they explain a significant proportion of the independent variables on tax avoidance (ETR and HSM), with an R<sup>2</sup> of 20% and 70% respectively, and with a positive and significant value for the F-statistic. From the Table, the results of Model 1 (ETR) and Model 2 (HSM), it shows that profitability has positive and significant impact on ETR while it has negative and significant on HSM. This implies that profitability has significant impact of tax avoidance using ETR and HSM as proxies. This is an indication that companies with higher profitability may be more likely to engage in tax avoidance strategies. This is because companies with higher profits have more resources and incentives to minimize their tax liabilities to improve the profits.

The SEM regression in Table 5, the path result shows that managerial ownership has significant impact on tax avoidance (ETR and HSM). Managerial ownership affects tax avoidance, indicates that the greater the fraction of the managerial ownership, increase the likelihood of

company tax burden. It points to the fact that a specific proportion of ownership by managers contributes positively and higher to tax avoidance in the listed companies in Nigeria. This implies that managers with proportion of share in the listed companies in Nigeria were ethical consideration and are of more tax compliance behaviors. In summary, it is reasonable to conclude that the holding of a significant part in the firm's equity by directors of the board and managers can decrease significantly the tax avoidance activities. This finding aligns with Andari et al. (2022), Deef (2021), Ogbeide and Obaretin (2018). The value of 97.16% of managerial ownership under the descriptive statistics in the sampled companies is evidence of the positive and significant effect it has on tax avoidance strategies. This can happen allegedly because management owns shares in the company; it will act carefully in making decisions so that the decisions taken do not have a negative impact on their shares, including decisions in implementing tax avoidance that contains risks in the future.

### *Managerial Ownership, Profitability and Tax Avoidance*

Model three tests the mediating effect of profitability on the relationship between managerial ownership and tax avoidance of listed companies in Nigeria. In this analysis, bootstrapping method of Preacher and Hayes (2008) was used to determine the indirect effect. As described in Zhao et al. (2010), the Preacher and Hayes test is the most acceptable approach nowadays. The reason why Zhao et al. (2010)

categorically suggest the use of the bootstrap test of indirect effects is due to the fact that the Sobel's test has low power because it by default uses a normal approximation presuming a symmetric distribution when the sampling distribution of  $a * b$  is known to be highly skewed (Kenny & Judd, 2014). This is still the case even when ( $a$  and  $b$ ) per se are normally distributed (Jose, 2013). The indirect effects significant level was shown in Table 6.

**Table 6: Significance Testing of Indirect Effect Using (Bootstrapping)**

Path	Coefficient	z-value	P-value	Type	Decision
<b>MO → ROA → ETR</b>					
_bs_1: r(ind_eff)	-0.0490	-4.62	0.000	Competitive mediation	The indirect effect and the direct effect both are significant and point in opposite directions
_bs_2: r(dir_eff)	0.0499	2.28	0.023		
_bs_3: r(tot_eff)	0.0008	0.03	0.972		
<b>MO → ROA → HSM</b>					
_bs_1: r(ind_eff)	0.0091	5.28	0.000	Competitive mediation	The indirect effect and the direct effect both are significant and point in opposite directions
_bs_2: r(dir_eff)	-0.0026	-2.16	0.030		
_bs_3: r(tot_eff)	0.0064	2.70	0.007		

**Source:** STATA 14.0 outputs (Bootstrapping) Based on Data Generated (2010-2021).\*, \*\*, \*\*\* indicate significance level at 10%, 5% and 1% respectively

The bootstrap test (with 5000 bootstrap samples), which offers a much more alternative that imposes no distributional assumption (Preacher & Hayes, 2008; Zhao et al., 2010), is employed to test the mediation effect of profitability (ROA) on the relationship between managerial ownership and tax avoidance. Results of bootstrapped samples indicated that whilst the total effect of managerial ownership and ETR

was insignificant, the direct and indirect effect were significant and point in opposite directions. This implies that the mediation is “competitive mediation”. In the same vein, total effect of managerial ownership and HSM was significant, the direct and indirect effect were also significant and point in opposite directions. This implies that the mediation is “competitive mediation”.

In summary, profitability mediated the relationship between managerial ownership and tax avoidance (ETR and HSM) of listed companies in Nigeria. According to Hair et al. (2017), these results proved that competitive mediation occurred when ETR and H&S measure were used to proxies tax avoidance, meaning that the indirect effect and the direct effect both are significant and point in opposite directions. This implies that managers who also own a stake in their companies are more likely to engage in tax-dodging activities because of benefits. This finding is in line with the work of Tamburaka et al. (2022).

#### *Testing of Hypotheses and Discussion*

Based on the above results in Tables, the four null hypotheses developed in the literature reviewed were test as follows:

#### **Ho<sub>1</sub>: Managerial ownership has insignificant effect on profitability of listed companies in Nigeria.**

The result shows that managerial ownership has a negative and significant effect on profitability. This implies that profitability is decrease 0.0442, whenever there is a one percent increases in shares held by managers. Increase in percentage of shares held by managers, the higher the tendency of managerial entrenchment and the possibility to expropriate the wealth of the minor shareholders. This occurred because managerial shareholdings exploited opportunistic activities to serve their interest, which eventually results in the increase the agency costs level. To

improve the company's performance, particularly in terms of profitability, many initiatives have been launched. One of the strategies used is managerial ownership of shares. This strategy tries to reduce management's inclination for opportunistic acts that may hurt shareholders and is inspired by agency theory (Jensen & Meckling, 1976). This is due to the fact that as a recipient of the return, the owner, who also serves as the company's manager, naturally desires a strong return. Increasing the company's profitability is one strategy to boost return. As a result, the study's findings are consistent with agency theory.

Every manager strives to increase performance in order to present a favorable image to shareholders and the general public. When a firm can make money, which is one of the things that can project a positive image. The stockholders of a firm with shareholder managers will undoubtedly favor more earnings. Managers therefore constantly strive to boost their profitability. This finding is consistent with the findings in Ali et al. (2022), Alkurdi et al. (2021), Adamu and Haruna (2020) and Mohammed (2018) who reported negative and significant influence of managerial ownership and profitability, meaning that MO exploited opportunistic activities to serve their interest, which eventually results in the increase the agency costs level. On the contrary, it contradicts the findings in Yahaya and Lawal (2018) who documented insignificant influence of managerial ownership on Return on Assets (ROA) and Return on Equity



(ROE) respectively as the proxied for financial performance.

**Ho<sub>2</sub>: Managerial ownership has insignificant effect on tax avoidance of listed companies in Nigeria.**

In testing this hypothesis, the probability of P-value of SEM regression analysis presented on Table 5 show that managerial ownership has significant impact on the tax avoidance of the listed companies in Nigeria. Managerial ownership shows to be an important tax-avoidance contributing factor. Therefore, the null hypothesis two which state that managerial ownership has insignificant effect on tax avoidance of listed companies in Nigeria is reject which is in line with the results of Andari et al. (2022), Deef (2021), Chukwu et al. (2020) and Farooq and Zaher (2020). This result is in line with agency theory prediction that managers and owners will be less likely to participate in risky enterprises if capital ownership and corporate decision-making are concentrated in a few hands and because managers who also act as owners prioritize common interests by adopting regulations that prevent tax avoidance activities in the company (Fama & Jensen, 1983). This suggests that the likelihood of conflicts between management's interests and those of the company's shareholders decreasing as management's ownership over a company's shares increases.

**Ho<sub>3</sub>: Profitability has insignificant effect on tax avoidance of listed companies in Nigeria.**

In testing this hypothesis, the probability of P-value of SEM regression analysis

presented on Table 5 shows that profitability has significant impact on tax avoidance of the listed companies in Nigeria. ROA seems to have a significant positive relationship towards tax avoidance strategy. As argued before, the reason could be that firms with high Return on Assets (ROA) would rather not want to harm their good performance and reputation with avoiding taxes by lowering PBT. Therefore, the null hypothesis three which states that profitability has insignificant effect on tax avoidance of listed companies in Nigeria is rejected. The result agreed with the results of Ogbeide et al. (2022), Hohmann (2021), Sormin (2021), Dewi and Yasa (2020), Kibiya and Aminu (2019), Gebhart (2017) and Henry and Sansing (2014). Likewise, it disagrees with observations in Sumantri et al. (2022), Umar et al. (2021), and Akbar et al. (2020) who reported a statistically insignificant relationship between profitability and tax avoidance activities. The difference in the results of this study can be due to the use of different samples and also the regression model used.

**Ho<sub>4</sub>: Profitability does not mediate the relationship between managerial ownership and tax avoidance of listed companies in Nigeria.**

In testing this hypothesis, Table 6 based on bootstrapping of testing the indirect effects. The P-values of both bootstrapping results indicate that profitability mediate the relationship managerial ownership and tax avoidance of the listed companies in Nigeria, the mediation is competitive

mediation since the indirect effect and the direct effect are both significant and point in opposite directions. Therefore, the null hypothesis four which states that profitability does not mediate the relationship between managerial ownership and tax avoidance of listed companies in Nigeria is rejected which is in

## **5.0 Conclusion and Recommendations**

This study examined the mediating effect of profitability on the relationship between managerial ownership and tax avoidance of listed companies in Nigeria. The study reveals that the consistent relationship between managerial ownership and tax avoidance of listed companies in Nigeria is mediated by profitability. In the light of the major findings of the study, the following conclusion is drawn:

First, proportion of share held by managers to total shares affects profitability, this implies that when managers have a significant ownership stake in the company, their interests become more closely aligned with those of the shareholders. This alignment can motivate managers to make decisions and take actions that are beneficial to the company's profitability. Numerous initiatives have been undertaken to enhance the company's performance, particularly in terms of profitability. Thus, as the number of shares held by managers' increase, company profitability decreases.

Secondly, managerial ownership affects tax avoidance of the sampled companies. Thus, making management co-owners makes them act in their own interest.

line with the finding of Tamburaka et al. (2022) who revealed that profitability mediate the effect of managerial ownership on tax avoidance. Hence, tax avoidance is one of the management efforts to achieve the expected profit through tax management.

This is because managers have a great responsibility to manage the company and have a responsibility to increase company profits, so that managers are able to carry out their responsibilities to get rewards and bonuses for their performance compared to dividend that goes to shareholders. Managerial shares that are classified as small will not prevent management from carrying out tax avoidance. Also, managers may not be interested in lowering effective tax rates in order to increase shareholders' wealth because doing that does not directly benefit them. Therefore, management owned equity is relevant to tax avoidance decisions of listed companies in Nigeria and also in reducing agency conflict between managers and shareholders.

Furthermore, profitability affects tax avoidance of the sampled companies; it implies that the level of profitability in a company can influence the extent to which the company engages in tax avoidance practices. In other words, higher profitability may lead to a higher likelihood or greater magnitude of tax avoidance. This means that more profitable firms generally pay higher taxes. On the other hand, one could conclude that more profitable firms have greater incentives to engage in tax avoidance due to the greater potential

savings from tax avoidance practice. In the same vein, profitability is able to mediate the effect of managerial ownership on tax avoidance. This means that tax avoidance is one of the management efforts to achieve the expected profit through tax management; managers who also own a stake in their companies are more likely to engage in tax-dodging activities. Furthermore, the higher the profitability of a company, the greater the tax avoidance practices because managers want to maximize company profits after tax by minimizing the tax burden that must be paid to the government. Also, when there is an increase in profit before tax, the amount of income tax will also increase. Then, the company tends to devising legitimate techniques of paying less tax through tax avoidance.

Based on the findings, the study recommended among other things is that in order to reduce the level of principal-agent conflicts and to enhance tax avoidance and monitoring of management activities, listed companies in Nigeria should encourage managerial shareholding because some directors do not have share in sampled companies. Holding of shares by the managers can reduce the conflict of interest and reduce the agency problem, while ensuring ethically motivated tax avoidance which leads to high profit after tax. They should make strategic decisions that prioritize sustainable growth and profitability. Also, shareholders need to pay closer attention to corporate tax matters to verify that the business has complied with its tax duties accurately and completely, both to prevent future complications and to guarantee the business runs smoothly.

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