



## Mediating Effect of Quality-Differentiated Auditor on the Relationship between Managerial Ownership and Monitoring Mechanisms

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**Abstract:** Over the past decade, most studies in corporate governance and audit market have emphasised the importance of monitoring mechanisms (MM), especially after the global economic meltdown resulting from the Enron saga. The literature on MM continues growing as many countries especially the Sub-Saharan Africa are still struggling to come out of the effect of the economic meltdown and businesses continues to fail or merge. This paper, therefore, examines the relationship between Managerial Ownership (MO) and MMs with quality-differentiated auditors (QDA) as the channel for the relationship. The study used data from non-financial listed companies in Nigeria providing empirical supports that MO significantly associates with MMs in the right direction. Likewise, QDA also influences the MMs in the right direction suggesting that QDA is necessarily required to enhance adequate MMs. The findings of this study provide support for the association of MO and MMs with the intervention of QDA for solutions to agency problems. Companies should, therefore, motivate the management to own shares within the reasonable range that aligns the interest of the management with that of the shareholders. This paper adds to knowledge especially in Nigeria and Sub-Saharan Africa by examining a mediating effect to depict the relationship between MO and MM, which are not evident in prior studies.

**Keywords:** Agency Problem, Audit Market, Managerial Ownership, Monitoring Mechanisms, Quality-Differentiated Auditors

**JEL Classification:** M4, M40, M41, M42, M48, M49

**Paper Type:** Research

## 1. INTRODUCTION

Corruption Perception Index has shown for years that more than two-thirds of countries being rated by Transparency International (TI) score less than 50% (TI, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017). Agency theory has also shown in the extant literature that corruption has paved ways for opportunistic attitudes in companies, producing financial statements which are not reliable (Cadbury, 1992). The opportunistic behaviour births economic meltdown resulting in corporate bankruptcies, unimaginable loss of stock value (Kuschnik, 2008) and business failures (Al-Janadi, Rahman, & Omar, 2013). Shareholders also lost confidence and trust in the management for lack of transparency in financial reporting (Cadbury, 1992). Therefore, reports, such as Cadbury Report (1992) and Sarbanes Oxley Act (2002) among others as well as International Financial Reporting Standards (IFRS), Codes of Corporate Governance (CCG) are being developed or reviewed to monitor and control management of companies in individual countries to reduce agency problems in the public and private companies (Al-Janadi et al., 2013).

Nigeria is one of the Sub-Saharan Africa countries and yearly rated as one of the most corruptive countries in the world as evidenced in the Corruption Perception Index over the years (TI 2010; 2011; 2012; 2013; 2014; 2015; 2016; 2017). All attributes noted as consequences of fraud (unemployment, bad roads, inadequate power supply, infrastructure, and hospital facilities among others) as noted by Popoola (2014) and cited from Lamorde (2012) are dominant in Nigeria as evidence of corruption and fraud (Popoola, Che-Ahmad, & Samsudin, 2014). The persistence in corruption and the consequences of its predominance necessitates the need to investigate the managerial ownership of monitoring mechanisms. In addition is the need to examine the mediating role of the quality-differentiated auditors, considering their influence on the reliability and credibility of financial reports.

The scarcity of literature on monitoring mechanisms (MM) as a combination of directorship, internal and external auditing in the Nigerian companies, especially the non-financial sector motivates the study. Limited studies on quality-differentiated auditors (QDA) as a mediating variable are another motivating factor for the study. The understanding and knowledge of MM (directorship, internal and external auditing) and QDA are useful to align the interests of the management and shareholders for good corporate governance in companies. It will add to existing literature on MM as well as QDA.

Therefore, the primary objective of this paper is to examine the relationship between managerial ownership (MO) and monitoring mechanisms (MM). It will also investigate the mediating influence of the quality-differentiated auditors (QDA) on MO and MM. This study considers only the non-financial sector of Nigeria economy. The paper, to the best of the knowledge of the researchers, is the first with the unique combination of variables (MO, QDA and MM – directorship, internal and external auditing).

This study is organised and structured into five sections. After this section is a literature review, methodology, results, and conclusion.

## 2. LITERATURE REVIEW

The trend in the global market such as financial distress, bankruptcies, dwindling economies, and company mergers compel investors, governments, professional bodies, and regulatory agents to continually review their monitoring mechanisms (MM) and codes

of corporate governance - CCG (Georgiev, 2013; Al-Rassas & Kamardin, 2016). Governments, companies and regulators review MM and CCG to prevent and monitor corruption and align the interests of the management and shareholders in companies (Georgiev, 2013; Huson, Paino, & Starks). Hence, in the quest to protect investors' interests, the Nigerian government approved the revised CCG, SEC 2011 Code replacing SEC 2003 Code in the year 2011.

The trend in global market continues to draw the attention of researchers to investigate the effect of organisational attributes on corporate governance (Reddy and Sharma, 2014, Arnold, 2012, Anyanwu & Erhijakpor, 2009). Hence, there is literature on Managerial Ownership (MO), and Monitoring Mechanisms (MM) (Jensen & Meckling, 1976; Mustapha & Che-Ahmad, 2011b), but literature examining quality-differentiated auditors as a mediating variable between the two is scarce. Likewise, there is dearth literature relating MO to MM combining directorship, internal and external auditing in a single study. The only literature that examined MO and MM as the total costs of directorship, internal and external auditing is Mustapha and Che-Ahmad, (2011a, 2011b) in Malaysia, a transiting country.

Soobaroyen and Mahadeo (2012) explore the impact of the expectations and requirements in the code of corporate governance on how companies in an emerging economy perceive, understands and practice accountability. The study documents that monitoring mechanisms (MM) are intended to limit agency problems. The definition of MM in the study is consistent with the definition given by Azim (2012). The study of Azim (2012) is on corporate governance mechanisms and company performance. However, the study of Soobaroyen and Mahadeo (2012) explores only the directorship as MM and the research methodology used is qualitative. The study is also with no mediation variable. The study of Azim (2012) considered a broader scope of MM encompassing market mechanisms (capital market, block shareholders, and managerial labour market), internal control mechanisms (managerial compensation, board of directors and committees), and regulatory mechanisms (regulatory agencies, external auditors and acts and regulations) as modalities for company performance. The study applied structural equation modelling to examine the relationships between the variables. However, it did not investigate any mediating relationship.

The study of Iyoha and Oyerinde (2010) examines the factors affecting the quality of audit in Nigeria. The study claims that MM provides potentials for establishing accountability and detecting corruption. However, the study explores only the auditing profession as a monitoring mechanism with no mediating effect, and the research was qualitative and not quantitative. Babatunde and Olaniran (2009) investigate the internal and external mechanisms' effects on governance and performance of corporate firms in Nigeria. The study documents that MM helps to monitor and formulate objective values on corporations through their management creating rooms for shareholders to evaluate the performance of the management and motivating management to minimise agency costs. However, the focus of the study is on directorship, ethical, legal and regulatory framework as MM, whereas this study focuses on directorship, internal and external audit as MM. In addition, this study examines the mediating effect of quality-differentiated auditors on the relationship between the managerial ownership and MM.

In the existing literature, directorship has been associated with firm performance (Mustapha & Che-Ahmad, 2011a, 2011b; Uadiale, 2010;). This is consistent with the

expected roles of the board of directors as stipulated in Nigerian 2011 SEC Code. The board of directors is to be held responsible for the performance and affairs of the company it governs (see paragraphs 2 and 3 of 2011 SEC Code). To account for firm performance, agency theory suggests that the board has to monitor the activities of the management on behalf of the shareholders it is representing. Al-Janadi et al. (2013) investigate how corporate governance mechanisms relate to voluntary disclosure in Saudi Arabia using 87 annual reports of two years. The study documents that the board of directors is delegated by shareholders to monitor and control management decisions and actions. This study, therefore, examines the cause of managerial ownership (MO) on directorship in resolving the agency problems arising from the conflicts between the interests of the management and that of the shareholders using three years data in a Sub-Saharan setting. In addition, this study examines the mediating effect of quality-differentiated auditors on the relationship between the managerial MO and directorship.

Internal auditing (IA) has also been associated with firm performance in the existing literature (Arowolo, Che-Ahmad, & Popoola, 2017; Al-Rassas & Kamardin, 2016). Al-Rassas and Kamardin (2016) investigate earnings quality, audit attributes and concentrated ownership market using 508 Malaysian listed firms for four years, 2009 to 2012. The study finds that internal auditing associates with earnings quality, which has to do with the performance of the company. Mustapha and Che-Ahmad (2011a) find that an in-house internal audit function could help to overcome earnings management problems. Abbott, Parker, and Peters (2010) examine the nature of the internal audit function and the oversight of the audit committee for the internal audit function using 134 Chief Internal Auditors in New York. The study finds that the internal audit function will be considerably more effective with the demand for better internal controls. This study, therefore, examines the cause of managerial ownership (MO) on IA in aligning the interests of the management and that of the shareholders in a Sub-Saharan setting. In addition, the study examines the mediating effect of quality-differentiated auditors on the relationship between the MO and IA.

There are existing literature associating the external auditing (EA) with firm performance (Arowolo & Che-Ahmad, 2016; Hope, Thomas, & Vyas, 2011;). Hope et al. (2011) investigate financial credibility, ownership, and financing constraints in private firms using data from the World Bank's Enterprise Surveys covering 49,584 manufacturing and service firms, 71 countries from the year 2002 to 2005. The study claims that the effectiveness of EA promotes financial credibility as firms whose financial statement are subjected to EA are with significant lower perceived problems in accessing external finance. This is inconsistent with the findings of Mustapha and Che-Ahmad (2011b) that examine agency costs of debt and monitoring with data from 235 Malaysian firms. The study finds that companies with high debt structure are with significant more external auditing costs. This study, therefore, examines the cause of managerial ownership (MO) on EA in satisfying need of the shareholders for assurance and monitoring of management activities. Also, the study examines the mediating effect of quality-differentiated auditors on the relationship between the MO and EA.

### **3. HYPOTHESES DEVELOPMENT**

**Managerial Ownership** – There are extant literature on managerial ownership (Babatunde & Olaniran, 2009; Hope, 2013; Mustapha & Che-Ahmad, 2011b). Agency theory suggests principal-agent conflicts as a product of separation of ownership and management functions (Jensen & Meckling, 1976). The study of Mustapha and Che-

Ahmad (2011b) documents that managerial ownership helps to reduce the agency cost of an organisation. Likewise, Mustapha and Che-Ahmad (2011a) find that managerial ownership is with an inverse relationship with the demand for monitoring mechanisms (MM) in agreement with the agency theory and also that it significantly influences the costs of monitoring in companies. On this premise, this study examines how managerial ownership (MO) can align the interests of the management with that of the shareholders.

Hence, it tests the following hypothesis:

- H<sub>1</sub> There is a negative association between MO and MM
- H<sub>2</sub> There is a negative association between MO and directorship as a monitoring mechanism.
- H<sub>3</sub> There is a negative association between MO and internal auditing as a monitoring mechanism.
- H<sub>4</sub> There is a negative association between MO and external auditing as a monitoring mechanism.

**Quality-differentiated Auditors** - There are extant literature on quality-differentiated auditors (QDA) either as a dependent or an independent variable (DeAngelo, 1981; Iwasaki & Reenen 2011;) but to the best of the knowledge of the researchers not as a mediating variable. DeAngelo (1981) investigates auditor size and audit quality. The study documents that the engagement of QDA ensures that records are adequately scrutinized for assurance of compliance with relevant standards, codes, regulations or policies resulting in the high-quality audit. The study of Iwasaki (2011) claims that foreign investors will likely demand QDA to thoroughly supervise the activities of the management and local shareholders. This study chose to investigate QDA among other possible mediating variables such as the International Financial Reporting Standards (IFRS) and Information Technology (IT) due to its influence on financial reports' quality and the extent to which users of the financial reports rely on audited accounts. Therefore, it investigates how MO channelled through QDA can intervene in the relationship between the MO and MM to address the discrepancies between the management and shareholders' interests.

Hence, it tests the following hypothesis:

- H<sub>5</sub> There is a negative association between MO and QDA
- H<sub>6</sub> There is a positive association between QDA and MM
- H<sub>7</sub> There is a positive association between QDA and directorship as a monitoring mechanism.
- H<sub>8</sub> There is a positive association between QDA and internal auditing as a monitoring mechanism.
- H<sub>9</sub> There is a positive association between QDA and external auditing as a monitoring mechanism.
- H<sub>10</sub> QDA mediates the relationship between MO and MM
- H<sub>11</sub> QDA mediates the relationship between MO and directorship as a monitoring mechanism
- H<sub>12</sub> QDA mediates the relationship between MO and internal auditing as a monitoring mechanism
- H<sub>13</sub> QDA mediates the relationship between MO and external auditing as a monitoring mechanism

#### 4. METHODOLOGY

The data used to test the hypotheses is from 111 non-financial Nigerian companies for the years 2010 to 2012. The study is restricted to three years of data because information for internal auditing are not obtainable from many of the annual reports. Hence, questionnaires were used to obtain the data on internal auditing. There was difficulty in obtaining the annual reports for 6 of the 117 questionnaires collected. Existing studies that used three years of data include Hashim and Raman (2011) and Himmelberg, Hubbard, and Palia (1999). Data for the years 2010 to 2012 are chosen because the current corporate governance code in Nigeria took effect from 2011 to quickly compare the performance before and after the new code.

This study uses multivariate analysis to compare multiple response and explanatory variables. The dependent variable for this study is the monitoring mechanism with three dimensions, directorship, internal and external auditing and it is measured as the summation of its dimensions. The quality-differentiated auditor is the mediating variable, binary coded as 1 if the company's auditor is a big-4 and 2 if otherwise. Managerial ownership is the independent variable in this study measured as the proportion of shares belonging to the company's management. The control variables in this study are industry and complexity. The industry is measured as 0 for companies in consumable services and 1 for those in manufacturing and construction services. Complexity is measured as the number of subsidiaries including the Head office. Except for quality-differentiated auditors and industry, the data used is continuous. The panel data for the study is as shown below:

$$MM_{it} = a_{it} + \beta_1 MO_{it} + \beta_2 IND_{it} + \beta_3 CC_{it} + \mu_{it} + \varepsilon_{it} \quad \text{Equation 1 (C-Path)}$$

(Regressing dependent variable on independent variable)

$$QDA_{it} = a_{it} + \beta_1 MO_{it} + \beta_2 IND_{it} + \beta_3 CC_{it} + \mu_{it} + \varepsilon_{it} \quad \text{Equation 2 (B-Path)}$$

(Regressing mediating variable on independent variable)

$$MM_{it} = a_{it} + \beta_1 MO_{it} + \beta_2 IND_{it} + \beta_3 CC_{it} + QDA_{it} + \mu_{it} + \varepsilon_{it} \quad \text{Equation 3 (B&C-Path)}$$

(Regressing dependent variable on both independent and mediating variables)

Where,

MM	=	Monitoring Mechanisms
MO	=	Managerial Ownership
IND	=	Industry
CC	=	Company Complexity
QDA	=	Quality-differentiated Auditors

#### 5. RESULTS AND DISCUSSION

The researchers collected data by administering 332 copies of the questionnaire in 166 Nigerian non-finance companies. One copy each of the questionnaire was given to the internal auditor and the company secretary or the head of accounts. We expected that at least one of the two custodians of data would complete a questionnaire in each of the companies. We received 117 completed questionnaires, one each from each of the companies and annual reports were also obtained from the Nigerian Stock Exchange. We could not obtain annual reports for 6 of the 117 companies from whom we collected completed questionnaires. Hence, data used for the investigation were from 111 Nigerian companies.

48.6% Internal Auditors, 38.7% Company Accountants and 12.6% of Company Secretaries completed the questionnaires. The mean for directorship cost (DC) is N23.03m with its mean for 2010, 2011 and 2012 being N19.14m, N23.22m and N26.3m respectively. The result gives an upward increase in the demand for directorship monitoring following the revised code of corporate governance of 2011. The minimum DC is N0.00 while the maximum is N496.5m. The maximum DC for 2010, 2011 and 2012 respectively are N437.4m, N496.5m and N341.6m. The standard deviation of DC is N54.49m specifically N48.30, N59.25 and N55.58 respectively for 2010, 2011 and 2012. The mean for the internal auditing cost (IAC) is N18.61m and N17.35m, N18.97m, 19.51m respectively for 2010, 2011 and 2012. The minimum IAC is N10.5m while the maximum is N50.5m. IAC's standard deviation is N11.73m specifically N10.62m, N12.23m, N12.28m respectively for 2010, 2011 and 2012. The mean for external auditing cost (EAC) is N16.5m with a minimum of N0.35m, maximum of N174.4m and standard deviation of N25.12m. Specifically for 2010, 2011 and 2012, EAC means respectively are N12.11m, N17.19m and N20.19m; N120m, N165m and N174.4m maximum costs; N15.92m, N25.57m, and N31.05m standard deviation.

The variance inflation factors (VIF) as shown in Table 1 is below 5, the tolerance is also above 0.2, and all the correlations in Table 2 are below 0.9. Hence, there is no close correlation in the relationship between the tested variables. Therefore, there is no multicollinearity problem for variables examined in this study. Also, the F-test of the models are significant ( $p < 0.000$ ) using PCSE, OLS, random effect, and robust regression analysis methods. The F-test results suggest the existence of a linear relationship in each of the models.

**Table 1.** Variance Inflation Factors (VIF)

Variable	VIF	1/VIF
Managerial Ownership	1.01	0.988
Industry	1.01	0.988
Complexity	1.00	0.999
Mean VIF	1.01	

**Table 2.** Pearson Correlation

Variables	Monitoring Mechanisms	Managerial Ownership	Industry	Complexity
Monitoring Mechanisms	1			
Managerial Ownership	-0.086	1		
Industry	0.093	-0.107	1	
Complexity	0.6367	-0.022	0.024	1

This paper investigates the mediating effect of quality-differentiated-auditors on the relationship between managerial ownership and monitoring mechanisms and its dimensions, directorship, internal and external auditing of the Nigerian non-financial listed companies. The study used panel-corrected standard errors (PSCE) for panel data regression analysis to test the direct relationships (C-Path, Equation 1) because of its robust nature and ability to correct heteroscedasticity and autocorrelation problems (Beck & Katz, 1995; Balley & Katz, 2011). Details of the results obtained after data cleaning and tests for multicollinearity, respondent bias, autocorrelation, heteroscedasticity, and normality are as shown in Tables 3, 4, and 5.

This study tested hypotheses 1-4 to know if managerial ownership (MO) has any influence on the demand for monitoring mechanisms (MM) and each of the dimensions, directorship,

internal and external auditing. The results show that the relationship between MO and MM ( $\beta=N551,541$ ,  $z=20.9$ ) as well as MO and directorship ( $\beta=N323,423$   $z=13.96$ ) and MO and external auditing ( $\beta=N334,981$ ,  $z=10.64$ ) are significantly negative. MO's relationship with the internal auditing is significantly positive ( $\beta=N98,738$   $z=4.92$ ). It also indicates significant positive relationships between the control variables (industry and complexity) and MM and all the dimensions.

**Table 3.** Panel Data Regression Analysis Results

<b>Variables</b>	<b>Coef.</b>	<b>Std. Err.</b>	<b>z</b>	<b>P&gt;z</b>
<b>Panel A - Monitoring Mechanisms</b>				
Managerial Ownership	-0.552	0.026	-20.90	0.000
Industry	16.633	2.377	7.00	0.000
Complexity	12.110	0.513	23.62	0.000
_cons	2.207	2.278	0.97	0.332
<b>Panel B - Directorship</b>				
Managerial Ownership	-0.323	0.023	-13.96	0.000
Industry	4.863	1.045	4.65	0.000
Complexity	8.001	0.309	25.92	0.000
_cons	-8.430	1.241	-6.79	0.000
<b>Panel C - Internal Auditing</b>				
Managerial Ownership	0.099	0.020	4.92	0.000
Industry	3.576	0.452	7.91	0.000
Complexity	0.304	0.025	12.34	0.000
_cons	14.075	0.378	37.19	0.000
<b>Panel D - External Auditing</b>				
Managerial Ownership	-0.335	0.031	-10.64	0.000
Industry	8.188	1.147	7.14	0.000
Complexity	3.796	0.554	6.85	0.000
_cons	-3.168	1.309	-2.42	0.016

This study tested hypothesis 5 (Equation 2) to know if managerial ownership (MO) has any influence on the demand for quality-differentiated auditors (QDA). The results in Table 4a show that the relationship between MO and QDA ( $\beta=N13,031$   $z=2.54$ ) is significantly negative using PCSE. However, in Table 4b using Stata logistic regression analysis because of the categorical nature of QDA data, the results ( $\beta=N60,651$   $z=0.48$ ) show that the relationship is in the right direction. It shows significant positive relationships between the control variables (industry and complexity) and QDA using PCSE but with exception to industry using logistic regression. Also, further tests using SEM ( $\beta=N13,031$   $z=0.43$ ) and SUREG ( $\beta=N11,623$   $z=0.39$ ) show that the relationship is in the right direction. Nonetheless, extant literature suggests that the requirement for a significant relationship to establish mediation effect may not necessarily be from the study itself but extant literature (Zhao et al., 2010).

**Table 4a.** Equation 2 Using Panel-Corrected Standard Errors (PCSE)

<b>Quality-differentiated Auditors</b>	<b>Coef.</b>	<b>Std. Err.</b>	<b>z</b>	<b>P&gt;z</b>
Managerial Ownership	-0.001	0.001	-2.54	0.011
Industry	0.122	0.003	40.26	0.000
Complexity	0.025	0.002	13.09	0.000
_cons	0.385	0.006	59.63	0.000

**Table 4b.** Equation 2 Using Logistic Regression

<b>Quality-differentiated Auditors</b>	<b>Coef.</b>	<b>Std. Err.</b>	<b>z</b>	<b>P&gt;z</b>
Managerial Ownership	-0.006	0.013	-0.48	0.632
Industry	0.530	0.351	1.51	0.131
Complexity	0.152	0.043	3.55	0.000
_cons	-0.617	0.361	-1.71	0.087



The study tested for hypotheses 6 to 9 (A part of Equation 3) to know if quality-differentiated auditors (QDA) has any influence on the demand for monitoring mechanisms (MM) as well as directorship, internal, and external auditing. The results in Tables 5a and b, rows 2 and 3, columns 2 and 6 show that the relationship between QDA and MM ( $\beta=N45.68m, z=5.70$ ), QDA and directorship ( $\beta=N23m, z=3.83$ ), QDA and internal auditing ( $\beta=N4.19m, z=3.26$ ), and QDA and external auditing ( $\beta=N18.18m, z=7.04$ ) are significantly positive using Stata binary mediation.

The study proceeds to test hypotheses 10-13 (B part of Equation 3) to know if quality-differentiated auditors (QDA) mediate the relationships between managerial ownership (MO) and monitoring mechanisms (MM); MO and directorship, MO and internal auditing (IA), and MO and external auditing (EA). The study follows Baron and Kenny (1986) using Stata binary-mediation model and Zhao, Lynch Jr., and Chen (2010) using Stata binary-mediation bootstrap. The results in Tables 5a and 5b rows 4 and 5, columns 2 and 6 revealed that QDA significantly mediates between MO and EA ( $\beta=N367,087, z=2.55$ ) at 5% level of confidence. It also shows that it affects the relationships between MO and MM ( $\beta=N642,018, z=1.44$ ) as well as MO and directorship ( $\beta=N371,014, z=1.12$ ) in the right direction but in the opposite direction for MO and IA ( $\beta=N90,344, z=1.26$ ). In addition, the results from the binary-mediation show a direct effect of 7.5%, total effect of 8.7%, and proportion of total effect mediated as 13.7%. The direct and total effects are both negative pointing towards the same direction for the relationship between MO and MM. Hence, the mediation is complementary (Zhao et al., 2010) and the mediating results for MO and each of the dimensions of MM are also complementary, though it is in the opposite direction in the case of MO and IA. Further tests using Stata binary-mediation bootstrap shows that the confidential interval for the indirect effect on the relationship is with no zero. This further confirms that QDA serves as a mediator between MO and MM as well as the control variables and MM.

**Table 5a. Binary-Mediation**

<b>Variables</b>	<b>Monitoring Mechanisms</b>			<b>Directorship</b>		
Quality-differentiated Auditors	45.680*** (8.014)	45.201*** (8.044)	27.143*** (6.469)	22.996*** (6.007)	23.002*** -6.031	10.411* (5.070)
Managerial Ownership	-0.642 (0.447)			-0.371 (0.333)		
Industry		15.801 (12.349)			5.065 (9.292)	
Complexity			11.470*** (0.808)			7.761*** (0.628)

**Table 5b. Binary Mediation**

<b>Variables</b>	<b>Internal Auditing</b>			<b>External Auditing</b>		
Quality-differentiated Auditors	4.189*** (1.284)	3.969*** (1.287)	3.786*** (1.312)	18.178*** (2.584)	17.969*** (2.602)	12.629*** (2.172)
Managerial Ownership	0.090 (0.072)			-0.367* (0.144)		
Industry		2.845 (1.976)			7.896* (3.994)	
Complexity			0.209 (0.164)			3.503*** (0.271)

The results support H<sub>1</sub>, H<sub>2</sub>, and H<sub>4</sub> that there is a negative association between MO and MM and also between MO and directorship as well as MO and external auditing. This is

consistent with agency theory and prior literature (Jensen and Meckling, 1976; Mustapha & Che-Ahmad, 2011b; Arowolo & Che-Ahmad, 2016) that lesser monitoring will be required with the presence of managerial ownership. However, more internal auditing will be required to ensure adherence to standards, policies and regulations. It suggests lesser agency problem of information asymmetry, opportunistic behaviours of the managers as well as hierarchical organisational structure. The possibility of this is based on the fact that he is not just a manager but also the owner of the company. Hence, he has access to all information needed for decision making. Also, he will dispose of a positive attitude to all that will ensure the achievement of the company's ultimate goal of wealth maximisation realising that maximising a company's wealth is enriching him as well. Hence, MO reduces agency costs and aligns the interests of the management and shareholders.

The rationale behind the demand for more internal auditing (IA) with the presence of managerial ownership (MO) could be to engage experts to see to the internal control and procedures that will enhance the achievement of the company's ultimate goal as such managers may not be financial experts. Also, if financial experts are hired as an internal auditor and his independence and professionalism is permitted to reflect in his work, the demand for QDA will be low and external auditing will cost less. On the other hand, the owner-manager may wish to engage and spend more on IA because he can easily manipulate the internal auditor to achieve his goal whether favourable or unfavourable to other shareholders. Such influence may not be possible with the other two dimensions of monitoring. These conform to the documentation of Arowolo and Che-Ahmad (2016) and Mustapha and Che-Ahmad, 2011b) and evidence obtained from the primary data for the study. 1.8% internal auditors (part of the respondents to questionnaires distributed) report to their board of directors, 11.7% of them report to their Chief Financial Officers, 26.1% report to the audit committee, and 60.4% report to the CEO. It shows that the owner-manager can influence the independence of the internal auditors and this determines how effective the internal auditing can perform as a monitoring mechanism. This is consistent with the findings of Arowolo and Che-Ahmad, 2016 that if MO threshold is below 5% agency conflicts will reduce. Also, the engagement of a QDA will expose any adverse influence of the owner-manager on the internal auditing. Therefore, it still serves as a mediating variable in the relationship if engaged. More so, the internal auditing performance is reflected in the management report of the external auditors. However, the size of the ownership of the manager will determine the mediating effect. 85% MO in the sample for Nigerian non-financial sector used for this study is below 5%. This further confirms the rationale for the lesser demand for other form of monitoring mechanisms compared to the internal auditing.

The results also support H<sub>6</sub>, H<sub>7</sub>, H<sub>8</sub>, and H<sub>9</sub> that there is a positive association between quality-differentiated auditors (QDA) and monitoring mechanisms (MM), as well as directorship, internal and external auditing. The result is consistent with extant literature (DeAngelo, 1981; Iwasaki & Reenen 2011; Arowolo & Che-Ahmad, 2017) that QDAs scrutinise records to ensure compliance with relevant standards, regulations, codes, or policies. To ensure adequate monitoring and protection of the minority shareholders, the government of Nigeria approved Nigerian Financial Reporting Council (NFRC) and the revised code of corporate governance (2011 SEC Code) in the year 2011 and adopted the International Financial Reporting Standards (IFRS) in the same year. Companies are likely to engage QDAs for the first two or more years to ensure compliance with the new code and regulations.

Further tests on the effect of the new code of corporate governance, 2011 SEC Code on monitoring mechanisms, using Stata seemingly unrelated regression, SUR reveal that the  $R^2$  under 2003 SEC Code in 2010 was 4.27% but rose to 48.72% in 2012 under 2011 SEC Code. When tested on QDA using SUR, it shows the  $R^2$  for 2010 as 51.59% but rose to 55.97% in 2012. It implies that the revised code of corporate governance, 2011 SEC Code positively relates to the demand for MM and QDAs.

The results also support  $H_{13}$  that quality-differentiated auditors (QDA) mediate the relationship between managerial ownership (MO) and external auditing (IA). The mediating effect of QDA on the relationships between MO and monitoring mechanisms (MM); and MO and directorship are towards the right direction while that of the MO and IA is towards the opposite direction. Also, agency theory suggests that the managers are prone to expropriate company assets, especially when their threshold is above 5% or too low (1% and less than 1%). As already discussed, 85% MO in Nigerian non-financial sector used for this study is below 5%. Hence, the owner-manager may not be motivated to expropriate company assets since the threshold is neither too high nor too low. Therefore, the demand for QDA may be low. Also, being a member of the board of director, the owner-manager may influence other directors in their choice of the type of external auditor to engage. Furthermore, Nigeria has more foreign shareholders as institutional block-holders (Arowolo & Che-Ahmad, 2017), hence the effect of MO on MM notwithstanding but in the right direction, companies still demand QDAs.

Since managerial ownership (MO) affects monitoring mechanisms (MM), directorship and external auditing significantly and its effect on quality-differentiated auditors (QDA) is in the right direction; while QDA significantly affects MM, directorship, internal and external auditing positively; and the bootstrap results is with significant mediation in all the relationships, QDA is likely to mediate between MO and MM.

## **6. CONCLUSION**

This study adds to the literature on managerial ownership, agency conflicts, monitoring mechanisms and quality-differentiated auditors. The primary contributions of this paper are that (1) managerial ownership (MO) significantly affects monitoring mechanisms (MM) and affects quality-differentiated auditors (QDA) in the right direction, (2) QDA also have a significant positive effect on MM, (3) also, QDA mediating effect on the relationship between MO and MM. (4) Nigerian code of corporate governance, 2011 SEC Code has a positive impact both on QDA and MM. In addition, the control variables, industry and complexity associate significantly with MM as well as QDA; QDA also mediates in their relationships with MM. The main contribution of this study to knowledge is the introduction of QDA as a mediating variable in the relationship between MO and MM. Hence, QDA is necessarily required to fortify MM. The findings are of importance to the government, investors, regulatory agents, auditors and the board of directors in respect of agency conflicts and the need to protect the minority shareholders. Further studies may, therefore, consider an extension of the study to the financial sector of the economy. It is also necessary to examine the effect of the long-lasting economy distress in the country for which foreign shareholders have been withdrawing their shares from Nigerian companies, thereby, possibly increasing MO's threshold beyond 5%.

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