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Can corporate governance mechanisms deter earnings management? Evidence from firms listed on the Nigerian Stock Exchange

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Abstract

The debate on the impact of corporate governance mechanism on earnings management remains inconclusive. The current paper explored the use of Two Stage Least Square (2SLS) estimation techniques to examine the relationship between the two constructs based on data sourced from listed companies on the floor of the Nigerian Stock Exchange between 2012 to 2016. We excluded financial industry data based on the peculiarity of the sector's annual financial reporting system. Our results reveal that at best the relationship between corporate governance code and earnings management is mixed. In specific, it shows that governance code exerts negative influence on earnings management, while a positive relationship was observed to exist between earnings management and Insiders ownership. It was also noted that board independence and auditors' independence has little or no effect on earnings management. The study therefore recommend that in order to curb earnings management practices, governance code of conduct for business entities should be strengthened and compliance should be enforced.

Keywords:

Earnings management, Corporate governance, Family ownership, Board of Directors

JEL classification:

G32, M14, M41.

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¿Los mecanismos de gobernanza corporativa pueden disuadir la gestión de las ganancias? **Evidencia a partir de compañías incluidas en la Bolsa de Valores de Nigeria**

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Resumen

El debate sobre el impacto del mecanismo de gobierno corporativo en la gestión de los ingresos sigue sin ser concluyente. En este artículo se hace uso de las técnicas de estimación de mínimos cuadrados de dos etapas para examinar la relación entre ambas variables a partir de datos de empresas cotizadas en la Bolsa de Valores de Nigeria entre 2012 y 2016. Se excluyen los datos de la industria financiera debido al peculiar el sistema anual de información financiera del sector. Los resultados obtenidos revelan que, en el mejor de los casos, la relación entre el código de gobierno corporativo y la administración de ingresos es mixta. En concreto, se muestra que el código de gobierno ejerce una influencia negativa en la gestión de las ganancias, mientras que se observa una relación positiva entre la gestión de las ganancias y la propiedad de los internos. También se observa que la independencia del Consejo y la independencia de los auditores tienen poco o ningún impacto en la gestión de las ganancias. Por tanto, este estudio recomienda que, para frenar las prácticas de gestión de ingresos, se fortalezca el código de conducta de gobierno de las entidades comerciales y se exija su cumplimiento.

Palabras clave:

Gestión de ganancias, gobernanza corporativa, propiedad familiar, Consejo de Dirección.

1. Introduction

According to Rath (2008), the primary role of financial statements is to report a company's financial information to internal and external users in a timely and reliable manner. Corporate governance is the system by which companies are directed and controlled. The main significant function of corporate governance is to increase the integrity of the financial reporting quality process (Cohen *et al.* 2002). The financial reporting theme is of great value to all financial statement users in making investment decision. However, the validity of this objective is being questioned by many users of corporate financial reports because of the probable effects of earnings management on information contents of such reports. According to Roman (2009), earnings management occurs when firm's management has the opportunity to make accounting decisions that change reported income and exploit those opportunities. Managing earnings is a deliberate way of taking steps within the control of generally accepted accounting principles to bring about a desired level of reported earnings (Davidson *et al.*, 1987). Earnings management conceals the true financial result and position of a business and makes the facts that stakeholders ought to know unclear. Poor earnings quality is due to the manipulation of management activities. When preparing financial reports, managers are free to select the accounting and reporting methods they want to use (Algharaballi, 2013). This has in most cases led to the selection of reporting methods that could be misleading to the users of such information. The problem with many accounting choices that managers make is that there is no clear limit that determines which choice is legal or not. The act of manipulating the company's earnings is known as earnings management (Nuryaman, 2013). In cases such as this, the earnings figure may no longer reflect a true and fair view of the firm's performance (Whelan and McNamara, 2004). On the process to restore the confidence to the investors, different laws were puts in place, for example, Sarbanes-Oxley Act Code 2000 in US, corporate governance code 2011 in Nigeria (Nuraddeen and Hasnah, 2015).

2. Literature review and hypotheses development

The connection between corporate governance and earnings management remain an issue of hot debate among researchers. While some researchers are of the views that corporate governance has helped in manipulating earnings management, others are of the views that good corporate governance has helped in reducing earnings management. Some of the contributions to the debate on the link between earnings management and corporate governance are briefly discussed in this section.

Kasipillai and Mahenthiran (2013) examined factors that attenuates earning management with focus on deferred taxes and corporate governance ethics for a number of public listed companies in the Malaysian economic based on data sourced from 2005 to 2008. The study employed series of simultaneous equation and simulation model to detect firms that are likely to manipulate or manage earning. The study observed that Malaysian PLCs uses the accrual and valuation allowance, components of net deferred tax liabilities to prevent a downturn in earnings. It is further noted that ownership structure as well as board structure influences the level of relationship between earning management and deferred tax component (see also Alonso and De Andres, 2002; Lefort, 2007; Machuga and Teitel, 2009).

Liu *et al.* (2017) examined the impact of family involvement in ownership, management or governance of a business entity so as to know the degree of the impact of earning management on firms with focus on corporate social responsibility. The study employed the three –stage least squares (3SLS) full-information approach to examine the direct impact of family involvement on earning management as it relates directly or indirectly with corporate social responsibility for some selected S&P 500 firms based on data sourced from 2003 to 2010. The study observed that family firm engages in less accrual-based earnings management and that they tend to have higher corporate social responsibility performance useful for maintaining legitimacy and preserve socio-emotional wealth. The study also observed that no significant relationship exist between corporate social responsibility and either of accrual-based or real earnings management behavior for the studied S&P 500 companies after accounting for the effect of family involvement (see also Wang, 2006; Ali *et al.*, 2007; Bona *et al.*, 2008; Hadani *et al.*, 2011).

Dai *et al.* (2017) investigated the impact of block holder's governance quality on block holders monitoring outcomes based on data sourced on a number of 892 block acquisitions across 42 economies from 1990 to 2008 within the framework of governance transfer hypothesis, justification tests and robustness tests. The study observed that block holder governance transfer is essentially influenced by factors related to monitoring effectiveness, monitoring cost, and monitoring environment. The study also noted that the impact of these changes/influences is more pronounced when block acquirers are less engaged in earning management than their targets especially when the level of proximity and or operation of the block acquires is in line with that of their targets and the target firms operates with weaker institutions for investor protection.

For some selected firms across Latin America, Lefort (2005), Matos (2008), Ruiz *et al.* (2009) and Ferreira *et al.* (2010) observed that institutional investors often provide corporate governance mechanism that hinders earnings management. They stressed that the success of the pension reforms in Chile, Argentina, Colombia, Peru and Mexico which were traceable to the governance role institutional investors significantly helped in shaping corporate behavior, protects small or minority shareholders and deterred managers from embracing earnings management. The authors stressed that a negative relationship exist between proportions of shares held by institutional investors and absolute value of discretional accruals.

In a related development, LaFond and Roychowdhury (2006) stressed the impact of the ability of board of directors in combating earnings management. The author noted that the Board as delegates of shareholders is empowered to oversee, compensate, reward managers and approve strategic management decisions which will hinder earnings management. The author however, noted that the structure of the board in terms of size, composition, degree activeness or regular meetings, independency among others do affect the link between board behaviour and earnings management practices (De Andrade *et al.*, 2009; Davila and Watkins, 2009; Santiago and Brown, 2009; Zattoni and Cuomo, 2010; Ferraz *et al.*, 2011 and Lorca *et al.*, 2011).

Shan (2015) examined the ability of earnings management to reduce the level of value relevance. The study further examined whether or not good corporate governance restrains earning management by employing hand-collected data from 1012 firms listed on Shanghai SSE 180 and Shenzhen 100 sourced from 2001 to 2005, using two stages least squares (2SLT) techniques. The study observed that companies that adopt earnings management strategy have weaker value relevance when compared with companies that does not engage in earnings management. The study further revealed that companies with good corporate governance practices are likely to reduce earnings management than companies with good corporate governance for the studies economy.

Xue and Hong (2016) examined the impact of corporate governance behavior on expense stickiness and earning management for a number of Chinese firm using factor analysis. The study observed that good corporate governance reduces expenses stickiness. The study further noted that the interaction between corporate governance and earnings management further reduces cost stickiness although its impact is weaker than that on pure effect of earnings management on expense stickiness.

Riwayati and Siladjaja (2015) examined the impact of corporate governance implementation on earning management practice for some selected Indonesia companies based on primary data sourced from 70 respondents. The study used asymmetrical information variables, structural equation model and two stage least square model to conduct its analysis. The result shows that though corporate governance essentially aim at reducing asymmetric information to earning management in practice, corporate governance policy has little or no impact on earnings management for the Indonesia companies, rather corporate governance induces earnings management for the studied economy.

In a related development, Luthan *et al.* (2016) examined the effect of differences in good corporate governance (internal and external) mechanism on earnings management for the Indonesian economy, with focus on pre and post adoption of Indonesian financial accounting standards (PSAK) convergence IFRS, for companies listed on the Indonesian stock exchange based on data sourced from 136 manufacturing firms between 2010-2013. The study adopts an explanatory empirical verification research by employing multiple linear regression method, normality test, autocorrelation test, heteroscedasticity test, multicolinearity test and observed that the effect of good corporate governance on earnings management varies on the mechanism adopted. The study finding is in line with Mulyadi and Anwar (2014) early findings that good corporate governance influences earnings management and tax management.

González and García-Meca (2014) stress the impact of fusion of the powers of CEO and Board Chairman on earnings management. The author noted that good governance ethic requires that the two offices should be separated, stressing that, with high level of concentrated power in one man, chances are that earning management will be on the increase (see also Ruiz-Porras and Steinwascher, 2007; Chisari and Ferro, 2009).

De La Rama (2011) calibrated the impact of government index to corporate governance- earnings management framework. The author examined the impact of corruptions relating to ethical issues as well as corporate governance on family-owned business groups as it relate with earnings management, and observed that control of corruption, rule of law and effective governance are key in curbing opportunistic behaviour proxy by earnings management among other things (see also Voliotis, 2011 and Galang, 2011).

Other variables that have gain prominence in examining the impact of corporate governance mechanism on earnings management includes auditors' reputation and competency (Jara and Lopez, 2007); Firm size (Prior, 2008); growth (Francis and Wang, 2004); Return on Asset (Machuga and Teitel, 2007). For the Spanish economy, Gras–Gil, Manzano and Fernández (2016) examined the linkages between corporate social responsibility and earnings management by employing multivariate analysis to analyze panel data set sourced form a sample of some selected Spanish non-financial companies from 2005 to 2012. The study observed that corporate social responsibility practices negatively impact on earnings management. It further stressed that ethical and moral issues pertaining to corporate decision making are the core of corporate social responsibility, and that engaging in socially responsible activities enhances stakeholders' satisfaction, as well as improving corporate reputation of the firm.

3. Hypotheses

Drawing from the literature, the hypotheses to be tested in this study are stated below in their null forms:

H1: There is no significant relationship between the corporate governance mechanisms as define by insider ownership and earnings management practices in Nigerian quoted companies.
H2: There is no significant relationship between Family ownership concentration and earnings Management.
H3: There is no significant relationship between Institutional Investors and earnings Management.
H4: There is no significant relationship between Board of Directors (BOD) independence and earnings management practices in Nigerian quoted companies.
H5: There is no significant relationship between audit strength (AUDST) and earnings management practices in Nigerian quoted companies.
H6: There is no significant relationship between firm size (FSZE) and earnings management practices in Nigerian quoted companies.
H7: There is no significant relationship between political environment or government influence and earnings management practices in Nigerian quoted companies.

4. Data and methods

To achieve the objectives of this study, firms' annual reports for the period 2008-2015 were analyzed using the judgmental sampling technique. A total of 18 listed firms were analyzed from three sectors (consumer goods, natural resources and agricultural sector). In testing the research hypothesis, the study adopted the use of both descriptive statistics and econometric analysis using multiple regression for the listed sampled firms in the estimation of the regression equation under consideration. Discretionary accrual is used as a proxy to determine the extent of earnings management. Discretionary accruals are obtained by subtracting non-discretionary accruals from total accruals. The independent variable (corporate governance mechanism) is represented by board of directors, audit strength and firm size.

4.1. Data

Data for this study were sourced from the annual reports of companies listed on the floor of the Nigeria stock market. As it is a common practice in literature on earnings management, financial institutions are excluded because of their peculiar accounting system. The data used was sourced from year 2012 to year 2016.

4.2. Earning management metric

Following existing literature, we used discretional accruals as a proxy of earing management. We employed the modified version of Jones (1995) model to determine the discretional accruals as stated below:

$$NDA_t = \alpha_1\left(\frac{1}{At-1}\right) + \alpha_2(\Delta REV_t - \Delta REC_t) + \alpha_3(PPE_t) \quad (1)$$

Where:

ΔREV_t = revennues in year t less revenues in yeart t–1 scaled by total assets t–1

PPE_t = gross property plant and equipment in year t scaled by total assets t–1

A = total assets in t–1

$\alpha's$ = firm specific parameters

ΔREC_t = net receivables in yeart t–1 scaled by total assets t–1

The formula shows that the change in revenues is adjusted for the change in receivables. This implies that the Modified-Jones model classifies all changes of credit sales as earnings manipulation by management. The underlying thought is that credit sale revenues are easier to manipulate through management discretion than sales revenues based on cash transactions.

4.3. Model specification

The core objective of this study is to examine the impact of corporate governance frame work on earnings management as explained by the discretionary accruals, we therefore regressed the absolute value of the discretionary accruals [abs $(DCA)_{it}$] on the variables of ownership structure, Board of Directors, among others as shown below:

$$EM = \beta_0 + \beta_1 INS_{OWN} + \beta_2 FARM_{OWN} + \beta_3 INST_{INV} + \beta_4 B_{IND} + \beta_5 AUD_{IND} + \beta_6 FSize + \beta_7 GOVT + \beta_8 Growth + \beta_9 AdROA + \varepsilon \quad (2)$$

Where EM is the earnings management, INS_{OWN} represents insider ownership, $FARM_{OWN}$ represents family ownership concentration, $INST_{INV}$ represents institutional investors, B_{IND} represents board independence, AUD_{IND} represents auditors' independence, $FSize$ represents firm size which is the natural logarithm of total assets, $GOVT$ represents political and legal framework, $Growth$ represents the total sale growth rate while the $AdROA$ represents the industry-adjusted ROA by two-digit SIC code, given that ROA is the return on assets.

A Priors Expectation:

We expect a negative relationship between EM and $FSize$, EM and $GOVT$., EM and each of $FARM_{OWN}$, B_{IND}, but a positive relationship between EM and each of INS_{OWN}, $INST_{INV}$, and AUD_{IND}.

4.4. Research design

In order to cater for endogeneity issues often experience when examining linkages between corporate governance and earnings management (Liu *et al.*, 2017) Ebrahim and Fattah (2015), we employed the use of the two stage least squares (2*SLS*) full information technics to examine the impact of corporate governance on earning management. The model is a shown below:

$$AEM = \beta_0 + \beta_1 REM + \beta_2 INS_{OWN} + \beta_3 FARM_{OWN} + \beta_4 INST_{INV} + \beta_5 B_{IND} + \beta_6 AUD_{IND} + \beta_7 FSize + \beta_8 GOVT + \beta_9 Growth + \beta 10_9 AdROA + \varepsilon \quad (3)$$

$$REM = \beta_0 + \beta_1 AEM + \beta_2 INS_{OWN} + \beta_3 FARM_{OWN} + \beta_4 INST_{INV} + \beta_5 B_{IND} + \beta_6 AUD_{IND} + \beta_7 FSize + \beta_8 GOVT + \beta_9 Growth + \beta 10_9 AdROA + \varepsilon \quad (4)$$

where

AEM = Accrual – based earning management measure;

REM = The real Earning Management; other variables were as stated earlier.

5. Empirical results

The results of the descriptive statistics and t-values of discretional accruals are shown in Tables la and 1a. Table 1a presents the results in aggregated form while Table 1b present the results based on sectional analysis. From the results as presented in Table 1b, all the mean values or discretionary accruals are statistically different from zero. This implies that evidence abound to show that firms on the floor of the exchange manipulate their results either upward shift in profit reporting to imply a better profitability of the firm or downward shift in profit to beat fiscal requirement of taxation.

Table 1a. **Descriptive statistics table of discretionary accruals estimations (sectorial analysis)**

Sectors	No. of stocks	Mean	Standard deviation	*T*	Adjusted R^2
Agriculture	5	0.521	1.0025	-0.214	0.4001
Conglomerates	6	0.5784	2.3350	0.325	0.4021
ICT	9	0.558	3.1113	0.366	0.4061
Industrial goods	17	0.898	1.4231	0.3001	0.4036
Oil & Gas	13	0.654	1.8970	-0.2540	0.4136
Services	24	0.521	3.2561	0.211	0.5440
Consumer goods	23	1.0002	2.3561	-0.265	0.4581
Construction & Real estate	7	0.7012	1.0274	1.211	0.4550
Healthcare	11	0.8056	2.0408	-0.322	0.4700
Natural resources	4	0.9023	3.01131	0.221	0.4552

SOURCE: AUTHORS COMPUTATION 2017

Table 1b. **Descriptive statistics table of discretionary accruals estimations (aggregate analysis)**

Years	No. of stocks	Mean	Standard deviation	T	Adjusted R^2
DAC 2012	119	0.324	0.629	0.619	0.4512
DAC 2013	119	0.378	0.632	0.412	0.4289
DAC 2014	119	0.298	0.442	0.599	0.5120
DAC 2015	119	0.349	0.651	1.365	0.5033
DAC 2016	119	0.337	0.662	1.446	0.5209

SOURCE: AUTHORS COMPUTATION 2017

The sectorial descriptive analysis is presented in Table 1b. From the results, it can be deduced that our model significantly explains variations in the coefficients of discretionary accruals, as its explanatory power shows Adjusted R^2 value higher than 40% for all sectors.

Table 2. **Pearson correlation table**

	AEM	REM	INS_{OWN}	$FARM_{OWN}$	$INST_{INV}$	B_{IND}	AUD_{INV}	F_{Size}	$GOVT$
AEM	1								
REM	-0.051**	1							
INS_{OWN}	-0.006	0.0056*	1						
$FARM_{OWN}$	-0.031	0.0032*	0.0911*	1					
$INST_{INV}$	-0.0651*	-0.0035*	0.0454*	0.043	1				
B_{IND}	0.0235	-0.0542*	0.0054*	0.055*	0.0254*	1			
AUD_{IND}	-0.0211	0.0025*	-0.0254	0.0612	0.066	0.0058*	1		
F_{Size}	-0.055	0.0640*	-0.0263*	0.0095	-0.009**	-0.0254	0.0481	1	
$GOVT$	0.0042	0.0021*	-0.0661	0.0061	-0.0225*	0.0233**	0.0902*	-0.083***	1

The results of the Pearson correlation of the variables are presented in Table 2. From the result, there is evidence that significant relationship exists among the variables. Our results further shows that negative relationship exist between *AEM* and *REM*, and that a positive relationship exists between *REM* and Corporate governance variables. Our result implies that substitutional effect exit between *AEM* and *REM*.

Table 3 presents the results of the Two Stage Least Square (2SLS), from the result it can be deduced that a direct relationship exists between insider ownership and earnings management. The result implies that insiders' ownership may restrict the rise of discretionary accrual only when a percentage of shares held by board /management is small. When compared with previous studies, our results is similar to the findings of Machuga and Teitel (2009) for some selected Mexican firms, Morck *et al.* (1988)

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for some Canadian firms and Sanchez-Ballesta and Garcia–Meca (2007) for some Spanish firms, but contradicts Yeo *et al.* (2002) finding for Singapore.

Our result on the linkage between ownership concentration and earnings management reveals that ownership concentration may constrain earnings management when the proportion of share held by insiders is small. It further reveal that with large share for insiders, evidence abound to show that firms tends to adopts earnings management. This result is also similar to that of the relationship between firm size and earnings management but differs for the relationship between institutional investors and earnings management. On this, our result is in line with the findings of Yeo et al (2002) but contradicts De Bos and Donler (2004).

The result on board independence shows that no significant relationship exists between board independence and earnings management as large board weakens effectiveness. If further reveals that chances are that external directors may not have access to the firm's financial books. The result on the relationship between earnings management and auditors' independence shows that no significant relationship exists between the two.

On the relationship between board activities and earnings management our results show that a negative relationship exist between the two in Nigeria. In a related development, result on the connection between Government effectiveness and earnings management shows negative sign. This implies that effective regulation deter earnings management practice in Nigeria.

Table 3. Results of the 2SLS estimates with *EM* as the dependent variable

Independent variables	**Coefficients**	***T*-test**
INS_{OWN}	0.451	2.178**
$FARM_{OWN}$	0.116	1.487**
$INST_{INV}$	0.314	3.621*
B_{IND}	-0.329	3.247
AUD_{IND}	0.412	1.247
F_{Size}	-0.3041	4.182***
GOVT	-0.413	3.412***
Growth	0.365	1.0121
***R*-Square**	78.71	
Adjusted *R*-Square	76.93	
***F*-Statistics**	18.648***	
Endogeneity test Hausman test	1.877	

SOURCE: AUTHORS COMPUTATION 2017

6. Conclusion and policy implications

This study examined the relationship between corporate governance mechanisms and earnings management in Nigeria based on data sourced from firm listed on the Nigeria stock exchange. Financial institutions are excluded from our study because of the peculiar nature of their financial reporting. The study employed a two stage least square (2SLS) estimation techniques to examined the relationship among the constructs and observed that direct relationship exist between insider ownership and earnings management. It also reveals that Board independence negatively affects earning management in Nigeria and that a negative relationship exists between board activities and earning management. The result further show that government policies negatively impact on earnings management.

The results above have great policy implications. First, given that ownership concentration, Board activities and government effectiveness negatively affect earning management. Policy makers should ensure that these variables are encouraged and strengthened. Effort should be made that will facilitate strict adherence to measures that will trim down earnings management.

Second, our results reveal that Board independence and auditor independence has little or no effect on earnings management. This call for a need to strengthen the internal audit mechanism, thus, policy makers should put in place policies that will encourage internal audit system rather than emphasis on external audit independence.

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