

Corporate Governance Reform and Real Earnings Management in Nigeria: An Analysis of pre and post mandatory Code of 2018

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Abstract

The paper addressed the question of whether corporate board attributes constrain the effect of REM before and after the mandatory code of 2018 in Nigeria. The data was analysed using panel corrected standard Error (PCSE). The analysis was divided in to pre -period (2016-2017) and post mandatory period (2019-2020). The study established that EM has drastically reduced during the post mandatory period due to strong monitoring by the board. Specifically, I found that independent directors and financial expertise directors significantly reduced the magnitude of real earnings management. Contrary to the research hypothesis, the research established that existence of foreign board member does not constrain the trend of earnings management even after the mandating. Finally, the result also recorded that director's ownership helps in the implementation of mandatory measures which mitigate the likelihood of REM, both before and after the mandatory period.

Keywords: Corporate Governance; Real earnings management; Panel Corrected Standard Error; foreign Directors



1.0 Introduction

In Nigeria, corporate managers in Nigeria cared less about the provisions of the code of corporate governance (CG) prior to 2018, as compliance with CG was entirely voluntary. In contrast to the required codes of 2003, 2011, and 2014. The 2018 code is anticipated to promote good accounting practices and bolster the board's ability to closely monitor company managers' actions. To guarantee sufficient adherence, the required code established guidelines for the imposition of fines and penalties. Additionally, it mandates that listed companies disclose their degree of compliance with the updated code in their reports (FRC, 2018). Although the Nigerian regulators have mandated the provision of the code to ensure credible financial reporting system. On the other hand, the preparation of financial statement involves the use of managerial discretion (Marra et al., 2011). It is that discretion that give managers the opportunities to managed earnings and entrench the resource of the firm (Healy & Wahlen, 1999a). Traditionally, managers managed earnings using accrual earnings management (AEM). The AEM involves the use of accounting judgement and estimate to mislead the accounting users (Graham et al., 2005).

Even though the Nigerian authorities have required the code's provision to guarantee a reliable financial reporting system. Discretion is used in the preparation of financial statements (Marra, Mazzola, & Prencipe, 2011). It is this latitude that allows managers to control profits and solidify the company's resources (Healy & Wahlen, 1999). In the past, accrual earnings management (AEM) was used by managers to manage earnings. According to Graham, Harvey, and Rajgopal (2005), the AEM uses accounting judgment and estimate to deceive accounting users. However, recent literature shows that stringent regulations such as corporate governance and IFRS have redirected the corporate managers from AEM to real earnings management (REM) (Ferentinou & Anagnostopoulou, 2016; Zang, 2012). The REM involves manipulating the real activities, such as reducing the discretionary expenses, R & D expenditure and over production to beat up their performance (Roychowdhury, 2006).

Real earnings management is believed to foster a severe consequence on the market value since it involves manipulating the real activities. In addition, a study by (Cohen, Dey, & Lys, 2008) found that managers shift from AEM to REM in the post Sarbanes-Oxley act. this is on the fact that AEM can easily be detected by managers and regulators. Despite the consequence of REM on the firm's economic activities, only little studies to the best of my knowledge examine the extend of real

earnings management before and after the mandatory code in Nigeria and whether the corporate board directors can influence the practice of REM. Therefore, this research tests how CG impact on REM before and after the mandatory corporate governance. The paper focuses on corporate board because BDs are expected to strengthen the board activities and reduce the agency conflicts (Fama & Jensen, 1983) Prior studies also established that BD reduces and constrain the effect of EM (Al-dhamari & Ku Ismail, 2014; Bala & Kumai, 2015; Marra et al., 2011). Generally, board attributes such as board size, composition, expertise, foreign board members and directors' ownership are found to contain and control the abusive earnings management (Darko et al., 2016; Du et al., 2017a; Machuga & Teitel, 2009; Miko & Kamardin, 2015; Alhmood et al., 2023; Chatterjee & Rakshit, 2023a)

One of the first studies to look at how CGM can lessen the impact of REM under the 2018 obligatory and optional codes is this one. The research postulated that the mandatory implementation of CG in 2018 would enhance the capabilities of the board and serve as a deterrent against managers engaging in earnings manipulations. In addition, the research tested the role of foreign directors and REM. Foreign directors because of their cross-country's knowledge are expected to impact their knowledge and improves the decision- making of the firm. The analysis concludes that even with the compulsory CG, foreign directors does not limit the trend of EM. Ultimately, the research indicates that the likelihood of REM was reduced in both the pre- and post-mandatory periods due to the director's ownership and financial ability.

The following constitutes the remainder of the paper: Review of literature and hypothesis generation are covered in Section 2, and the research design and methodology are presented in Section 3. Regression results and research findings are in section 4, and conclusion in section 5.

2.0 Literature Review and Hypothesis Development

2.1. Earnings management

Healy and Wahlen (1999) opined that EM means utilization of accounting estimates and judgments to restructure a firm's transactions with the intention of misleading certain stakeholders about the economic reality of the company. Similarly, EM is also viewed as an intentional accounting treatment employed by managers to even out the reported earnings as presented in the financial reports (Chandren, 2016). In a broader context, EM is categorized into accrual and REM. Accrual

earnings management (AEM) occurs when managers manipulate the reported earnings using accounting methods and estimates to mislead stakeholders (Healy & Wahlen, 1999). Conversely, REM involves a purposeful departure from normal operational processes with the goal of misleading users about the economic position of the firm (Roychowdhury, 2006)

2.2 Board Characteristics and Earnings Management

In this section, Empirical literature and the formulation of hypotheses are undertaken, focusing on the dimensions of BSIZE, BCOMP, BEXP, FDIR, DOWN and their interplay with EM.

2.2.1 Board Size and Earnings Management

Theoretically, (Jensen, 1993) urge that larger board is characterized with agency conflict and can increase the difficulties in terms of control and decision making. It is also urge by previous studies that smaller board is more likely to strategize and constrain the effect of managerial entrenchment (Abdul Rahman & Mohamed Ali, 2006), (Chen, Firth, Gao, & Rui, 2006). There is no consensus on the optimum number regarding the BSIZE. However, NCG 2018 provide that the number should be determine in accordance with the demand of the firm's operations. Nevertheless, as stipulated by the NCCG in 2018, the determination of the numerical strength is mandated to align with the specific requirements arising from the operational needs of the firm.

However, larger boards can deploy more resources in terms of skills and knowledge to improve their ability to monitor actively, according to the resource's dependency hypothesis (Pfeffer & Salancik, 2003; Abdul Latif et al., 2013). In line with this assertion, many scholars believe that BSIZE can help in minimising the practice of EM (Amran et al., 2016; Bala & Kumai, 2015; Epps & Ismail, 2009; Iraya et al., 2015; Swastika, 2013). Likewise, a study by Mensah and Boachie (2023) and Türegün (2018) suggest that larger board are more likely to constrain the trend of REM. As such, this study hypothesizes that:

H1: Board size is inversely related to REM.

2.2.2 Board Composition and Earnings Management

According to agency theory, directors should increase the degree of oversight and reduce agency issues (Jensen & Meckling, 1976). As a result, having independent directors is probably going to raise the caliber of financial reporting. According to Epps and Ismail (2009), independent directors prevent EM and enhance the CG's consistent culture. Similarly, Amran et al. (2016) come to the

conclusion that having independent directors largely minimizes earnings management. The RDT theory, on the other hand, supports the appointment of more independent directors since they enhance the caliber of the company's reporting system (Pfeffer & Salancik, 2003; Chatterjee & Rakshit, 2023; Gerged et al., 2023)).

In a similar vein, Osma (2008) discloses that independent directors encourage good governance and discourage financial misconduct. The NCG (2018) states that most non-executive directors on a board are required for listed enterprises. In view of the agency theory, the research hypothesized that:

H₂: Non-executive directors are negatively related to REM.

2.2.3 Board Expertise and Earnings Management

Board expertise is defined as the proportion of financial expertise among main board members. The resource dependency theory predicts that directors with financial experience will put their knowledge to use and potentially reduce agency conflict (Hillman & Daiziel, 2011). Similarly, directors that understand finance well have a significant influence on increasing the firm's worth, according to Guner, Malmendier, and Tate (2008). Agrawal and Chadha (2005) find that a board of professionals certified by CFA and CPA is associated with lower earnings management. Similarly, aggressive earnings are lower in Nigeria when directors possess financial expertise, according to Bala and Kumai (2015).

The research speculates that those who support the resource dependency hypothesis and have a background in finance ought to be aware of actual earnings. Consequently, this research hypothesized that:

H₃: Board expertise is negatively related to REM

2.2.4 Foreign Directors and Real Earnings Management

An increasing number of people are worried about how foreign directors might support and affect the board's ability to oversee its actions. The term "foreign directors" refers to the proportion of non-US citizens on the board. According to Du et al. (2017), the frequency of earnings management is reduced when there are foreign directors. This is due to the fact that, in contrast to local board members, international directors have experience across borders and industries.

Additionally, foreign directors should enhance and internationalize the company's decision-making process (Masulis, Wang, & Xie, 2012). Interestingly, the CG (2018) states that the board needs strong members with a range of expertise and experience to help it manage its business. This research conjectures that foreign directors may strengthen the board monitoring and lower the magnitude of EM. Thus, this paper hypothesizes that:

H4: Foreign directors are negatively related to REM.

2.2.5 Directors Ownership and Earnings Management

Executive directors with larger shareholdings might have helped the business operate better (Jensen & Meckling, 1976). The idea that a director's ownership aligns his interests with shareholders' and lessens the likelihood of entrenchment behaviour has been supported by earlier research (Ajinkya, Bhojraj, & Sengupta, 2005; Garba & Mohamed, 2017; Vu, Phan, & Le, 2017; Du et al., 2017b; Lemma et al., 2018; Alhmood et al., 2023)

In Nigeria, it is also established that director's ownership has significant influence on earnings management (Adeyemi & Fagbemi, 2010). Based on this argument and reliance on the agency theory, this research hypothesizes that:

H5. Directors' ownership is negatively related to REM

3.0 Research Method

3.1 Sample and Data

The sample constitutes all listed firms on the Nigerian exchange limited for the period of four years (2016-2017) and (2019-2020). Out of these companies, 55 financial services companies were removed. Also, firms from second tier (ASEM) were removed from the sample. Finally, 16 delisted firms, and 12 with incomplete data were also removed to arrive at 79 firms for four years period, i.e., pre-period (2016-2017) and post- period (2019-2020), making a total of 316 observations as displayed in Table 1.

Table 1

Sample Procedure

Total Listed Firms

170

Financial Services companies	55	
ASEM		
Market	9	
Delisted	14	
Firms without complete data	13	91
Final sample		<hr/> 79
Period		4
Final Sample		316

For the purpose of this research, data on corporate board traits were manually generated from annual reports and accounts, whilst data on EM, return on asset, debt, and company size were derived from the Thomson Reuters database.

3.2 Measurement of study variables

3.2.1 Dependent Variables

The research used three proxies from Roychowdhury's (2006) model to measure REM: Real earnings management (REM) is calculated as follows: anomalous output level plus abnormal cash flow from operations plus discretionary spending.

Abnormal Discretionary Expenses (Ab_DEXP)

$$\text{DISCXP}_{it} / \text{Assets}_{it-1} = \alpha_0 + \alpha_1 (1 / \text{Assets}_{it-1}) + A_2 (\text{Sales}_{it-1} / \text{Assets}_{it-1}) + \epsilon_t \text{-----} (1)$$

Abnormal Cashflow from Operations (Ab_CFO)

$$\text{CFO}_{it} / \text{Assets}_{it-1} = \alpha_0 + A_1 [1 / \text{Assets}_{it-1}] + A_2 (\text{Sales}_{it} / \text{Assets}_{it-1}) + A_3 (\Delta \text{Sales}_{it} / \text{Assets}_{it-1}) + \epsilon_t \text{.....} (2)$$

Abnormal Production Cost (Ab_Prdutn)

$$\text{Prodn}_{it} / \text{Assets}_{it-1} = \alpha_0 + A_1 [1 / \text{Assets}_{it-1}] + A_2 [\text{Sales}_{it} / \text{Assets}_{it-1}] + A_3 [\Delta \text{sales}_{it} / \text{Assets}_{it-1}] + A_4 [\Delta \text{sales}_{it-1} / \text{Asset}_{it-1}] + \epsilon_t \text{.....} (3)$$

The letters DISEXP and CFO represent the company's discretionary costs and operating cash flow, respectively, in year t. Prodn is the year t's unusual production cost. Assets t-1 is the delayed total asset, and Sales is the sales for the current year. Sales it-1 represents lags in sales, Δ sales it-1 indicates lags in sales, and ϵ_t indicates the error term.

In line with earlier research (Braam, Nandy, Weitzel, & Lodh, 2015; Cohen & Zarowin, 2010), the aberrant Ab_DEXP and Ab_CFO are obtained by multiplying the residual by a negative one (-1).

3.2.2 Independent Variables

Among the independent variable employed in this study were board size, board independence, board expertise, foreign board members, and ownership by the executive director. Similar to Kantudu and Samaila (2015), the size of the board is determined by the total number of members. The board composition is defined as the proportion of independent non-executive directors (Amran et al., 2016). The degree of board knowledge is determined by the proportion of directors who possess financial credentials, such as those in accounting, business, or other pertinent subjects (Bala & Kumai, 2015). The percentage of directors who are foreign nationals relative to all board members is known as the "foreign directors" (Du et al., 2017). The ratio of executive directors' shares to the total number of shares held by the company is used to calculate directors' ownership (Garba & Mohamed, 2017).

In addition to CG factors, this research used three control variables: Gilli and Kock (1993) state that firm size (FS) is determined by taking the natural logarithm of total asset and lev is determined by dividing total interest-bearing obligations by total asset. Net profit before taxes is divided by total assets to get return on assets, or ROA. In 2015, Karmadin and Edogbanya

3.3 Research Model

The followings econometric model is used to test the study hypotheses:

$$REM = \beta + \beta_1 BDSZ_{it} + \beta_2 BDIN_{it} + \beta_3 BDEXP_{it} + \beta_4 FBDM + \beta_5 DIROW_{it} + \beta_6 FS + \beta_7 LEV_{it} + \beta_8 ROA_{it} + \epsilon_{it} \dots \dots \dots (1)$$

4.0 Empirical Result

4.1 Descriptive Statistic

Table 2. presents the pre- and post-statistics of all the research variables. The pre-period mean value of REM is 0.38, but the post-mandatory period mean value is 0.22. This suggests a 0.16 drop throughout the post-period. Inferentially, during the post-period, corporate board mechanisms improved.

Table 1

Descriptive statistics for Board mechanisms and control variables

Variable	Desc	Pre-	Post mandatory
		(N=158)	(N=158)
REM	MEAN	0.383	0.227
	MIN	-1.969	-1.964
	MAX	4.632	3.514
BDSZ	MEAN	8.544	8.620
	MIN	5.000	5.000
	MAX	15.000	15.000
BDIN	MEAN	0.722	0.731
	MIN	0.444	0.167
	MAX	0.917	0.929
BDEXP	MEAN	0.512	0.536
	MIN	0.182	0.000
	MAX	0.875	0.875
FBDM	MEAN	0.190	0.190
	MIN	0.000	0.000
	MAX	0.667	0.714
DIROW	MEAN	0.073	0.078
	MIN	0.000	0.000
	MAX	0.680	0.680
FS	MEAN	7.184	7.253
	MIN	5.638	5.631
	MAX	8.916	9.170
Lev	MEAN	0.553	0.554
	MIN	0.007	0.008
	MAX	2.486	1.635
ROA	MEAN	0.082	0.039
	MIN	-0.132	-0.903
	MAX	0.479	0.536

Note: REM = Real Earnings Management; BDSZ= Board Size; BDIN= Board Independent; BDEXP= Board Expertise; FBDM= Foreign Directors; DIROW=Director Ownership; FS= Firm Size; LEV=Leverage; ROA= Return on Asset

The average board size is 9 for both pre- and post -period. Average board independence is 0.72 in the pre- and 0.73 in the post period, indicating a slightly increase of 0.01. Directors with financial expertise account for 0.51 and 0.53 in both pre- and post- period, indicating an increase of 0.02 during the mandatory period. Likewise, director's shareholding account for 0.073 and 0.078. indicating a slight increase of director's shares in the post period. The size of firms is averagely 16.5 in pre-period and 16.70 in the post period. Leverage account for 0.55 in both pre- and post, signifying no difference in both the period. Finally, the average ROA is 0.081 Naira in the pre- and 0.039 in the post period, signifying a significant decrease of 0.042 Naira during the period.

4.2 Correlation

Table 3 displays the pearson correlation matrix for every research variable. There are no correlation coefficients in the table that are greater than 80%. As a result, the variables do not have a multicollinearity problem (Hair, Black, Babin, & Anderson, 2014).

Table 3 Correlation Matrix

	REM1	. BDSZ	. BDIN	BDEXP	. FBDMB	DIROW	FS	LEV	ROA
REM1	1								
BDSZ	0.0642	1							
BDIN	-0.1434	0.1180	1						
BDEXP	0.0624	-0.219	0.0826	1					
FBDM	0.1538	0.2388	0.0384	0.0373	1				
DIROW	-0.1802	-0.1526	-0.2544	-0.0977	-0.0922	1			
FS	0.3187	0.4282	-0.0261	0.0339	0.3049	-0.2901	1		
LEV	0.169	-0.0351	-0.2193	0.0105	0.0815	0.0442	0.0495	1	
ROA	0.3189	0.0299	0.0576	0.0864	0.1248	-0.1426	0.2132	-0.1768	1

Notes: Note: REM = Real Earnings Management; BDSZ= Board Size; BDIN= Board Independent; BDEXP= Board Expertise; FBDM= Foreign Board Member; DIROW=Director Ownership; FS= Firm Size; LEV=Leverage; ROA= Return on Asset. Table 3 also shows that BDSZ and REM is positive and insignificant, BDIN is negative and significant with REM. The proportion of financial expertise directors BDEXP is insignificantly related with REM. Likewise, FBDM are positive and significantly related with REM. While the DIROW is also found to have significant negative correlation with REM.

4.3 Regression Result

The association between corporate board mechanisms and REM is shown in Table 4. Two separate models for both pre- and post-mandatory code were presented.

Table 4: Regression result

Panel Corrected Std. Err.	Pre- Mandatory CG	Post Mandatory CG
Dependent Variable REM	Beta	Beta
	(Z-Stat)	(Z-Stat)
Obs	158	158
BDSZ	-0.047 (-2.77)***	0.005 (-0.42)
BDIN	-0.843 (-5.72)***	-0.829 (-4.41)***
BDEXP	-0.397 (-2.24)**	0.435 (11.69)***
FBDM	0.061 (1.94)*	0.157 (2.24)**
DIROW	-0.499 (-5.67)***	-0.575 (-4.72)***
FS	0.141 (4.91)***	0.077 (3.93)***
LEV	0.494 (3.35)***	0.382 (5.57)***
ROA	0.024 (6.45)***	0.012 (10.82)***
Intercept	-1.185 (-4.49)***	-0.9740 (-3.00)***
R Square	0.245	0.268
prob>F	0.000	0.000
F-Stat		
Breusch and Pagan LM test		0.0000
Hausman test		0.0000
Modified Wald Heteroskedasticity		0.0000
Wooldridge Autocorrelation		0.0000
Pesaran's cross sectional independence		0.0002

Note: REM = Real Earnings Management; BDSZ= Board Size; BDEXP= Board Expertise; FBDM= Foreign Director; BDIN= Board Independent; DIROW=Director Ownership; FS= Firm Size; LEV=Leverage; ROA= Return on Asset *** significant at 0.01 level, ** significant at 0.05 and * at 0.1 level.

However, before running the regression, the study tested for heteroskedasticity, cross-sectional dependency and auto-correlation and to ensure reliability of the statistical inference. The result is displayed in Table 4, the model exhibits presence of heteroskedasticity, autocorrelation and cross-sectional dependency. To avoid these problems, the study used panel corrected standard error (PCSE). PCSE has been identified as most appropriate and efficient in a dataset with such behaviour (Bailey & Katz, 2011; Moundigbaye et al., 2018). The result reported an R-square of 0.245 for pre-mandatory period and 0.268 in the post Mandatory period. This signifies that CG has improve the overall effect of corporate board mechanisms and therefore reduces the consequence of EM. On the effect of the independent variables, the result reveals that board size is effective in the pre- period (-0.047; at 1% level), but insignificant in the post mandatory period (0.005; -0.42). This signifies that board size is more effective in the pre- mandatory compared to after the mandatory period.

The result for BDIN indicates a negative relationship with REM (-0.843; at 1%) during before-mandatory period, but the coefficient is higher in the after the mandatory period (-0.829; although at 1%). Table 3 also shows that BDEXP is negative and significant at pre- period (-0.397; at 5% level), but positive significant at post mandatory period (0.435; at 1% significant). The result is contrary to the prediction that financial expertise directors constrain the effect of REM. The possible explanation may be due to lack of knowledge of REM which weaken the power of the board to institute control. Regarding the FBDM, the result indicates a significant positive relation between FBDM and REM (0.061; at 10%) in the pre-period and significant at 1% level in the post mandatory period (0.157), suggesting that foreign director does not reduce the REM. The possible reason may be since foreign directors come from foreign nationalities and thus may not be well familiar with the operation of Nigerian Capital Market. The result also shows that director's ownership has a negative and significant influence on REM in both pre-post mandatory period with (-0.499; at 1% level) and (-0.575; at 1% significant) respectively. This result validates

hypothesis that insider (directors) ownership deterred managers from engaging in aggressive earnings management.

Regarding the control variables, the study finds significant positive coefficient between FS and REM in both before- and after-period at 1% level, signifying that larger firm are more likely to manipulate the reporting earnings. Also, the results indicate that LEV and ROA have significant positive influence on REM all at 1% level in both pre- and post-mandatory period. Suggesting that firm with more debt manipulate earnings to meet up the demand of the debt holders.

5.0 Conclusion

This study investigates the effect of CG reforms and REM in Nigeria under the pre- and post-mandatory code of 2018. The study provide answer to the question of whether mandating the provision of CG in 2018 by the financial reporting council improves the capacity of the board to mitigate the REM. The study finds that board size, board independence, and directors ownership reduce the possibilities of real earnings management in both before and after the mandatory period. Contrary to the prediction, foreign directors are found incapable in minimising the magnitude of real earnings management.

Overall, the findings reported a decrease in REM from 0.38 in the before- mandatory period to 0.22 in the after-mandatory period. Likewise, the results reveal improvement in the overall model from an R-square of 24% in the period and 0.27% in the post mandatory period. The study contributes to the extent literature by providing empirical evidence on the role of corporate board mechanisms before and after the mandatory implementation. The research provide insight to regulators on the effectiveness of CG mechanisms. Specifically, the findings shows that FBDM cannot constraining the effect of EM.

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