The idea that firms should be ‘governed’ as opposed to just being ‘managed’ is a recent phenomenon that has caught the attention of the stakeholders because of the global financial crisis of 2008. Despite the various governance reforms, the managers take undue advantage of imperfections in the market to manage earnings to the detriment of other stakeholders. This paper empirically studied the impact of corporate governance mechanisms on creative accounting practices in the listed companies in Nigeria. We used a longitudinal design for the study because repeated observation of the same variables are involved (corporate governance mechanisms and creative accounting practices) over a 13-year period (2005-2017). The study population was 166 listed companies on the Nigerian Stock Exchange as at 31st December, 2017 and 70 companies were selected as a sample, using multi sampling technique. We collected data for the variables from the companies’ annual reports and accounts sourced from African Financials, Nigerian Stock Exchange and individual company websites. The study used descriptive statistics, correlation, OLS regression, panel fixed effects model (FEM) and panel random effects model (REM) for the analysis and hypothesis testing. The outcome of the study revealed that corporate governance mechanisms jointly have a great significant impact on creative accounting practices (CAP) in Nigeria, but the level of impact differs among individual corporate governance mechanisms. Audit committee and gender diversity have negative and significant relationship with creative accounting practices, showing that increase in either of them reduces unethical practices and manipulation of accounting numbers. The ownership concentration has a positive and significant impact on creative accounting practices. However, board size, board independence, managerial ownership and CEO duality are positive and do not have any significant impact on creative accounting practices. The study recommends for the use of both sanctions and moral suasion in compelling compliance with relevant laws, accounting standards and corporate governance codes. In addition, more women participation on the board and audit committee independence should be encouraged.

Keywords: Cash Based Earnings Management, Corporate Governance Mechanisms, Creative Accounting Practice.

JEL Classification: M14, M41, M49

INTRODUCTION

A critical review of most of the events in the last decade or more showed that creative accounting practices, bad corporate governance and weak institutional framework in regulation,
compliance and enforcement of relevant standards and rules are majorly responsible for the failures of big companies around the world. The failed companies include Skye Bank, Cadbury, Intercontinental Bank (Nigeria), Dynegy (USA), Carrillion (UK), Nortel (Canada), Banco Espinto Santo (Portugal), Schlecker (Germany) and Kingfisher (India). In Nigeria, the latest scandals are the ‘financial misstatements’ by IBTC Holdings Plc. and Oando Nig. Plc. in their financial statements for years 2013 and 2014 as reported by the FRCN and SEC respectively. It appears the financial scandals and corporate failures of 2008 to 2014 are unprecedented in history of Nigeria. Thus, there is yearning by the stakeholders on how to stem this tide.

The reported earnings has remained a key variable when analysing financial statements. The recent corporate scandals bring to fore the danger earnings management could pose to the decision usefulness of the financial reports. There is profound evidence that directors and managers engage in creative accounting practices. For example, the World Bank (2011) in its report of the observance of standards and codes (ROSC) reported that many banks in Nigeria took advantage of the loopholes in the local standards, weak regulatory capacity and weak enforcement mechanisms, to manipulate earnings and make their balance sheets healthier. It went further to attribute crisis in the banking industry in 2009 to inadequacies in financial reporting and auditing resulting into loss of between N1.50 and 2.00 trillion in the sector. The banks are motivated by the contemporary accounting practices that give room to the use of discretion and professional judgement (Akenbo & Ibanichuka, 2012). Most often, the exercise of choice and professional judgement in accounting is abused through a deliberate withholding of vital information and manipulation of accounting figures (Healy & Wahlen, 1999). This has negative impact on the users of accounting information who are hoodwinked into taking wrong investment decisions (Osisioma & Enahoro, 2006; Akenbor & Ibanichuka, 2012). In an emerging market like Nigeria, the cases of creative accounting practices are heightened by the market failure and the corruption in the business environment. Creative accounting practices take place through either accrual manipulation or real activities manipulation, otherwise called cash-based earnings management. While accrual manipulation does not have any significant impact on the firm’s cash flow and valuation (Healy & Wahlen, 1999), the real activities manipulation results into changes in normal business operations and affects the firm’s future cash-flow and valuation (Zang, 2012). In spite of the negative impact of cash-based earnings management on the future cash flows and valuation of a firm, little attention has been given to it in literature (Roychowdhury, 2006; Zang, 2006).

There is a link between corporate governance and creative accounting. Corporate governance involves a set of relationships between a company’s management, its board, its shareholders and other stakeholders. Corporate governance also provides the structure through which the objectives of the company are set, and the means of attaining those objectives and monitoring performance are determined (OECD, 2015). In practice, it is concerned with the mechanisms adopted by the board to preserve the interests of the stakeholders, particularly the shareholders (Sanda et al., 2005). It deals with problems emanating from the separation of ownership and control. The essence is to lower the agency cost created by the divergence of interest between the managers and the shareholders. Corporate governance leads to a culture of transparency, accountability and consciousness, which are paramount for the long-term survival of the business and the satisfaction of all stakeholders. Good corporate governance discourages creative accounting practices (Shan, 2015), but effective corporate governance requires a sound legal, regulatory and institutional framework that market participants can rely on when they establish their private contractual relations (OECD, 2015). However, the directors who should foster good corporate governance are found culpable in most of the financial misfeasance. For instance, incompetent and ineffective boards and board committees were observed to have
contributed to the corporate failures of the recent years. KPMG (2016) also confirmed that corporate governance was identified in many instances to have contributed to corporate failures. Major reforms became inevitable to address the weaknesses in the corporate governance structure. Sequel to the Enron’s financial scandal, the United States of America took a lead in corporate governance reform by introducing Sarbaine-Oxley Act in 2002. Many other countries (both developed and developing) followed this move to salvage their capital markets and economies, in general. In Nigeria, the Financial Reporting Council of Nigeria (FRCN) Act 2011 was enacted to replace Nigeria Accounting Standards Board (NASB) Act 2003. Besides, both sectorial and non-sectorial corporate governance codes were introduced at various times to engender the culture of good corporate governance and quality financial reporting. Despite the measures adopted by the various regulatory agencies, cases of accounting manipulations and fraudulent financial reporting have continued unabated. The stakeholders are concerned with the failure of corporate governance mechanisms in reducing creative accounting practices.

Most researches on earnings management preferred to use accrual-based earnings management as a proxy. However, Cohen et al. (2008) in their study confirmed that since the introduction of Sarbane-Oxley Act (SOX) 2002, managers have shifted from the use of discretionary accrual management to the use of cash-based earnings management. This is because of the more stringent regulatory measures and easy detection of the accruals by the auditors who are now more meticulous. Thus, drawing conclusions on creative accounting practices based on accruals model alone may not be appropriate. In Nigeria, most of the studies on creative accounting practices used discretionary accrual management as proxy for creative accounting practices without considering its economic consequences (Akembor & Ibanichuka, 2012; Uwuigbe et al. 2014., Abata & Migiro, 2016; Obigbemi, et al., 2016 and Ikumapayi, et al., 2018).

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Earnings is one of the major variables used in measuring the performance of organization and its managers. It forms the basis upon which investment decisions are made and managers’ compensation determined. There is therefore tendency for the earnings to be manipulated either for the personal gain of the directors or to meet investors’ expectations. There are arguments for and against it. For instance, Scott (2003) stated that it is good when it conveys insider information to the market, thus enabling the share price to reflect future prospects of the company. In other words, it is the recognition of changes in the economic, social, political and business environment for the financial reports to present a better true and fair view. In the process, shareholders benefit from the price/earnings that are augmented through the reduction of uncertainty that often occurs and improved projection of future earnings (Beidleman, 1973; Lipe, 1990). On the other hand, it becomes bad and injurious when unethical practices are used in window dressing the accounts to deceive the providers of capital (Vlada & Matis, 2010). In this case, the resultant effect becomes anything, but true and fair which jeopardizes the interest of the users. Creative accounting involves the deliberate facade of financial statements with the aim of either deceiving investors on the underlying economic position of a company or gaining some contractual benefits that depend largely on accounting numbers (Watt & Zimmerman, 1986; Healy & Wahlen, 1999; Uwuigbe, Peter & Oyeniyi, 2014). This phenomenon may threaten the ‘going concern’ of the business if not checked. Most of the financial scandals of recent years are traceable to the unethical behaviours of the directors who are the preparers of the accounts (Adedipe, 2004; Bakre, 2007). Some people have argued that creative accounting practices (CAP) are more extensive in the public companies
There is nexus between creative accounting and corporate governance. Past studies showed that a negative relationship exists between corporate governance and creative accounting (Alzoubi & Selamat; 2012; Bugshan, 2005; Gulzar et al., 2011; Murya, 2010). Ahmed (2013) stated that corporate governance limits insiders from abusing their powers in the management of corporate resources and provides the means of monitoring the behaviour of the managers for accountability, transparency and protection of the investors. Corporate governance is not just a set of rules, but also a structure of relationships that fosters good corporate practice and enduring organizational culture. Keaser & Wright (1993) defined it as structures, processes, culture and system that promote the achievement of corporate objectives. Corporate governance involves a set of relationships between a company’s management, its board, its shareholders and other stakeholders. Corporate governance also provides the structure through which the objectives of the company are set, and the means of attaining those objectives and monitoring performance are determined (OECD, 2015). Good corporate governance discourages creative accounting practices, while bad corporate governance encourages it (Fortuna, 2002). Where good corporate governance is entrenched, the board and management will pursue goals that are of benefits to the company and its stakeholders (Oladimeji, 2003). Conflict between shareholders and management may precipitate unethical accounting practices. Some prior studies also have confirmed that the existence of information lopsidedness in an organization is a requirement for the execution of the creative accounting practice (Trueman & Titman, 1988; Dye, 1988; Schipper, 1989; Warfield Wild & Wild, 1995). Despite the measures adopted by the various regulatory agencies to foster efficient corporate governance structure and quality financial reporting, accounting manipulations and fraudulent financial reporting continue unabated. Many of the corporate failures have been attributed to the breakdown in the organization’s structures and processes (Otusanya et al., 2011).

Abbadi et al. (2016) studied the relationship between corporate governance quality and earnings management in Jordan. The study covered period of five years from 2009-2013 and panel data set was used. Their results indicated that the overall categories of governance index has negative impact on earnings management. Abata & Migiro (2016) investigated effect of corporate governance mechanisms on earning management in the selected companies from manufacturing and banking sectors. From the population of 63 listed companies, 24 companies were selected as sample. Panel data was used and it covered period of six years from 2008 to 2013. Using multiple regression for data analysis, they discovered that audit committee size, board independence and audit committee independence have no significant positive relationship with earnings management, while ownership structure and board size and have no significant negative relationship with earnings management. They concluded that corporate governance could not reduce earnings management in the two sectors selected. Badru (2013) reviewed the relationship between CG attributes and real earnings management. The sample is made up of top 100 companies rated high based on Malaysia CG Index 2011 (MCG Index) on best practices of CG. The final sample was 78 companies, after excluding financial companies and OLS regression was used for data analysis. Her findings indicated that only board size and directors expertise contain earnings management, none of the audit committee attributes exhibit remarkable relationship with real earnings management. Muda et al. (2018) investigated the influence of good corporate governance on earnings management in Indonesia. The data method used was documentation. Exchange. The study used panel data, regression analysis with the aid of E-View software. The outcome of their work revealed that good corporate governance (CG) sufficiently affects earnings management, while partial testing indicated that composition of commissioners and audit
committees have no effect on earnings management. Shin and Kim (2019) examined effects of corporate governance mechanisms on earnings quality and market returns to low quality earnings in Korea. They used 1,976 non-financial firm year observations of companies listed on the Korean Stock Exchange from 2013 to 2016 and noticed that the gap between unaudited earnings and actual earnings was relatively low for companies with independent board and foreign ownership. Their results also showed that companies with independent board have stock returns to earnings gap that are less negative, but assumes a more negative position as foreign ownership increases. This implies that each CG mechanism has different effect.

Obigbemi et al. (2016) reviewed the role of board structure in limiting earnings management practices in Nigeria. The study sampled the data of 137 quoted companies in Nigeria for period of eight years (2003 - 2010). The research model was measured using OLS regression technique complemented by Pearson correlation coefficient were used to measure the research model. From their findings, board size, gender diversity and board composition have inverse and sufficiently great with earnings management practices. However, a positive and significant relationship exist between board meeting and earnings management. Their results also showed that there is positive non-significant relationship between the presence of a remuneration committee and CEO duality and earnings management. Manukaji (2018) focused on the relationship between CG mechanisms and income smoothing. He adopted ex post facto research design and sampled four deposit money banks from the period of 2012 to 2016. The study employed Eckel (1981) index to proxy income smoothing and multiple regression for data analysis. Although the degree of impact of the individual CG mechanism varies, overall CG mechanisms have significant relationship with income smoothing in Nigerian banks.

From the literature review, the hypothesis to be tested in this study is stated in the null form as follows:

\[ H_0: \text{There is no significant relationship between corporate governance mechanisms and creative accounting practices in Nigeria.} \]

Gaps in Literature

Despite the negative effect of cash-based earnings management on the future cash flows and valuation of a firm, little attention has been given to it in literature (Roychowdhury, 2006 and Zang, 2012). In Nigeria, most of the studies on creative accounting practices used discretionary accrual management as proxy for creative accounting practices without considering its economic consequences (Akembor & Ibanichuka, 2012., Uwuigbe et al., 2014., Abata & Migiro, 2016). Moreover, the findings from the prior studies have been mixed and inconclusive. These have been largely due to variation in the sample size and independent variable inclusion deficiency, using one or two internal corporate governance mechanisms in some studies. This weakness makes important mechanisms for resolving agency problem to be excluded.

Theoretical Framework

The agency theory was chosen as the underlying theory for the study because it recounts the relationship between the principal and the agent, and the abuses that could arise from such relationship, particularly with respect to separation of ownership from control. The theory had its root in economic theory exposed by Alchian & Demsetz (1972), and further developed by Jensen
& Meckling (1976). It emerged out of the major concern of Berle & Means (1932) in respect of the separation of ownership from control. It focuses on the relationship between the principals (shareholders) and agents (board and management). According to the theory, the principals made hired agents responsible for the daily operation of the business. Thus, the separation of ownership from control places responsibility on the management for proper accountability, transparency and prudent management. Since man is selfish by nature, there is tendency for one party to consider his own interest first which could jeopardize the interest of the other party. For instance, agency problem may occur when the agent fails to disclose total information to the principal and take decisions that are inimical to the interest of the principal as it happened in the cases of Enron, WorldCom, Nortel and Cadbury Nig. Plc. The aim of the theory, therefore, is to resolve the conflict that may arise between shareholders and managers. The agency problem can be curtailed through monitoring and controlling mechanisms. The monitoring and controlling cost forms part of the agency cost.

Research Methods

The researcher used a longitudinal design for the study due to repeated observation of the same variables (CG mechanisms and creative accounting practices) over a 13-year period (2005 - 2017). It is considered as superior to cross-sectional design because it enables processes and causes of change within individuals and among individuals to be identified. The population consists of 166 listed companies on the Nigerian Stock Exchange as at 31st December, 2017 and the sample size of 70 companies was selected. The multi-sampling technique was employed to select the sample based on three criteria: (i) the company is listed on the Nigerian Stock Exchange during the period being covered for the study (2005 – 2017) (ii) the industry the companies belong to should have at least five (5) companies (iii) The financial statements are available during the period of study. The three criteria are in agreement with Song et al. (2003) and Iyoha (2011), except that the study considered minimum of five companies per industry. The study collected data for the variables from the companies’ annual reports and accounts sourced from African Financials, Nigerian Stock Exchange and individual company websites. The descriptive statistics, correlation, ordinary least square (OLS) regression, panel fixed effects model (FEM) and panel random effects model (REM) were used for data analysis and hypothesis testing.

Variable Definition and Measurement

In this section, the study proceeds to define and measure both dependent and independent variables. The essence is to provide a suitable platform for the model specification.

Dependent Variable

The dependent variable is creative accounting practices (CAP) and it is proxy by cash-based earnings management (CBEM). CBEM is defined as the summation of three metrics (Abnormal Cash flow from Operation + Abnormal Production Cost + Abnormal Discretionary Expenses).

Independent Variables
To assess the impact of corporate governance mechanisms on creative accounting practices (the hypothesis), board independence, board size, gender diversity, ownership concentration, managerial ownership, audit committee and CEO duality were used as proxies for the corporate governance mechanisms. These proxies are defined below:

- **Board Size (BRDSZE):** Number of board members of firm i in year t
- **Board Independence (BRDIND):** Number of independent directors of firm i in year t divided by total number of board members of firm i in year t.
- **Audit Committee Independence (AUDCOM):** The number of independent members of the committee of firm i in year t divided by the total number of the audit committee of firm i in year t.
- **Gender Diversity (GENDIV):** Number of female directors of firm i in year t divided by total number of directors of firm i in year t.
- **Managerial Ownership (MGROWN):** The proportion of shares held by the management to the total number of shares issued by the firm.
- **Ownership Concentration (OWNCON):** The proportion of shares held by the largest shareholders to the total number of shares issued by the company.
- **CEO Duality (CEDUAL):** Dichotomous: ‘1’ if the positions of Chairman and CEO are held by two people. ‘0’ if held by one person.

### Control Variables

The control variables are used in a good research design to minimize the influence of extraneous variables on dependent variables. The control variables used in this study are leverage and firm size and they are defined as follows:

- **Leverage (LEV):** Percentage of total debt to equity.
- **Firm Size (FIRSZE):** The size of the firm is the value of the assets base. That is, the natural log of the company’s total assets

\[
\beta_0 = \text{Intercept of the regression line, regarded as constant}
\]

\[
\beta_{1-7} = \text{Coefficient or slope of the regression line of independent variables}
\]

\[
\mu_1 = \text{the error term}
\]

The expected signs of the coefficients (i.e. a priori expectations) are such that \( \beta_{1-7} < 0 \)

### Model Specification and Estimation Techniques

In testing the impact of corporate governance mechanisms on creative accounting mechanisms, the study adopts the model developed by Dechow et al. (1998) and applied by Roychowdhury, (2006) and Cohen et al (2008) using three metrics to measure the level of manipulations of fundamental economic activities of management. This is because the model has been found suitable for measuring manipulations through real economic activities (Zang, 2006; Gunny, 2010). The evidence from the subsequent studies (Okolie, 2014; Badru, 2013) further increase our confidence in the empirical validity of these proxies. More importantly, there is a similarity between these prior works and this study. The proxy of the creative accounting practices is therefore, premised on cash-based earnings management. The estimations from the model are expressed as follows:

### Abnormal level of Cash-flow from Operations

The normal CFO is expressed as a linear function of sales and change in sales and this stated in the cross-sectional model as follows:
\[
\frac{CFO_{it}}{\text{Assets}_{i,t-1}} = \beta_0 + \beta_1 \frac{1}{\text{Assets}_{i,t-1}} + \beta_2 \frac{\text{Sales}_{it}}{\text{Assets}_{i,t-1}} + \beta_3 \frac{\Delta\text{Sales}_{it}}{\text{Assets}_{i,t-1}} + e_{it} \quad \ldots \ldots \ldots \quad (1)
\]

Where,
\(CFO_{it}\) = Normal (expected) cash-flow from operations of company \(i\) in year \(t\)
\(\text{Assets}_{i,t-1}\) = Total assets of company \(i\) in year \(t-1\)
\(\text{Sales}_{it}\) = Sales revenues of company \(i\) in year \(t\)
\(\Delta\text{Sales}_{it}\) = Change in sales revenue over time \((S_t - S_{t-1})\)
\(e_{it}\) = the error term

The abnormal cash flow from operations is the actual CFO minus the normal cash flow that was calculated, using the coefficient from the regression model in equation (1) above.

**Abnormal level of Production Cost**

The normal level of production cost is derived from the sum of cost of goods sold (COGS) or cost of sale, in the case of non-manufacturing firms and change in inventory during the year. The COGS is modeled as a linear function of contemporary sales and it expressed as follows:

\[
\frac{\text{COGS}_{it}}{\text{Assets}_{i,t-1}} = \beta_0 + \beta_1 \frac{1}{\text{Assets}_{i,t-1}} + \beta_2 \frac{\text{Sales}_{it}}{\text{Assets}_{i,t-1}} + e_{it} \quad \ldots \ldots \ldots \quad (2)
\]

Then, the growth in inventory is stated below:

\[
\frac{\Delta\text{INV}_{it}}{\text{Assets}_{i,t-1}} = \beta_0 + \beta_1 \frac{1}{\text{Assets}_{i,t-1}} + \beta_2 \frac{\Delta\text{Sales}_{it}}{\text{Assets}_{i,t-1}} + \beta_3 \frac{\Delta\text{Sales}_{it-1}}{\text{Assets}_{i,t-1}} + e_{it} \quad \ldots \ldots \ldots \quad (3)
\]

From equations (2) and (3) above, the normal level of production cost model is expressed as follows:

\[
\frac{\text{PROD}_{it}}{\text{Assets}_{i,t-1}} = \beta_0 + \beta_1 \frac{1}{\text{Assets}_{i,t-1}} + \beta_2 \frac{\text{Sales}_{it}}{\text{Assets}_{i,t-1}} + \beta_3 \frac{\Delta\text{Sales}_{it}}{\text{Assets}_{i,t-1}} + \beta_4 \frac{\Delta\text{Sales}_{it-1}}{\text{Assets}_{i,t-1}} + e_{it} \quad \ldots \ldots \ldots \quad (4)
\]

Where,
\(\text{PROD}_{it}\) = COGS (cost of goods sold) plus change in INV (inventory) = Normal production cost for company in year \(t\)
\(\text{Assets}_{i,t-1}\) = Total assets of company \(i\) in year \(t-1\)
\(\text{Sales}_{it}\) = Sales revenues of company \(i\) in year \(t\)
\(\Delta\text{Sales}_{it-1}\) = Change in sales revenue of company \(i\) in year \(t-1\).
\(e_{it}\) = the error terms

The abnormal level of production cost is estimated as the sum of COGS and change in INV minus normal level of production cost that was derived, using equation (4)

**Abnormal level of Discretionary Expenses (Disrexp)**

Discretionary expenses are expressed as a function of current sales and thus, the following model is used to estimate the normal level of discretionary expenses:
\[
\frac{DISREXP_{it}}{Assets_{it-1}} = \beta_0 + \beta_1 \frac{1}{Assets_{it-1}} + \beta_2 \frac{Sales_{it}}{Assets_{it-1}} + \varepsilon_{it} \quad \ldots \ldots \ldots \ldots \ldots \quad (5)
\]

However, using current sales to estimate the normal level of discretionary expenses as is shown in equation (5) creates a mechanical problem. For instance, if the company manages its sales by reviewing it upward in order to increase the reported earnings in a certain year, this may lead to significantly lower residuals from running a regression that is derived in equation (5). To mitigate this problem, lagged sales is used. Consequently, discretionary expenses are now expressed as a function of lagged sales and thus, the following model is used to estimate the normal level of discretionary expenses:

\[
\frac{DISREXP_{it}}{Assets_{it-1}} = \beta_0 + \beta_1 \frac{1}{Assets_{it-1}} + \beta_2 \frac{Sales_{it-1}}{Assets_{it-1}} + \varepsilon_{it} \quad \ldots \ldots \ldots \ldots \ldots \quad (6)
\]

Where,

Disrexp = Discretionary expenses are defined as the sum of advertising expenses, research and development expenses and selling, general and administrative expenses = Normal discretionary expenses of company i, in year t

\( \frac{Assets_{it}}{Assets_{it-1}} = \) Total assets of a company i, in year t-1

\( \frac{Sales_{it}}{Assets_{it-1}} = \) Sales revenue of a company i, in year t-1

Therefore, the abnormal level of discretionary expenses is expressed as the difference between the actual discretionary expenses and the normal discretionary expenses as shown in equation (5) above.

**Cash- Based Earnings Management (CBEM)**

The abnormal CFO, abnormal Production Cost and abnormal Discretionary Expenses are calculated as the difference between the actual values and normal levels predicted from equations (1), (4) and (6). Having calculated the abnormal CFO, abnormal production cost and abnormal discretionary expenses, the cash-based earnings management (CBEM) is derived by adding the abnormal CFO, abnormal production cost and abnormal discretionary expenses, which is measured as follows:

\[
CBEM = \text{Abn. CFO} + \text{Abn. Prod. Cost} + \text{Abn. Disrexp} \quad \ldots \ldots \ldots \ldots \ldots \quad (7)
\]

**Effect of Corporate Governance Mechanisms on Earnings Management**

The regression model that is used to test the relationship between creative accounting practices (dependent variable) and corporate governance mechanisms (independent variables) are expressed below:

\[
CBEM = \beta_0 + \beta_1 \text{BRDSZE} + \beta_2 \text{BRDIND} + \beta_3 \text{AUDCOM} + \beta_4 \text{GENDIV} + \beta_5 \text{MGROWN} + \beta_6 \text{OWNCON} + \beta_7 \text{CEDUAL} + \beta_8 \text{LEV} + \beta_9 \text{FIRSZE} + \varepsilon_{it} \quad \ldots \ldots \ldots \ldots \ldots \quad (8)
\]

Where,

CBEM = Cash-based earnings management
BRDSZE = Board size
BRDIND = Board independence
AUDCOM = Audit committee independence
GENDIV = Gender diversity
MGROWN = Managerial ownership  
OWNCON = Ownership concentration  
CEDUAL = CEO duality  
LEV = Leverage  
FIRSZE = Firm size

RESULTS AND DISCUSSION

Descriptive Statistics of the Study Variables

Descriptive statistics measure the distribution of observations in the data set. The measures of the central tendency and dispersion for the study data are displayed below:

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Median</th>
<th>Max</th>
<th>Min</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBEM</td>
<td>67.55</td>
<td>129.00</td>
<td>139.00</td>
<td>956.00</td>
<td>419.00</td>
</tr>
<tr>
<td>BRDSZE</td>
<td>9.836</td>
<td>2.767</td>
<td>10.000</td>
<td>20.000</td>
<td>4.000</td>
</tr>
<tr>
<td>BRDIND</td>
<td>0.103</td>
<td>0.144</td>
<td>0.100</td>
<td>0.444</td>
<td>0.000</td>
</tr>
<tr>
<td>AUDCOM</td>
<td>0.415</td>
<td>0.167</td>
<td>0.500</td>
<td>0.833</td>
<td>0.000</td>
</tr>
<tr>
<td>GENDIV</td>
<td>10.480</td>
<td>10.961</td>
<td>10.000</td>
<td>33.333</td>
<td>0.000</td>
</tr>
<tr>
<td>MGROWN</td>
<td>0.036</td>
<td>0.066</td>
<td>0.012</td>
<td>0.690</td>
<td>0.000</td>
</tr>
<tr>
<td>OWNCON</td>
<td>0.473</td>
<td>0.241</td>
<td>0.515</td>
<td>1.000</td>
<td>0.000</td>
</tr>
<tr>
<td>CEDUAL</td>
<td>0.971</td>
<td>0.167</td>
<td>1.000</td>
<td>1.000</td>
<td>0.000</td>
</tr>
<tr>
<td>FSIZE</td>
<td>7.484</td>
<td>0.942</td>
<td>7.355</td>
<td>10.675</td>
<td>5.290</td>
</tr>
<tr>
<td>LEV</td>
<td>354.730</td>
<td>2,721.393</td>
<td>172.188</td>
<td>69,633.55</td>
<td>-34,317.33</td>
</tr>
</tbody>
</table>

Source: Researcher’s Computation (2018), using E-View  
N=910

Table 1 shows the descriptive statistics of the dependent and explanatory variables. There are 13 years computation from the annual reports of 70 sampled companies listed on the Nigerian Stock Exchange translating into 910 observations for this study. From the table, cash-based earnings management (CBEM) has a mean of 67.56, minimum value of 419.00 and maximum value of 956.00. The high mean score of 67.56 and standard deviation of 129.00 is an indication that cash-based earnings management is very prominent among the companies in the sample. The board size (BRDSZE) has a mean value of 9.83, minimum value of 4.00 and maximum value of 20.00. This implies that some companies recorded a board size that is below an average of 10.00, while no company exceeded the maximum of 20.00. In addition, the board independence (BRDIND) mean value is 10.30%. That is, on average of one independent director in a board size of ten. This is relatively low if objectivity and transparency must be encouraged in the management of companies in Nigeria. Whereas, the maximum value is 44.44% and minimum value is 0%. While some companies do not have any independent director, few others have about five on the board.

The mean value for the audit committee independence is 41.50%. This is an acceptable proportion of independent members constituting the audit committees by many companies. The minimum value is zero reveals that some companies do not have any independent person in the composition of the audit committee. Few companies listed in the sample have maximum value of 83.33%. Furthermore, the mean of female directors (GENDIV) is 10.48%. This represents an average of one female director in the board of ten directors. This is viewed as low participation of
women in the board of many companies in Nigeria. The minimum female representation is 0%, a pointer to the fact that some companies do not have female participation in the board. Conversely, the maximum value of 33.33% indicating that in some companies about one-third of the board members are women. This is a good development and must be encouraged among companies in Nigeria.

Managerial ownership (MGROWN) has a mean of 3.60%, maximum value of 69.00% and minimum value of 0%. This shows that managers through shareholding never controlled companies in Nigeria. For the ownership concentration (OWNCON), the mean value is 47%, the maximum value is 100% and minimum value is 0%. The average of 47% controlling interest by individuals or group of individuals is acceptable as a check against abuses common with ownership concentration. In addition, The CEO duality (CEDUAL) shows a mean value of 0.971, maximum value of ten and minimum value of zero. This result indicates that in most of the companies the positions of Chairman and Chief Executive officer are separate and held by two persons in agreement with the Securities and Exchange Corporate Governance Code.

The results for the control variables reveal that firm size has a mean value of 7.484, maximum value of 10.675 and minimum value of 5.290, while leverage has a mean value of 354.73%, maximum value of 69,633% and minimum value of -34,317.33%. From the descriptive results, the total assets of most of the companies in Nigeria makes them to be classified as large companies. However, many of the companies are highly leveraged with an average of 354.73%. This appears to be a threat to the long-term survival of the business. While few of the companies are already showing signs of threat to the going concern by high debt profile as shown in debt equity ratio of -34,317%, others are very healthy with a leverage of 69,633%.

**Correlation Matrix of the Study Variables**

Table 2 provides the Pearson correlation analysis of the study variables. The results shows that board size (BRDSZE), Board Independence (BRDIND), audit committee (AUDCOM), gender diversity (GENDIV), CEO duality (CEDUAL) have weak positive and significant correlation with creative accounting practices (CBEM) at coefficient of 0.382, 0.251, 0.214, 0.182 and 0.008 respectively. However, managerial ownership (MGROWN) and ownership concentration (OWNCON) have weak negative and significant correlation with creative accounting practices (CBEM) at coefficient of -0.141 and -0.062 respectively. In the case of control variables, the firm size (FSIZE) is positively strong and significantly correlated, while leverage is positively weak and insignificantly correlated with creative accounting practices (CBEM). The coefficients are 0.645 and 0.025 respectively. From the results, all the independent variables, except managerial ownership and ownership concentration have a positive relationship with cash-based earnings management. In addition, the correlation coefficients are generally low with the highest being 0.645, an evidence that the independent variables are not strongly correlated.
Panel Unit Root Test for the Study Variables

Carrying out unit root test before estimating the model was a necessary step in order to choose the most appropriate estimating technique. Studies have shown that panel data have tendency of been mean variant and therefore, there was need to test the stationarity condition of these variables. In addition, the prevailing problem of spurious regression had necessitated the test for unit root of panel series variables. This is important as the proposed methodology (panel regression) for the analysis can only be used to estimate models involving variables that are integrated of order zero I(0).

<table>
<thead>
<tr>
<th>Variable</th>
<th>LLC (Levin, Lin &amp; Chu t*)</th>
<th>LPS (Im, Pesaran and Shin W-stat)</th>
<th>Order of Integration</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>GBEM</td>
<td>-9.21679</td>
<td>-6.66751</td>
<td>I(0)</td>
<td>Stationary at level</td>
</tr>
<tr>
<td>BRDSZE</td>
<td>-3.09206</td>
<td>-1.17975</td>
<td>I(0)</td>
<td>Stationary at level</td>
</tr>
<tr>
<td>BRDIND</td>
<td>-5.72298</td>
<td>-3.72921</td>
<td>I(0)</td>
<td>Stationary at level</td>
</tr>
<tr>
<td>AUDCOM</td>
<td>-39.7828</td>
<td>-6.53826</td>
<td>I(0)</td>
<td>Stationary at level</td>
</tr>
<tr>
<td>GENDIV</td>
<td>-4.67609</td>
<td>-2.60069</td>
<td>I(0)</td>
<td>Stationary at level</td>
</tr>
<tr>
<td>MGROWN</td>
<td>-68.7001</td>
<td>-15.4371</td>
<td>I(0)</td>
<td>Stationary at level</td>
</tr>
<tr>
<td>OWNCON</td>
<td>-1132.97</td>
<td>-150.156</td>
<td>I(0)</td>
<td>Stationary at level</td>
</tr>
<tr>
<td>CEDUAL</td>
<td>-2.41127</td>
<td>-2.26891</td>
<td>I(0)</td>
<td>Stationary at level</td>
</tr>
<tr>
<td>FSIZE</td>
<td>-12.2314</td>
<td>-12.2314</td>
<td>I(0)</td>
<td>Stationary at level</td>
</tr>
<tr>
<td>LEV</td>
<td>-43.8228</td>
<td>-11.3664</td>
<td>I(0)</td>
<td>Stationary at level</td>
</tr>
</tbody>
</table>

Source: Author’s Computation, using E-View

In Table 3, LLC (Levin, Lin and Chu test) and LPS (Im, Pesaran and Shin W-stat) were adopted in confirming the stationarity condition of the variables. The result of the test showed that all the variables were stationary at level. Therefore, the model estimation can be carried out using panel least square with an option of fixed or random effect.

Multicollinearity Test

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient Variance</th>
<th>Uncentered VIF</th>
<th>Centered VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>1.40E+15</td>
<td>126.54</td>
<td></td>
</tr>
<tr>
<td>AUDCOM</td>
<td>0.2930</td>
<td>8.2599</td>
<td>1.1518</td>
</tr>
<tr>
<td>BRDIND</td>
<td>0.4033</td>
<td>1.7837</td>
<td>1.1806</td>
</tr>
<tr>
<td>BRDSZE</td>
<td>0.0015</td>
<td>23.3100</td>
<td>1.7114</td>
</tr>
<tr>
<td>CEDUAL</td>
<td>0.5955</td>
<td>82.8690</td>
<td>1.0090</td>
</tr>
</tbody>
</table>
Multicollinearity test, using Variance Inflation Factors (VIF) was conducted to avoid breaching assumptions underlying the application of regression analysis. The result from Table 4 showed that VIF values range from 1.009 to 1.711 and the mean VIF for the explanatory variables is 1.2166, which is lower than the upper limit of ten (10). Consequently, the explanatory variables are not strongly correlated. As such, the model has no multicollinearity problem. (Lind et al. 2010).

**Hausman Test of the Study Variables**

The Hausman test of cross-section random effects was conducted to decide which to be chosen between fixed effect model (FEM) and random effect model (REM) to panel regression. The decision rule is to accept the null hypothesis if p-value is greater than 0.05.

**Table 5**

<table>
<thead>
<tr>
<th>Test Summary</th>
<th>Chi-Sq. Statistic</th>
<th>Chi-Sq. d.f.</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cross-section random</td>
<td>18.8109</td>
<td>9</td>
<td>0.0268</td>
</tr>
</tbody>
</table>

Table 5 provides the results of the Hausman test. The results of the test reveal a Chi-sq. statistic of 18.8109 and p-value of 0.0268. Since the p-value of 0.0268 is less than 0.05, the null hypothesis is rejected, indicating that the fixed effects model was chosen for the study. Therefore, in estimating the parsimonious model of the variables, fixed effects will be the appropriate assumption.

**OLS Regression Analysis**

The OLS regression test was conducted to estimate the relationship between dependent variable (CBEM) and independent variables (board size, board independence, audit committee, gender diversity, managerial ownership, ownership concentration and CEO duality).

**Table 6**

<table>
<thead>
<tr>
<th>Regression Analysis</th>
<th>Pooled OLS</th>
<th>Fixed Effects</th>
<th>Random Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beta Coef. t-value</td>
<td>p-value</td>
<td>Beta Coef. t-value</td>
<td>p-value</td>
</tr>
<tr>
<td>BRDSZE</td>
<td>-0.286</td>
<td>-0.072</td>
<td>0.943</td>
</tr>
<tr>
<td>BRDIND</td>
<td>-0.0084</td>
<td>-0.0132</td>
<td>0.9894</td>
</tr>
<tr>
<td>AUDCOM</td>
<td>-0.6882</td>
<td>-1.2714</td>
<td>0.2039</td>
</tr>
<tr>
<td>GENDIV</td>
<td>-0.0294</td>
<td>-3.6203</td>
<td>0.0003</td>
</tr>
<tr>
<td>MGROWN</td>
<td>0.5070</td>
<td>0.3640</td>
<td>0.7159</td>
</tr>
<tr>
<td>OWNCON</td>
<td>-0.0875</td>
<td>-0.2339</td>
<td>0.8151</td>
</tr>
<tr>
<td>CEDUAL</td>
<td>0.3278</td>
<td>0.4248</td>
<td>0.6711</td>
</tr>
<tr>
<td>LEVERAGE</td>
<td>-0.0711</td>
<td>-0.2299</td>
<td>0.8182</td>
</tr>
<tr>
<td>FIRM_SIZE</td>
<td>1.7249</td>
<td>13.9648</td>
<td>0.0000</td>
</tr>
<tr>
<td>C</td>
<td>-7.447</td>
<td>-7.0393</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

Source: Author’s Computation, using E-View
Table 6 shows the pooled OLS, fixed effects and random effects. In order not to violate the assumptions underlying the application of regression analysis, multicollinearity test, using Variance Inflation Factors (VIF) was conducted. The result shows that VIF values range from 1.009 to 1.711 and the mean VIF for the independent variables is 1.2166, which is lower than the upper limit of ten (10). Consequently, the independent variables are not strongly correlated. As such, multicollinearity problem does not exist in the model (Lind et al., 2010).

Results from the Fixed Effects Model

The Fixed Effects Model have been chosen for the study. Therefore, it is used test the hypothesis and interprets our results.

Test of Hypothesis

The hypothesis states that there is no significant relationship between corporate governance mechanisms and creative accounting practices in Nigeria.

Model

The linear relationship of the dependent and independent variables, using fixed effects is expressed in the regression equation below:

\[
\text{CBEM} = \beta_0 + \beta_1 \text{BRDSZE} + \beta_2 \text{BRDIND} + \beta_3 \text{AUDCOM} + \beta_4 \text{GENDIV} + \beta_5 \text{MGROWN} + \\
\beta_6 \text{OWNCON} + \beta_7 \text{CEDUAL} + \beta_8 \text{LEV} + \beta_9 \text{FIRSZE} + \epsilon_{it} \tag{8}
\]

Table 5 presents the result of the fixed effect regression analysis. The coefficient of determination (R^2), which measures the goodness of fit of the model, reveals that 63.64% of the variation observed in the dependent variable is explained by the explanatory variables. This was moderated by the adjusted R^2 to 62.77% after adjusting for the loss of freedom, an indication that there are other variables apart from the explanatory variables that might have been responsible for systemic variation in the dependent variable. In other words, 37.23% of the variation observed in the dependent variable can be explained by the extraneous variables. This percentage is relatively high and shows a good fit of the regression line, an evidence that the forecasting power of the model is strong. The result shows that jointly the independent variables (Corporate Governance Mechanisms) has a significant relationship with dependent variable (CBEM) with F-value of 73.440 and p-value of 0.00 < 0.05. Assessing the level of contribution of individual explanatory variables, the Beta Coefficients are negative for BRDSIZE (-0.301), AUDCOM (-0.5823), GENDIV (-0.0122), while BRDIND (0.0601), MGROWN (0.4503), OWNCON (0.1948) and CEDUAL (0.2476) exhibit positive Beta Coefficients. The table also shows that AUDCOM (t-value -4.798, p-value, 0.000) and GENDIV (t-value of -2.321, p-value 0.0205) are negatively significant at 5%. The BRDSIZE (t-value -0.212, p-value 0.832) is negative and not significant at 5%. Whereas, BRDIND (t-value, 0.443, p-value 0.658), MGROWN (t-value 1.562, p-value
0.119), and CEDUAL (t-value 0.781, p-value 0.435) are positively not significant at 5%, but OWNCON (t-value 2.517, p-value 0.012) is positively significant at 5%.

Hypothesis Three

\( H_0: \) There is no significant relationship between corporate governance mechanisms and creative accounting practices in Nigeria.

The fixed effects model is used to draw our conclusion for the hypothesis. The result from Table 5 indicates that F-statistic is 73.441 and p-value is 0.000 < 0.05. Thus, the null hypothesis is rejected and the study concludes that overall the corporate governance mechanisms have high significant relationship with creative accounting practices in Nigerian. This implies that corporate governance mechanisms (BRDSZE, BRDIND, AUDCOM, GENDIV, MGROWN, OWNCON and CEDUAL) have a great significant impact on creative accounting practices in Nigeria. However, there is variation in the level of impact by individual corporate governance mechanisms.

DISCUSSION

The results of the study indicated that the corporate governance mechanisms jointly have high significant relationship with creative accounting practices. This implies that corporate governance mechanisms (BRDSZE, BRDIND, AUDCOM, GENDIV, MGROWN, OWNCON and CEDUAL) have a great significant impact on creative accounting practices in Nigeria. In addition, the outcomes of explanatory variables, BRDSZE, AUDCOM, GENDIV and FIRSZE are consistent with priori expectation (\( \beta_1, \beta_3, \beta_4 < 0 \) and \( \beta_9 > 0 \)), while BRDIND, MGROWN, OWNCON CEDUAL and LEV are not consistent with priori expectation (\( \beta_2, \beta_5, \beta_6, \beta_7, \beta_8 > 0 \) and \( \beta_8 < 0 \)). The study further examines the level of impact by individual corporate governance mechanisms and the findings are provided below:

The audit committee has significant and negative impact on creative accounting practices. The inverse relationship means that increase in the audit committee independence, results into reduction in creative accounting practices. The result is in agreement with the findings of Iraya, et al. (2015); Dabor & Ibadin (2013); Dahliwal, et al. (2010), but contrary to Abata & Migiro ((2016), Fodio, Ibikunle & Oba (2013) and Outa et al. (2017).

The board size has a negative, but not significant impact on creative accounting practices. This implies that the inverse relationship is too weak to bring about any significant impact on creative accounting practices. The increase in the size of the board is supposed to discourage managers’ latitude for using cash-based earnings management to manage the firms’ earnings because of the advantage of diverse knowledge, more expertise and independence. In this instance, the relationship is too weak to have any significant effect on creative accounting practices. The outcome contradicts the results of Abata & Migiro (2016; Chekil (2012) and Gulzar & Wang (2011). However, the findings of Ikumapayi et al. (2018); Uwuigbe et al. (2014) and Badru (2013) support the result of the study.

The results showed that there is a significant and negative relationship between gender diversity and creative accounting practices. This is an indication that gender diversity with an inverse relationship has a significant impact in reducing creative accounting practices. The inference from this is that, increase in the women representation on the board leads to decrease in unethical manipulation of results. Empirical studies have shown that women are less prone to fraudulent practices (Thorne et al. 2003). The result is consistent with the findings of Omoye &
Eriki, (2014); Obigbemi et al. (2016) and Abubakar et al. (2017), but inconsistent with the work of Salawu & Akano (2018).

The board independence is positive and do not have any significant impact on creative accounting practices. This indicates that board independence has a direct and insignificant relationship with creative accounting practices. That is, increase in the number of independent directors on the board encourages managers to manage earnings, using cash-based earnings management. Although in this study, the effect is not significant to have made this to happen. The result is in tandem with Outa et al. (2017); Abata & Migiro (2016) and Park & Shin (2004). On the contrary, Uwuigbe et al. (2014); Fodio et al. (2013); Uadiale (2012), Shah & Bolt (2009), Peasnell et al. (2005) and Dechow & Dichev, (2002) found out that the board independence has a significant and negative relationship with earnings management. According to them, an independent board is likely to reduce earnings management and unethical behaviours.

The ownership concentration has a positive and significant relationship with creative accounting practices. Although ownership concentration has a significant effect at 5%, its increasing relationship encourages creative accounting practices. This implies, the more concentrated the ownership structure is, the greater the tendency by management to indulge in creative accounting practices, particularly where there is conflict of interest between the shareholders and management. The outcome agrees with the findings of Outa et al. (2017) and Abata & Migiro (2016), but disagrees with the conclusions of Ikumapayi et al. (2018) and Iraya et al. (2015).

There is an insignificant and positive relationship between managerial ownership and creative accounting practices. Apart from direct relationship, managerial ownership does not have any significant impact on creative accounting practices. This result contradicts other studies that stated that increase in managerial ownership decreases the possibility of agency conflict and information asymmetry. Hence, eliminates or reduces manipulation of the accounting figures (Salawu & Akano, 2018; You et al., 2003). The findings of Saleh et al. (2008), however, support the result of this study.

The CEO duality showed a positive and non-significant impact on creative accounting practices for the sampled firms in Nigeria. This implies that, as the CEO duality increases, the possibility of creative accounting increases. However, the impact in this study is not statistically significant. The CEO has the overall responsibility for day-to-day running of the business, including control of the total corporate information. There is tendency for him to decide which of this information he makes available to other members of the board. This singular act most often encourages management of earnings through cash-based earnings management. The outcome of the study is in agreement with the studies of Obigbemi et al. (2016); Uwuigbe et al. (2014); Klein (2002) where they stated that the entrenchment od CEO duality will most often undermine the monitoring role of the board and thus, increasing earnings management in the company. However, Xie et al. (2003) and Chekil (2012) were of a contrary view. Their results showed that CEO duality has a negative and significant relationship with earnings management.

CONCLUSION AND RECOMMENDATIONS

Conclusion

Based on the findings of this study, we draw our conclusion as follows: The corporate governance mechanisms have a great significant impact on creative accounting practices in Nigeria, but the level of impact differs among individual corporate governance...
mechanisms. Audit committee and gender diversity have negative and significant relationship with creative accounting practices, showing that increase in either of them reduces unethical practices and manipulation of accounting numbers. The ownership concentration has a positive and significant impact on creative accounting practices. However, board size, board independence, managerial ownership and CEO duality do not have any significant impact on creative accounting practices.

**Recommendations**

Based on the conclusion of this study, the study offers the following recommendations:

1. Now that cash-based earnings management becomes an alternative means of managing earnings, the Financial Reporting Council of Nigeria must find an ingenious way to tackle the menace. While sanctions are necessary for infractions, moral suasion could be used, especially in making companies to comply voluntarily. For a developing country like Nigeria, the use of both rule-based and principle-based regulations will be effective. This is ‘carrot and stick’ approach.

2. Companies should be motivated to put in place an effective corporate governance mechanism they will curtail creative accounting practices. In particular, the independence of the audit committee should be sacrosanct and compelled among the listed companies in Nigeria, while there should be increase in the level of women participation on the board because of their intolerance for fraudulent practices. However, ownership concentration should be discouraged because of the abuses often exhibited by the controlling shareholders.

**REFERENCE**


IASB (2008). Exposure draft on an improved conceptual framework for financial reporting: The objective of financial reporting and quantitative characteristics of decision-useful financial reporting information, London.


