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*Corporate Governance and Classification Shifting:  
Empirical Study of Quoted Manufacturing firms in  
Nigeria*

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## **Corporate Governance and Classification Shifting: Empirical Study of Quoted Manufacturing firms in Nigeria**

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### **Abstract**

*Reported high profile accounting scandals involving such entities as Xerox, Enron, WorldCom, Adelphia, Tyco, Parmalat, One-Tel, HIH, and Cadbury Nigeria Plc, have been a source of serious concerns about corporate governance practices in general and attentions have been directed at quality of financial reporting of corporate entities. This study assessed the nexus between corporate governance and classification shifting of quoted manufacturing firms in Nigeria for a ten-year period covering from 2010-2019. Board Composition, Board Independence and Institutional Ownership were used to proxy Corporate Governance, while the dependent variable; Classification Shifting was measured by Unexpected Core Earnings. In line with the objectives of the study, three hypotheses were formulated. Ex-Post facto research design was employed. Seventeen (17) quoted manufacturing firms constituted the sample size of this study. Secondary data were extracted from the annual reports and accounts of the sampled firms and were analysed using E-Views 10.0 statistical software. The study employed descriptive statistics and inferential statistics using Pearson correlation and Panel Least Square (PLS) regression analysis. Findings from the empirical analysis showed that there is a significant negative relationship between Board Composition, Board Independence, Institutional Ownership and Unexpected Core Earnings at 5% level of significance. It was recommended inter alia that there should be an efficient monitoring and disciplining mechanism that aligns the interest between managers and shareholders. This reduces potential conflict of interest between shareholders and its manager and the ability of managers to manage earnings is curtailed.*

**Keywords:** Corporate governance, Classification Shifting, Board Composition, Board Independence, Institutional Ownership

### **Introduction**

Financial statements are the media of information that indicates the state of a company. Statement of Financial Accounting Standards (SFAS) No. 1 (2018) stated that the objectives of financial statements are to report the company's performance during a period and as a result of management accountability in using the resources. The report contains information used by the parties concerned both the external and internal. For external parties, such as investors and potential investors, financial reports are used to assess the ability

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and prospects of the company in making investment decisions, while for internal parties, the information in the financial statements can be useful for assessing the achieved performance by the management. Management is trying to show a good performance on the financial statements, especially on profits. If the management will not succeed in achieving the profit targets, management can utilize the accounting method that has been allowed by accounting standard to modify profit in preparing financial statements (Will, 2020).

Management performs the classification shifting by raising or lowering the profit with the aim of maximizing the welfare of the company or its own interests (opportunistic). Investigation into the Cadbury Nigeria Plc's case uncovered an undisclosed offshore remuneration package paid to the executives by the company's board (Orjinta, 2018). For instance, Ghada (2018) reports that early in 2006, Cadbury Schweppes Plc, the UK parent company of Cadbury Nigeria Plc, made considerable effort to increase its shareholdings from 46 to 50 percent in Cadbury Nigeria Plc. In the process of performing its due diligence of the Nigerian corporation, material overstatements were discovered in the books. Further, in October 2006, the board of Cadbury Nigeria Plc declared to its stockholders and regulatory bodies of the discovery of overstatements in the accounts during the period 2002-2005. Classification shifting is by no means a risk-free venture as there are vast majority of adverse effects (e.g. drop in share price) and the consequences are greatly severe. Likewise, several renowned international and local firms, such as Enron, WorldCom, Arthur Anderson, Intercontinental bank, Oceanic bank, Afribank, and Finbank suffered from reputation damage as a result of earnings manipulation. These firms were either bought over or went into complete liquidation after the event.

Classification shifting is an earnings management tool that is used to manage earnings. It was first introduced by McVay (2006) and it is defined as the deliberate misclassification of operating expenses to special items in order to inflate core or operating earnings without affecting the bottom line net income or loss. In addition to that, classification shifting may take the form of shifting of income-increasing special items such as gains on sale of assets and equity income on investment against operating expenses. Some businesses have used gains on sale of assets to offset operating expenses (Naman & Neerav, 2016; Lord & Saito, 2017). One of the factors that led to the occurrence of classification shifting is the lack of implementation of good corporate governance.

Corporate governance is a monitoring mechanism which aims at harmonizing the different interests and reducing information asymmetry between the principals and the agents, then classification shifting behaviour can be minimized (Yang & Morgan, 2020). Corporate governance is concerned with holding the balance between economic and social goals and between individual and communal goals. The governance framework is there to encourage the efficient use of resources and equally to require accountability for the stewardship of those resources. The aim is to align as nearly as possible the interests of individuals, corporations and society (Shirato & Nagata, 2012). Corporate governance is concerned with holding the balance between economic and social goals and between individual and communal goals. The governance framework is there to encourage the efficient use of resources and equally to require accountability for the stewardship of those resources. The aim is to align as nearly as possible the interests of individuals, corporations and society (Noh, Moon, Guiral & Esteban, 2014). The statement implies that corporate governance (CG) covers the interests of stakeholders in general through the utilization of resources and accountability of the top management leading to stewardship.

In Nigeria, several banks (Savannah Bank, Societe Generale Bank of Nigeria, Peak Merchant Bank, Oceanic Bank, Intercontinental Bank, Union Bank, Afribank, Finbank, ETB, Springbank) have failed and investors lost huge amount of money as a result of weak corporate governance structures shown by their long-term insolvency and illiquidity. For instance, some of the banks that have failed due to weak oversight of the board, financial mismanagement and established cases of board complicity are Intercontinental bank, Oceanic bank, Fin bank and Bank PHB. The financial crisis in Nigerian firms has been credited to the abuse of corporate governance practices is identified as one of the factors responsible for the failure of many manufacturing in Nigeria. A good number of businesses have collapsed both nationally and internationally over time as a result of lack of good corporate governance. The United Kingdom, United States of America, Brazil, Japan, Canada, France, and many Asian countries have recorded business failures occasioned by corporate governance issues.

One of the reasons for the preparation of misleading financial statement is the demand for high returns by shareholders on their investments (Zalata, Tauringana & Tingbani, 2018). This expectation from investors places management of some companies under undue pressure that they resort to indulging in unethical forms of financial-disclosure and reporting. Another reason is the quest to maintain a giant corporate status in the eyes of the business community despite some crippling internal problems, odds in the business terrain

or sporadic changes in competitiveness. Also, the craze to satisfy the interest of company's insiders by manipulating the financials, understating or reclassifying expenses is another reason. These of course set the stage for the failure of the company with time. The consequences of these unethical accounting practices include, but not limited to a wide gap between reality and the reported position of the company such that any person placing reliance on such reports for decision making will be misled, erosion of investor's confidence in corporate entities, attrition of revenue to the government via evasion or avoidance of taxes, reduction in the inflow of foreign direct and portfolio investment. And the question still remains, as to what extent does the managerial owners protect the interest of shareholders and improve the quality of earnings?

Despite the large body of research, the empirical findings on the link between corporate governance and classification shifting continue to be mixed and inconclusive. Within this stream of work, the influence of corporate governance on classification shifting has been of great interest. However, empirical research has been equivocal as Hossain, Chapple and Monroe, (2016); Kirsch (2017); Croson & Gneezy (2019) documented a significant negative relationship between corporate governance and classification shifting. Contrarily, Ajay and Madhumathi (2015); Wilde and Wilson (2017) reported a significant positive relationship between corporate governance and classification shifting, while Orjinta and Okoye (2018) found a non-significant negative relationship between corporate governance and classification shifting, thereby establishing a gap in literature, which this study tends to fill. In an attempt to resolving the gap in literature the emphasis of this study was concentrated on manufacturing sector as the predominant focus of prior studies is on banking sector, thereby filling the sectorial gap. Furthermore, the periodic gap of this study was closed by extending this study to 2019 as the financial period of previous studies ended in 2018.

## **Literature Review**

The main objective of this study is to determine the effect of corporate governance on classification shifting of quoted manufacturing firms in Nigeria. In this section, previous literatures related to the topic will be reviewed.

## **Corporate Governance**

Corporate governance is the collection of mechanisms, processes and relations by which corporations are controlled and operated (Shahwan & Mohammad, 2016). Governance structures and principles identify the distribution of rights and responsibilities among different participants in the corporation (such as the board

of directors, managers, shareholders, creditors, auditors, regulators, and other stakeholders) and include the rules and procedures for making decisions in corporate affairs. Corporate governance is necessary because of the possibility of conflicts of interests between stakeholders, primarily between shareholders and upper management or among shareholders (Heron, 2020). Corporate governance includes the processes through which corporations' objectives are set and pursued in the context of the social, regulatory and market environment. These include monitoring the actions, policies, practices, and decisions of corporations, their agents, and affected stakeholders. Corporate governance practices can be seen as attempts to align the interests of stakeholders (Garrone, Grilli & Rousseau, 2013).

Interest in the corporate governance practices of modern corporations, particularly in relation to accountability, increased following the high-profile collapses of a number of large corporations in 2001–2002, many of which involved accounting fraud; and then again after the recent financial crisis in 2008. Corporate scandals of various forms have maintained public and political interest in the regulation of corporate governance. In the U.S., these include scandals surrounding Enron and MCI Inc. (formerly WorldCom). Their demise led to the enactment of the Sarbanes–Oxley Act in 2002, a U.S. federal law intended to improve corporate governance in the United States. Comparable failures in Australia (HIH, One.Tel) are associated with the eventual passage of the CLERP 9 reforms that similarly aimed to improve corporate governance. Similar corporate failures in other countries stimulated increased regulatory interest (e.g., Parmalat in Italy) (Rojas, 2017).

### **Board Composition**

A board of directors (B of D) is an elected group of individuals that represent shareholders (Chen, 2019). Board composition is the ratio of outside directors to the total number of directors. The board is a governing body that typically meets at regular intervals to set policies for corporate management and oversight. Every public company must have a board of directors. In general, the board makes decisions as a fiduciary on behalf of shareholders. Issues that fall under a board's purview include the hiring and firing of senior executives, dividend policies, options policies, and executive compensation. In addition to those duties, a board of directors is responsible for helping a corporation set broad goals, supporting executive duties, and ensuring the company has adequate, well-managed resources at its disposal (José-García, Herrero, 2018). The structure and powers of a board are determined by an organization's bylaws. Bylaws can set the number of board members, the manner in which the board is elected (e.g., by a shareholder vote at an annual meeting), and how often the board meets. While there is no set number of members for a board, most range

from 3 to 31 members. Some analysts believe the ideal size is seven (*Schambra, 2020*). The board of directors should be a representation of both management and shareholder interests and include both internal and external members (*Cai, Garner & Walkling, 2019*).

### **Board Independence**

Board Independence is the ratio number of independent directors to the total directors on the board. Board independence is the state in which all or a majority of the members of a board of directors do not have a relationship with the company except as directors. For example, they may not be relatives of the company's founders, key players or major employees (Foley, 2017). An independent director is one who is independent of management and free from any business or other relationship that could materially interfere with the exercise of independent judgment (Manda, 2019). To be effective, boards must take steps, both in their structures and in their nominating procedures, to ensure that insiders and executive owners are unable to exercise undue control over the board's activities and decisions. Company boards should have an independent majority. An independent majority on the board is more likely to consider the best interests of shareowners first. It also is likely to foster independent decision-making and to mitigate conflicts of interest that may arise. An independent board of directors is comprised of people who totally have no material interests in the company other than their directorship. An independent board of directors is normally made of members who have no material interests in a company. Most companies with such boards are publicly listed. The purpose of an independent board is to make sure members are not influenced by interests in the company.

### **Institutional Ownership**

Institutional ownership is measured as the proportion of the number of shares held by institutional investors to the total number of shares outstanding. Institutional ownership refers to the ownership stake in a company that is held by large financial organizations, pension funds or endowments. Institutions generally purchase large blocks of a company's outstanding shares and can exert considerable influence upon its management (Kenton, 2020). Institutional ownership is the amount of a company's available stock owned by mutual or pension funds, insurance companies, investment firms, private foundations, endowments or other large entities that manage funds on behalf of others (Curtis, 2019). Institutional ownership is the ownership of a company's stock by mutual funds, pension funds, and other institutional investors, generally expressed as percentage of outstanding shares. A high proportion of institutional ownership may result in relatively large

changes in a stock's price, as institutions tend to buy and sell the same stocks at the same time. The ownership of a substantial stake in a company by an institution such as a mutual fund, pension fund or a large institutional investor, as expressed by the number or percentage of the company's outstanding shares. Companies that have a high percentage of institutional ownership are thought to have better prospects for long term earnings growth (Scott, 2020).

### **Classification Shifting**

Classification shifting is an earnings management strategy whereby managers move items within the income statement to improve core earnings (McVay, 2006). Classification shifting refers to misclassifying items within the income statement while net income remains unchanged (McVay, 2006). For example, classification shifting includes shifting expenses from operating expense to non-recurring expenses in order to increase core earnings. McVay (2006) provides support for classification shifting between operating expenses and special items. While the misclassification of items on the income statement may appear innocuous because net income remains unchanged, the different income statement line items are informative to financial statement users. Permanent line items are closer to the top of the income statement which indicates a higher likelihood of persisting in the future (McCahery, Sautner & Starks, 2016). Conversely, transient income statement line items; that is, line items that are less likely to continue in the future, are closer to the bottom of the income statement (Dou, Hope, Thomas & Zou, 2018). Therefore, classification shifting misrepresents the persistence of line items within the income statement and, as a result, could mislead investors regarding the future performance of the firm. Classification shifting suggests that firms engage in classification shifting by moving operating expenses to income-decreasing discontinued operations in order to increase core earnings (Vintila, Gherghina & Nedelescu, 2014). Using a U.S. sample of firms, McVay (2006) finds classification shifting is more pervasive when it allows firms to meet or exceed analyst forecasts. Fan, Barua, Cready and Thoma (2010) provide evidence that U.K. firms use classification shifting as a primary means to achieve analyst targets.

### **Unexpected Core Earnings**

Unexpected core earnings is the term used in accounting to address the difference between a company's actual earnings for a period and the earnings they were expected to generate. It is also sometimes referred to as an earnings surprise (Al-Haddad, Ali & Zaid, 2019). The "unexpected" aspect can be either positive – meaning the company generated more earnings than expected or negative which means the company



earned less than they were expected to earn (Gunny, 2020). Unexpected earnings are an important component in the accounting/financial industry because of their potential significance for investors. The “surprise” aspect of the earnings means that the price of a stock can spike up or fall dramatically over the course of a single day. Forecasting price/earnings can be tricky, which means that unexpected earnings may be the result of inaccurate analyst estimates. However, when unexpected earnings, positive or negative are the direct result of the company’s actions, they may offer important insights to investors about the future trajectory of the company’s stock (Gunny, 2020).

The first model developed to capture the manipulation through the misclassification of expenses within the income statement is the McVay model (2006). McVay model (2006) associates firms’ core earnings with other performance measures that capture normal core earnings. According to this model, normal core earnings for a given firm are based on previous period core earnings, asset turnover, and change in sales, and the current period, and prior period accruals. Therefore, in order to estimate the normal or expected core earnings, McVay model (2006) regressed the core earnings against the certain economic factors cross-sectionally for each industry-year. Particularly, McVay model (2006) developed the following model;

$$CE_{i,t} = \alpha_0 + \beta_1 CE_{i,t-1} + \beta_2 ATO_{i,t} + \beta_3 ACCRUALS_{i,t-1} + \beta_4 ACCRUALS_{i,t} + \beta_5 \Delta SALES_{i,t} + \beta_6 NEG\_ \Delta SALES_{i,t} + u_{i,t}$$

Where,  $CE_{i,t}$  is Core Earnings, calculated as  $(Sales_t - \text{Cost of Goods Sold} - \text{Selling, General, and Administrative Expenses}) / Sales_t$ .  $ATO_t$  is the asset turnover ratio, defined as  $Sales_t / (NOA_t + NOA_{t-1}) / 2$ , where NOA is Net Operating Assets calculated as the difference between operating assets and operating liabilities; Operating Assets is calculated as total assets less cash and short-term investments. Operating Liabilities is calculated as total assets less total Debt, less book value of common and preferred equity, fewer minority interests. An average net operating asset is required to be positive.  $ACCRUALS_{i,t}$  is Operating Accruals, calculated as  $[(\text{net income before extraordinary items} - \text{cash from operations}) / Sales]$ .  $\Delta SALES_t$  is the percentage change in sales from year  $t-1$  to  $t$   $(Sales_t - Sales_{t-1}) / (Sales_{t-1})$ .  $NEG\_ \Delta SALES_{i,t}$  is  $\Delta SALES_t$  if  $\Delta\_ SALES_t$  is negative and 0 otherwise. Lagged core earnings are included in the model because core earnings are persistent. Asset Turnover Ratio,  $ATO_t$ , is added to control for the negative relationship between asset turnover and profit margin (Wasukarn, 2015). Both current and lagged accrual levels ( $Accrual_{i,t}$ ,  $Accrual_{i,t-1}$ ) are associated with firm performance (Post & Kris, 2015), thus they are included as controls. Sales growth ( $\Delta Sales_t$ ) is included because as sales increase, fixed costs become smaller per sales dollar. As costs increase more

when activity arises than they decrease when activity falls by the same amount (Lakhal, Amal, Lakhal & Malek, 2015).  $NEG\_ΔSALES_t$  is included to allow the slope to differ between sales increase and decreases (Fan, Barua, Cready & Thomas, 2010). McVay (2006) predicts that manager's shift core expenses to special items, to test whether companies increase core earnings by using classification shifting of special items.

McVay (2006) developed the following regression:

$$UE\_CE_t = \alpha_0 + \%SI_t + \varepsilon$$

Where  $UE\_CE_t$  is unexpected core earnings in year t,  $\%SI_t$  is defined as income-decreasing special items scaled by sales, both in year t. If managers shift core expenses to non-recurring items, then a positive relation between classification shifters' unexpected core earnings and the magnitude of the negative special items is expected.

## **Methodology**

### **Research Design and Sample Selection**

The aim of this study is to determine the nexus between corporate governance and classification shifting of quoted manufacturing companies in Nigeria. Consequent upon this, *Ex-post Facto* research design was adopted. An ex-post facto investigation seeks to reveal possible relationships and effect by observing an existing condition or state of affairs and searching back in time for plausible contributing factors (Wooldridge, 2010).

The population of this study consisted of all the forty-eight (48) quoted manufacturing companies trading on the floor of the Nigerian Stock Exchange as at 31<sup>st</sup> December 2019. This entails four (4) sectors, comprising of Industrial Goods firms (13); Consumer goods firms (20); Healthcare (10); Agriculture (5). Seventeen (17) quoted manufacturing firms were selected as the sample size of this study with the utilization of purposive sampling method. Data were gathered from the published financial statements of the sampled firms for ten (10) years period spanning from 2010-2019, using Purposive sampling method (that is all the manufacturing firms that filed their annual financial statements with Nigerian Stock Exchange {NSE} from 2010-2019 without missing any year would be selected for this study). The reason for the choice of this time frame is availability of published annual report and accounts of the sample firms and to have a fairly, reasonably, reliably and up-to-date available financial data.

### Definition and measurement of the variables

Classification Shifting served as the dependent variable of the study which was measured with Unexpected Core Earnings (UCE):

Unexpected core earnings are calculated as a difference between the reported core earnings and predicted core earnings (McVay, 2006).

Unexpected core earnings (UCE) are determined by regressing core earnings against its determinants based on McVay model (2006) as follows;

$$CE_{i,t} = \alpha_0 + \beta_1 CE_{i,t-1} + \beta_2 ATO_{i,t} + \beta_3 ACCRUALS_{i,t-1} + \beta_4 ACCRUALS_{i,t} + \beta_5 \Delta SALES_{i,t} + \beta_6 NEG\_ \Delta SALES_{i,t} + u_{i,t}$$

Where:

Core Earnings (CE) = calculated as (Sales<sub>t</sub> - Cost of Goods Sold - Selling, General, and Administrative Expenses) / Sales<sub>t</sub>

ATO<sub>t</sub> = Asset turnover ratio measured as Sales<sub>t</sub> / ((NOA<sub>t</sub> + NOA<sub>t-1</sub>) / 2)

NOA Net operating assets = (Total Assets - Cash and Cash Equivalents) - (Total Assets - Long-term Debt - Debt in Current Liabilities - Common Equity - Preferred Stock)

ACCRUALS<sub>t</sub> = Operating Accruals, calculated as [(net income before extraordinary items - cash from operations) / Sales]

ΔSALES<sub>t</sub> = The percentage change in sales from year t<sub>-1</sub> to t (Sales<sub>t</sub> - Sales<sub>t-1</sub>) / (Sales<sub>t-1</sub>)

NEG\_ΔSALES = The ΔSALES<sub>t</sub> if Δ\_ΔSALES<sub>t</sub> is negative and 0 otherwise.

### Independent Variable

The independent variable of this study is Corporate Governance which would be proxied by:

- i. Board Composition:  $\frac{\text{Number of Outside Directors}}{\text{Total number of Directors}}$
- ii. Board Independence:  $\frac{\text{Number of Independent Directors}}{\text{Total Directors on the Board}}$
- iii. Institutional Ownership:  $\frac{\text{Number of Shares held by Institutional Investors}}{\text{Total Number of Shares Outstanding}}$

**Control Variables**

i. Asset Tangibility: Fixed Assets

$$\frac{\text{Fixed Assets}}{\text{Total Assets}}$$

ii. Leverage: Total Debt

$$\frac{\text{Total Debt}}{\text{Total Equity}}$$

The model for this study were adapted from the work of Al-Haddad, Ali and Zaid (2019):

$$DAC = \beta_0 + \beta_1AUDCSZ + \beta_2CEOD + \beta_3BSIZE + \varepsilon \dots \dots \dots (1)$$

Where:

DAC= Discretionary Accruals

AUDCSZ = Audit Committee Size

CEOD = Chief Executive Officer Duality

BSIZE = Board Size

$\varepsilon$  = Error Term

In an attempt to capture the essence of this study, Board Composition, Board Independence, Institutional Ownership, Unexpected Core Earnings, Asset Tangibility and Leverage were used to formulate the model.

Thus, the model was represented in a functional form as shown below:

$$UCE = f(BCOMP, BIND, IOWN, ASTANG, LEV) \dots \dots \dots (2)$$

In a linear function, the above model was represented as follows:

$$UCE_{it} = \beta_0 + \beta_1BCOMP_{it} + \beta_2ASTANG_{it} + \beta_3LEV_{it} + \mu_{it} \quad - \quad - \quad \text{Model 1}$$

$$UCE_{it} = \beta_0 + \beta_1BIND_{it} + \beta_2ASTANG_{it} + \beta_3LEV_{it} + \mu_{it} \quad - \quad - \quad \text{Model 2}$$

$$UCE_{it} = \beta_0 + \beta_1IOWN_{it} + \beta_2ASTANG_{it} + \beta_3LEV_{it} + \mu_{it} \quad - \quad - \quad \text{Model 3}$$

Where:

$\beta_0$  = Constant term

$\beta_1$ - $\beta_3$  = Firm specific co-efficient estimates

$\mu_{it}$  = Error Term for firm  $i$  in year  $t$

$UCE_{it}$  = Unexpected Core Earnings for firm  $i$  in year  $t$

$BCOMP_{it}$  = Board Composition for firm  $i$  in year  $t$

$BIND_{it}$  = Board Independence for firm  $i$  in year  $t$

$IOWN_{it}$  = Institutional Ownership for firm  $i$  in year  $t$

$ASTANG_{it}$  = Asset Tangibility firm  $i$  in year  $t$

$LEV_{it}$  = Leverage for firm  $i$  in year  $t$

## Results and Discussion

### Descriptive Statistics

Table 1 shows a summary of descriptive statistics of all the variables (dependent, independent and control variables) used in the study.

**Table 1: Descriptive Statistics of Study Variables**

	UCE	BCOMP	BIND	IOWN	ASTANG	LEV
Mean	0.3130	0.0470	0.0180	0.1750	0.5780	6.0940
Median	0.3200	0.0400	0.0200	0.1400	0.6200	5.8350
Maximum	0.6200	0.1000	0.0400	0.5400	0.8900	6.9300
Minimum	0.0900	0.0300	0.0000	0.0300	0.3300	5.2500
Std. Dev.	0.1921	0.0200	0.0114	0.1515	0.1863	0.5536
Skewness	0.1967	2.0085	0.4034	1.4187	0.0813	0.1978
Kurtosis	1.6855	6.1904	2.7669	4.3865	2.0010	1.7464
Jarque-Bera	15.7845	10.9642	66.2939	17.1554	31.4269	7.7201
Probability	0.0003	0.0042	0.0000	0.0001	0.0000	0.0177
Sum	3.1300	0.4700	0.1800	1.7500	5.7800	60.9400
Sum Sq. Dev.	0.3320	0.0036	0.0012	0.2067	0.3124	2.7582
Observations	170	170	170	170	170	170

From the above Table 1, the study considered descriptive statistics (mean, standard deviation, minimum and maximum) for the panels for 170 observations (that is, 17 firms x 10 years). Table 1 depicts UCE of an average of 0.3130 with a minimum of 0.0900 and a maximum of 0.6200 and at a standard deviation of 0.1921. BCOMP was on the average of 0.0470 with a standard deviation of 0.0200, a minimum of 0.0900 and a maximum of 0.6200. On the average, BIND stood at 0.0180, the minimum BIND stood at 0.0000 while the maximum BIND stood at 0.0400 of the firms under study. Similarly, on IOWN, the results showed

that on the average the mean value is approximately 58%, with a standard deviation of 0.1863. The maximum value of ASTANG for the sample firms is approximately 89% while the minimum is 33%. On the average, LEV stood at 6.0940 with a standard deviation of 0.5536, a maximum of 6.9300 and a minimum of 5.2500.

**Correlation Analysis**

A correlation matrix reveals the strength of the linear relationship between two or more variables. From the findings on the correlation analysis in table 2, the study found that there was positive correlation coefficient between BCOMP, BIND, IOWN, ASTANG and UCE by correlation factors of 0.4856, 0.6084, 0.0437 and 0.0383 respectively. However, LEV and UCE were found to have negative correlation with correlation coefficients of -0.1190. Based on the observed percentages, the association between the variables did not fail multi-collinearity test on the base of 80%.

**Table 2: Pearson Correlation Matrix**

	UCE	BCOMP	BIND	IOWN	ASTANG	LEV
UCE	1.0000	0.4856	0.6084	0.0437	0.0383	-0.1190
BCOMP	0.4856	1.0000	0.1661	-0.1007	0.7457	0.3590
BIND	0.6084	0.1661	1.0000	0.5748	0.1975	-0.3663
IOWN	0.0437	-0.1007	0.5748	1.0000	0.1940	-0.7408
ASTANG	0.0383	0.7457	0.1975	0.1940	1.0000	0.1368
LEV	-0.1190	0.3590	-0.3663	-0.7408	0.1368	1.0000

**Regression Analysis**

The table 3, 4 and 5 below show the regression results between the dependent and the independent variables.

**Table 3: Panel Least Square Regression Analysis testing the relationship between BCOMP and UCE**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.488347	0.130974	3.728591	0.0003
BCOMP	-0.251070	0.078461	-3.199932	0.0016
ASTANG	0.013216	0.042885	0.074984	0.9403
LEV	-0.046118	0.020909	-2.205667	0.0288
R-squared	0.531255	Mean dependent var	0.199262	
Adjusted R-squared	0.513748	S.D. dependent var	0.147975	
S.E. of regression	0.146954	Akaike info criterion	-0.974139	
Sum squared resid	3.584873	Schwarz criterion	-0.900356	
Log likelihood	86.80185	Hannan-Quinn criter.	-0.944199	
F-statistic	11.85240	Durbin-Watson stat	1.758041	
Prob(F-statistic)	0.000000			

**Interpretation of Regression Result**

Table 3 proves that the functional relationship between the dependent and independent variables is:

$$UCE = 0.488347 - 0.251070BCOMP + 0.003216ASTANG - 0.046118LEV$$

The implication of the regression model is that a unit increase in BCOMP and LEV will cause UCE to reduce by 25% and 5% respectively, while a unit increase in ASTANG will exert 1% increase in UCE. The table revealed that BCOMP is negatively and significantly correlated with the UCE of quoted manufacturing firms in Nigeria. The beta coefficient of the variables;  $\beta_1$  is -0.251070;  $\beta_2 = 0.013216$ ;  $\beta_3 = -0.046118$ . The slope coefficients indicate that  $X_1 = 0.0016 < 0.05$ ;  $X_2 = 0.9403 > 0.05$ ;  $X_3 = 0.0288 < 0.05$ . A significant negative relationship exists between BCOMP, LEV and UCE; a non-significant positive relationship exists between ASTANG and UCE. As evident in table 4.3, the adjusted R<sup>2</sup> is 0.513748. This

means that approximately 51% of the variations in the sampled firms' UCE can be explained jointly by BCOMP, ASTANG and LEV. The overall regression result with a P-Value = 0.000000 evidenced that BCOMP exhibits a significant negative relationship with UCE.

**Decision**

The regression result with P-value = 0.000000 provides a basis for accepting the alternative hypothesis, which states that Board Composition has a significant negative effect on Unexpected Core Earnings of quoted manufacturing companies in Nigeria at 5% level of significance.

**Table 4: Panel Least Square Regression Analysis testing the relationship between BIND and UCE**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.488959	0.131349	3.722602	0.0003
BIND	-0.043207	0.127058	-4.185528	0.0000
ASTANG	0.004992	0.042785	2.653450	0.0087
LEV	-0.046711	0.020912	-2.233633	0.0268
R-squared	0.569717	Mean dependent var	0.199262	
Adjusted R-squared	0.552182	S.D. dependent var	0.147975	
S.E. of regression	0.147071	Akaike info criterion	-0.972553	
Sum squared resid	3.590563	Schwarz criterion	-0.898770	
Log likelihood	86.66704	Hannan-Quinn criter.	-0.942613	
F-statistic	16.94720	Durbin-Watson stat	1.762091	
Prob(F-statistic)	0.000000			



### **Interpretation of Regression Result**

In table 4, a panel least square regression analysis was conducted to test the relationship between board independence and unexpected core earnings of quoted manufacturing companies in Nigeria. Adjusted R squared is coefficient of determination which tells us the variation in the dependent variable due to changes in the independent variable. From the findings in the table 4.5, the value of adjusted R squared was 0.57, an indication that there was variation of 57% on unexpected core earnings due to changes in BIND, ASTANG and LEV. This implies that only 57% changes in unexpected core earnings of manufacturing firms could be accounted for by BIND, ASTANG and LEV, while 43% was explained by unknown variables that were not included in the model. The probability of the slope coefficients indicate that;  $P(x_1=0.0000 < 0.05$ ;  $x_2=0.0087 < 0.05$ ;  $x_3=0.0268 < 0.05$ ). The co-efficient value of;  $\beta_1 = -0.043207$  for BIND implies that UCE is negatively related to BIND, though statistically significant at 5%.

The linear regression model becomes;

$$UCE = 0.488959 - 0.043207 \text{BIND} + \mu$$

The implication is that, for there to be a unit/one naira increase in UCE there will be 0.043207 multiplying effect decrease of BIND.

The Durbin-Watson Statistic of 1.762091 suggests that the model does not contain serial correlation. The F-statistic of the UCE regression is equal to 16.94720 and the associated F-statistic probability is equal to 0.000000, so the null hypothesis was rejected and the alternative hypothesis was accepted.

### **Decision**

Since the Prob (F-statistic) of 0.0000 is less than the critical value of 5% (0.05), then, it was upheld that Board Independence has a significant negative effect on Unexpected Core Earnings of quoted manufacturing companies in Nigeria at 5% level of significance, thus,  $H_1$  is preferred over  $H_0$ .

**Table 5: Panel Least Square Regression Analysis testing the relationship between IOWN and UCE**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.460587	0.131584	3.500320	0.0006
IOWN	-0.063090	0.045771	-2.653450	0.0087
ASTANG	0.019991	0.043818	3.728591	0.0003
LEV	-0.040351	0.021289	-3.635483	0.0004
R-squared	0.540029	Mean dependent var	0.199262	
Adjusted R-squared	0.522680	S.D. dependent var	0.147975	
S.E. of regression	0.146288	Akaike info criterion	-0.983237	
Sum squared resid	3.552406	Schwarz criterion	-0.909454	
Log likelihood	87.57518	Hannan-Quinn criter.	-0.953297	
F-statistic	17.37276	Durbin-Watson stat	1.805604	
Prob(F-statistic)	0.000000			

**Interpretation of Regression Analysis**

Table 5 shows that there is a significant negative relationship between IOWN and UCE of quoted manufacturing firms in Nigeria. This can be observed from the beta coefficient ( $\beta_1$ ) of -0.063090 with p value of 0.0087 which is significant at 5%. This indicates that IOWN has a negative relationship with UCE of quoted manufacturing firms in Nigeria.

$$UCE = 0.460587 - 0.063090IOWN + \mu$$

The implication of this regression coefficient is that one unit increase in IOWN would exert 6.31% decrease on UCE. Overall, the combined and the overall effect of the regressors –IOWN, ASTANG and LEV of quoted manufacturing firms in Nigeria, is shown on the model probability summary of the regression results. The F-statistic of 17.37276 with an associated Prob(F-statistic) of 0.0000 is statistically significant at 5%, which reveals that the model is well fitted, while the coefficient of determination; adjusted R<sup>2</sup> of 0.522680, explains the individual variation of the dependent variable (UCE) as a result of the changes in

the independent variables (IOWN, ASTANG and LEV). It can be said that IOWN, ASTANG and LEV have combined predictive power of 52.27% in affecting UCE of quoted manufacturing firms in Nigeria, while the remaining 47.73% is accounted for by other factors which are not captured in the model.

### **Decision**

Considering the P-value of the test = 0.0000 which is less than 0.05 (5%), this study upholds that Institutional Ownership has a significant negative effect on Unexpected Core Earnings of quoted manufacturing companies in Nigeria at 5% level of significance.

### **Review of Findings**

This study ascertained the nexus between Corporate Governance and Classification Shifting of quoted manufacturing firms in Nigeria for a ten year period covering from 2010-2019. The independent variable (Corporate Governance) was proxied by Board Composition, Board Independence and Institutional Ownership while Classification Shifting which is dependent variable of the study was measured with Unexpected Core Earnings.

The regression model for hypothesis I showed that a unit increase in BCOMP and LEV will cause UCE to reduce by 25% and 5% respectively, while a unit increase in ASTANG will exert 1% increase in UCE. The table revealed that BCOMP is negatively and significantly correlated with the UCE of quoted manufacturing firms in Nigeria. The beta coefficient of the variables;  $\beta_1$  is -0.251070;  $\beta_2 = 0.013216$ ;  $\beta_3 = -0.046118$ . The slope coefficients indicate that  $X_1 = 0.0016 < 0.05$ ;  $X_2 = 0.9403 > 0.05$ ;  $X_3 = 0.0288 < 0.05$ . A significant negative relationship exists between BCOMP, LEV and UCE; a non-significant positive relationship exists between ASTANG and UCE. As evident in table 4.3, the adjusted  $R^2$  is 0.513748. This means that approximately 51% of the variations in the sampled firms' UCE can be explained jointly by BCOMP, ASTANG and LEV. The overall regression result with a P-Value = 0.000000 evidenced that BCOMP exhibits a significant negative relationship with UCE. The findings of this study corroborates the study of Ajay and Madhumathi (2019); Ghada (2018); Yavida, Sunardi and Raharti (2017) but contradicts the results of Al-Haddad, Ali and Zaid (2019); Rao and Palaniappan (2017)

For hypothesis II, the regression result showed that the value of adjusted R squared was 0.57, an indication that there was variation of 57% on unexpected core earnings due to changes in BIND, ASTANG and LEV.

This implies that only 57% changes in unexpected core earnings of manufacturing firms could be accounted for by BIND, ASTANG and LEV, while 43% was explained by unknown variables that were not included in the model. The probability of the slope coefficients indicate that;  $P(x_1= 0.0000 < 0.05; x_2= 0.0087 < 0.05; x_3=0.0268 < 0.05)$ . The co-efficient value of;  $\beta_1= -0.043207$  for BIND implies that UCE is negatively related to BIND, though statistically significant at 5%. The results of this study are in congruence with the results of Siyanbola, Ogbebor, Okeke and Okunade (2019); Orjinta and Okoye (2018); Jeong&Chamberlain (2017) but negates the results of Kansil and Singh (2018); Yulia, Mukhtaruddin and Ferina (2017).

The findings of the regression result for hypothesis III showed that there is a significant negative relationship between IOWN and UCE of quoted manufacturing firms in Nigeria. This can be observed from the beta coefficient ( $\beta_1$ ) of -0.063090 with p value of 0.0087 which is significant at 5%. This indicates that IOWN has a negative relationship with UCE of quoted manufacturing firms in Nigeria. The findings of this study are in line with the findings of Alaa, Ntim, Aboud and Gyapong (2018); Xiaotao and Wu (2018); Li (2016); Boahen and Mamatzakis (2016) but contradicts the findings of Al-Haddad, Gerged and Zaid (2019); Robert, Nallareddy and Rajgopal (2017); Malikov, Manson and Coakley (2017).

## **Conclusions**

This study assessed the nexus between Corporate Governance and Classification Shifting of quoted manufacturing firms in Nigeria for a ten year period covering from 2010-2019. The independent variable (Corporate Governance) was proxied by Board Composition, Board Independence and Institutional Ownership, while, the dependent variable (Classification Shifting) was measured with Unexpected Core Earnings. The study obtained data from annual reports and account and publications of the manufacturing firms that operated during 2010-2019. With the aid of E-Views 10.0, Descriptive Statistics of this study was applied, while Inferential Statistics using Pearson correlation coefficient and Panel Least Square regression analysis were employed. This study revealed that Board Composition, Board Independence and Institutional Ownership have a significant negative effect on Unexpected Core Earnings of quoted manufacturing firms in Nigeria at 5% level of significance. Conclusively, the study confirmed that a negative increase in  $\beta_1 - \beta_3$  will exert a corresponding decrease in the dependent variable (Classification Shifting). On the premise of the study findings, the following recommendations were made: there should be an optimal board size and composition which would be a function of the individual firm characteristics, especially with regards to monitoring and advising needs; the appointment of independent directors on the board should be based on

the previous records of those directors rather than emphasizing on the proportion to total number of directors on the board, in order to reverse the negative relationship between board independence and unexpected core earnings; and sequel to the negative relationship between Institutional ownership and unexpected core earnings, there should be an efficient monitoring and disciplining mechanism that aligns the interest between managers and shareholders. This reduces potential agency problems and the ability of managers to manage earnings is curtailed.

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