Corporate Board and Classification Shifting of Earnings Management: Evidence from Non-financial Firms in Sub-Saharan Africa

H. I. Orjinta & E. I. Okoye

1 Department of Accountancy, Faculty of Management Sciences, Chukwuemeka Odumegwu Ojukwu University, Igbariam Campus, Anambra State
2 Department of Accountancy, Faculty of Management Sciences, Nnamdi Azikiwe University, Awka

*For correspondence, email: ifyorjinta@gmail.com

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Abstract

There is little evidence available on whether corporate board collaborates or substitutes for strict accounting regulation with respect to misclassification of recurring items to non-recurring items. Therefore, this study examined whether corporate board of selected non-financial firms in Sub-Saharan Africa constrains classification shifting. A sample of 75 quoted non-financial firms from three Sub-Saharan African countries (Nigeria, Kenya and South Africa) was used for the period of ten years spanning 2008 to 2017. The study employed ex-post facto and cross-sectional research design in conducting the analysis. The secondary sources of data were collected from the annual reports of the selected firms and were analysed using descriptive statistics, Pearson Correlation analysis and panel regression analysis. Using a sample of 750 Sub-Saharan African firm-year observations, the result revealed that independent director, board female representative and board financial expertise have negative and insignificant effect in mitigating opaque manipulation practices such as classification shifting of quoted non-financial firms. This suggests therefore that strong corporate board tends to act as a substitute for strict accounting standards. The findings showed that about 17% of changes in total variation in the classification shifting of earnings management can be attributed to the joint effect of all the explanatory variables while about 83% was unaccounted for thereby captured by stochastic error term. The study recommends among others, that non-financial firms’ directors should be constituted by more female members and independent persons with high level of integrity that can match words with action to help curb and mitigates classification shifting.

Keywords: Earnings management, Classification shifting, non-recurring items, core expenses, corporate board

JEL Classification Codes: G600
1.0 INTRODUCTION

Accounting standards allow firms considerable discretion in the presentation of financial statements. Managers may use their discretion over the classification of earnings components to signal the transitory nature of certain revenues and expenses, thus providing potentially useful information about firms’ earnings persistence and predictability to users of financial reports (Athanasakou, Strong & Walker 2009; Riedl & Srinivisan 2010). However, managers may also abuse their discretion over the identification and reporting of non-recurring items to engage in classification shifting and thereby manipulate measures of recurring or ‘core’ earnings (Peasnell, Pope & Young 2000; Cready, Lopez & Sisneros 2010). Managers are motivated to attempt to manipulate measures of ‘core’ earnings because sophisticated market participants place more emphasis on these metrics than on GAAP (Generally Accepted Accounting Principles) earnings when valuing the firm (Gu & Chen 2004; Barua, Lin & Sbaraglia. 2010). Measures of core earnings provide a more persistent and predictable measure of performance than GAAP earnings, allowing investors and other users make better informed decision making (Sevč., 2016). International Financial Reporting Standard (IFRS) are accounting standards that provide general guidance for the preparation of financial statements, with the objective to improve comparability and understandability. However, due to the principle-based characteristic of these standards, managers have much more flexibility in making accounting choices which may create opportunity for earnings management. Disclosure of earnings is relatively lightly regulated under International Financial Reporting Standards (IFRS) with companies having considerable scope to report earnings before non-recurring or exceptional items. International Financial Reporting Standard 3 (IFRS3) required firms to classify exceptional items into operating and non-operating items. While firms were required to disclose non-operating or exceptional items on the face of the income statement, they were allowed to disclose the operating items either in the notes or on the face of the income statement. Furthermore, they were required to disclose an adequate description of each item to allow users to understand its nature which in turn, reduced firms’ ability to use exceptional items to mislead investors (Athanasakou, Strong, & Walker, 2009). Moreover, International Accounting Standard 1 (IAS 1) remains silent regarding these requirements, thus giving room for opaque manipulation such as classification shifting. Prior studies indicate that classification shifting appears to be employed to achieve predetermined earnings benchmarks, especially for firms that cannot use accruals to manage earnings. Extant literature also shows that investors, especially less sophisticated investors, pay more attention to core earnings and are likely to trade on this reported core earnings (Bhattacharya, Black, Christensen & Mergenthaler, 2007; Bradshaw & Sloan, 2002). Again, when managers are constrained from using accruals or when the
cost of accruals management is perceived to be high, management substitute other manipulation methods that have a lower detection cost such as classification shifting (Cohen & Zarowin, 2010; Fan, Barua, Cready & Thomas, 2010). As a result of this, one might argue that misclassification of recurring operating expenses represents an attractive and alternative manipulation method due to the information asymmetry between what managers know about the persistence of expenses and what is disclosed to the shareholders.

Despite the voluminous literature on the general topic of earnings management, there has been limited investigation of the relation between the nature of the firm’s corporate board system and the degree of classification shifting and some of the little evidence that has been acquired is contradictory. For instance the existing few studies that have sought to establish an association between corporate board and earnings management practices have concentrated on accrual-based or real-activities based earnings management. However, none of these studies considered misclassification of core expenses into special items (Classification Shifting). Clearly, the effect of corporate board on classification shifting remains unexplored whilst findings from a few existing studies were inadequate. On the other hand, the few studies under classification shifting were done in developed countries. Little is known about Classification Shifting as a way of manipulating earnings and how its practices are influenced by the corporate board. We investigated this gap in the earnings management literature. More specifically, most prior studies investigated the role of internal governance in a setting highly regulated through accounting standards, such as the treatment of accruals (e.g.,Bedard, Chtourou & Courteau, 2004; Hossain, Mitra, Rezaee & Sarath, 2011; Klein, 2002; Peasnell Pope & Young, 2005; Xie, Davidson and Dadalt 2003). Thus, there is little evidence available on whether corporate board collaborates or substitutes for strict accounting regulations.

The main objective of this study was to empirically examine whether corporate boards mitigate the misclassification of recurring expenses within the income statement. More specifically, we investigated whether certain board characteristics such as independent directors, female representative in the board and board financial expertise which have been shown to affect the level of accrual-based earnings management also affect the extent of classification shifting. Therefore, this study aims to investigate the effect of corporate board on earnings management using classification shifting approach among quoted non-financial firms in Sub-Saharan African countries. Note that the three corporate board variables mentioned above were chosen because they represent the strongest internal attributes of every corporate board.

2.0 REVIEW OF LITERATURE AND HYPOTHESES DEVELOPMENT

Classification shifting

Earnings management through classification shifting typically refers to the deliberate misclassification of items within the periodic income statement, in an attempt to increase core earnings (McVay 2006). Classification shifting (CS) is an earnings management tool used to misclassify income statement items in order to manipulate core earnings while net earnings remain equal (McVay, 2006). CS refers to management’s intentional misclassification of core expenses such as cost of goods sold, sales and administrative expenses, into non-recurring items, including special items and discontinued operations, in an attempt to boost core earnings. Classification shifting is a disclosure issue that does not affect bottom line earnings and thus is more difficult to verify (Athanasakou, Strong & Walker, 2009). McVay (2006) opined that managers have incentives to report core expenses which are defined as cost of goods
sustained, selling, general, and administrative expenses as income decreasing special items in an attempt to inflate core profitability. Managers are motivated to manage earnings in this way because market participants may be particularly interested in core earnings or pro forma earnings rather than bottom-line GAAP earnings (Bradshaw & Sloan 2002; Gu & Chen 2004) and core earnings typically receive higher valuation multiples than non-core earnings. By shifting core expenses to special items, the firm increases core earnings while bottom-line net income remains unaffected. Managers could as well engage in classification shifting if they think that investors give more attention to operating profit rather than non-operating profit. When managers are constrained from using accruals, or when the cost of accruals management is perceived to be high, management substitute other manipulation methods that have a lower detection cost (Cohen & Zarowin, 2010; Fan, Barua, Cready & Thomas; 2010). The integrity of financial reports depends on the characteristics of the board and the audit committee. In addition, managers may disclose less information to less friendly and stronger board or audit committees (Adams & Ferreira, 2007; Osma, 2008) again creating information asymmetry between board and managers. Under IFRS, classification shifting is a relatively low-cost tool for managing earnings as there are neither accrual reversals in the future, nor any lost revenues from forgone opportunities. Classification shifting re-arranges income statement items and does not change the bottom-line reported earnings and it involves; classifying operating expenses as discontinued operations (Barua et al., 2010), classifying operating expenses as extraordinary items and classifying operating expenses as special items (Fan et al., 2010; McVay, 2006). With classification shifting, McVay (2006) indicates that there is no change in reported earnings; rather core earnings are inflated as recurring items are shifted to non-recurring and exceptional items leading to a positive relationship between core earnings and special items (Behn, Gotti, Hermann & Kang, 2013). Research documents that firms manipulate the positioning of income statement items in an attempt to influence user judgment of firm performance. In general, the farther (closer) an income statement line item is from (to) sales, the less (more) persistent the item tends to be (Sev; 2016), and there is evidence that investors price each line item differently (e.g. Bradshaw & Sloan 2002; Riedl & Srivinasan 2010). For instance, abnormal/special items reported below profit from operations are typically excluded from measures of core earnings used by analysts and other users because they are considered to be less value relevant (Bradshaw & Sloan 2002). Management may take advantage of market participants’ fixation on core earnings to misclassify (i.e. shift downward) recurring operating expenses as non-recurring expenses, or misclassify non-recurring gains (i.e. shift upward) as recurring operating revenue (McVay 2006).

Independent Directors and Earnings management (Classification Shifting)

Board Independence may be defined as board’s unbiased mental attitude in making decisions throughout the audit and financial reporting process. Hashim and Rahaman (2011) defined independence as the quality of being free from influence, persuasion or bias, the absence of which will greatly impair the value of the audit service and the audit report. An auditor’s lack of independence increases the possibility of being perceived as not being objective. Ozoanigbo, Orjinta and Ofor (2016) opined that independence can be achieved through the inclusion of disinterested parties, i.e. outside directors, to increase the boards’ ability to be more efficient in monitoring the
top management. Outside directors have more incentive to effectively monitor management because of a strong need to develop their reputations as expert decision makers. However, the success of these mechanisms depends upon its independence from management. A basic and widely held assumption is that board effectiveness is a function of the board’s independence from management. Turner and Vann (2010) were of the view that independent directors are not employees of the company and usually do not have any business ties to the company aside from their directorship. Bedard et al (2004) argues that the inclusion of grey directors who have affiliations with management may impair board independence. The independent directors must be solely outside directors who have no other relationship with the company except that of being on the board of directors.

Prior studies have documented how board independence can reduce earnings management. Chtourou, Bedard and Courteau (2001) provided that firms with large proportion of outside directors in the committee have less income increasing earnings management. Further, they also found that the increase in proportion of short term stock options held by directors in audit committee is more likely to reduce the effectiveness of monitoring managers to have high level of earnings management. Man and Wong (2013) opined that the independence of the board is needed to control managerial activities to protect the interest of investors. Agrawal and Chadha (2005) found that the inclusion of a large numbers of outside directors on the board can reduce the likelihood of financial information fraud. When the CEO comes from the founding family, the firm tends to lack independence and have a higher probability of restatement of accounting information. Peasnell, Pope and Young (2005) found that a higher proportion of outside directors in the UK can better constrain income-increasing discretionary accruals to avoid earnings management. Klein (2002) finds support for the negative relationship between board independence and earnings management in the US. Klein (2002) also reports similar findings for large US firms and her findings suggest that firms changing their boards from having a majority to a minority of outside directors are found to have higher adjusted abnormal accruals in the year of the change compared to their counterparts. Uzun, Szewczyk, and Varma (2004) also found evidence consistent with prior studies in the US. Xie, Davidson III, and DaDalt (2003) and Peasnell et al. (2000) indicate relationships between board independence and the extent of earnings management. Peasnell et al. (2000) also documented that there is an increased likelihood of discretionary accrual to avoid earnings loss for firms with higher proportions of non-executive directors. Xie et al. (2003) documented a negative relationship between board independence and earnings management. Kent (2005) provides evidence consistent with these findings that Australian firms with higher board independence have more incentive to manage earnings. Turner and Vann (2010) also documented that audit committee independence can reduce opportunistic earnings manipulation. Specifically, the relationship between independent board and earnings management is found to be negative (Davidson, Stewart & Kent 2005).

Empirical evidence on earnings management tends to support the view that increasing the proportion of NEDs on the board improves accounting quality. For example, Zalata and Roberts (2016) found that firms with a lower proportion of independent directors are more likely to conduct fraud. Similarly, Klein (2002) and Osma (2008) found that firms with a higher proportion of independent directors are less likely to engage in accrual-based earnings management and real earnings management, respectively. Nevertheless, considering the contradicting theoretical argument, this paper does not predict any sign for the
proportion of independent directors but propose that there is a significant relation between the proportion of independent directors and earnings management (Hypothesis 1).

Board Female Representative and Earnings management (Classification Shifting)
This simply means the proportion of women in the corporate board. Females are becoming increasingly represented on the boards. More recently, an aspect of board composition receiving increasing attention is gender. Gender equality has been a political question for quite a while, leading to discussions whether gender quotas should be implemented (Dawson, Credit Suisse, Lori, Kersley, Natella; 2014). Existing literature has tried to study the effect of gender, to measure the potential impact from more females being introduced to high positions in companies (e.g. Krishnan and Parsons 2008; Adams and Ferreira 2009). These studies presume that females have different characteristics in comparison to males (e.g. Srinidhi, Gul, & Tsui 2011) affecting the reporting of financial information and thus the occurrence of earnings management (Krishnan and Parsons 2008). Miller (2012) state that females are more independently thinking and have a greater concern for others, in contrast to males who are characterized as more confident, aggressive and objective. Post and Byron (2015) summarized this in a good way by saying that males and females have different cognitive frames which affect the decision making. In business contexts, women are more ethical in the workplace and less likely to engage in unethical behaviour to gain financial rewards. Gul et al. (2009) argue that not only do females demonstrate a greater risk aversion and ethical behaviour, but they are also better at obtaining voluntary information which may reduce information asymmetry between female directors and managers. Women are more cautious and less aggressive than men in a variety of decision-making contexts and are less likely to take risks particularly in the financial decision environment (Arun, Almahrog & Ali-aribi; 2015).

Some prior studies investigate the relationships between the proportion of female directors on boards with earnings management and earnings quality. Abad, Lucas-Perez, Minguez-Vera and Yague (2017) examined the relation between the gender diversity on boards of corporations and the levels of information asymmetry in the stock market and found that the gender diversity on boards is negatively associated with the level of information asymmetry in the stock market. Arun, Almahrog, and Ali-aribi, (2015) examined how the presence of women directors on the corporate board influence earnings management practices. They found that firms with a higher number of female and independent female directors are adopting restrained earnings management practices in the UK. Adams et al. (2010) also argue that female directors are more likely to think independently and monitor executives more effectively. Adams and Ferreira (2009) found that female directors can better monitor managers’ behavior through board input, such as board attendance, and are more likely to sit on monitoring-related committees (e.g., audit, nominating, and corporate governance), and affect firm governance in terms of chief executive officer turnover and compensation. Therefore, female directors can often better improve the earnings quality of firms (Srinidhi, Gul, & Tsui, 2011), as they tend to have better communication skills, hold more informed discussions and feature better independent thinking, thereby contributing to better monitoring of the managers (Terjesen, Sealy & Singh 2009; Adams & Ferreira, 2009; Adams, Gray & Nowland, 2010). Furthermore, female directors are more likely to be less tolerant of opportunistic activities and behavior than male directors (Krishnan & Parsons, 2008; Thorne, Massey & Magnan, 2003). As a matter of fact, drawing on the above discussion and prior
studies’ findings, this study does not wish to predict any sign for female gender representative in the board, instead we hypothesize that there is a significant relationship between female representative in the board and earnings management (Hypothesis 2).

Board Financial Expertise and Earnings management (Classification Shifting):
In literature, board financial expertise is considered as one of the most important features of a board committee to operate effectively (Bedard et al. 2004). A definition by McDaniel, Martin and Maines (2002) highlights the importance of board financial expertise as the presence of experts which may both sharpen and shift the focus of board committees’ discussions and overall evaluations of a company’s financial reporting quality. In the words of Gelderen (2013), board financial expertise is defined as the past employment experience in finance or accounting, requisite professional certification in accounting, or any other comparable experience or background which results in the individual’s financial sophistication, including being or having been a CEO or other senior officer with financial oversight responsibilities. Board financial expertise is referred to as the board committee members who have the knowledge and experiences in accounting and financial reporting, internal controls and auditing. Prior studies refer to board committee financial expertise as the committee members who have membership in any accounting body or association (Hashim & Abdul Rahaman, 2011; Mohamad-Nor et al. 2010). Board financial expertise is measured as the number of board members with accounting and financial backgrounds to the total number of board members (Jhol, Subramanian, Matzain (2012); Yatim et al., 2006). The report of Rustan et al (2013) asserts that board members should be financially literate. This is because board members that possess financial expertise are more familiar with classification shifting. It is only a board member that is grounded in accounting that can dictate when an item is misclassified or not. Financial/accounting expertise requires extra skill to handle manipulations at any level.

Wasukan (2015) found that the proportion of companies’ directors with expertise in finance and accounting are negatively correlated with earning management, which is consistent with the finding of Park and Shin (2004). Such findings can be interpreted that the high proportion of financial and accounting expertise can control earnings management more efficiently. In a study done by Cohen, Dey and Lys (2005), they found that independent financial accounting expertise and non-accounting financial expertise are more effective at reducing earnings management. Carcello et al. (2006) document a trade-off between financial expertise and other corporate governance mechanisms. Bedard et al. (2004) studied the effects of audit committees’ expertise, independence, and activity on aggressive earnings management. They found a negative relation between the likelihood of earnings management and the presence of an expert, a clear mandate and no affiliated directors, suggesting that the presence of a financial or governance expert reduces earnings manipulations. In a similar way Yang and Krishnan (2005) find that increased governance expertise is positively related with earnings management. Using a sample of 770 U.S. listed firms they found only a positive significant relation for accounting expertise. On the Contrary, (Xie et al. 2003) found that earnings management is reduced by boards with corporate or investment banking backgrounds. Other researchers that also investigated similar relationships between financial expertise and quality of earnings did not find any significant relation at all (Abbott et al. 2000; Baxter and Cotter, 2009; Lin et al., 2006). Zalata, Tingbani, and Tauringana (2017) investigate how financial expertise affects earnings management taking into account the gender
of the financial expert. The results indicate that proportion of financial expertise on the board and gender reduces earnings management. However, there are some inconsistencies that existed in the literature, for that reason, the current study does not intend to propose any sign, rather we hypothesize that there are significant relation between board financial expertise and classification shifting (Hypothesis 3).

3.0 METHODOLOGY
Theoretical framework and Model specification
This article was anchored on Positive Accounting Theory (PAT) which has been one of the most important accounting theories in the last decades. It was developed by Watts and Zimmerman in 1986 to explain and predict accounting practice. It is concerned with actions such as which accounting policies management chooses and how management responds to proposed new accounting standards. To understand earnings management, it is important to know what drives management to certain accounting choices. PAT is based on the set of contracts a firm enters into (e.g. executive remuneration and debt contracts). When contract costs (such as negotiation costs, moral hazard, performance monitoring and contract violation) are minimal they are considered to be efficient. Contracts are often based on financial accounting variables that are influenced by accounting policies like US GAAP, IFRS, or Dutch GAAP. Positive Accounting Theory assumes that all individuals are rational and act in self-interest to maximize their own utility, which corresponds with the Agency Theory perspective. When management has the flexibility to determine the accounting policy, the possibility of opportunistic behavior arises (ex post) (Scott, 2012). Managers will choose the accounting method that maximizes their own utility and thereby reducing contract efficiency (ex post). In the efficient contracting view, managers choose accounting policies to maximize contract efficiency; managers choose accounting methods that present the true performance of the firm and result in firm value maximization. Recognizing that managers must have flexibility in their reporting choices to reflect the true economic circumstances of the firm, the problem of opportunistic behaviour arises. In the opportunistic view, managers choose accounting policies to maximize their own personal interests, and not in the best interests of the shareholders. They choose accounting methods that is in their benefit, even if it’s at the expense of the contractors. The positive accounting theory does not provide any prescription or state what should happen, and only explains and predicts what would happen.

To examine whether crucial corporate board attributes mitigates classification shifting, we concentrated on the misclassification of recurring expenses and investigated the association between abnormal core earnings/unexpected core earnings and non-recurring expenses, and anticipate that firms’ core earnings will be overstated in the period when non-recurring items are recognized. Following McVay (2006) and Athanasakou et al. (2009) model, we determined a proxy for normal core earnings for each of the 75 firms in the sample using the following expectation model as our step 1:

\[
\text{EXP-CE}_{i,t} = \beta_0 + \beta_1 \text{CE}_{t-1} + \beta_2 \text{ATO}_{i,t} + \beta_3 \text{ACCRLS} \text{t-1} + \beta_4 \text{ACCRLALS}_{i,t} + \beta_5 \text{SALES}_{i,t} + \beta_6 \text{NEG. } \text{SALES} + \epsilon_t
\]

To obtain the variable coefficients which were used to calculate expected core earnings, Step 1 equation is run cross-sectionally for each industry-year. We then estimate the following model as our step 2 equation to investigate whether Sub-Saharan Africa firms misclassify recurring expenses into non-recurring.
UNEXP-CE = $\beta_0 + \beta_1 NREC_{1t} + \text{Control variables}_{1t} + \varepsilon_{1t}$ \hspace{1cm} (2)

Where UNEXP-CE means Unexpected Core Earnings computed as difference between reported core earnings and expected core earnings where the expected core earning value is calculated using the coefficients from Step (1) above while NREC stands for non-recurring items measured as the difference between reported core earnings and bottom line net income scaled by sales. Similar to Athanasakou et al. (2009), non-recurring Expenses (NREC) is the difference between actual/reported core earnings and bottom line net income scaled by sales. When firms engage in classification shifting, the unexpected core earnings increases with non-recurring items and thus we expect coefficient of NREC ($\beta_1$) to be positive. A positive relationship between unexpected core earnings and non-recurring item is an evidence of classification shifting (CS) and it also suggests that firms shift recurring/core expenses to non-recurring items to inflate core earnings, thus evidence of classification shifting (CS).

**Research Design**

Ex post facto research design was used to describe the effects of corporate board on classification shifting of 75 non-financial firms in Sub-Saharan African countries namely Kenya, Nigeria and South Africa by using existing data from financial statement of the quoted firms which cannot be manipulated or altered by the researcher. These three Sub-Saharan African countries were selected because they have the largest and most active stock markets in Sub-Saharan Africa while non-financial firms were chosen because of their uniqueness in financial reporting disclosure requirements. The population used in this study was a total of 467 non-financial firms quoted on the Stock Exchange of three Sub-Saharan African countries. The population of non-financial firms quoted in Sub-Saharan African countries was 116 firms in Nigeria, 42 firms in Kenya and 309 firms in South Africa. The 75 firms included in the sample were selected using purposive sampling method based on availability of data. To enable us compare the countries specific results, we selected 25 companies each from the three Sub-Saharan African Countries to arrive at a total of 75 companies for easy comparison. The information relating to the features of corporate board (independent director, female representative and board financial expertise) were used as independent variables while return on assets and firm size were used as control variables and earnings management measured using classification shifting approach was used as dependent variable. All the variables were analyzed using panel regression while classification shifting was measured following McVay (2006) model.

**4.0 ESTIMATION RESULTS AND DISCUSSION OF FINDINGS**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>0.845941</td>
<td>0.250283</td>
<td>3.379943</td>
<td>0.0008</td>
</tr>
</tbody>
</table>

Table 3.1: Regression of Unexpected Core Earnings on Non-Recurring Items

Dependent Variable: UNEXPCE
Method: Panel Least Squares
Date: 09/10/18 Time: 11:15
Sample: 2008 2017
Periods included: 10
Cross-sections included: 75
Total panel (balanced) observations: 750
Before investigating whether corporate board mitigates classification shifting, we first of all investigated whether Sub-Saharan African non-financial firms currently see classification shifting as a viable manipulation method. Table 3.1 above shows basic regression testing conducted to investigate whether there is a positive relationship between non-recurring items (NREC) and unexpected core earnings (UNEXPCE), hence a positive coefficient value is assumed. As expected, it shows that, there is a significant positive relationship between NREC and UNEXPCE among our sampled firms. This suggests that some Sub-Saharan African firms might have shifted some recurring (core) expenses to non-recurring expenses to inflate their core earnings (core profit) which was an evidence of classification shifting. That is to show that classification shifting has become more pervasive in non-financial firms across Sub-Saharan African countries.

The result above shows that non-recurring expenses have positive effect on unexpected core earnings. The probability value shows that the effect of non-recurring expenses on unexpected core earnings is statistically significant at 1% level. This means that as non-recurring expenses is increasing, unexpected core earnings is also increasing, thus evidence of misclassification among firms quoted in Sub-Saharan Africa. The R² indicates that non-recurring expenses/items and other control variables can explain about 77% of changes in the unexpected core earnings. Thus, about 77% of changes in unexpected core earnings can be attributable to non-recurring expenses while about 23% were unaccounted for.

Now that we have confirmed the existence and evidence of classification shift among selected non-financial firms in Sub-Saharan Africa, we can now proceed with the main regression analysis to see if corporate board collaborates or mitigate classification shifting, hence the analysis of unexpected core earnings with corporate board variables.

To test hypothesis 1 to 3, we included non-recurring items to further establish the evidence of classification shifting while return on asset (ROA) and firm size (FSIZE) were added as control variables to control for performance. The regression model then takes the following form:

\[
\text{UNEXP_CE}_t = \beta_0 + \beta_1 \text{NREC}_1t + \beta_2 \text{IND}_1t + \beta_3 \text{BFMR}_1t + \beta_4 \text{BFXP}_1t + \beta_5 \text{ROA}_1t + \beta_6 \text{FSIZE}_1t + \varepsilon_1t \ldots \ldots \ldots (3)
\]

Where \( \text{UNEXP_CE} = \) Unexpected core earnings measured as difference between reported core earnings and expected core earnings. \( \text{NREC} \) stands for non-recurring items measured as the difference between reported core earnings and bottom line net income scaled by sales. \( \text{IND} \) means independent director captured as the
The proportion of independent or non-executive directors on the board divided by the total number of directors on the board. BFMR equals board female representative proxy as the proportion of female gender in the board of directors to total board of directors. BFXP stands for board financial expertise measured as the proportion of financially literate board members to the total number of board members; ROA is the return on assets measured as net income divided by the average total assets and FSIZE means firm size measured as the natural log of total assets.

Table 1: Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>UNEXPCE</th>
<th>NREC</th>
<th>IND</th>
<th>BFMR</th>
<th>BFXP</th>
<th>ROA</th>
<th>FSIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>1.415</td>
<td>0.928</td>
<td>0.507</td>
<td>1.568</td>
<td>3.505</td>
<td>0.564</td>
<td>47.71</td>
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<tr>
<td>Median</td>
<td>0.890</td>
<td>0.075</td>
<td>0.500</td>
<td>2.000</td>
<td>4.000</td>
<td>0.610</td>
<td>46.70</td>
</tr>
<tr>
<td>Maximum</td>
<td>340.5</td>
<td>226.9</td>
<td>0.740</td>
<td>5.000</td>
<td>7.000</td>
<td>1.580</td>
<td>317.1</td>
</tr>
<tr>
<td>Minimum</td>
<td>-288.0</td>
<td>-80.0</td>
<td>0.120</td>
<td>0.000</td>
<td>0.300</td>
<td>-0.830</td>
<td>10.54</td>
</tr>
<tr>
<td>Std. Dev.</td>
<td>23.08</td>
<td>10.26</td>
<td>0.178</td>
<td>1.032</td>
<td>0.800</td>
<td>0.323</td>
<td>23.37</td>
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<tr>
<td>Jar-Bera</td>
<td>39921</td>
<td>32962</td>
<td>5.414</td>
<td>14.81</td>
<td>225.0</td>
<td>121.7</td>
<td>65760</td>
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<tr>
<td>Prob</td>
<td>0.000</td>
<td>0.000</td>
<td>0.066</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
<td>0.000</td>
</tr>
<tr>
<td>Sum</td>
<td>1061.9</td>
<td>696.4</td>
<td>380.2</td>
<td>1174.0</td>
<td>2629.4</td>
<td>423.1</td>
<td>35787</td>
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<tr>
<td>Obs</td>
<td>750</td>
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<td>750</td>
<td>750</td>
<td>750</td>
<td>750</td>
<td>750</td>
</tr>
</tbody>
</table>

Source: researcher summary of descriptive statistics result (2018) using E-view 8

Table 1 above presented the descriptive statistics for the full sample used in the analysis. The descriptive statistics result in Table 4.1 above shows the mean values for each of the variables, their maximum values, minimum values, standard deviation and Jarque-Bera values which show the normality of the data. The result provides some insight into the nature of the selected quoted firms from three Sub-Saharan Africa countries that were used in the study. Firstly, it was observed that over the period under review, the sampled firms have average positive unexpected core earnings of 1.42% approximately. Within the period under review, the maximum and minimum values of unexpected core earnings as a percentage of sales were 340 and -288 respectively as against 320 and -268 reported by Zalata and Roberts (2016) in United Kingdom. The large difference between the maximum unexpected core earnings and minimum unexpected core earnings indicates that the unexpected core earnings of the firms differs greatly among the firms selected and over the period under review, this shows that the firms are not homogenous.

The mean and median value of non-recurring items (NREC) is 92% and 7.5%. This means that on average, NREC has a high value which means that non-recurring items have been misclassified and that most of the firms within the period under study have positive non-recurring items suggesting that recurring expenses misclassification has become more pervasive and economically significant among Sub-Saharan African countries. Moreover, the high difference between the minimum value and the maximum value of non-recurring items (-80 & 226) indicates that majority of the firms over the period have high non-recurring expenses which also suggest that recurring expenses misclassification has become persistent among firms. The result of our independent directors in the board shows that on the average, quoted companies in Sub-Saharan Africa have about 50% of independent directors in their board as against 51% reported by Zalata and Roberts (2016).
United Kingdom, 43% reported by Peasnell et al. (2005) and 45% reported by Osma (2008) in the United States. However, some maintain only 12% independent director as their minimum number over the years while others has about maximum of 74% independent directors in the board. The result also shows that firms in Sub-Saharan Africa maintain low number of female members in their board compared to their male counterpart. On the average, the firms over the years maintain an average of about 2 females in the board; some maintain about 5 female members while some firms do not have a single female member in their board. Board financial expertise result showed that on the average, about 4 members of the board of quoted companies in Sub-Saharan Africa are financial expert, however, some firms over the years have maximum number of about 7 members who have financial experience/expertise while others have no board members with financial experience/expertise at all.

Lastly, the Jarque -Bera (JB) and its probability which test for normality or existence of outlier shows that all the variables were normally distributed at 1% level of significance except independent director which was normally distributed at 10% level. This means that there are no variables with outlier that are likely to distort the conclusion and therefore are reliable for drawing generalization.

**Correlation Result**

The aim of using Pearson correlation matrix is to see if there are any multi-collinearity problems among the variables. The problem of multi-collinearity exits if independent variables are highly correlated at each other with correlation values exceeding 0.9.

<table>
<thead>
<tr>
<th></th>
<th>UNEXPCE</th>
<th>NREC</th>
<th>IND</th>
<th>BFMR</th>
<th>BFXP</th>
<th>ROA</th>
<th>FSIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>UNEXPCE</td>
<td>1.0000</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NREC</td>
<td>0.4213</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>IND</td>
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<td>0.0584</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BFMR</td>
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<td>-0.0080</td>
<td>-0.1714</td>
<td>1.0000</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>BFXP</td>
<td>-0.0077</td>
<td>0.0126</td>
<td>0.2066</td>
<td>-0.0901</td>
<td>1.0000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROA</td>
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<td>0.0526</td>
<td>-0.1363</td>
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<td>-0.0082</td>
<td>1.0000</td>
<td></td>
</tr>
<tr>
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<td>-0.0990</td>
<td>0.0332</td>
<td>0.0078</td>
<td>-0.0373</td>
<td>0.0283</td>
<td>1.0000</td>
</tr>
</tbody>
</table>

*Source: researchers’ summary of correlation result (2018) using E-view 8*

The result shows that unexpected core earnings is positively correlated with independent directors and return on assets but negatively correlated with number of female board members, board financial expertise and firm size. We also observed a positive association between unexpected core earnings and non-recurring items which also confirms the existence of classification shifting among non-financial firms across Sub-Saharan African countries. Hence the level of unexpected core earnings can be positively and negatively influenced by those corporate board characteristics. Lastly, in checking for multi-collinearity, the study observed that no two variables were perfectly correlated. This reveals the absence of multi-collinearity in our model.

**Regression Analysis and Interpretations**

In order to examine the relationship between the dependent variable (classification shifting) and the independent variables (IND, BFMR, BFXP, ROA & FSIZE) and test the formulated hypothesis, we employed a panel regression analysis since the data used was complete and it had both time series (2008-2017) and cross sectional properties (75 quoted companies) our analysis is presented in table 4.3 below.
**Table 3:** Regression Analysis of the effect of corporate board on Classification Shifting
Dependent Variable: UNEXPCE
Method: Panel Least Squares
Date: 12/07/18    Time: 20:01
Sample: 2008 2017
Periods included: 10
Cross-sections included: 75
Total panel (balanced) observations: 750

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
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<td>4.698356</td>
<td>0.613566</td>
<td>0.5397</td>
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<td>BFXP</td>
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<tr>
<td>ROA</td>
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<tr>
<td>FSIZE</td>
<td>0.038881</td>
<td>0.033051</td>
<td>1.176384</td>
<td>0.2398</td>
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</tbody>
</table>

R-squared          0.180081  Mean dependent var 1.415920
Adjusted R-squared 0.173460  S.D. dependent var 23.08728
S.E. of regression  20.98962  Akaike info criterion 8.935222
Sum squared resid   327339.1  Schwarz criterion 8.978343
Log likelihood      -3343.708  Hannan-Quinn criter. 8.951838
F-statistic         27.19794  Durbin-Watson stat 0.787429
Prob(F-statistic)   0.000000

The table 3 above shows the panel regression analysis of quoted non-financial firms in three Sub-Saharan African countries namely Nigeria, Kenya, and South Africa. From the result above, the study observed that the R. squared value was 0.180 (18%) and R-squared adjusted value was 0.173 (17.3%). The value of R-squared which is the coefficient of determination stood at 18% which implies that 18% of the systematic variations in individual dependent variables were explained in the model while about 82% were unexplained thereby captured by the stochastic error term. Again, the adjusted R-squared stood at 17.3%. This indicates that all the independent variables jointly explain about 17.3% of the system variation in unexpected core earnings/classification shifting of our sampled non-financial firms over the 10 years period. This reveals that about 17.3% misclassification shifting of recurring items into non-recurring items which gave rise to unexpected core earnings/classification shifting can be attributable to the corporate board variables selected for the study. Moreover, the F-statistics value of 27.19 approximately and its probability value of 0.000 shows that the unexpected core earnings model used for the analysis were statistically significant at 1% level. This confirms the appropriateness of our model used for the analysis.

In addition to the above, the specific findings from each explanatory variable were provided as follows:

**H01:** Proportion of independent directors has no significant effect on
The analysis result of the effect of independent director on classification shifting revealed that independent directors have coefficient value of -1.794 and a P-value of 0.690. This means that independent directors have negative influence on the level of opaque manipulation such as classification shifting which was not statistically significant. This means that a 1% increase in the proportion of independent directors in the board will lead to a proportionate reduction in the level of classification shifting of earnings manipulation by -1.794% approximately. This indicates that more independent directors in the board can reduce aggressive earnings management and also appear to constrain and mitigates classification shifting. Our finding was in agreement with the prior studies of Jouber and Fakhfakh (2010), Cornett et al. (2009), Xie et al. (2003), Roodposhti and Chashmi (2003) and Peasnell et al. (2005) that observed that independent directors at the board are associated with reduced earnings management practices especially less income-decreasing earnings but negates the findings of Chi-Keung and Brossa (2013) and Hashim and Devi (2008) that found positive result. Based on the results of the analysis, the study rejected the alternate hypothesis and accepted the null hypothesis; we therefore conclude that proportion of independent directors has negative but insignificant effect on earnings management.

\( H_0^2: \) Female representative in the board has no significant effect on classification shifting of earnings management of quoted non-financial firms in Sub-Saharan Africa.

The regression analysis result of the effect of female representative on unexpected core earnings revealed that female representative has coefficient value of -0.361, and a P-value of 0.632. The result from the model above indicates that Female representative in the board has negative influence on the level of classification shifting; this means that having more female in the corporate board can negatively affect the classification shifting of non-financial firms in Sub-Saharan Africa. The probability value (0.632) and the t-statistic value of -0.478 revealed that having more Female members in the board can lead to percentage decrease in the level of misclassification to the tune of -0.361% which was not statistically significant. By implication, this suggests that a 1% increase in the number of female representatives in the corporate board leads to a reduction in the opportunistic behavior of the management by -0.361%. This finding agrees with the findings of Mikael and Johan (2016), Zalata, Tingbni and Tauringana (2017) and Chi-Keung & Brossa (2013) that documented the view that female directors can develop trust leadership which requires managers to share information and more likely to be risk-averse to frauds and opportunistic earnings management but disagrees with the findings of Gulzar and Wang (2011) who reported positive relationship between female representative in the board and earnings management. Based on these findings from the analysis, the study rejects the alternate hypothesis and accepts the null hypothesis, we therefore conclude that female representative in the board has negative but insignificant effect on classification shifting of earnings management of quoted non-financial firms in Sub-Saharan Africa.

\( H_0^3: \) Board financial expertise has no significant effect on classification shifting of earnings management of quoted non-financial firms in Sub-Saharan Africa.

From the panel regression above the result of unexpected earnings model shows that board financial expertise has coefficient value of -0.543 and P-value of 0.576 approximately. The result of the analysis
indicates that board financial expertise has negative and insignificant influence on classification shifting. This implies that a 1% increase in the proportion of board members with financial knowledge and expertise will lead to an increase in the misclassification practices. This entails that a firm with more proportion of its board members who are professionals in any accounting body with financial expertise are more likely to curb and mitigate classification shifting especially when the level of external monitoring increases. By implication, this means that having board members with financial expertise can have negative influence on the level of reclassification practices. The probability value showed that the effect is not statistical significant. This finding was in line with the findings of Zhao (2012) but negates the findings of Wasukarn (2015). As a result of this insignificant effect we documented, we rejected our alternate hypothesis and accept our null hypothesis and therefore conclude that board financial expertise has negative and insignificant effect on classification shifting of earnings management of quoted non-financial firms in Sub-Saharan Africa.

5.0 CONCLUSIONS AND RECOMMENDATIONS
This study examined the relation between classification shifting and corporate board attributes. Even though that the board delegates its responsibility for financial reporting to the audit committee, they are not totally absolved from its financial reporting responsibility. We focused on classification shifting as a manipulation method due to the smaller role potentially played by the external auditor in mitigating earnings management when achieved by classification shifting due to the fact that accounting figures plays an essential role in determining management compensation, reviewing operating results and making investment decisions. To proxy for classification shifting, we examined the misclassification of core expenses into non-recurring items within the income statement as an earnings management tool following McVay (2006) and Athanasakou et al. (2009) model. The results demonstrate that the classification shifting is less prevalent in firms with boards comprising of more independent directors and more women participation whereas it is more prevalent when board comprises with more financial expert members. Based on a sample of 75 selected non-financial firms from three Sub-Saharan Africa (Kenya, Nigeria and South Africa) for ten fiscal years from 2008-2017 and using five measures of corporate board characteristics including control variables (IND, BFMR, BFXP, ROA & FSIZE). The study found that all the variables of corporate board (independent directors, board female representative and board financial expertise) have negative and insignificant effects in the level of misclassification of items

However, based on the following findings, we suggest that users of financial statements should take account of firms’ other corporate board characteristics when evaluating firms’ core earnings.

References


Lin, S., S. Radhakrishnan, & Su, L. (2006). Earnings management and guidance for meeting or beating analysts’ earnings forecasts. Working paper, California State University, Fresno, The University of Texas at Dallas, and Hong Kong Polytechnic University


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