ASSESSMENT OF THE EFFECTS OF FIRMS’ CHARACTERISTICS ON EARNINGS MANAGEMENT OF LISTED FIRMS IN NIGERIA

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ABSTRACT

This study assessed the effects of firms’ characteristics on earnings management of listed companies in Nigeria. To achieve the objectives of this study, a total of 20 listed firms in the Nigerian stock exchange market were selected and analyzed for the study using the judgmental sampling technique. The corporate annual reports for the period 2006-2010 were used for the study. In testing the research hypothesis, the study adopted the use of both descriptive statistics and econometric analysis using the pooled ordinary least square regression for the listed sampled firms. Findings from the study revealed that while firm size and firms’ corporate strategy have a significant positive impact on earnings management (proxied by discretionary accruals); on the other hand, the relationship between firms’ financial leverage and discretionary accruals of the sampled firms in Nigeria was not significant. Thus, the study concludes that large firms tend to have higher motivations and more prospects to engage in the manipulation earnings and exaggerate earnings due to the intricacy of their operations and the complexity for users to identify overstatement.

KEYWORDS: Earnings management, Financial leverage, Firm size, Corporate strategy, Nigeria.

Contribution/ Originality

This study contributes to existing literature by providing a more robust model (framework) that analysis the effects of firm size, firm leverage and corporate strategy on firms’ earnings management in Nigeria.

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1. INTRODUCTION

Over the years, the concept of earnings management has raised serious concerns among financial market regulators, financial operators, investors and academic researchers; as reflected in one of the speeches of the former U.S Security and Exchange Commission Chairman in 2002. More so, this concept has continued to receive attention due to the series of corporate failures in both developed and developing economies. This trend has invariably increased the doubts in the minds of stakeholders on the credibility and reliability of financial report. The importance attached to accounting earnings by stakeholders of any given organisation cannot be over emphasized; as the entire fate of the organisation and its stakeholders depend on it. More so, accounting as a field also has a stake to protect, owing to the fact that earnings are the last product of the whole accounting process.

The term `earnings management' embodies a wide array of accounting techniques used by management to achieve a specific earnings objective. While there exists no single accepted definition of earnings management, accounting literature provides various descriptions of the practice. Schipper (1989) described it as a deliberate intervention in the external financial reporting process, with the intent of obtaining some private gains. According to Healy and Wahlen (1999) it involves manipulating the earnings figures being disclosed, through the use of the judgemental discretions as permitted by the generally accepted accounting principles (GAAP), in other to either mislead the users into believing what is actually not true in respect of the earnings’ figures, and hence secure favourable response or to exaggerate contractual outcomes which depend on the disclosed earnings. However, while Akers et al. (2007) and Uwuigbe et al. (2014) described it as efforts of management to manipulate reported earnings by using certain accounting methods or changing methods, recognizing non-recurring items, deferring or speeding up expenses or revenue, or using other techniques designed to influence short-term earnings; Cornett et al. (2008) on the other hand described it as an anticipatory step to avoid an in-default situation in a loan agreement, reduce the regulatory cost, and increase the regulatory benefit. Thus, it is an intentional structuring of reporting or production/investment decisions around the bottom line impact. That is, it encompasses income smoothing behaviour and also includes any attempt to alter reported income that would not occur unless management were concerned with the financial reporting implications.

Current global trend indicates that the anxiety for the examination into the practice of earnings manoeuvre becomes even more salient following the current global trend of corporate failures that have bedevilled large organisation such as Health South, Global Crossing, Parmalat, Hollinger, Adecco, TV Azteca, Enron, Worldcom and Tyco (Uwuigbe, 2013). This phenomenon has led to heated debate among regulators, accounting practitioners, financial analyst and researchers to find a solution to the unprecedented corporate failures. This is particularly the case in most developing economies were in spite of the various governance structures and frameworks established by most countries, cases of corporate malpractices still remain prevalent. This is also the case in Nigeria where despite the publication of a new corporate governance code in 2003 and 2011; cases of
misappropriation of fund and falsification of reports to suit management interest has continued unabatedly. Hence, this study adds to the body of existing knowledge by assessing the relationship between firms’ characteristics and earnings management of listed companies in Nigeria. To gain more insight into this paper, the remainder of this paper has been organized as follows. Section 2 presents an in-depth review of related relevant literatures and hypotheses development. While section 3 focused on the research methodology adopted for the study; section 4 and 5 discusses the findings and conclusion of study.

2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Earning management remains an important issue that has come to the front burner in recent debate on corporate failures regarding unethical behaviour Uwuigbe et al. (2014). It involves the intentional manipulation of financial information to either delude investors on the underlying economic status of an organisation or to gain some contractual benefits that depend largely on accounting numbers (Watts and Zimmerman, 1986; Healy and Wahlen, 1999; Uwuigbe et al., 2012; Uwuigbe et al., 2014) Hence, managers can use their control over the firm to achieve personal objectives at the expense of stakeholders (Uwuigbe et al., 2012; Uwuigbe, 2013). In this regard, Kang and Kim (2011) opined that management could influence reported earnings by making accounting choices or by making operating decisions discretionally. Prior studies on managers’ decision to manage earning using accruals or by real activities remain one of the most common researches in the economics and financial literatures, and it continues to be relevant till date. Over the last two decades, prior literatures have examined the determinants and consequences of earnings management (Dechow et al., 2010; Uwuigbe, 2013; Uwuigbe et al., 2014). However, a fundamental issue that has received very limited attention over the years is the effect of firms’ characteristics or attributes on earnings management. Ball and Foster (1982) in their study observed that large firms are less likely to engage in earnings management due to the fixed costs associated with maintaining adequate internal control procedures over financial reporting. Albrecht and Richardson (1990) in a related study observed that large firms have less incentive to smooth earnings than small firms. Similarly, Sánchez-Ballesta and García-Meca (2007) suggested that large concentrated firms are less likely to engage in earnings management than small firms. Lee and Choi (2002) also observed that firm size is that attribute that influences a firm’s tendency to manage earnings. Accordingly, they opined that smaller firms are more likely to manage earnings to avoid reporting losses than larger firms. On the other hand, Rangan (1998) opined that larger firms were more susceptible to manipulating their current accruals to overstate the earnings of the experienced equity offerings. Similarly, findings from Degeorge et al. (1999) reiterated the fact that large companies manoeuvred their earnings to avoid the negative earnings report.

In a related study, Press and Weintrop (1990) observed evidence that high leverage is positively associated with the likely hood of violating debt covenants. Also, Sweeney (1994) observed that firms near default employed income-increasing accounting changes in order to delay
their technical default. Mohrman (1996) supports this view by arguing that firms with higher leverage are expected to adopt accounting procedures that increase current income. More so, prior studies by Mcconnell and Servaes (1995), Lang et al. (1996) and Aivazian et al. (2005) shows that financial leverage has a negative relation over firm’s investment, which means that the ones with higher leverage often have lower investments. Similarly, Ujah and Brusa (2011) observed that both financial leverage and cash flow volatility impact the degrees to which firms manage their earnings. However, Jensen (1986) and Ke (2001) argued that debt creation tend to reduces manager’s optimistic behaviour.

Although, some considerable amount of literature exists on the interaction between firms characteristics and earnings management in developed economies, most notably the United States, Russia and France; however, the same is not true in developing economies like Nigeria where there is a relatively dearth in literature in this area, coupled with the huge institutional differences between Nigeria and other developed economies. Hence, this study will attempt to find out the relationship between firms’ characteristics and earnings management of listed companies in Nigeria.

2.1. Development of Hypotheses

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

1) \( H_1: \) There is a significant relationship between firm’s corporate strategy and earnings management of listed firms in Nigeria

2) \( H_2: \) There is no significant relationship between firm size and earnings management of listed firms in Nigeria.

3) \( H_3: \) There is no significant relationship between firm’s leverage and earnings management of listed firms in Nigeria.

3. METHODOLOGY

To achieve the objectives of this study, the annual report for the period 2006-2010 were analyzed. The choice of these periods arises based on the fact that it was plagued with a number of corporate frauds arising from firms in Nigeria and other developed economies due to poor corporate governance practice and institutional failures. However, using the judgmental sampling technique; a total of 20 listed firms were analysed. The choice of the selected firms’ arises based on the nature of corporate failures and scandals that has bedevilled the industry overtime. Nevertheless, in testing the research hypothesis, the study adopted the use of both descriptive statistics and econometric analysis using pooled ordinary least square regression for the listed sampled firms in the estimation of the regression equation under consideration.
3.1. Specifications of the Econometric Model

3.1.1. Dependent Variable

The dependent variable in this study is earnings management and it was measured by discreitional accruals (DAC). However, based on prior literatures, the accrual approach to earnings management was adopted. This is because, the estimation of the scope of earnings management is better served with accrual models though the use of discreitional line items is best used for accuracy in detection. Also, this approach makes it easier to manage earnings via credit sales than cash collections. In addition, it attempts to control for the endogeneity bias in the original. More so, according to Uwuigbe et al. (2014) and Uwuigbe et al. (2012), this approach is one of the most famous and most frequently used models used to detecting earnings management. Hence, the modified Jones model of estimating discreitional accruals was used.

3.1.2. Modified Jones Model

\[ TA/A_{t-1} = \beta_1 (1/A_{t-1}) + \beta_2 (\Delta \text{ in Rev} - \Delta \text{ in Rec}) /A_{t-1} + \beta_3 (PPE/A_{t-1}) + \epsilon_{it} \]

Where:

- TA = Total Accruals
- $A_{it-1}$ = Total Assets at the beginning of the year
- $\Delta \text{ Rev}_{it}$ = Change in sales from year $t-1$ to $t$
- $\Delta \text{ Rec}_{it}$ = Change in receivables from year $t-1$ to $t$
- PPE$_{it}$ = Plant, property and Equipment

$\beta_1, \beta_2, \beta_3 = \text{Represents firms specific parameters.}$

$\epsilon_{it} = \text{Residual here represents the firm specific discretionairy portion off accruals.}$

However, while the right side of the equation represents the non-discretionary accruals, the net result for the left side represents the total accruals. Hence taking the difference between the two sides, it amounts to the discretionairy accruals.

3.1.3. Independent Variables

The independent variables for this research are firm size, firm leverage and firm corporate strategy. However, cash holding was adapted as the control variable for this study. This is because it is also considered as a potential determinant of earnings management. The control variable is used because it provides a better predictability and analysis of the relationship existing between the constructs. Hence, introducing the constructs of the dependent and independent variables, the regression equation adapted for this study is modelled in the following functional form as:

\[ DAC_{it} = F (FSZE_{it}, LEV_{it}, CSTRAT_{it}, \mu_{it}) \] ........................................................................................................  (1)

The robust model can be written as

\[ DAC_{it} = \beta_0 + \beta_1 FSZE_{it} + \beta_2 LEV_{it} + \beta_3 CSTRAT_{it} + \mu_{it} \] ..............................................................................  (2)

\[ DAC_{it} = \beta_0 + \beta_1 FSZE_{it} + \beta_2 LEV_{it} + \beta_3 CSTRAT_{it} + \beta_4 \text{CASH}_{it} + \mu_{it} \] ..............................................................................  (3)
Where:
DAC = Discretionary and non-discretionary accruals.
FSZE = This is measured as the log of total assets.
LEV = This measures the cost of debt. The value is calculated as total debt to total assets. This measures the value of total asset acquisition, financed by debts.
CSTRAT = Corporate Strategy: According to Shian and Tam (2010), is measured based on growth strategy and liquidity strategy. Growth strategy is in two dimensions sales and growth potential. Growth potential is estimated by the firm’s market value of assets divided by the book value of assets while liquidity strategy is measured by liquidity ratio which signifies the proportion of the firm’s total assets that are highly liquid. This in turn reflects how well the firm manages its liquidity position on a period-to-period basis. Hence, this study measured corporate strategy based on growth strategy. It is measured as the growth of total asset which is total asset\(_t\) – total asset\(_{t-1}\)/total asset\(_t\).
CASH = measured as cash and cash equivalent divided by total asset (control variable).
\(\beta\) = coefficient of parameter
\(\alpha\) = Time coefficient
\(\mu\) = error term

A priori specification: The expectations are such that \(\beta_1 < 0, \beta_1 > 0, \beta_2 > 0\).

4. DISCUSSION OF FINDINGS

The table below (table 1) presents the descriptive statistics of all the variables used in the study.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAC</td>
<td>100</td>
<td>-0.1018007</td>
<td>0.5967804</td>
<td>-1.8185</td>
<td>1.3477</td>
</tr>
<tr>
<td>FSZE</td>
<td>100</td>
<td>10.874</td>
<td>0.7289805</td>
<td>8.686138</td>
<td>12.29165</td>
</tr>
<tr>
<td>LEV</td>
<td>100</td>
<td>0.6011414</td>
<td>0.292628</td>
<td>0.0007</td>
<td>1.3303</td>
</tr>
<tr>
<td>CSTRAT</td>
<td>100</td>
<td>0.2211942</td>
<td>0.28488081</td>
<td>-0.8478</td>
<td>0.9219</td>
</tr>
<tr>
<td>CASH</td>
<td>100</td>
<td>0.0812014</td>
<td>0.1052269</td>
<td>-0.0941893</td>
<td>0.5602789</td>
</tr>
</tbody>
</table>

Table (1) basically provides a summary of the descriptive statistics from both the dependent and independent variables for the sampled firms. Result from the descriptive statistics provides a mean discretionary accrual value (DAC) of about -0.1018007 with a standard deviation of 0.5967804. This result implies that on the average the sampled firms engaged in downward earnings management activities to create a cookie jar reserves, reducing earnings to lower stock prices prior to granting stock options prior to repurchasing stock on the open market and to reduce political costs. Also, the table provides an approximate mean values for the independent variables.

(FSZE, LEV and CSTAT) as 10%, 60%, 22% and 8% respectively. This result indicates that on the average financial leverage represents about 60% of the total assets of the sampled firms (that is they are highly geared). On the other hand, the mean value for corporate strategy (proxied by CSTRAT) shows that the growth rate for the sampled firms stood at about 22% annually.

Table-2. Correlations Matrix for Sampled firms

<table>
<thead>
<tr>
<th></th>
<th>DAC</th>
<th>FSZE</th>
<th>LEV</th>
<th>CORPSTRAT</th>
<th>CASH</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAC</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FSZE</td>
<td>0.3742</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LEV</td>
<td>0.2638</td>
<td>0.5746</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CORPSTRAT</td>
<td>0.2097</td>
<td>-0.0266</td>
<td>0.1046</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>CASH</td>
<td>0.1056</td>
<td>0.2995</td>
<td>0.2087</td>
<td>0.1802</td>
<td>1</td>
</tr>
</tbody>
</table>

Table-3. Anova

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>DF</th>
<th>MS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>6.75970481</td>
<td>4</td>
<td>1.6899262</td>
</tr>
<tr>
<td>Residual</td>
<td>28.4988373</td>
<td>95</td>
<td>.29987761</td>
</tr>
<tr>
<td>Total</td>
<td>35.2585421</td>
<td>99</td>
<td>.35614689</td>
</tr>
</tbody>
</table>

Table-4. Regression Analysis

<table>
<thead>
<tr>
<th>DAC</th>
<th>Coefficient</th>
<th>Std. Err.</th>
<th>t</th>
<th>P &gt; t</th>
<th>[95% Conf. Interval]</th>
</tr>
</thead>
<tbody>
<tr>
<td>FSZE</td>
<td>.308074</td>
<td>.095745</td>
<td>3.22</td>
<td>0.002</td>
<td>.1179961 .4981519</td>
</tr>
<tr>
<td>LEV</td>
<td>.308074</td>
<td>.2324006</td>
<td>0.31</td>
<td>0.756</td>
<td>-0.3889862 .5337609</td>
</tr>
<tr>
<td>CSTRAT</td>
<td>.4733783</td>
<td>.1991854</td>
<td>2.38</td>
<td>0.019</td>
<td>.0779453 .8688113</td>
</tr>
<tr>
<td>CASH</td>
<td>-0.3130397</td>
<td>.5593719</td>
<td>-0.56</td>
<td>0.577</td>
<td>-1.423533 .7974539</td>
</tr>
<tr>
<td>_Cons</td>
<td>-3.5746</td>
<td>.9673147</td>
<td>-3.7</td>
<td>0.000</td>
<td>-5.494963 -1.654238</td>
</tr>
<tr>
<td>No. of Obs</td>
<td>100</td>
<td></td>
<td>5.63</td>
<td></td>
<td></td>
</tr>
<tr>
<td>F (4, 95)</td>
<td>0.0004</td>
<td></td>
<td>0.1917</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R-squared</td>
<td>0.1577</td>
<td></td>
<td>0.54771</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Analysis of the outcome from the correlation analysis as depicted in table (2) shows that a positive correlation exist between firm size and discretionary accruals. This is outrightly indicated in the correlation coefficient (r) result as (0.3742). This result basically implies that as the size of a firm increases, the level of earnings management in that company increases. More so, results from the table further depict the fact that a positive correlation does exists between firms’ financial leverage and discretionary accruals. This result is shown in the correlation coefficient (r) result of (0.2638). Similarly, the study also observed that a positive relationship exist between firms’ corporate strategy and discretionary accruals. This is also depicted in the correlation coefficient (r) result of (0.2097). This result indicates that as a company grows, the level of earnings management tends to increases. For the control variable, the study observed that relationship between firm cash
and cash equivalent and discretionary accruals shows a positive relationship of 0.1056 which indicates that the higher the cash holding, the higher the level of earnings management.

Tables (3) and (4) present the result of the regressions (Anova and model summary) which tested all the stated hypotheses (i.e. $H_1$, $H_2$, $H_3$). The results as summarized in the tables suggest that the 16% variation in the dependent variable can be explained by the independent variables suggesting clearly that simultaneously the explanatory variables are significantly associated with the dependent variable. The use of multivariate hypothesis test is based on the assumption of no significant multicollinearity between the explanatory variables. Non-existence of multicollinearity between the independent variables was confirmed when computing the variance inflation factors (VIFs) for each of the explanatory variables used in the study.

Interestingly, empirical evidence from the study suggest that consistent with our initially stated a priori expectation (i.e. $\beta_1 > 0$, $\beta_2 > 0$, $\beta_3 < 0$). A significant positive relationship was found between firm size and discretionary accruals. This outcome is evident in the P>|t| (Prob) value of (0.002) for firm size. This result basically implies that growing firms are inclined to earnings management. That is the larger the firm, the higher its likely hood to engage in earnings management activities. In addition, large firms tend to have higher motivations and more prospects to engage in the manipulation earnings and exaggerate earnings due to the intricacy of their operations and the complexity for users to identify overstatement. In essence, larger firms are more susceptible to manoeuvring their current accruals to exaggerate the earnings equity offerings. This outcome is consistent with the findings of Fernandes and Ferreira (2007), Naz et al. (2011) and Olatunji and Fakile (2012). However, this result contradicts the findings of Persons (1995) and Ball and Foster (1982) were a negative relationship was observed between firm size and discretionary accruals.

Also consistent with our a priori expectation, findings for the second hypothesis suggest a positive relationship between firms’ financial leverage and discretionary accruals. However, this relationship is not significant as depicted in the P>|t| (Prob) value of (0.756) for firms’ financial leverage. Hence the null hypothesis which states that there is no significant positive relationship between firms’ financial leverage and discretionary accruals of the sampled firms in Nigeria is accepted.

Finally, consistent with our a priori expectation, findings for the third hypothesis suggest a significant positive relationship between firms’ corporate strategy and discretionary accruals of the sampled firms. This is evident in the P>|t| (Prob) value of (0.019) for firms’ corporate strategy (measured as). Hence the alternate hypothesis is accepted. This outcome is however in line with the findings of Matsumoto (2002) were they opined that firms with high growth prospects have greater incentives to manipulate earnings to avoid unfavourable market reaction to negative earnings news. Hence, growing firms are more firms are more inclined to earnings management. Thus, the higher the growth prospect, the higher the engagement in earnings management.
5. CONCLUSION AND RECOMMENDATIONS

This study basically examined the effects of firms’ characteristics on earning management of listed firms in Nigeria. The study came up with the following findings that are of salient importance to scholars investigating issues relating to firms’ characteristics and earnings management in the Nigerian context. Findings from our determination test indicate that about 16% change in firm’s earnings management decisions can be explained by firms attributes (characteristics). Evidence from the study further reveals that a significant positive relationship exists between firm size and discretionary accruals (earnings management). This results appear to corroborate the suggestion that firm size is a variable that tends to influence a firm’s tendency to manage earnings and might affect the magnitude of earnings surprise or earnings informativeness. More so, it supports the argument that large firms tend to have higher motivations and more prospects to engage in the manipulation earnings and exaggerate earnings due to the intricacy of their operations and the complexity for users to identify overstatement. Similarly while, evidence from the study also suggested the fact that a significant positive relationship exist between firms’ corporate strategy and discretionary accruals of the sampled firms; on the other hand, the relationship between firms’ financial leverage and discretionary accruals of the sampled firms in Nigeria was not significant. This implies that highly levered companies do not engage in earnings management in a bid to have reports that will enable them to attract capital at reasonable rates. Hence the study concludes that auditors should pay close attention to the size of the firm in the audit process, since the larger the firm the higher the management of earnings.

This study is however limited by the fact that the sample only covers five (5) years data from the Nigerian stock exchange market. Besides, only three assessable variables for firm’s characteristics were considered in this study. However, future research could consider other firms attributes or characteristics not considered in this study. In addition, based on the demerits of the modified Jones model adopted in this study, future research could examine other models relating to earnings management.

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