The Effect of Board Attributes on Real Earnings Management in Nigerian Financial Institutions

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Abstract

The purpose of this study is to examine the relationship between board attributes and real earnings management of listed Nigerian financial institutions. The residuals from Roychowdhury model (2006) is used to proxy real earnings management. Data were collected from 45 financial institutions quoted on the Nigerian Stock Exchange (NSE) from 2011 to 2016. For analysis purpose, the Panel Corrected Standard Errors (PCSEs) regression was utilized. The regression result shows that board meeting and board expertise have a significant positive impact on real earnings management. Whereas, female directors has a significant negative influence on real earnings management. The study recommends that the authorities concerned in Nigeria should concentrate on the recent technique of real earnings management (cash flow from operation, discretionary expenses and cost of goods sold) known to board members in developed economies in order to play a pivotal role in constraining corporate managers to act opportunistically in the ordinary course of business activities and preparing financial reports.

1. Introduction

Corporate governance has become an important agenda for listed companies in any stock exchange market globally. The status can be seen through its evolution in several events, including the 1997 East Asia crisis and the series of recent corporate scandals in the US and many other countries world over (Becht, Bolton & Rosell, 2002; Roy, 2015). Hence, the need for sound corporate governance becomes a subject of debate in recent years. Corporate governance is a process by which firms are managed, controlled and regulated (Azubike, 2014). It is targeted at fulfilling responsibilities for the board in the preparation of financial reports. In doing so, it increases the expectation that corporate governance may deter or minimise both manipulation of accrual based and manipulation of real activities (Hsu & Wen, 2015). Setting a corporate board structure could lead to many benefits at different levels of management and indeed helps the organisation to maximise earnings; minimise investment risk and enhance the firm’s value (Abubakar, 2013; Liu & Tsai, 2015; Zgarni, Halioui, & Zehri, 2014). Interestingly, this highlighted crisis has extended too many countries across the globe with unwanted consequences on various economies and stakeholders in particular.

In Nigeria, the financial sector has witnessed different factors which led to slow pace or distortion of the desired level of economic growth and development including poor corporate governance, especially the board attributes (Soludo, 2004). Recently, the boards of some insurance companies in Nigeria have been dissolved as a result of financial reporting failure which includes earnings management practices and negative claims payment reputation (National Insurance Commission (NAICOM), 2015).

Nevertheless, most of the studies on board attributes and earnings management in Nigeria were conducted on the accrual earnings management (Bala & Gugong, 2015; Isenmila & Afensimi, 2012; Kurawa & Saheed, 2014; Omoye & Eriki, 2014; Uwuigbe, Peter & Oyeniyi, 2014; Salihi & Kamardin, 2015) and limited studies are manifestly conducted on the real earnings management in non-financial sector (Hassan & Ibrahim, 2014). More so, Bala and Gugong (2015); Kurawa and Saheed (2014); Omoye and Eriki (2014); Uwuigbe et al. (2014); Salihi and Kamardin (2015) have specifically conducted studies on non-financial sectors in Nigeria using the accruals manipulation without taking real earnings management into consideration, most especially in the Nigerian financial institutions. Therefore, the objective of this study is to examine the effects of board...
attributes on real earnings management of listed Nigerian financial institutions. Thus, this paper is divided into following headings; introduction, methodology, result and conclusion.

2. Hypothesis Development and Methodology

Corporate governance is the method and technique in which the activities of corporation are directed by board of directors who discharge the obligations on behalf of the shareholders (Azubike, 2014). Furthermore, Kyereboah-Coleman, A., & Biekpe, N. (2006) perceived corporate governance as the relationship of the corporation to shareholders, or in the broader sense as a relationship of the corporation to a society as a whole. However, Friese, Link, & Mayer, 2016 viewed the concept with a broader outlook and contends that, corporate governance refers to the tool of the processes, structures and information used for directing and supervising the management of a corporation. Equally, Uwuigbe, Uwuigbe and Bernard (2015) viewed corporate governance as a concern that balanced economic, social, and communal goals. To attain this, there is a need to encourage efficient use of resources, accountability and alignment of the interest of various stakeholders, such as individuals, enterprise and the society (Azubike, 2014).

Consequently, it can be deduced that corporate governance is a system by which companies are managed and controlled in order to prevent opportunistic behaviour of corporate malpractices. However, the board attributes are very crucial to the survival of every company, be it public or private sector. This implies that, there must be transparency and accountability in a board for them to fulfill their responsibilities to shareholders, creditors, government agencies, employees and community among others.

Board attribute is one of the major corporate governance mechanism that explains earning management practice. From the empirical perspective in the literatures, evidence does not offer consistent findings in prior studies of board attributes and earnings management. Some stream of studies show that negative relationship exist between board attributes and earnings management (Abdul Manaf, Amran & Ishak, 2015; Bala & Gugong, 2015; Guo & Ma, 2015). In like manner, Talbi et al. (2015) discover that board attributes have a negative association with the level of earnings management. Likewise, Uwuigbe, Peter, and Oyeniyi (2014) shows that board structure has significant adverse effect on earnings management.

However studies provide evidences that a positive association exist between board attributes and earnings management (Cella, Ellul, & Gupta, 2014; Gulzar & Wang, 2011; Oghodo, 2015; Ramadan, 2016). In addition, Hassan and Ibrahim (2014) reported that board structure is related to real earnings management. Similarly, Ali and Zhang (2015) indicate that board structure has a positive effect on earnings management. Oghodo (2015) discovers a positive association between board attributes and earnings management practices in listed firms. Moreover, Chandren, Ahmed, and Ali (2015) indicates a positive correlation between board attributes and earnings management.

Equally important, there are prior studies that investigated the relationship between board attributes (board size, board expert, board meeting among others) and earnings management. However, recent studies have recommended board size, board expertise, board meeting frequency and female directors as the most relevant board attributes to earnings management. From the foregoing literature, it can be argued that, there is a relationship between board attributes and earnings management. Therefore, this study seeks to examine the relationship between board attributes and real earnings management. Therefore, the next section reviews relationship between board size, board expertise, board meeting frequency, female director and earning management (as a dependent variable).

2.1. Relationship between Board Size and Earnings Management

Empirically, Studies that examine the relationship between board size and earnings management have shown that, there is contradicting result. For instance, Amran, Ishak, & Abdul Manaf (2016), Iraya Mwangi, & Muchoki (2015) established that earnings management is negatively related to board size, and the more the number of directors on the board the lower the earnings manipulation. However, Hashemi and Rabiee (2011) reveal that small boards seem to be more likely to failure in detecting earnings management. An interpretation of this statement is that, smaller boards are less likely to monitor corporate managers while larger boards are more capable of monitoring the action of corporate managers.

In contrast, other previous studies have reported positive correlation between board size and earnings management. For example, Gonzalez and Garcia-Meca (2014) investigated the influence of corporate governance on earnings management. The result of the study shows a positive correlation between board size and earnings management. Equally, Abdul Rahman and Ali (2006) examine the effect of board size on earnings management, and claimed that size of the board is positively associated with earnings management activities. Also, Chandren et al. (2015) investigated the relationship between board size and accretive share buyback to meet or just beat earnings per share forecast. Their findings identified that board size is positively associated with earnings management practices. Therefore, based on the mixed findings and inconsistency of results as per highlighted above, this study proposed the following hypothesis;

H1: There is negative relationship between board size and real earning management in Nigerian financial institutions.
2.2. Relationship between Board Meeting Frequency and Earnings Management

The empirical result of the relationship between board meeting frequency and earnings management is ambiguous. Bala and Gugong (2015) examine board structure and earnings management of listed food and beverages firms in Nigeria, the result reveals that there is a significant negative relationship between board meeting frequency and earnings management. Again, Gonzalez and Garcia-Meca (2014) investigated the relationship between board meeting frequency and earnings management, the finding reveal that there is a significant negative correlation between board meeting frequency and earnings management. Other studies that found a negative association between board meeting frequency and earnings management (Ahmed, 2013; Zgarni et al., 2014).

Nevertheless, Gulzar and Wang (2011) investigate the effect of corporate governance attributes in decreasing earnings management practices among listed companies. The finding reveals that there is a significant positive relationship between the frequency of board meeting and earnings management. Equally, Chandren et al. (2015) found board meeting frequency has an insignificant positive association with earnings management. Therefore, based on the mixed findings and inconsistency in the results of the studies review above, this study proposed the following hypothesis:

\[ H_2: \text{There is negative relationship between board meeting frequency and earning management in Nigerian financial institutions.} \]

2.3. Relationship between Board Member Expertise and Earnings Management

Previous studies report mixed results on the relationship between board member expertise and earnings management. There is an inverse association between board financial expertise and earnings management, (Alzoubi & Selamat, 2012; Abu Siam, Laili & Khairi, 2014). As it mitigates earnings management practices in listed firms. Similarly, Liu and Tsai (2015) reveal the effect of board member characteristics on earnings management activities. The result documents that there is a significant negative relation between board member expertise and real earnings management. Hence, the board member expertise constrains real earnings management.

Conversely, Ahmed (2013) examines the effect of the board of directors’ characteristics and earnings management. The result reveals that there is a positive relationship between board member expertise and earnings management. Therefore, based on the mixed finding and inconsistency results review above, this study proposed the following hypothesis:

\[ H_3: \text{There is negative relationship between board expertise and earning management in Nigerian financial institutions.} \]

2.4. Relationship between Female Director and Earnings Management

With regards to the role of female director on mitigating earnings management, studies like Gulzar and Wang (2011) examines the relationship between women directors and earnings management among the listed companies in Shanghai and Shenzhen Stock Exchange in China. The study reveals a significantly negative correlation between women directors and earnings management activities. Ku Ismail, and Abdullah (2013) assess whether the representation of female directors on the board is related to earnings management practice in Bursa, Malaysian listed firms. The finding reveals a negative association between female directors and earnings management activities. Likewise, Omoye and Eriki (2014) consider the effect of female directors on the board with earnings management practices of listed firms in Nigeria. The result of the study reveals that there is a negative association between female directors on the board and practices of earnings management. Thus, corporate female directors on the board are less likely to involve in activities of earnings management.

Conversely, Arun, Almohrog, and Aribi (2015) explore the relationship between women directors on the board and earnings management practices in United Kingdom companies. The study found a positive correlation between women directors and earnings management practices. Also, Bala and Gugong (2015) analysed the effect of female directors on earnings management of listed food and beverage industry in Nigeria. The result signifies that, there is a significantly positive association between female directors and earnings management activities. Lakhal, Aguir, Lakhal, and Malek (2015) assess the effect of women directors on earnings management practice on the board of companies in France. The result shows that there is a significantly positive relationship between women directors and earnings management. Damagum, Oba, China and Ihikunle (2014) examine the effect of women directors in corporate board and earnings management of non-financial listed firms in Nigerian Stock Exchange. The result establishes that, there is a positive relationship between women directors and earnings management activities. Also, Hassan and Ibrahim (2014) assesses the impact of women directors on the company’s ability to practice of earnings management. The result establishes that there is a positive association between women directors and earnings management. Therefore, based on the mixed findings and inconsistency in results, this study proposed the following hypothesis:

\[ H_4: \text{There is a negative relationship between female director and earnings management in Nigerian financial institutions.} \]
3. Methodology

The study focuses on board attributes (board size, board meeting, board expertise, female director) and real earnings management. The population of this study comprises of the 55 listed financial companies trading in the Nigerian Stock Exchange (NSE) as at 31st December, 2016. Data for this study are collected from the annual accounts and report of forty five (45) selected companies whose data are available during the period under review (2011-2016) making a total of 270 firm-years observations. For analysis purpose, descriptive statistics, correlation analysis, and multivariate regression are employed through the use of STATA version 14.

3.1. Model Specification

The model is specified on an empirical framework using board attributes mentioned for this study is to examine the effect of board attributes on real earnings management. The dependent variable for this study is real earnings management posited to be function of board attributes such as board size, board meeting, board member expertise, female directors and independent directors on board. Having these variables, the equation presented as follows.

\[ REM_{it} = \beta_0 + \beta_1 \text{BSIZ}_{it} + \beta_2 \text{BMTG}_{it} + \beta_3 \text{BEXP}_{it} + \beta_4 \text{FDIR}_{it} + \beta_5 \text{FGRT}_{it} + \beta_6 \text{PROF}_{it} + \beta_7 \text{FLEV}_{it} + \beta_8 \text{FAGE}_{it} + \epsilon_{it} \]

Table 1. Description of the research variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>Description</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Board Size (BSIZ)</td>
<td>Number of directors on the board</td>
<td>Amran, Ishak, and Abdul Manaf (2016); Chandren at al (2015).</td>
</tr>
<tr>
<td>Board Meeting Frequency (BMTG)</td>
<td>Number of meetings held by the board of directors</td>
<td>Chandren et al (2015); Jia and Tang (2016).</td>
</tr>
<tr>
<td>Board Member Expertise (BEXP)</td>
<td>Number of directors with accounting and finance qualification</td>
<td>Ahmed, 2013; Bala and Gugong (2015).</td>
</tr>
<tr>
<td>Female Director (FDIR)</td>
<td>Proportion of female directors on the board</td>
<td>Ishak, Amran, and Abdul Manaf, (2017).</td>
</tr>
<tr>
<td>Firm Growth (FGRT)</td>
<td>Change in total assets (current year minus proceeding year)</td>
<td>Kanagaretnam, Lim and Lobo (2014).</td>
</tr>
<tr>
<td>Profitability (PROF)</td>
<td>Ratio of profit after tax to a total asset of the company</td>
<td>Hashem, Bahman and Azam (2012).</td>
</tr>
<tr>
<td>Firm Leverage (FLEV)</td>
<td>Ratio of total debt to a total asset of the company</td>
<td>Benkel, Mather, and Ramsay (2006).</td>
</tr>
<tr>
<td>Firm Age (FAGE)</td>
<td>Number of years a company is in business since incorporated</td>
<td>Bassioung, Soliman, and Rajab, (2016).</td>
</tr>
</tbody>
</table>

Source: Extracted from previous literature

4. Results and Discussion

The analysis starts with summary of the descriptive statistics on dependent variable and independent variables with mean, standard deviation, minimum and maximum as presented in Table 2.

Table 2. Summary of the Descriptive Statistics

<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>REM</td>
<td>270</td>
<td>3.1726</td>
<td>0.4871</td>
<td>1.4497</td>
<td>4.1407</td>
</tr>
<tr>
<td>BSIZ</td>
<td>270</td>
<td>10.7222</td>
<td>3.4781</td>
<td>5.0000</td>
<td>20.0000</td>
</tr>
<tr>
<td>BMTG</td>
<td>270</td>
<td>5.3519</td>
<td>1.9621</td>
<td>1.0000</td>
<td>13.0000</td>
</tr>
<tr>
<td>BEXP</td>
<td>270</td>
<td>5.1593</td>
<td>4.1934</td>
<td>0.0000</td>
<td>18.0000</td>
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<tr>
<td>FDIR</td>
<td>270</td>
<td>0.1486</td>
<td>0.1143</td>
<td>0.0000</td>
<td>0.5000</td>
</tr>
<tr>
<td>FGRT</td>
<td>270</td>
<td>16.2834</td>
<td>0.1973</td>
<td>13.8155</td>
<td>17.2365</td>
</tr>
<tr>
<td>FLEV</td>
<td>270</td>
<td>0.6491</td>
<td>0.6748</td>
<td>0.0012</td>
<td>8.9760</td>
</tr>
<tr>
<td>PROF</td>
<td>270</td>
<td>0.3034</td>
<td>0.2754</td>
<td>-0.9242</td>
<td>4.1669</td>
</tr>
<tr>
<td>FAGE</td>
<td>270</td>
<td>34.1500</td>
<td>13.5882</td>
<td>15.0000</td>
<td>70.0000</td>
</tr>
</tbody>
</table>

Source: Generated from the analysis
From Table 2, the average real earnings management of Nigerian financial institutions is 3.1726. This implies that on the average the institutions manage real earnings management upward. The maximum value of real earnings management is 4.1407 and minimum value of 1.4497. Moreover, the average board size is 11 with the minimum of 5 and a maximum of 20 members on the board. The result indicates that Nigerian financial institutions have meet minimum requirement of 5 members of board size as stated by Nigerian Code of Corporate Governance. For the board meeting, the average board meeting is 5 with maximum of 13 and a minimum of 1 at the end of the financial year. The board expertise mean is 5 with a minimum number of 0 and a maximum number of 18. Female directors’ result shows an average of 15% female directors on a board, follows by the minimum of 0% and maximum of 50%. The result indicates that there is a presence of female directors on the board of directors of the sampled firms.

The mean value of firm growth and profitability of Nigerian financial institutions are 16.2834 and 0.3034 with a minimum (13.8155 and -0.9242) and a maximum (17.2965 and 0.4.1669) respectively. In addition, the standard deviation of firm growth is far away from the respective mean, whereas the standard deviation of profitability is not far away from the average. The firm leverage result of 0.6491 for the minimum value of 0.0012 and a maximum value of 8.9760. Finally, the firm age measured by number of years an institution is in business since incorporated has shown the following descriptive statistics; the average age is about 34 years with a minimum of 15 years and a maximum of 70 years.

<table>
<thead>
<tr>
<th>Table 3. Pearson Correlation Result</th>
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<tbody>
<tr>
<td>REM</td>
</tr>
<tr>
<td>REM</td>
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<tr>
<td>BSIZ</td>
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<tr>
<td>BMTG</td>
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<td>BEXP</td>
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<td>FDIR</td>
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<td>FLEV</td>
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<td></td>
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<tr>
<td>PROF</td>
</tr>
<tr>
<td>FAGE</td>
</tr>
</tbody>
</table>

*** Correlation is significant at the 0.01 level (1-tailed); ** Correlation is significant at the 0.05 level (1-tailed); * Correlation is significant at the 0.10 level (1-tailed).

The result presented in Table 3 confirms that board expertise has a positive correlation with real earnings management at 1%. Likewise, board size and firm age are found to have a positive association with real earnings management at 5% significant level. In addition, board meeting is a positive associated with real earnings management at 10%. Whereas, firm leverage have a negative relationship with real earnings management at 5%. Therefore, this means that an increase in board size, board meeting, board expertise and firm age will result to an increase in real earnings management. On the other hand, an increase in firm leverage will leads to a decrease in real earnings management.

In addition, analysis of the result from the correlation as represented in table 3 demonstrate that a positive relationship exist between board meeting, board expertise, firm leverage and board size at 1% significant level. Board meeting is found to have a significant positive relationship with board expertise and firm leverage at 1% significant level. Furthermore, board expertise have a significant positive association with firm leverage at 1% significant level. Similarly, the relationship between board expertise and firm age is significantly positive at 5%. Also, female director is positively correlated with firm age at the significant level of 10%. This indicates that as the proportion of female directors on the board increases lead to an increase of firm age. Therefore, this mean that an increase of female director will result to an increase in firm age on the board.

After running the following diagnostic tests such as multicollinearity test, heteroscedasticity, Ramsey RESET test, Wooldridge test for autocorrelation in panel data. Due to the existence of autocorrelation and heteroscedasticity, the Panel-corrected Standard Error (PCSE) regression is utilised (Wooldridge, 2010) and presented in Table 4.

This study found that there is no relationship between board size and real earnings management with coefficient of 0.005 as depicted in table 4. The result rejects the first hypothesis in this study which states that there is negative relationship between board size and real earnings management. In addition, the outcome shows that there is a significant positive relationship between board meeting and real earnings management (β=0.207, p<0.1). This discovery implies that the more board meetings there is, the higher the level of real earnings management practices. This result is consistent with the findings of some previous studies (for instance, Chandren et al, 2015; Gulzar & Wang, 2011) where they opined that the frequency of higher board meetings provides ineffective monitoring of management behaviour on a board. Therefore, the null hypothesis which states that there is a negative relationship between board meeting and earnings management of the sampled financial institutions in Nigeria is rejected.
In addition, the findings of this study shows that board expertise has significant positive relationship with real earnings management ($\beta=0.0142$, $p<0.05$). This reveals that if board expertise increases by 1 unit, real earnings management will increases by 0.0142. This result basically indicates that the higher the number of board expertise the more possible corporate managers are involved in practice of earnings management. The findings of the study is not in conformity with third hypothesis, hence, it is therefore not supported.

Furthermore, the regression result from Table 4 portrays that female director (FDIR) has negative and significant influence ($\beta= -0.4577$, $p<0.05$) on the real earnings management of listed financial institutions in Nigeria. This findings is consistent with Arun, Almahrog, and Aribi (2015) study in which they found a link between earnings management and presence of woman directors on the board. Interestingly, Gul, Fung, and Jaggi (2009) argued that female directors demonstrate good ethical behaviour in which they obtain voluntary information which may lead to a decrease in information asymmetry, as a result of their adequate knowledge possessed by female directors on real earnings management in Nigerian financial institutions. The outcome supports hypothesis 4 of the study. Which stipulates that there is ethical value differences between male and female directors on the board.

A number of firm- specific control variables included in the study are based on the existing literature (Amran, Ishak, & Abdul Mansif, 2016; Chandren et al., 2015; Kyaw, Olugbode, & Petracci, 2015). Specifically, firm growth shows that there is no relationship with real earnings management at a coefficient of 0.0620. In addition, the result of firm leverage confirms that there is a negative association with real earnings management at 5% significant level. However, Table 4 depicts that there is a positive coefficient of 0.0953 for the profitability result with z-value of 1.38 at the 10% significant level, the result describe the link direction. The outcome in respect of firm age and real earnings management shows that firm age is significantly associated at 1% in explaining real earnings management with coefficient of 0.0142. The result implies that younger firms are less prone to commit real earnings management than older firms.

### 5. Conclusion

The study examines the link between board attributes and earnings management of listed firms in Nigeria. The study provides empirical evidence of board attributes in explaining and predicting real earnings management of the Nigerian listed financial institutions. Thus, the study concludes that female directors play a significant role in mitigating the activities of real earnings management. On the other hand, board expertise and board meeting trigger the problems associated with the real earnings management of the financial institutions in Nigeria, which affect the quality of earnings adversely. It is therefore recommended that regulatory agencies of government (Central Bank of Nigeria (CBN), Securities and Exchange Commission (SEC), Corporate Affairs Commission (CAC), and National Insurances Commission (NAICOM)) in the Nigerian financial sector should make the recent technique of real earnings management known to board members in developed economies in order to play role in constraining corporate managers to act opportunistically in the ordinary course of business activities and preparing financial reports.

Logically, this implies that, there is need for comprehensive research studies on other corporate governance variables (for example, CEO tenure, CEO education level, CEO duality) and real earnings management, particularly in the Nigerian financial institutions. Thus, Nigerian financial institutions face problems with real earnings manipulation by board members for private benefits. Since it has become apparent
that there is limited research in the area of real earnings management and board attributes. More so, it will be interesting for future researchers to look into this promising area of research which otherwise can empirically provide evidence of moderating variable on the established relationship between corporate governance mechanisms and real earnings management.

References

Bibliography