Audit and Board Committee Expertise and Financial Statement Fraud among Listed Oil and Gas Firms in Nigeria

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Abstract
Financial statement fraud is the intentional falsification of financial information in order to defraud investors, creditor or other stakeholders. This study focused on the influence of audit and board committee expertise on financial statement fraud among Oil and Gas firms in Nigeria. The sample consist of seven (7) oil and gas companies listed on the Nigerian stock exchange group (NGX) over a period of 2013-2022, the study used panel regression. Financial statement fraud used as Dependent Variable is measured using the Beneish M-score model, while the independent variable was audit Committee Expertise and Board Committee Expertise using Accounting/Financial background. Findings show that an insignificant association exists between audit committee expertise, the composition of the board and financial statement fraud. This research suggests that regulatory bodies and industry association persist in their efforts to endorse sound corporate governance practices and addressing the challenging associated with board committee expertise.

Keywords: Financial Statement Fraud, Audit Committee Expertise, Board Committee Expertise, Oil and Gas Sector, Nigeria.

1.0 Introduction
Businesses are always under the risk of fraud from different sources as they relate to the firm, the occurrence of fraud has been documented throughout human history is relation to organized entities. Financial statement fraud is the intentional falsification of financial information in order to defraud investors, creditors or other stakeholders, this can be done by both internal and external parties (Carmichael, 2020). This can be empirically attested to by constant collapse of reputable corporations such as Oceanic Bank, Seplat Energy, Mobil, Texaco among others. The practice of malicious act which was inspired by directly or indirectly by top management has triggered this incidence. It is also asserted that corporate fraud is the number one threat to business organizations which is also a reflection of ability (or the lack) of its managers and/or deficiencies in the corporate mechanism (Ashamu, 2014). Whenever this malicious act arises in an organization, it clearly depicts a failure in the existing corporate governance structure guiding its affairs, whereas these structures are in place to help moderate top management excesses. Moreover, fraud relating to financial statement would prompt a decline the market value of the firm and lower its revenue and erode investors’ confidence consequently, affected company would find it difficult to obtain the financial resources needed (Lev, 2003).

However, corporate governance is one of the mechanisms to control fraud that may results in corporate collapse. However, Ojeme (2010) contends that poor corporate governance has prompted contradictions amongst board and management leading to board quarrels, unsuccessful board oversight fake monitoring and self-centered among board members and management staff SEC in 2017 received
petitions from two shareholders who accused Oando of regulatory infraction including corporate governance lapses and mismanagement. Investigating the claim, the SEC sanctioned the group by suspending its AGM in 218 (Alex, 2023).

These issues had created a vacuum that resulted in misappropriation of funds and alteration of financial reports in the interest of the management regardless of the different governance structures and frameworks. Thus, making the subject matter (financial statement nexus corporate governance) in developing economies including Nigeria more-attractive financial statements are supposed to be reliable tools used by investors when making investment decisions and also used by the stakeholders of the company when appraising the financial performance of the firm (Asiriuwa, et al 2018). Based on the above problem, this study scrutinized the influence of Corporate Governance on the financial Statement Fraud in listed oil and gas firms in Nigeria.

2.0 Literature Review and Hypotheses Development
Joy, et al. (2023) examines the corporate governance and financial statement fraud using Beneish M-score using ex post facto research design. The population of the study was nine companies, findings of the analysis indicate that the financial expertise of the board and the presence of an audit committee on the board are influential factors in preventing financial statement fraud, however the study did not find a significant correlation between the board gender diversity and the prevention of financial statement fraud.

Uwuigbe, et al. (2019) examines the association which exists amid financial statement fraud and governance among business organizations in Nigeria. A population of 122 non-financial companies registered on Nigeria stock exchange was limited to 20 firms employing the rule of thumb based on stratified and simple random technique for a period of 2012-2016. The method of data analysis is panel regression. The dependent variable, fraud in the financial statement was measured using the Beneish M-score model while the independent variable was measured using audit committee independence and board structure. Findings show that an insignificant association exist amid audit committee independence, the composition of the board and financial statement fraud.

Mukhibad, et al. (2021) examines the Islamic corporate governance and financial statements fraud: a study of Islamic banks. A population of 11 commercial Islamic banks in Indonesia with the period of observation being from 2015 to 2018. There find that Fraudulent Financial Reporting committed by Islamic banks is unethical behaviour because it produces misinformation for their stakeholders. This means that Financial Statement Fraud can be reduced by enhancing the attributes of each Sharia Supervisory Board such as increasing the ratio of Sharia Supervisory Board’s members with an adequate understanding of accounting, finance and economics, in addition to their understanding of Islamic law, and increasing the number of members of each Sharia Supervisory Board’s (within certain limits) and the number of Sharia Supervisory Board’s meetings.

Uche, et al. (2021) examine corporate governance determinants of financial statement fraud likelihood: Evidence from quoted International licensed Bank in Nigeria, the paper used a sample of eight (8) quoted deposit money banks in Nigeria that possess international operating license to explore corporate governance determinants of financial statement fraud likelihood during the period 2010 to 2018. Corporate governance determinants that were considered in the study include: Board Size, Board Independence and Audit Committee Independence which were also the independent variables while financial statement fraud likelihood (dependent variable) was proxy with Beneish M-score. Major
finding indicates that board independence does indeed curb the likelihood of managers committing fraudulent financial activities.

Aliyu & Ishaq (2015) examined the impact of monitoring characteristics have on the financial reporting quality of oil marketing firms listed on Nigeria Stock Exchange for the period 2000-2011. The research discovered that separation of power, directors’ independence, shareholdings of managers and audit committee independence significantly affect the quality of financial report of firms in the oil marketing in Nigeria. Meanwhile, Muhammad, et al. (2016) explored the consequence of the features of audit committee on the quality of financial disclosure. The selected sample was 101 firms listed on the Nigerian stock exchange between 2010-2014. Multivariate regression was introduced to confirm the relationship. The result showed that the independence of the audit committee, financial knowledge and share ownership significantly influence the quality of financial reporting.

Anichebe, et al. (2019) investigated the nexus between financial statement fraud and corporate governance elements using data collected from firms quoted the agricultural sector of the Nigeria Stock Exchange within the 2013 to 2017 financial years. Longitudinal research design and binary logit regression technique were employed in analyzing the data. The study revealed that about 52% of financial statement fraud likelihood could be attributed to corporate governance variables. Hence, agricultural companies should improve on the effectiveness of their board’s audit committee, as well as on the number of corporate governance members with accounting and or financial knowledge and independence.

Olowookere, et al., (2021) explored the audit committee gender diversity on financial reporting quality from 2009 to 2019, of consumer goods firms that were listed on the Nigerian Stock Exchange. The researchers used diagnostic tests such as heteroskedasticity and multicollinearity, followed by regression analysis using STATA 15 and it indicated that having a diverse audit committee improves the quality of financial reporting. As a result, the findings indicate that audit committee composition be controlled to guarantee gender diversity in order to provide effective oversight roles.

Oyedokun, et al., (2020) their study observes the affiliation among audit committee traits and financial reporting quality of indexed consumer goods firms in Nigeria for 2013 to 2018. The study population was twenty-one (21) firms listed on the Nigerian Stock exchange. Their result display that audit committee expertise and frequency of meeting had positive and vast impact on financial reporting quality, whilst audit committee size and audit committee gender had any vast association with financial reporting quality. The study concluded that audit committee is a veritable device for enhancing financial reporting quality. The study recommended that extra accounting and finance professionals need to be appointed to audit committees of consumer goods agencies in Nigeria.

Udisifan and Akeem (2019) in their work evaluated the influence of the audit committee on financial reporting quality listed companies selected on the Stock Exchange for the period 2009-2018. The study adopted the modified Jones discretionary management model to represent the quality of the financial statements. The results show that audit committee activity and audit committee size have a positive and negative significant influence on the quality of financial information, respectively. This suggests that audit committee members should be encouraged to take up directorships in other companies, as this enhances their ability to improve the quality of their financial statements.
Ibrahim, et al., (2015) investigated the impact of Audit Committee attributes on deterring real activities manipulation of listed manufacturing firms in Nigeria for the period of 2008-2013. The data were extracted from the annual report of Nigeria-listed manufacturers and the residuals of Roychowdhury (2006) was to perform Real Activities Manipulation (RAM). Their result from the analytical output revealed that Audit Committee attributes, especially financial literacy, are effective in limiting RAM, while other Audit Committee characteristics such as independence, meeting and size turns out that the effect of limiting the company's RAM practices is low of the understudy companies.

Nugroho and Diyanty (2022) examine the effect of the audit committee on fraudulent financial statements using logit regression with data on all non-financial companies in Indonesia ranging from 2016 to 2020, which were obtained from annual reports and Thomson Reuters. The study shows that audit committee can minimize the stimulus, opportunity and capability of the manager to make financial statement fraud.

H1: Audit Committee Expertise has no significant effect on financial statement fraud of listed Oil and Gas Firms in Nigeria.

H2: Board Committee Expertise has no significant effect on financial statement fraud of listed Oil and Gas Firms in Nigeria.

Theoretical Review

Agency Theory: The interaction between owners (shareholders) and agents (management) of a corporation is commonly examined within the framework of agency theory. The agency theory was developed by Jensen and Meckling in 1976. It offers insights into potential interest conflicts between the two parties as well as the strategies employed to align their interests. Several important factors are at play when applying agency theory to corporate governance and financial statement fraud (Ali, 2020). One of the major problems that agency theory attempts to solve is the knowledge gap between shareholders and management. In order to make prudent decisions, shareholders rely on the financial statements created by management. Financial statement fraud can, however, result from the manipulation or misrepresentation of this information (Panda & Leepsa, 2017). Additionally, corporate governance practices are essential in reducing agency issues. The board of directors serves as the main regulating the management's operations on behalf of the shareholders. By providing supervision, holding management accountable and balancing their interests with those of shareholders, effective corporate governance structures and procedures can lessen the possibility of financial statement fraud (Hasnan, et al. 2020).

Resource Dependence Theory: Resource dependence theory assumes that board of directors is resource to the firm. This means boards are seen as a link between the firm and the essential resource that a firm needs from the external environment for high or quality performance. Therefore, bring in an outsider as a resource person to the board helps in gaining access to resources provided for the firm success (Johnson, et al., 1996). Therefore, the board of directors is seen as a corporate mechanism whereby a firm links with its external environment to secure the resources and to protect itself against environmental uncertainty as well as protect the interest of shareholders.

3.0 Methodology

For the purpose of this study, the research design to be adopted is the longitudinal research and panel design. The choice for longitudinal research design was because the study is reporting on what is already in existence while the time series research techniques is also considered appropriate because the data
used in this study was obtained from specific period of time. The population for the study consists of the 9 listed Oil and Gas firms on the Nigerian Stock Exchange as at 2023 which are as follow. The sample size use in the research work which was collected from the Nigerian Stock Exchange Group are nine (9) sample sizes in Oil and Gas Sector within Nigeria. For the purpose of this study, data was obtained from the audited annual report/financial statements of Oil and Gas firms covering a period of ten (10) years was used. Secondary method of data collection was adopted.

**Model of M-Score as Dependent Variable**

\[
\text{M-Score} = -4.82 + 0.92 \cdot \text{DSRI} + 0.528 \cdot \text{GMAI} + 0.404 \cdot \text{AQI} + 0.892 \cdot \text{SGI} + 0.115 \cdot \text{DEPI} - 0.172 \cdot \text{SGAI} + 4.679 \cdot \text{TATA} - 0.327 \cdot \text{LVGI}.
\]

**Model of Specification**

\[
\text{FSF}_it = \beta_0 + \beta_1 (\text{ACE}_i) + \beta_2 (\text{BCE}_i) + \beta_3 (\text{LEV}_i) + \beta_4 (\text{FS}_i) + \epsilon_t
\]

Where:
- FSF = M-score
- \(\beta\) = Beta factors
- ACE = Audit Committee Expertise
- BCE = Board Committee Expertise
- LEV = Leverage
- FS = Firm Size
- \(\epsilon_t\) = Error term
- \(\beta_1, \beta_2, \beta_3\) and \(\beta_4\) = coefficient

**Measurement of the Independent, Dependent and Control Variables**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Measurement</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent Variable</td>
<td>This study used Beneish M score model M-score= -4.82+0.92<em>DSRI+0.528</em>GMAI+0.404<em>AQI+0.892</em>SGI+0.115<em>DEPI-0.172</em>SGAI+4.679<em>TATA-0.327</em>LVGI</td>
<td>Santosa (2019)</td>
</tr>
<tr>
<td>Independent Variables</td>
<td>This study used number of members with accounting or Finance background in the board of audit committee as used by Dewayanto et al., (2017); Shatnawis, et al. (2019).</td>
<td>Dewayanto et al., (2017); Shatnawis, et al. (2019).</td>
</tr>
<tr>
<td>BCE</td>
<td>This study used number of members with accounting or Finance background in the board of directors as used by Appah &amp; Tebepah (2020), Kee (2015)</td>
<td>Appah &amp; Tebepah (2020), Kee (2015);</td>
</tr>
<tr>
<td>Control Variables</td>
<td>This study use Total debt divided by total asset of the company as used by Khamainy et al (2022)</td>
<td>Khamainy et al (2022)</td>
</tr>
</tbody>
</table>

**Source:** Authors computation (2023).

[https://doi.org/10.33003/fujafr-2024.v2i2.96.95-104](https://doi.org/10.33003/fujafr-2024.v2i2.96.95-104)
4.0 Results and Discussion
The study also used longitudinal/panel data from the listed Nigerian financial service firms. The data is balanced and the data where all cross section that have equal observation over the time period, this is because the data was sourced from oil and gas service firms for a period of ten (10) years from 2013 to 2022. The data has been screened to ensure that it is free from material errors and missing data. This is because the quality and meaningful estimate of analysis depend on the quality of the data itself. To further ensure balanced panel data, the gathered data was entered into STATA14 software using the excel file and a descriptive statistic was run check missing values.

Descriptive Statistics
The descriptive statistic in Table 1 displays the mean, standard deviation, maximum and minimum values for the explanatory and explained variables.

Table 2: Result of Descriptive Analysis

<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>mscore</td>
<td>70</td>
<td>-1.802</td>
<td>3.565</td>
<td>-23.211</td>
<td>9.136</td>
</tr>
<tr>
<td>ace</td>
<td>70</td>
<td>4.842</td>
<td>0.878</td>
<td>2.000</td>
<td>6.000</td>
</tr>
<tr>
<td>bce</td>
<td>70</td>
<td>5.257</td>
<td>1.839</td>
<td>2.000</td>
<td>16.000</td>
</tr>
<tr>
<td>leverage</td>
<td>70</td>
<td>6.157</td>
<td>21.858</td>
<td>0.000</td>
<td>149.000</td>
</tr>
<tr>
<td>logfs</td>
<td>70</td>
<td>7.228</td>
<td>0.870</td>
<td>6.000</td>
<td>8.000</td>
</tr>
</tbody>
</table>

Source: Author’s Computation using Stata14 Output, (2023).

Table 1 shows the descriptive statistics of independent variables of this study. Audit Committee Expertise (ACE) was measure by the number of audit committee expertise on the total number of the board. The mean value was 4.842 which indicates on average that there are five (5) members within the year while the minimum value of two (2) and a maximum value of six (6). This indicate that 20% of the board of the simple size are accounting/finance related course.

Board Committee Expertise (BCE) was measure by the number of board expertise which has accounting/finance qualification as their first degree. The mean value of 5.257 which indicates that there are five (5) board committee expertise within the year while minimum value of two (2) and a maximum value of sixteen (16). This implies that the lowest number of BCE in the firms within the study period was two (2) BCE while the maximum number of BCE was sixteen (16). Moreover, this implies that the committee within the board should have 12.5% of members with accounting/finance background within the committee.

Correlation Analysis
The correlation matrix on table 2 shows the nature of the relationship between the dependent and independent variables (ACE, BCE, Leverage, Firm size and M-score) of the study as well as the relationship among the independent variables. The Person’s correlation analysis was performed to measure the direction and strength between different variables. The results are shown in Table 3.
Table 3: Correlation matrix

<table>
<thead>
<tr>
<th></th>
<th>mscore</th>
<th>ace</th>
<th>bce</th>
<th>leverage</th>
<th>logfs</th>
</tr>
</thead>
<tbody>
<tr>
<td>mscore</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ace</td>
<td>0.059</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>bce</td>
<td>-0.134</td>
<td>-0.145</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>leverage</td>
<td>0.274</td>
<td>0.176</td>
<td>0.020</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>logfs</td>
<td>-0.104</td>
<td>-0.387</td>
<td>-0.136</td>
<td>0.004</td>
<td>1.000</td>
</tr>
</tbody>
</table>

Source: Author’s Computation using Stata14 Output, (2023)

It should be noted that the value of correlation coefficient ranges from 1.0 to -1.0. The coefficient 1.0 on the matrix (diagonal) indicates that a variable has a perfect, strong and positive linear relationship with itself while -1.0 indicates the presence of a perfect, strong and negative correlation. However, correlation coefficient value that lies between 1.0 and -1.0 depicts a moderate relationship and a weak relationship. In other words, r>0 depicts a positive relationship r<0 shows a negative relationship while r= 0 indicates no relationship at all.

From Table 3. Score has a strong and positive correlation with ACE (r=0.0594, P<0.1), which means with the increase of M-Score the ACE will also increase. The M-Score has a negative and strong relationship with BCE (r= -0.1349, P<0.1), which indicate that M-Score increase will result in increase in the BCE.

Regression

Table 4 display the regression result for the independent variable Audit Committee Expertise and Board Committee Expertise. Control variables which include Leverage and Firm size. The number of observations in the result is seventy (70).

Table 4: Regression Results

|       | Coef. | Std. Err. | z     | P>|z|  | VIF  | 1/VIF |
|-------|-------|-----------|-------|------|------|-------|
| ace   | -0.185| 0.549     | -0.340| 0.737| 1.59 | 0.627067 |
| bce   | -0.730| 0.270     | -2.700| 0.007| 1.69 | 0.592187 |
| lev   | 0.052 | 0.019     | 2.780 | 0.005| 1.13 | 0.884788 |
| logfs | -0.010| 0.531     | -0.760| 0.450| 1.46 | 0.683422 |
| _cons | -3.964| 6.802     | -0.580| 0.560| 1.47 |       |

Source: Authors Computation using Stata14 output (2023).

From the Table 4. the coefficient of Audit committee expertise shows -0.1847 which indicate that it is negative while the P value is 0.737 which is insignificant and rejected the null hypothesis H01. Board committee expertise shows -0.729 which indicate that the result is negative while the P value of 0.007 which indicate that the P value is significant to the financial statement fraud and accept the null hypothesis H02.

On the other hand, the test of Variance Inflation Factor (VIF) was conducted to examine the presence or otherwise of multicollinearity between and among the independent variables. Table 4 shows that the data for all the independent variables is 1.47. in each case, VIF is less than 4 and tolerance level is less than 1 respectively, showing that there was absence of perfect multicollinearity among the independent variables.
The regression result on the relationship between the dependent variable (Financial Statement Fraud) and independent variables (audit committee expertise and board committee expertise) is presented in this section. The research uses the Beneish Mscore to present the models result. The result of hausman test showed significant result (chi2 value of 2.79 and Prob>chi2 of 0.0039), suggesting that the fixed effect regression is the best model.

Table 5: Regression Hausman Result

|     | Coef. | Std. Err. | z     | P>|z| |
|-----|-------|-----------|-------|-----|
| ace | -0.185| 0.549     | -0.34 | 0.737|
| bce | 0.730 | 0.270     | 2.70  | 0.007|
| lev | 0.053 | 0.019     | 2.78  | 0.005|
| logfs | -0.401 | 0.531 | -0.76 | 0.450|
| _cons | -3.964 | 6.802 | -0.58 | 0.560|
| haus-Chi² | 2.79 |       |       |      |
| P-Value | 0.9035 |       |       |      |
| R-Square | 0.1957 |       |       |      |
| Wald Chi² | 20.89 |       |       |      |
| Prob | 0.0039 |       |       |      |

**Source:** Authors computation using Stata14 output (2023).

From Table 5. The coefficient the coefficient of Audit committee expertise -0.184 is negative while the P Value 0.737 which indicates that the result is insignificant and the hypothesis one should be rejected. That means that number of audit committee expertise need not affect the financial statement fraud of oil and gas firms in Nigeria, this discovery aligns with the research conducted by Uwuigbe, el al. (2019). Board Committee Expertise shows a coefficient of 0.729 which indicate a positive while the P value indicate 0.007 which is significant. The result is positive and significant to the Mscore within the contest. The result indicates that an increase in the number of board expertise will help to combat financial statement fraud which would lead to increase of financial statement fraud. This discovery aligns with the research conducted by Subair, et al. (2020).

5.0 Conclusion and Recommendations

Based on the result of the study, Audit committee expertise does not significantly influence financial statement fraud for the listed oil and gas firms in Nigeria. This means that number of audit committee expertise need not affect the financial statement fraud of oil and gas firms in Nigeria. Board committee expertise has a positive significant to financial statement fraud of listed oil and gas firms in Nigeria. This means that the number of board committee expertise with accounting/finance background may increase financial statement fraud. in a timely manner and help the organization to address queries of financial misconduct within a short period of time frame.

The study recommends that firms should also improve Board Committee Expertise with accounting/finance background on the board will improve the financial statement from fraud within the firm. Board committee that consists of members with financial knowledge reduces the mesmerizing of the financial statement.

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