# Board Effectiveness and Annual Report Readability of Listed Non-Financial Firms in Nigeria

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## Abstract

This study examined the effect of board effectiveness and annual report readability of listed nonfinancial firms in Nigeria. Particularly, this study obtained data from listed non-financial firms in Nigeria from 2013 to 2022. The total population of this study was 109 non-financial firms listed in Nigeria. The study used the simple filtering technique to select the sample size of 72 firms selected based on certain selection criteria. A panel regression analysis was employed to analyse data extracted from annual report. The findings of the study showed that, board effectiveness when measured in terms of board size showed [coef. = 0.233 (0.000)] and board meeting [coef. = 2.009(0.000)] had a significant positive effect on the FOG index, and board gender diversity [coef. =-0.001 (0.927) had a negative effect on the FOG index, there was positive effect of board effectiveness and annual report readability of listed non-financial firms in Nigeria with the application of hausman test with the result of 20.62(0.005). Hence, the null hypothesis that board effectiveness has no significant effect on the annual report readability of listed non-financial firms in study area was rejected. It was recommended that an effective board significantly increases annual report readability thorough effective board monitoring and ensuring that the objective of the firms was protected and adequate information are disclosed. Furthermore, decision makers should pay more attention to the diligence of the board and the independent directors, given that they have an effective role in monitoring the financial reports and increasing annual report readability.

Keywords: Board Effectiveness, Readability and Annual Report

## 1.0 Introduction

An effective board monitors and ensures that adequate disclosures are being maintained for greater transparency and reliability of the financial report. The efficacy of monitoring by an effective board is to improve disclosure quality (Etuk & Akpan 2023). An effective board may not necessarily encourage greater disclosure as managers may obfuscate information to avoid costly board monitoring. The size of a board is an indicator of the number of board members. A small board may have difficulty resisting management and dealing with various risk. However, the

number of board serving in a board is relevant to the outcome of board's decision. Corporate governance being a set of relationships involving shareholders, board of directors, other stakeholders and management provides the necessary structure for setting the objectives in determing ways through which these objectives would be achieved. An effective corporate governance ensures that, the board of directors and executive management continually pursue its goal that are in the interest of shareholders (Boolaky, Omoteso & Ayeni 2018). For governance to be effective and good performance recorded, the following attributes of corporate governance should be attended to: board effectiveness, though board size, board meeting and gender diversity. However, the failure of several high profile businesses such as Enron and other brought to light the nature, content and context of annual reports of listed firms which are supposed to be avenue for companies to make a comprehensive disclosure about their activities. This calls for the widening of annual report disclosures which should help to bridge the gap between the information available to directors and the information available to shareholders, the core layer of corporate governance mechanism (Noor & Norraidah 2021). Good corporate governance will lead to an increase in the quality of disclosure through the controlling role performed by corporate governance practices. An effective board of directors and executive management continually pursue objectives that are in the interest of the shareholders and other stakeholders and facilitates effective monitoring of those charged with governance of any firms. Public companies are obliged to publish their annual reports so that end users can utilize it in the context of decision-making. In the average annual report, narrative information represents a major part of the disclosure, with an average of 80% compared to the rest of the report, consisting of numbers and representation of quantitative disclosure (Lo, Ramos & Rogo, 2017). In preparing the annual report, including the financial statements and its accompanying notes, and the management discussion and analysis managers have discretion on the language and writing style in their narratives over which context are to be emphasized (Loughran & McDonald, 2014). Li (2018) stated that unstructured textual narratives in annual reports exhibit irregularities, ambiguities and managerial opportunism.

In accounting and financial reporting, financial reporting's readability has recently attracted capital market legislators' attention. Readability is a critical measure to assess the transparency of qualitative information. Lower readability often associated with complex, lengthy, or verbose expressions, making it hard for readers to extract information in financial documents (Bloomfield, 2022). Therefore, readability plays a crucial role in the communication process between management and stakeholders. According to signaling theory, companies may use the readability of narrative disclosures to signal a specific situation by concealing undesirable events that may have an impact on their competitive position.

One consequence of the improvements in the information disclosure systems of capital markets is that the information disclosed in annual reports includes many professional terms and specific notes and also much non-financial information, which makes them increasingly complicated and hard to understand in listed companies, particularly those in Nigeria. One major trend is that the length of corporate annual reports is increasing, and thus the readability of these reports has become an intractable problem, particularly considering the current explosion in the volume of information and shallow network reading. The economic consequences of annual report readability have therefore attracted the attention of scholars and regulators alike. Many studies such as

Ertugrul, et al., (2017); Kim et al., (2017), Lang and Stice-Lawrence, (2015); Lawrence, (2023); Li, (2018); Rennekamp, (2022) found that annual report readability can affect the quality of resulting information.

However, most of these studies such as Ertugrul et al., (2017) and Kim et al., (2017) were based in the context of the U.S. and/or other English-speaking countries, and a few have explored the economic consequences of annual report readability in the African region. Previous studies focused on the direct effects of annual report readability and corporate governance, using board effectiveness mechanisms as corporate governance, using observations of 3 to 7 years of result from such studies are not good enough for generalization. The question then emerges of whether and how annual report readability plays a role in board effectiveness, but few studies, if any, investigate this issue. This study therefore, addresses the research gap by firstly examining the effect of board effectiveness on annual report readability. Secondly, a panel regression technique of within effect estimator that is capable of capturing the heterogeneity effect present in the firm and countries will be employed. Thirdly, larger firms' observation over 10 years will be used unlike previous studies of (Abdullah, et al., 2019; Umoren, et al., 2018; Ahmed et al., 2018). Therefore, this study addresses board effectiveness (board size, board meetings and board gender diversity) and annual report readability of listed non-financial firms in Nigeria.

The hypothesis of the study is that Board effectiveness has no significant effect on the annual report readability of listed non-financial firms in Nigeria.

# 2.0 Conceptual Issues

**Board effectiveness:** Board attributes have been considered an important concept that enhances board effectiveness in terms of good governance and has attracted both scholarly and corporate attention. Board characteristics entail the heterogeneity of board members based on different dimensions which are to the advantage of the firms (Etuk & Akpan, 2023; Rao & Tilt, 2016). It enhances the effectiveness of the board relating to corporate leadership, thereby enhancing the performance of companies (Chairunesia & Bintara 2019; Arieftiara & Utama 2018). In this study board effectiveness would be proxied by board size, board meetings and gender diversity.

**Board Size:** Cao,et al., (2021) opined that the firms performance may be negatively or positively correlated by the board size of an organization. Board size has to do with the number of independent directors excluding the company secretary in a given period. There is no consensus across countries and corporate governance codes as to the number of persons to sit at the board of any company.

**Board meetings:** This has to do with formal gathering of a board to discuss strategic decisions, policies of any organization. It's a period where board members interact and make proactive discussions on potential risk and uncertainties of the organization. As an attribute of board effectiveness decisions taken here determines the way forward of a good organization, by providing strategic direction an ensuring that it complies with relevant laws and regulations (Noor & Norraidah 2021).

**Board gender diversity:** According to Dobbin and Jung (2011), the concept of gender diversity refers to variety of skills and characteristics in a male and a female that could bring benefits to an organization. Rose (2007) defined the concept of gender diversity as the nature and degree of heterogeneity that involves a gender-specific majority and minority which characterizes a work team. Olufemi (2021) opined that the concept of gender diversity is mostly considered as a work team where it is characterized by a female minority or a male majority. Gender diversity in the boardroom enables the board to function effectively in the organization which could eventually influence the performance of the organization. Sun et al., (2023) pointed out that gender diversity in the boardroom tend to increase board independence as female director have more tendencies to ask questions, perform better financially than that would not have been done by the male directors. Board gender diversity shall be measured based on percentage of female directors to total board members.

Annual report readability: According to Hasan and Habib (2023) and Goswami et al., (2023), readability refers to a combination of various factors involving interest, legibility and ease of understanding for readers. You and Zhang (2019) argued that readability refers to the level of reading difficulty of an article. Readers can generate interest from readable articles and vice versa. In addition to the application of the text analysis method in corporate finance, recent empirical studies use large sample data to investigate the economic consequences of annual report readability (Loughran & McDonald, 2014). Readability is a notion that is utilized in many fields, including linguistics, healthcare, accounting, economics and law; nevertheless, there is no single and specific definition of readability. Some authors employ writing style, coherence, and report organization to determine readability (Klare, 2019). Some authors use the report's target readers to choose the writing style and vocabulary. Others believe that readability necessitates a combination of factors ranging from writing styles to vocabulary and authors (Dubay, 2017). The definition of Loughran and McDonald (2014) is highly valued by the research since it focuses on the business environment, which has identified users with adequate business knowledge.

**Measuring Annual Report Readability:** Readability assessment research has developed several methods for measuring readability. Some of the most popular methods for assessing readability include the Cloze procedure, the Gunning's Fox Index, The Flesch-Kincaid Grade Level, and the Flesch Reading Ease (FRE) formula. In this study, we employed the FOG index, explained here as follows.

FOG index: The Fog Index, developed by Robert Gunning (1952), is a well-known and simple formula for measuring readability. Assuming that the text is well-written and logical, it captures text complexity as a function of syllables per word and words per sentence. The index indicated the number of years of formal education a reader of average intelligence would need to read the text once and understand the piece of writing with its word-sentence workload. The Gunning's Fog Index (Gunning, 1952) is one of the methods that focuses on the syntactical complexity of the passage and requires that the researcher count words containing three or more syllables, referred to as "hard words." The formula determines the grade level of the passage based on a formula using the percentage of "hard words" and the average sentence length. The fog index is a measure

of the readability of a text, based on the average number of words per sentence and the percentage of complex words (those with three or more syllables).

Board effectiveness and annual report readability: In the light of agency theory, scholars suggest that greater board gender diversity enhances the controlling and monitoring of managers, aligning principals' and agents' interests (Amrah & Obaid 2019). To explicate why female directors are beneficial for the corporate governance system, scholars emphasize that female directors are diligent in attending more board meetings (Velte 2018a) and are more likely to be less assertive and more risk-averse. In addition, the literature highlights that women show stronger leadership and are more inclined to ask questions and demonstrate stricter ethical values (Ahmed & Bahamman 2018). Consistent with these arguments, Gul et al., (2011) claim that female board members tend to reinforce the mechanisms of corporate governance, especially for firms with a poor governance system. Lo et al., (2017) reported that gender diversity on the board is associated with higher earning quality. In addition, Dogan and Yildiz (2013) reveal that female board presence is associated with a lower incidence of financial restatement, and that female CEOs are positively associated with conservative earnings. Recent studies support these beneficial effects, revealing that independent female directors on audit committee positively affect the financial reporting quality and that firms managed by female CEOs have fewer volatile earnings (Velte 2018).

# **Empirical Literature**

Gangadharan and Padmakumari (2023) investigated the relationship between the comprehensibility of a firm's annual report and its stock return synchronicity in the Indian market. The study employed the readability of annual reports as a measure for the cost of information processing. The findings suggested that firms with more readable annual reports tend to display higher stock return synchronicity. This relationship implied that more legible financial disclosures are associated with more efficient and transparent capital markets.

Etuk and Akpan (2023) examined corporate governance mechanisms and annual report readability of listed Oil and Gas firms in Nigeria from 2012-2021. They study used audit frim type, board size and ownership structure as corporate governance mechanism and annual report readability was proxied using annual report page length. The result showed that board size had a significant effect on annual report readability while audit firm type and ownership concentration had an insignificant effect on annual report readability.

Phuong and Huong (2022) investigated whether longer annual reports are more difficult to read in United State America. Using a sample of 20-F forms published by foreign firms listed on US stock exchanges, they discover a significantly negative relationship between annual report length and readability. According to this finding, longer annual reports were not less readable. The main reason for longer but more readable annual reports was a shift in writing styles toward shorter sentences, which complied with US Securities and Exchange Commission (SEC) disclosure regulations.

Ezat (2019) investigated the impact of corporate governance structure on the readability of Egyptian board of directors' reports in Egypt. The sample included all EGX100 companies listed

from 2013 to 2015, and the study used multiple regression analysis to test the main hypotheses. Readability level was measured by applying the LIX formula, which suits the Egyptian context. The results demonstrated that board reports for EGX100 companies were complex and hard to read.

Velte (2018) investigated the relationship between the percentage of women on audit committees (WOAC) in UK firms and auditors' disclosures on key audit matters (KAM) from 2014 to 2015. The study conducted in Europe showed that firms with a higher percentage of WOAC have higher readability of KAM disclosures as measured by the Flesch reading ease index. By modifying their dependent and independent variables, sensitivity tests (Blau index and Fog readability index) also corroborate the expectation that WOAC will lead to greater readability of KAM disclosures, with stricter monitoring activities and greater risk avoidance in the audit committee.

Efretuei (2015) specifically investigated what determined the syntactical complexity of narratives in annual reports by assessing if the experience of the board plays a role in annual report complexity in Nigeria. The study focused on board experience due to the role of the board in governing corporate communications to investors. The study assessed the syntactical complexity of annual report narratives using linguistic features of textual communication, which measure the level of reading difficulty and the tone of communication in annual reports, following the FRC's identification of obscurity and imbalance in communication as the causes of complexity in annual reports. The main findings of the study indicated that the experience of the board determines the level of syntactical complexity of annual report narratives, consistent with the view that the composition of the board affects the integrity of the financial reporting process.

#### 3.0 METHODOLOGY

Longitudinal research design was employed in this study since the study was to determine the cause and effect relationship between the independent and dependent variables with a view to establishing a causal effect of board effectiveness on annual report readability of listed non-financial firms in Nigeria. The study employed a panel data set which follows the population of interest over an extended time period of 2013-2022 since it was concerned with measuring change over time for the units of analysis within the population. The population of the study consisted of all listed non-financial firms. As at December 2022, 109 non-financial firms listed on the floor of the Nigerian Exchange Group (NGX). Particularly, this study drew data from listed non-financial firms in Nigeria from 2013 to 2022. The period was chosen based on the need to cover a wide range of observations unlike previous studies that used short period of time (Less than 10 years).

The study used the simple filtering technique to select the sample since firms that are included in the sample were based on certain selection criteria. These criteria included firms listed on the Nigerian Exchange Group for 2013-2022; for which access to their annual financial reports were obtained within the period and not firms operating subsidiaries in Nigeria. Newly listed firms and delisted firms were excluded from the study. Thus, only non-financial firms with all relevant data due to continuous existence were included in the sample. The final sample size consisted of 72 non-financial firms as indicated in Table 3.1. This study employed secondary data collection

techniques. Secondary data collection is the gathering of information already researched and presented by other scholars or data obtained from other sources. However, data for the study were extracted from; audited annual reports of public quoted firms in the Nigerian exchange groups.

**Table: 3.1** Sample size representation

| S/<br>N | Industry               | Populati<br>on Size | Newly<br>listed firms<br>after 2013 | Suspen<br>ded<br>Firms<br>(Inactiv<br>e) | Final Sample<br>Size |
|---------|------------------------|---------------------|-------------------------------------|--|----------------------|
| 1       | Healthcare             | 10                  | 3                                   | 3  | 4                    |
| 2       | Energy                 | 10                  | 2                                   | 0  | 8                    |
| 3       | Industrial             | 32                  | 3                                   | 9  | 20                   |
| 4       | Consumer<br>Stapples   | 23                  | 3                                   | 3  | 17                   |
| 5       | Consumer Discretionary | 8                   | 0                                   | 3  | 5                    |
| 6       | Information Technology | 7                   | 0                                   | 1  | 6                    |
| 7       | Basic Material         | 10                  | 0                                   | 1  | 9                    |
| 8       | Communication          | 4                   | 2                                   | 1  | 1                    |
| 9       | Real Estate            | 5                   | 1                                   | 2  | 2                    |
|         | Total                  | 109                 | 14                                  | 23                                       | 72                   |

Source: Researcher's Compilation, (2023)

In order to test the hypotheses formulated in the study and to achieve the objectives of the research, the study adopted and modified the model of Xua et al.,(2018). Hence, the model specification of the study was expressed as;

$$FOGI_{it} = \beta_0 + \beta_1 BODS_{it} + \beta_2 BMET_{it} + \beta_3 BGEN_{it} + \beta_5 FSIZ_{it} + \mu_{it} \dots (3.1)$$

Equation 3.1 above expressed the fog index being a measure of annual report readability as a function of board effectiveness. Specifically, board effectiveness was measured in terms of board size (BODS), board meeting (BMET), and board gender diversity (BGEN). Where:

FOG Index **FOGI** board size **BODS BMET** board meeting = board gender diversity **BGEN FSIZ** Firm Size  $\beta_1$ -  $\beta_4$ Slope Coefficient Stochastic disturbance μ i<sup>th</sup> firm and t = time period

Table 3.1: Variable measurement

| lable 3.1: val      | riadie measurement   |                  |                                  |
|---------------------|--|------------------|----------------------------------|
| Variables           | Measurements   | Source           | Literature                       |
| Annual Repor        | t FOG Index  | Annual           | Xua, Fernando, and Tam           |
| Readability         |  | Report           | (2018)                           |
| Board Effectiveness | computed as the total numbers of all directors of a company including the Chairman +Vice Chairman +CEO/Managing director + Executive Directors +Non-Executive Directors or Independent Directors but excluding the company secretary.  2. Board meetings: Board Meetings in numbers was the number of times the board of directors held its meeting in a year.  3. Board Gender Diversity: Board Diversity in percentage was computed as the female directors to total board size. | Annual<br>Report | Samaha,Khlif<br>&Hussainey(2015) |
| Eima Cina           | Control variable   | A                | Hasan & Habib (2022)             |
| Firm Size           | Firm size was measured as the natural  | Annual           | Hasan & Habib (2023)             |
|                     | logarithm of total asset   | Report           |                                  |

Source: Authors (2023)

## 4.0 RESULTS AND DISCUSSIONS

The results and discussions of the study are presented employing descriptive statistics, correlation and regression analysis

Table 4.1: Descriptive Statistics

| Variables      | Obs | Mean   | Std. D | ev.  | Min | Max |
|----------------|-----|--------|--------|------|-----|-----|
| Nigeria Sample |     |        |        |      |     |     |
| Fogi           | 720 | 6.204  | 4.96   | 5    | 50  |     |
| Bods           | 720 | 8.953  | 2.825  | 3    | 20  |     |
| Bgen           | 720 | 14.104 | 13.124 | 0    | 75  |     |
| Bmet           | 720 | 4.749  | 1.4    | 1    | 15  |     |
| Fsiz           | 720 | 7.171  | .87    | 5.24 | 9.4 | 5   |

Source: Author's Computation (2023)

Table 4.1 is a summary of the descriptive statistic for the study. The results showed that the mean of annual report readability when measured in terms of FOG index (FOGI) for the listed non-finance firms in 6.204 for the under studied firms in Nigeria. The result indicated that on the average, the annual report of the firms under studied was difficult to read showing a childish report with readability rate range of 8 to 9. In the case of the independent variables, the results showed that the mean of board size (BODS) was 8.953. The result also showed that the mean of board gender diversity (BOGD) was 14.104. In terms of board meeting (BMET), the result showed that the mean of board meeting of listed non-finance firms was 4.749. In the case of the control variable of firm size (FSIZ), the result showed that the size of asset base was 7.171.

**Table 4.2: Data Normality Test** 

| tubic iizi butu i | or maney rest |              |         |         |        |
|-------------------|---------------|--------------|---------|---------|--------|
| Variable          | Obs           | $\mathbf{W}$ | ${f V}$ | ${f Z}$ | Prob>z |
| fogi              | 720           | 0.627        | 176.582 | 12.645  | 0.000  |
| Bods              | 720           | 0.966        | 16.009  | 6.778   | 0.000  |
| Bgen              | 720           | 0.975        | 11.881  | 6.049   | 0.000  |
| bmet              | 720           | 0.896        | 49.096  | 9.517   | 0.000  |
| fsiz              | 720           | 0.987        | 6.126   | 4.430   | 0.000  |

Source: Author's Computation (2023)

Table 4.2 showed that the dependent variable of annual report readability was measured in terms of FOG index has a z-statistics from the Shapiro-Wilk test as 16.909 with a Probability of Z-statistics as 0.000 for the combined sample. FOG index had a z-statistics from the Shapiro-Wilk test as 12.645 with a Probability of Z-statistics as 0.000. The result implies that, the dependent variable of annual report readability when measured in terms of FOG index was not normally distributed across all the study samples since the probability of the z-statistics as shown in Table 4.2 were significant at 1% level. Board size had a z-statistics from the Shapiro-Wilk test as 6.778

with a Probability of Z-statistics as 0.000. Board gender diversity had a z-statistics from the Shapiro-Wilk test as 6.049 with a Probability of Z-statistics as 0.000. The result indicated that the board gender diversity was not normally distributed across all the study samples since the probability of the z-statistics as seen in Table 4.2 was significant at 1% level.

Board meeting had a z-statistics from the Shapiro-Wilk test as 9.517 with a Probability of Z-statistics as 0.000. The result indicated that the board meeting was not normally distributed across all the study samples since the probability of the z-statistics as seen in Table 4.2 was significant at 1% level. It was found that firm size has a z-statistics from the Shapiro-Wilk test as as 4.430 with a Probability of Z-statistics as 0.000.

**Table 4.3: Correlation Analyses** 

| Variable s   | (1)            | (2) | (3)                     | (4)            | (5)   |
|--|----------------|-----|-------------------------|----------------|-------|
| (1) Fogi<br>(2) bods<br>(3) bgen<br>(4) bmet<br>(5) fsiz | 0.209<br>0.085 |     | 1.000<br>0.220<br>0.213 | 1.000<br>0.206 | 1.000 |

Source: Author's Computation (2023)

In the case of the correlation between the independent and dependent variables in this study, the result from Table 4.3 showed that board size had a positive association with the dependent variable of annual report readability when measured in terms of FOG index across all the samples during the period. Specifically, the result showed that FOG index was positively associated with the independent variable of board size (0.207). Furthermore, the result showed that FOG index had a negative association with the independent variable of board gender diversity (-0.085). The result showed that FOG index was positively associated with the independent variable of board meeting (0.055). In the case of the control variable, it was found that while FOG index was positively associated with the control variable of firm size (0.381)

| Table 4 | .4: | Regression | Result |
|---------|-----|------------|--------|
|---------|-----|------------|--------|

| Table 4.4: Keg | ression Result | •          |              |
|----------------|----------------|------------|--------------|
| Variables      | FOGI Model     | FOGI Model | FOGI Model   |
|                | (Pool OLS)     | (Fixed     | (Random      |
|                |                | Effect)    | Effect)      |
| CONS           | -7.289         | 4.797      | -0.421       |
|                | {0.106}        | {0.139}    | {0.885}      |
| BONS           | 0.327          | 2.224      | 0.233        |
|                | {0.000}***     | {0.000}*** | {0.000}***   |
| DOEN           | 0.070          | 0.004      | 0.001        |
| BGEN           | -0.070         | 0.004      | -0.001       |
|                | {0.000} ***    | {0.614}    | {0.927}      |
| BMET           | -0.258         | 0.017      | 2.009        |
|                | {0.033} **     | {0.768}    | {0.000}***   |
| FSIZ           | 2.084          | -0.014     | 0.742        |
|                | {0.000} ***    | {0.972}    | {0.032} **   |
| N              | 730            | 730        | 730          |
| F-stat/wald st | 25.58          | 6.39       | 74.18        |
|                | (0.0000)       | (0.0000)   | (0.0000)     |
| R- Squared     | 0.2624         | 0.0899     | 0.0848       |
| VIF            | 1.31           | -          | -            |
| Hettest.       | 1402.79        | -          | -            |
|                | $\{0.0000\}$   |            |              |
| Hausman        |                |            | 20.62(0.005) |
| test           |                |            |              |

Note: bracket {} are p-values, \*\*, \*\*\*, implies statistical significance at 5% and 10% levels Table 4.4 indicated that the pool OLS regression had an R-squared value of 0.2624. This implies that the independent variables of the study were explained only by 26% of the systematic change in the dependent variable of annual report readability when measured in terms of FOG index during the period under study. However, the unexplained part of annual report readability when measured in terms of FOG index was captured by the error term. The results obtained from the mean VIF of the regression models was 1.31. the result from the panel fixed effect showed an F-statistics value of 6.39. The probability value of 0.0000 indicated that on the overall, the fixed effect regression model was fitted for statistical inference. Also, the result indicated that the fixed effect regression had an R-squared value of 0.0899. This implies that the independent variables of the study were explained by only 9% of the systematic change in the dependent variable of annual report readability when measured in terms of FOG index during the period under study.

The Hausman test was based on the null hypothesis that the random effect model was preferred to the fixed effect model. the p-value of the Hausman test of 20.62 [0.005] indicated a significance at 5% level of significance. This implied that the study adopted the random effect panel regression results in drawing the conclusion and recommendations. This also implied that the random effect

results tend to be more appealing statistically when compared to the fixed effect. Hence, the null hypothesis that board effectiveness has no significant effect on the annual report readability of listed non-financial firms in Nigeria is rejected.

## **Discussions of Findings**

The study's results indicated that board effectiveness, as measured by board size and frequency of board meetings, has a notable positive impact on the FOG index, which measures the annual report readability of listed non-financial firms. Board gender diversity did not have a significant positive impact on the FOG index, which measured the annual report readability of non-finance firms. The study found that the effectiveness of a board, as measured by board size and frequency of board meetings, has a significant positive impact on the FOG index of non-financial firms listed in Nigeria during the study period. Board gender diversity had an insignificant impact on the FOG index of listed non-financial firms during the study period. An increase in the number of board of directors and their meeting frequency during the year will significantly raise the FOG index measure of annual readability, making the annual reports of listed non-financial firms more difficult to read during the study period. An increase in the proportion of female directors compared to the total number of directors has an insignificant effect on the FOG index measure of annual readability in the annual reports of listed non-finance firms during the study period.

The board of directors played a crucial role in connecting the firm with external parties. Therefore, selecting skilled directors were vital for the firm to access important resources (Hillman et al., 2007; Elms et al., 2015). Hillman (2015) suggested that having a diverse board of directors, including female representation, can bring benefits to firms by providing valuable advice, enhancing organizational legitimacy, and creating new communication channels to improve organizational commitments. Based on these arguments, numerous empirical studies have shown that having women on corporate boards can enhance financial reporting and accounting standards (Lara et al., 2017). Hillman et al., (2007) discovered that companies with a higher proportion of women in top management positions have lower management earnings.

Conversely, having gender diversity on the board is linked to better earning quality. Bedard et al. (2004) found that having female board members is linked to a reduced occurrence of financial restatements, while Ho et al. (2015) observed a positive correlation between female CEOs and conservative earnings. Recent research indicated that having independent female directors on audit committees improves financial reporting quality and that companies led by female CEOs experience less fluctuation in earnings.

#### Conclusion

It was concluded that increasing the number of board of directors and the frequency of their meetings will notably raise the FOG index, which measures annual readability. This would make the annual reports of listed non-financial firms in Nigeria more challenging to read. An increase in the number of female directors compared to the total number of directors will have an insignificant effect on the FOG index measure of annual readability in the annual reports of listed non-financial firms in Nigerian firms during the study period.

#### Recommendation

It was recommended that an effective board significantly increases annual report readability thorough effective board monitoring and ensuring that the objective of the firms is protected and adequate information's are disclosed. Furthermore, decision makers should pay more attention to the diligence of the board and the independent directors, given that they have an effective role in monitoring the financial reports and increasing annual report readability.

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