
CORPORATE GOVERNANCE MECHANISMS AND ANNUAL REPORT READABILITY OF LISTED OIL AND GAS FIRMS IN NIGERIA

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ABSTRACT

The study examined the effect of corporate governance mechanism on annual report readability in Nigeria by drawing samples from oil and gas firms that were listed on the floor of the Nigerian Exchange Group (NGX) from 2012-2021. In this study, board size, audit firm type, and ownership structure were the corporate governance mechanism employed. The dependent variable of annual report readability was proxied in terms of annual report page length in line with related extant literature. Furthermore, the study controlled its model's goodness of fit using the variable of firm age. Specifically, to examine the cause-effect relationships between the dependent variables and independent variables as well as to test the formulated hypotheses, the study used a panel regression analysis. The result showed that board effectiveness has a significant effect on annual report readability when proxied in terms of annual report page length of listed oil and gas firms in Nigeria. However, audit quality had an insignificant effect on annual report readability when proxied in terms of annual report page length of listed oil and gas firms in Nigeria. Furthermore, ownership concentration had an insignificant effect on annual report readability when proxied in terms of annual report page length of listed oil and gas firms in Nigeria. Specifically, it was concluded that a large board size will increase annual report readability of listed oil and gas firms in Nigeria. It was also recommended that the size of the board should be considerably increased in order to increase annual report readability. Specifically, a good and effective board which should monitor the financial discretion as well as ensuring that accounting choices made by corporate managers are valid.

Keywords: Corporate Governance, Annual Report Readability, Panel Regression

1.0 Introduction

Financial statements of business firms have been always one of the most important information resources for the decision-making of capital market practitioners (including shareholders, creditors, and financial analysts), capital market legislators and other stakeholders. Hence, such financial information should be easily understandable, and capital market legislators, including the Securities and Exchange Commission, have always emphasized the significance of financial statement readability and understandability of annual reports to preserve the interests of shareholders (Hasan, 2017). American Stock Exchange Commission established a study group in 1967 to present some guidelines for improving the readability and understandability of annual reports of firms. The results of this report indicated that all investors were not able to quickly understand complicated reports of firms, so firms should avoid publishing intricate, lengthy, and vague reports.

However, much argument had been made about the effectiveness of disclosing information to stakeholders in annual reports due to the increased complexity of accounting rules and the technical language of financial information (Kumar, 2014; Guayet *et al.*, 2016). These factors may in turn lead to complex and incomprehensible language in annual reports that may result in failure to communicate the intended information. Consequently, some academic researchers in the accounting field have suggested overcoming this issue by increasing narrative disclosures in annual reports to clarify the intended meanings and convey the required information (Jones, 1988; Iu and Clowes, 2001). A large body of literature claims that the readability of corporate disclosures is crucial to mitigate the information asymmetry and improve stakeholders' perception of the firm (Stanton and Stanton, 2002; Courtis, 2004; Merkl-Davies and Brennan, 2007; Brennan *et al.*, 2009; Bayerlein and Davidson, 2011; Lawrence, 2013).

Hence, corporate governance systems, including issues of information disclosures and transparency, have witnessed significant improvements in developed economies following the devastating collapse of many corporate giants, such as Enron in the USA and Parmalat in the European Union (EU). However, developing economies, including Nigeria, continue to lag behind, despite efforts at improving overall corporate governance (Papadopoulos, 2019). Nigeria's adoption of international financial reporting standards (IFRS) and corporate governance best practice guidelines were expected to improve overall firm-level corporate governance, financial reporting, information disclosure and transparency (Appiah *et al.*, 2016; Tawiah and Boolaky, 2019) and succinctly increasing annual report readability. A good system of corporate governance ensures that directors and manager of firms carry out their duties within the framework of accountability, transparency and thus ensure readability of the annual report. It is on the basis of the foregoing that this study examined the effect of corporate board mechanism on annual report readability of listed firms in Nigeria.

Although many prior studies have examined the relationship between corporate governance and annual report readability, the empirical findings were inconclusive and mixed (Samaha *et al.*, 2015). The closely related studies were Phuong *et al.* (2022) investigated whether the longer length of annual reports was difficult to read using a sample of 20-F firms listed on the US stock exchange. Hidayatullah and Setyaningrum (2019) investigated the impact of IFRS on annual report readability in Indonesia using a sample of 52 non-finance firms, Cheung, and Lau (2016) examined the readability of the notes to financial statements and adoption of IFRS in Australia using a sample of 50 Australian listed firms and finally Morunga and Bradbury (2012) investigated the impact of IFRS on annual report length in New Zealand using a sample of 38 firms listed on the New Zealand stock exchange. It is evident that most

of the studies were done using samples from developed countries. Therefore, the study aims to bridge this gap by examining the effect of corporate board mechanism on annual report readability of listed firms in Nigeria.

2.0 Conceptual Issues and Hypotheses Development

Annual Report Readability

Readability is a notion that is utilized in many fields, including linguistics, healthcare, 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) in Loughran and McDonald (2014a). 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 (2014a) is highly valued by the research since it focuses on the business environment, which has identified users with adequate business knowledge. They define readability as "individual investors' and analysts' capacity to digest valuation-relevant information from a financial disclosure." The SEC also emphasizes the importance of readability to users and the stock market.

Measuring Annual Report Readability

Length of Reports

The amount of words in a report indicates the length of the report. It is assumed that the longer a report is, the less readable it is because it contains more information and is more complex, therefore investors incur additional processing time and costs. This was one of the simplest measurements to identify, as there were multiple approaches to obtain the data (Kausar and Lennox, 2017; Kohler et al., 2020). The easiest method was to use Microsoft Office software, whereas the other was to use a text manipulation programming language such as Perl. One of the previous studies employs the `Lingua:EN::` package. Fathom of Perl can determine the number of words in a report since it concentrates solely on the report's text, excluding tables and figures that Microsoft Office counts. In contrast to Microsoft Office, the Perl package may be simply applied to enormous sample sets. Despite its simplicity, this evaluation had been harshly criticized for its disproportionate emphasis on constructs above readability.

Corporate Governance

It is difficult to define the concept of corporate governance in a universally acceptable way because definitions vary from country to country. Moreover, countries differ from each other in terms of culture, legal systems and historical developments (Ramon, 2001). According to the National Association of Corporate Directors (2006), corporate governance denotes how an establishment or organization is governed. Systems of good governance may, therefore, be considered as apparatuses for instituting the foundation of control and ownership of institutions within the economy. Company law and other forms of regulations enforce adherence to the existing systems of corporate governance. The known Organization for Economic Corporation and Development (OECD) (1999) also defined corporate governance as "a system on the basis of which companies are directed and managed".

Board Size and Annual Report Readability

The size of the board is an indicator of the number of board members. A very small board may have difficulty resisting management and dealing with the different risks of the banking

sector. A very large board may also be unable to effectively oppose management. This measure had been used in previous work, such as Simpson and Gleason (1999), Sumner and Webb (2005) and Pathan (2009), where they examined the link between board size and bank risks. The number of directors serving on a bank board is relevant to the outcome of the board's decisions. Board size is the total number of people chosen by the shareholders of the company through an election to run the company and are bound by certain duties such as the duty to act within the scope of their authority and to exercise due care in the performance of their corporate tasks (Peasnell, Pope & Young 2015). Kent and Stewart, (2008) argued that a good and effective board should monitor financial discretion as well as ensure that accounting choices made by corporate managers are valid and thus increasing annual report readability. Hence, we state our first hypothesis as:

H01: Board size does not significantly increase annual report readability of listed oil and gas firms in Nigeria

Audit Firm Type and Annual Report Readability

The type of independent audit firm(s) employed by an entity to execute its audit in compliance with statutory regulation and professional requirements is characterized as auditor firm size. The audit firm is broadly classified in accounting literature based on variances in firm size, most notably big 4/non-big 4 firms. As a result, the study divides auditor types into three categories: single Big4, single non-big4, and combined audit team of Big4/non-big4 audit firms, based on the audit firm structure in Nigeria. The single audit firm category denotes the hiring of a single audit firm, either a Big4 or a non-Big4 company. According to Wibowo and Rosienta (2009), audit quality is frequently linked to an audit firm scale. According to DeAngelo (1981), large audit firms have superior audit quality because they have already invested in major audit equipment and personnel training, and hence are more knowledgeable and accurate in spotting problems linked to misstatement and going concern assumptions than small audit firms. Therefore, we argue that big4 audit tend to increase the page length of annual report and thus decrease annual report readability. Hence, we state our second hypothesis as:

H02: Audit firm type does not significantly increase annual report readability of listed oil and gas firms in Nigeria

Ownership Concentration and Annual Report Readability

According to Waseem and Nailar (2011) ownership concentration is the sum of squares of the fraction of total equity held by each large shareholder. Kamran, Sehrish, Saleem, Yasir and Shehzad (2012) defined ownership concentration as the portion of shares held by top shareholders of the firm while Genc and Angelo (2012) opine that ownership concentration is the percentage of ownership shares of the largest shareholders. In the views of Warrad, Almahamid, Slihat, and Alnimer (2013) ownership concentration is the percentage of the largest and the second largest managerial block holders who own at least 10% of the total shares in a firm. In the case of the relationship between ownership and annual report, Axarloglou and Kouvelis, (2007); Bao and Lewellyn, (2017); Calabrò and Mussolino, (2011); Munisi et al., (2014); Oesterle et al., (2013) noted that concentrated ownership has a positive effect on annual report readability. However, opined that ownership structure has a negative effect on readability of financial statement. Hence, we state our final hypothesis as:

H03: Ownership concentration does not significantly increase annual report readability of listed oil and gas firms in Nigeria

Theoretical Review

Signaling Theory (Spence, 1973)

The signaling theory was propounded by Spence in 1973. The core concept of signaling theory is a circumstance in which corporate management decides to communicate information about their performance to stakeholders or other consumers of financial statements in order to capture their attention (Watts and Zimmerman, 1978). The theory of signaling is primarily concerned with market problems involving information asymmetries, as well as how these inequalities information can be reduced by the party with the more information signaling to the other party (Morris, 1987). According to Spence (1973), there are two major reasons why asymmetric information exists in the market. To begin, sellers of high-quality goods may elect to withdraw their items from the market due to challenges in distinguishing those high-quality products from low-quality ones, implying that their goods are priced in accordance with market standards. As a result, the market made a mistake when judging the quality of the products, which could lead to errors when allocating economic resources to their optimal use. Second, these are the characteristics and efforts that sellers use to provide information to purchasers about the quality of their items. This will motivate the seller to boost its resources for informing purchasers of the excellence of its items (Spence, 1973; Spear and Taylor, 2011). Because of the mandated adoption of IFRS in Nigeria, there is a shift from NGAAP to IFRS, signaling theory is believed to be fundamentally significant for the aim of this research. In essence, IFRS, as a more principle-based standard, would boost disclosure requirements for "good" Nigeria organizations while "filtering" them out of those judged to be of lower quality in the market.

Empirical Review

Phuong and Huong (2022) investigate whether longer annual reports are more difficult to read. 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 are not less readable. The main reason for longer but more readable annual reports is a shift in writing styles toward shorter sentences, which better comply with US Securities and Exchange Commission (SEC) disclosure regulations. They also raise awareness when using annual report length as a proxy for readability in research on the complexity of annual reports.

Abonwara, Ahmad, and Halim (2021) conduct a literature review on the predictors and consequences of IFRS adoption. A total of 48 articles were reviewed, with frequency analysis performed. The findings revealed that IFRS studies focused on the European Union (EU) and conducted tougher studies on several countries. A single country was studied in a small number of studies. Most studies in developed countries focused on the outcome and discovered mixed results regarding the use of IFRS. Adoption is still occurring in developing countries, and studies have revealed that the consequences are mixed, and the predictors are individual-related factors (education, accounting capabilities), organizational (size, age, readiness), and macroeconomic factors (legal system, regulation, political ties). The findings were discussed, and more research is needed to determine the role of IFRS in developing countries.

Hidayatullah and Setyaningrum (2019) investigated the impact of IFRS adoption on annual report readability in Indonesia. This study's sample includes 52 non-financial firms over a four-year period, 2010-2011 and 2013-2014, with 208-year observations. Multiple linear regression analysis is used to test hypotheses. The study showed that IFRS adoption had a

significant and negative impact on disclosure readability in Indonesian public companies. The study's implication was that IFRS adoption necessitates more sophisticated and/or competent users of financial statements, as measured by higher requirements for years of education required to comprehend the disclosures.

Cheung and Lau (2016) investigated the relationship between financial disclosure readability and the adoption of International Financial Reporting Standards (IFRS) in Australia by assessing: (1) the impact of IFRS adoption on the readability of Notes to Financial Statements in the Australian context; and (2) the potential accounting policies that drive the increased length of Notes to Financial Statements post-IFRS. Financial reports are significantly longer but more readable in the post-IFRS period, according to the findings. Furthermore, since the adoption of IFRS, the length of disclosures in the Summary of Significant Accounting Policies, Financial Instruments, and Intangible Assets has increased significantly.

Kumar (2014) investigated on the effect of secrecy, ownership dispersion, and profitability on the readability of annual reports of Asian companies listed in the United States. The author investigated the effect of secrecy on readability using a measure of secrecy developed by Hope. et. al. (2008). The study's sample includes all 68 Asian companies from nine countries that are listed on NYSE/NASDAQ and are registered and reporting with the SEC. The univariate and multivariate analyses show that companies with a more secretive domestic culture produce less readable financial statements. This is an intriguing and significant result that is consistent with efforts to achieve convergence in the international accounting field. Despite the fact that a large number of these companies prepare their financial statements in accordance with IFRS and US GAAP. The findings also showed that companies with more diverse ownership provide more readable annual reports. The findings do not support the hypothesis regarding the effect of profitability. Finally, the findings indicated that larger sample companies provide more difficult-to-read financial statements.

3.0 Methodology

The study is longitudinal covering a period of ten (10) years. That is, from 2012 to 2021 employing listed oil and gas firms on the floor of the Nigerian Exchange Group (NGX). The sampling technique employed was purposive since firms were included in the sample on certain selection criteria. These criteria were based on the view that the firms were listed on the Nigerian Exchange Group (NGX) market from 2012-2021; there was access to their annual financial reports within the period and they were not firms operating subsidiaries in Nigeria that are not listed in the Nigerian Exchange Group (NGX). Newly listed oil and gas firms and delisted oil and gas firms were excluded from the study. Thus, only oil and gas firms that had all relevant data due to continuous existence were included in the sample. The final sample size consisted of 6 oil and gas firms that were arrived based on the availability of data for ten years for all the research variables. To examine the effect of corporate governance mechanism on annual report readability, a modified model of Caldarelli et al., (2022) was used to express the econometric model as

$$PGLT_{it} = \beta_0 + \beta_1 BODS_{it} + \beta_2 AUFS_{it} + \beta_3 OWNC_{it} + \beta_4 FIRA_{it} + \mu_{it}$$

Where:

PGLT	=	Annual report page length
BODS	=	Board size
AUFS	=	Audit firm size
OWNC	=	Ownership concentration
FIRA	=	Firm Listing Age

β_0	=	Constant
$\beta_1- \beta_4$	=	Slope Coefficient
μ	=	Stochastic disturbance
i	=	i^{th} firm
t	=	time-period

Variable Measurement

In this study, annual report readability was measured with annual report page length in line with the studies of Cheung and Lau, (2016). In the case of the independent variable, board size was measured as the total number 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. Audit firm size was measured as "1" for Companies that use PWC, Deloitte, E&Y and KPMG as external auditors and "0" otherwise. Ownership concentration in percentage was the shares ownership concentration of all the block shareholders with 5% and above controlling interest. In the case of the control variable, firm age was measured as the listing age of the firms under study. The econometric techniques adopted in this study were the panel fixed and Random effect regression techniques. The rationale for its usage was based on the following justifications: the data collected may have time and cross-sectional attributes as well as across the sampled firms (cross-section); panel data regression provided better results since it used large observation and reduced the problem of degree of freedom; it avoided the problem of multicollinearity and help to capture the individual cross-sectional (or firm-specific) effects that the various pools may exhibit with respect to the dependent variable in the model.

4.0 Empirical Results and Discussion

The study examined the effect of corporate governance mechanism on annual report readability in Nigeria by drawing samples from oil and gas firms that were listed on the floor of the Nigerian Exchange Group (NGX) from 2012-2021. In this study, board size, audit quality, and ownership structure are the corporate governance mechanism employed. The dependent variable of annual report readability was proxied in terms of annual report page length in line with related extant literature. Furthermore, the study controlled the model's goodness of fit using the variable of firm age. Specifically, to achieve the objective of the study, a pool least square regression was conducted before proceeding to check for inconsistencies with the basic assumptions of the OLS regression. Succinctly, these diagnostics tests included test for multicollinearity as well as test for heteroscedasticity. However, variables were described in terms of the mean, standard deviation, minimum, and maximum.

Descriptive Analysis

In this section, the descriptive statistics for both the explanatory and dependent variables of interest were examined. Each variable was examined based on the mean, standard deviation, maximum and minimum. Table 1 below displays the descriptive statistics for the study.

Table 1: Descriptive Statistics

VARIABLES	MEAN	SD	MIN	MAX	NO OBS
PGLT	84.65	29.72	30	173	60
BODS	8.61	2.05	4	14	59
AUFS	0.60	0.49	0	1	60
OWNC	54.37	24.80	6	78	60
FIRA	29.67	11.05	8	44	60

Source: Author (2022)

The results obtained from the descriptive statistics of the study is presented in table 1. The table showed that the mean of annual report readability when measured in terms of annual report page length (PGLT) is 85 pages with a standard deviation of 29.72. This implies that on the average, the oil and gas firms under study had about 85 pages of annual report which can be regarded as industry standard during the period under study. Table 1 also showed that the minimum number of pages on the average was 30 pages with the maximum being 173 pages. In the case of the explanatory variable, table 1 showed that board size (BODS) which was our proxy for board effectiveness, had a mean of 9 members and a standard deviation of 2 members. This implied that on the average, the board of directors of the firms under study was about 9 members during the period under study. The table also showed that the minimum board constituted about 4 members while the maximum board was about 14 members during the period under investigation. Table 1 showed that the mean of audit firm size (AUFS) which was our measure of audit quality was 0.60 and a standard deviation of 0.49. These implied that on the average, about 60% of the firms under study engaged the services of big4 auditors while the remaining 40% engage the service of non-big4 auditors. Ownership concentration (OWNC) had a mean of 54.37 and a standard deviation of 24.80. In the case of the control variable, the table showed that firm age (FIRA) had a mean of 29.67 and a standard deviation of 11.05. These implied that on the average, the firms were at least 30years old. However, it was discovered that the youngest firm in our sample was 8 years and the oldest firm was 44 years.

Correlation Analysis

In examining the association among the variables, the Spearman Rank Correlation Coefficient (correlation matrix) was employed , and the results were presented in the table below.

Table 2: Correlation analysis

	PGLT	BODS	AUFS	OWNC	FIRA
PGLT	1.0000				
BODS	-0.0961	1.0000			
AUFS	0.1929	-0.2735	1.0000		
OWNC	0.1518	0.3356	-0.0599	1.0000	
FIRA	0.4912	-0.0057	0.3553	0.5946	1.0000

Author's computation (2023)

Table 2 showed the results of the correlation matrix for this study. Particularly, the table showed that all the independent variables were positively associated to the dependent variable of annual report readability when measured in terms of annual report page length except for the variable of board size that had a negative association. Particularly, the study showed that

audit firm size (0.1929), ownership concentration (0.1518), and the control variable of firm age (0.4912) were positively associated with the dependent variable of annual report readability when measured in terms of annual report page length. However, the table showed that the independent variable of board size (-0.0961) was negatively associated with the dependent variable of annual report readability when measured in terms of annual report page length. However, all association were seen to be weak, hence there was no need to suspect the presence of multicollinearity in the model. Furthermore, to test the hypotheses a regression results was used since correlation test does not capture cause-effect relationship.

Regression Analyses

Specifically, to examine the cause-effect relationships between the dependent variables and independent variables as well as to test the formulated hypotheses, the study used a panel regression analysis. The OLS pooled results and the panel regression results obtained were presented and discussed below.

Table 3: Regression Result

Variables	PGLT Model (Pooled OLS)	PGLT Model (FIXED Effect)	PGLT Model (RANDOM Effect)	PGLT Model (LSDV Regression)
CONS.	3.908 {0.000} ***	2.108 {0.003} **	3.908 {0.000} ***	1.880 {0.028} **
BODS	0.005 {0.834}	0.076 {0.009} **	0.005 {0.833}	0.076 {0.009} **
AUFS	-0.024 {0.816}	0.016 {0.919}	-0.024 {0.815}	0.016 {0.919}
OWNC	-0.007 {0.032} **	-0.002 {0.707}	-0.007 {0.027} **	-0.002 {0.707}
FIRA	0.027 {0.000} ***	0.057 {0.000} ***	0.027 {0.000} ***	0.057 {0.000} ***
F-Statistics	5.08 (0.0015)	6.32 (0.0003)	20.32 (0.0004)	5.54 (0.0000)
R- Squared	0.2734	0.3404	0.2292	0.5045
VIF Test	1.96			
Het. Test	71.01 (0.0000)			
Hausman	54.03 (0.0000)			
Presence of FE/RE		YES {4.57 (0.0017)}	NO {0.00 (1.0000)}	

Note: (1) bracket {} are p-values

(2) **, ***, implies statistical significance at 5% and 1% levels respectively

The results of the Pool OLS and panel regression from STATA were shown in the table 3. The results from the Pool OLS regression shows an R-square value of 0.2734 which indicated that about 27% of the systematic variations in annual report readability were proxied using annual report page length and were jointly explained by the independent and control variables in the model during the period under study. This implies that variations in annual report readability of listed oil and gas firms in Nigeria cannot be 100 percent explain by the corporate governance mechanisms employed in this study. However, the unexplained changes in annual report readability were attributed to the exclusion of other independent variables that were not within the scope of our study but had been captured as error term. Furthermore, the F-statistic value of 5.08 with the associated P-value of 0.0015 indicated that the model of the Pool OLS regression was statistically significant at 5% level. This means that the model of the Pool OLS regression was valid and can be used for statistical inference. To further validate the estimate of the pool OLS regression results in the table above, some basic diagnostic test was carried out. These regression diagnostics tests included test for

multicollinearity and test for heteroscedasticity. The study employed the variance inflation factor (VIF) technique to determine the presence or absence of multicollinearity in this study, as in most studies. A cut-off VIF value of 10 was used to determine whether a VIF is high. These were in line with Gujarati, (2004) recommendations that the mean VIF should be less than ten. Table 3 showed a mean VIF value of 1.96. The result implied that the mean VIF was within the benchmark of 10 as recommended by Gujarati, (2004). Hence, there was no room to suspect multicollinearity in the model under study. For the test for homoscedasticity assumption, the result obtained from the test was shown in the table above, which revealed a significant P-value of the Chi2 at 1% level. These results indicated that the assumption of homoscedasticity had been violated due to very low P-values. This suggested that the estimate of the OLS regression cannot be relied upon for policy recommendation. The study therefore, employed the panel regression technique to control for the violation of the homoscedasticity assumption of the OLS regression was shown in table 3.

The F-statistic and Wald-statistic value 6.32 (0.0003) and 20.32 (0.0004) for fixed and random effect regression respectively showed that both models were valid for drawing inference since they were both statistically significant at 5%. In the case of the coefficient of determination (R-squared), it was observed that 34% and 23% systematic variations in annual report readability was proxied using annual report page length and were jointly explained by the independent and control variables in the model during the period under study. These implied that variations in annual report readability of listed oil and gas firms in Nigeria cannot be 100 percent explain by the corporate governance mechanisms employed in this study. However, the unexplained changes in annual report readability are attributed to the exclusion of other independent variables that are not within the scope of our study but have been captured as error term. In selecting from the two panel regression estimation results, the Hausman test was conducted, and the test was based on the null hypothesis that the random effect model was preferred to the fixed effect model. Specifically, a look at the p-value of the Hausman test (0.0000), implies that the null hypothesis should be rejected and accept the alternative hypothesis. These implied that the fixed effect panel regression results should be adopted in drawing our conclusion and recommendations. These also implied that the fixed effect results tend to be more appealing statistically when compared to the random effect. The presence of fixed effect means that there are unobserved heterogeneity effects in the model, hence the least square dummy variable (LSDV) regression was employed to control for this effect. The results of the Least Square Dummy Variable regression showed an R-square value of 0.5045 which indicated that about 50% of the systematic variations in annual report readability was proxied using annual report page length and were jointly explained by the independent and control variables in the model during the period under study. These implied that variations in annual report readability of listed oil and gas firms in Nigeria cannot be 100 percent explained by the corporate governance mechanisms employed in this study. However, the unexplained changes in annual report readability were attributed to the exclusion of other independent variables that were not within the scope of our study but have been captured as error term. Furthermore, the F-statistic value of 5.54 with the associated P-value of 0.0000 indicated that the model of the Least Square Dummy Variable regression was statistically significant at 1% level. This means that the model of the Least Square Dummy Variable regression was valid and can be used for statistical inference

Discussions of Findings

The results obtained from the least square dummy variable regression model revealed that board effectiveness was measured by board size (Coef. = 0.076; P -value = 0.006) and had a significant effect on annual report readability when proxied in terms of annual report page

length of listed oil and gas firms in Nigeria. Our result indicated that board effectiveness represented by large board significantly increase the annual report page length of listed oil and gas firms in Nigeria. The result implied that the hypothesis that **board effectiveness does not significantly increase annual report readability of listed oil and gas firms in Nigeria** was rejected. Hence, the results implied that a large board size will increase annual report readability of listed oil and gas firms in Nigeria. The result contradicted with those of Kent and Stewart, (2008) who noted that a good and effective board should monitor financial discretion as well as ensuring that accounting choices made by corporate managers were valid.

Furthermore, table 3 showed that audit quality was measured by audit firm type (Coef. = 0.016; P -value = 0.919) had an insignificant effect on annual report readability when proxied in terms of annual report page length of listed oil and gas firms in Nigeria. The result indicated that audit quality ensured by big 4 audit firms insignificantly increased the annual report page length of listed oil and gas firms in Nigeria. The result implied that the hypothesis that, **audit firm type does not significantly increase annual report readability of listed oil and gas firms in Nigeria** is accepted. Hence, the results implied that the big 4 audit firms will insignificantly increase annual report readability of listed oil and gas firms in Nigeria. This finding contradicts prior studies which showed that higher readability of accounting information was associated with higher audit effort reflected by big four audit firms (Abernathy et al. 2019); (Blanc et al., 2019).

Finally, evidence from table 3 shows that ownership concentration (Coef. = -0.002; P -value = 0.707) had an insignificant effect on annual report readability when proxied in terms of annual report page length of listed oil and gas firms in Nigeria. The result indicated that concentrated ownership insignificantly decreases the annual report page length of listed oil and gas firms in Nigeria. The result implies that the hypothesis **ownership concentration does not significantly increase annual report readability of listed oil and gas firms in Nigeria** was accepted. Hence, the results implied that a concentrated ownership will insignificantly decrease annual report readability of listed oil and gas firms in Nigeria. The findings from this study negates those of Axarloglou and Kouvelis, 2007); Bao and Lewellyn, 2017); Calabrò and Mussolino, 2011); Munisi et al., 2014; Oesterle et al., (2013) who documented that ownership structure significantly improves annual report readability.

5.0 Conclusion and Recommendation

The study examined the effect of corporate governance mechanism on annual report readability in Nigeria by drawing samples from oil and gas firms that were listed on the floor of the Nigerian Exchange Group (NGX) from 2012-2021. In this study, board size, audit quality, and ownership structure were the corporate governance mechanism employed. The dependent variable of annual report readability was proxied in terms of annual report page length in line with related extant literature. Furthermore, the study controlled the model's goodness of fit using the variable of firm age. Specifically, to achieve the objective of the study, a pool least square regression was conducted before proceeding to check for inconsistencies with the basic assumptions of the OLS regression. Specifically, to examine the cause-effect relationships between the dependent variables and independent variables as well as to test the formulated hypotheses, the study used a panel regression analysis. The result showed that board effectiveness has a significant effect on annual report readability when proxied in terms of annual report page length of listed oil and gas firms in Nigeria. However, audit quality has an insignificant effect on annual report readability when proxied in terms of annual report page length of listed oil and gas firms in Nigeria. Furthermore,

ownership concentration had an insignificant effect on annual report readability when proxied in terms of annual report page length of listed oil and gas firms in Nigeria. Specifically, it was concluded that a large board size will increase annual report readability of listed oil and gas firms in Nigeria. Hence, it was recommended that the size of the board should be considerably increased in order to increase annual report readability. Good and effective board should monitor the financial discretion as well as ensure that accounting choices made by corporate managers are valid.

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