



VOLUNTARY DISCLOSURE AND FINANCIAL PERFORMANCE: ANALYSIS OF LISTED OIL AND GAS FIRMS IN NIGERIA

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ABSTRACT

The study examined the effect of voluntary disclosure on financial performance of listed oil and gas firms in Nigeria. The sample size consisted of thirteen (13) oil and gas firms in the Nigerian stock exchange as at 31st December, 2000. Secondary data was obtained from the published annual report of the sampled oil and gas firms for a period of 10 years (2009- 2018). The data was analysed using both descriptive and inferential (OLS regression) statistics. The study found out that voluntary disclosure has a positive and significant effect on earnings per share and asset turn over. It was therefore recommended that voluntary disclosure should be encouraged more in the financial statements by educating all stakeholders involved in the organisation about the advantages of a standardized reporting system, and also a more consistent way of reporting voluntary disclosure should be developed in Nigeria.

Key Words: Accounting Scandals, Auditors, Voluntary disclosure, Financial Performance, Financial Statement

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INTRODUCTION

One of the major problems in a principal and agent relationship is information asymmetry. The disclosure principle in accounting requires that there would be a dissemination of the most useful amount of information necessary to make informed decision so as not to be misinterpreted by users of accounting information (Nurudeen, Ahnda, & Shalli, 2018). The demand for adequate information to solve this problem of information asymmetry has been on a daily increase. The instrument mainly used to disseminate relevant, economic and useful information from the management to the users of accounting information to help them make prudent decisions is the annual report (Aliyu, Adejola & Nguavese, 2018). The annual report contains two major types of disclosures; mandatory disclosure, when regulatory authorities impose on companies to disclose certain elements of information and voluntary disclosure (VD) which is disclosing beyond the requirements laid down by the rules and regulations stated in the accounting standards they apply in their disclosures (Consoni & Colauto, 2016).

Globalization and the awareness of potential investors about the inefficiency and the misrepresentation of published financial information as caused loss of trust which has led to an increased demand in a high quality report useful to make accurate and effective decision. Although since the adoption of IFRS in 2012, information disclosure in the financial statements as improved, there was still a degree of power given to managers which gave them the right to be flexible in what information they disclose, the freedom to decide what information is released and just how much is disclosed (Musyoka, 2017).

Usually, the annual report of organisations merely conveyed mandatory information to the public. Contemporarily, there has been a revolution in the reporting style of companies, which goes beyond providing mandatory disclosure alone to having additional information disclosed by way of voluntary disclosure in order to meet the needs of

various stakeholders (Mugo, 2014; Olaoye & Okeke, 2020).

Voluntary disclosure (VD) according to Kolton and Paul (2001) is disclosing beyond the obvious, beyond what everyone can see on the surface and most important without the order or by demand from parties involved in the business. They went ahead to give three most important things which must be disclosed in the statement of accounts which are business data, management analysis of business data and lastly, the board disclosure.

The main aim of the disclosure is to inform the investors and analysts about the quality and value of the firm (Hamrouni, Miloudi & Benkareim, 2015). This information disclosed must not only be accurate but also timely so as to be useful for both the analysts and investors. Musyoka, (2017) defined disclosure as the provision of timely and relevant information aimed to ensure full transparency and accurate picture of the corporate actions like in governance and financial performance. This information is disclosed in the annual reports makes a very essential tool used by investors to make informed decisions.

Financial performance shows how effectively and efficiently the managers of an organization utilize the resources at their disposal to create value (Wanjau, Muturi & Ngumi, 2018). There are several ways by which financial performance can be measured, this work made use of asset turnover and earnings per share. Asset turnover as an indicator for financial performance measures the productivity of the company's assets in generating sales. It indicates the effectiveness of the companies' assets in generating sales for the company.

Earnings per share is an indicator of financial performance which matches the number of total shares invested in the firm with the total distributable profit attributable to the shareholders of the firm. It is an important factor looked at by potential shareholders of the firm as it signifies the potential return if they invest.

Series of research works have been carried out globally to determine the effect of voluntary disclosure on financial performance of quoted firms, banks, hostels and other service providing agencies in different countries (Elfeky, 2017). Also research works whereby the extent of voluntary disclosure in financial statements was determined by other firm characteristics such as firm size, auditor size, firm age (Mohammed, 2013), corporate governance, rules (Arcay Vázquez, 2005). However during the period of this research work, the researcher came across few related work that researched on voluntary disclosure and financial performance as it affects Nigerian firms.

It is also important to state that the impact of voluntary disclosure on financial performance has not been extensively reviewed in Nigeria and the fact that the oil and gas sector is a major functioning sector in the Nigerian industry and that attention should be paid into the sector if the country wants to improve its Gross Domestic Product. The Nigeria economy is a dynamic one and hence most features that exist in other economies may not be prevalent here, this would make it inappropriate to generalise that what is obtainable in other part of the world is also attainable here. Hence, this study focused on examining the effect of voluntary disclosure on financial performance of oil and gas firms using return on asset, return on equity, asset turnover and earnings per share as proxies for financial performance.

Objective of the Study

The main objective of the study was to examine the effect of voluntary disclosure on the financial performance of listed oil and gas firms in Nigeria. The specific objectives were to:

- Examine the effect of voluntary disclosure on asset turnover of oil and gas firms listed on the Nigerian stock exchange.
- Determine the effect of voluntary disclosure on earnings per share of oil and gas firms listed on the Nigerian stock exchange.

REVIEW OF LITERATURE

Conceptual Review

Voluntary Disclosure

Voluntary disclosure is the provision of information by a company's management beyond specifications or requirements such as generally accepted accounting principles, international financial reporting standards and the Securities and Exchange Commission that is voluntary disclosure is defined as the information that is disclosed regarding the organization up and beyond the statutory requirements (Asava, 2013). Where the information provided is believed to be relevant to the decision-making of users of the company's annual reports. According to Elfeky (2017), the present age makes compliance with the mandatory disclosure as stated in standards and rules associated with being listed in the securities, but this mandatory disclosures are not sufficient nor appropriate to meet the need of users of corporate information, which increases the need for additional information on what is required; this additional information is known as voluntary disclosure. Mwangi and Mwiti (2014) gave an insight that VD is aimed at providing a clear view to stakeholders about the long term sustainability and reducing information asymmetry and agency conflicts between managers and investors.

It is acceptable to say that management will tend to report enhanced voluntary information in order to maximize disclosure and reporting benefits, the information disclosed by the annual reports whether mandatory or otherwise have crucial importance in decision-making Almagtome, Almusawi and Aureaar (2017). Mohammed (2018) stated that additional costs is required while handling voluntary disclosure and also so much disclosure would put a firm at risk by revealing vital information which should put the firm at a competitive advantage over other competitors. Voluntary disclosure could consist of business fata information otherwise

known as strategic information disclosure, management analysis of business data information and social and board disclosure.

The business data information disclosure is the disclosure of information about a firm's general outlook as stated in their annual report (Ogwe, 2014). Management analysis contains information about the interpretation of the accounts of the business in the view of the manager, it contains concrete information about the opinion of the manager concerning the going concern capabilities of the firm, if the company will be able to achieve its goals in the long run. Management analysis of the business data is also known as forward looking information disclosure. This is information about the future prospect of the firm, where is the company going to be in the next five years. (Achoki, Kule & Shukla, 2016). Social and board information disclosure is information relating to the corporate social responsibility (CSR) activities of the firm. (Hooghiemstra, 2000; Achoki, Kule and Shukla, 2016). Bewley & Li (2000) opined that information relating CSR and its disclosure should be handled by the board of directors rather than the managers of the firm as it will improve trust since it will be information from both existing and potential shareholders hence makes it more reliable.

Financial Performance

The word "Performance" originates from the old French word 'Parfournir'; whose meaning is to bring through, to carry out, to do or to bring forth (Ijaz & Naqvi, 2016). (Ijaz & Naqvi, 2016) Went further to define performance as an act of performing, implementing, achieving, and fulfilling of the given tasks that needs to be measured against defined sets of precision, money, fullness and timing. Financial performance entails the efficiency of managers in the utilization of the resources at the firm's disposal in other to create value (Wanjau et al, 2018). Musyoka (2017) stated that financial performance deals with the financial health of a firm, which usually serves as a comparison between firm and industries.

Profitability is usually used to measure performance in firms. According to Owolabi and Obida (2012), profitability is the capacity of a firm to make profits from all its activities (financing, investing and operating procedures). Financial performance according to Rahman and Hannifa (2005) can be used to provide the overall picture of the performance of a firm over time as well as in relation to others and helps in decision making. A firm must be able to create more revenue than the indirect and direct cost incurred in obtaining that revenue for the firm to be said to make profit (Oyedokun, Sanyaolu & Bamigbade, 2017).

Financial performance is being measured by several variables. For the purpose of this study, financial performance has measured by earnings per share (EPS) and asset turnover (AT).

Asset Turnover

Like the ROA, the ATR measures the productivity of the company's assets in generating sales.

It indicates the effectiveness of the companies' assets in generating sales for the company. Asset turnover ratio measures the sales of a company to the amount of asset, it measures the naira value of sales per naira of asset. It also shows the efficiency of the management in the use of its asset to generate earnings for the firm. The asset turnover ratio is an efficiency ratio that measures a company's ability to generate sales from its assets by comparing net sales with average total assets. In other words, this ratio shows how efficiently a company can use its assets to generate sales.

Earnings per Share

Earnings per share (EPS) is a popular financial ratio which is widely used by investors worldwide. It measures potential profit on investment in company's shares (Sierpiska & Jachna, 2004). Earnings per share or EPS is an important financial measure, which indicates the profitability of a company. It is calculated by dividing the company's net income with its total number of outstanding shares. The earnings per share signifies the total amount distributable to the shareholders

of the firm as a return of their investment. Basic earnings per share is a ratio of profit (or loss) generated by an entity in the reporting period for which it is calculated and which is attributable to ordinary equity holders of the parent entity and weighted average number of ordinary shares during the same reporting period (Kwinto & Voss, 2017)

Theoretical Framework

This research was anchored on the agency theory and the signalling theory. Reduction of information asymmetry which exist between the management and the public mainly the shareholders of the firm who are not as involved in the day to day running of the company unlike the agents appointed by them to do so is the reason why management prepare and present financial reports. This financial report is supposed to create a perfect condition whereby, necessary information needed to make reliable and efficient decision are already made available. The agency theory which was popularised by Jensen and Meckling in 1976, was propounded to safeguard owners who appoint other parties to manage the affairs of their business. Agency problems are more rampant in complex firms whose owners outsource the decision making process to agents who might not be working in their best interest but their own self-interest Musyoka (2015). Although agency theory is supported by many scholars (Jensen & Meckling 1976; Berle & means, 1932; Li-Jen & Cang-Fu, 2015), Diego, Jordi and Josep (2007) emphasised that the main argument against this theory is that managers are expected to work in the best interest of shareholders but there are others who have stakes in the company whose interest should also not be neglected while running the organisation and issuing financial statements. The signalling theory which was propounded by Michael Spence in 1973, is useful in describing the behaviour of two parties when the exchange of information is been undergone. The signalling theory brought into mind the need for more information than what was subjected to the stakeholders of businesses by the

rules and regulations that govern the market the business belongs to, one of the parties which is the sender of information must choose whether to share and how best to communicate said information and the other party (the receiver) must choose how best to interpret and use the information shared (Bird & Smith, 2005). Some similarities are always highlighted between agency theory and signalling theory, what makes this theories most relevant is that they both are relevant to voluntary disclosure and financial performance because investors expects a firms financial statement and added information in the annual report to be used to notify all interested stakeholders and existing ones about information that would help to reduce the information assymetry and safeguard the investments if the need be of interested parties.

Empirical Review

Several studies have been undertaken to determine the effect of disclosures on financial performance. Some of them used different categories of voluntary disclosure.

Mutiva, Anwar Hood, and Muiruri-Ndirangu (2015) examined the relationship that exists between voluntary disclosure and financial performance of companies quoted at the nairobi securities market. Annual reports of 10 listed companies from the NSE 20-share index were investigated from the year 2011-2013. Findings revealed that the individual predictor variables produced mixed results when regressed against ROI. However, the multivariate regression analysis depicted a strong positive relationship between voluntary disclosure and financial performance measure, as evidenced by a Pearson Product Moment Correlation Coefficient (R) of 0.6235. As such, only 38.9% of the data points will appear on the linear plot. Since voluntary disclosure comes with a cost, this study recommends that managers in organizations disclose more information voluntarily not only for the purposes of obtaining cheaper capital but also it increases transparency and accountability in annual reporting and this boosts the confidence of

investors as they make investment and financial decisions.

Mwangi and Mwiti (2015) studied to determine the effects of voluntary disclosure on stock market returns of companies listed on the Nairobi securities market. The study sampled twenty firms from the year 2009 to 2013, employed multiple regression in its model marching market performance of the firms in the five year period against voluntary disclosure, interest rate and rate of inflation. They discovered a positive relationship between all factors and market performance.

Hieu and Lan (2015) examined the factors influencing the extent of voluntary disclosure of Vietnamese listed companies. Secondary data was obtained from annual reports of 205 industrial and manufacturing companies for the year 2012. A disclosure checklist consisting of 11 items of information was developed and used to measure strategic information disclosure. The result showed that financial performance has a positive and insignificant effect with strategic information disclosure

Achoki, Kule and Shukla, 2016) in his work the effect of voluntary disclosure on performance using Rwanda banks as a case study discovered a positive relationship between voluntary disclosure firm size and financial performance. Wesonga (2008) went further in his study on the use of financial disclosures for decision making by investors in Kenya with a case study of institutional investors at Nairobi Stock Exchange, the study led to the conclusion that majority of the institutional investors use financial disclosures as a source of vital information for investment decisions.

Rasha (2019) in his work sort to determine the determinants of forward looking information disclosure in the annual reports of Lebanese commercial banks. Secondary data was obtained from 29 Lebanese commercial banks for the period of 10 years (2008-2017). The study found a positive and significant effect between financial performance and forward looking information

disclosure. Contrary to Rasha (2019) is Kilic and Kuzey (2018) who studied the effect of financial performance on forward looking disclosure. Secondary data was obtained from 55 non-financial companies for 2014, covering several locations; Europe, Africa, Asia, Australia, North America and South America. A checklist consisting of 30 items of information was developed and used to measure forward looking disclosure. Multivariate ordinary least square regression was used to analyse the effect of the variables. The result showed that financial performance has a negative and insignificant effect with forward looking disclosure.

Hypotheses of the Study

In an attempt to provide answers to the research questions and in line with the research objectives, the following hypotheses were tested to obtain the results analysed.

- HO_1 Voluntary disclosure has not significantly affected asset turnover of oil and gas firms listed in the Nigerian stock exchange.
- HO_2 Voluntary disclosure has no significant effect on earnings per share of oil and gas firms listed in the Nigerian stock exchange.

METHODOLOGY

This study examined the effect of voluntary disclosure on the financial performance of listed oil and gas firms in Nigeria. Ex post facto research design was adopted for the study, twelve listed oil and gas firms were used for the research for the period of 2009- 2018. Secondary data was obtained from the annual report of the companies. The study had two variables, the dependent variable (financial performance) which was proxied by earnings per share (EPS) and asset turnover (AT) and the independent variable (voluntary disclosure) proxied by a checklist of business data disclosure, management analysis and social and board.

In order to examine the impact of voluntary disclosure on financial performance of oil and gas firms quoted in the Nigerian stock exchange, a regression model was built. The model took into cognisance the effect of General and Strategic

information disclosure, Social and Board Disclosure, and management analysis on Earnings Per Share and Asset Turnover. This was represented in the following function:

$$Y = (y_1, y_2)$$

Y = Financial performance y_1 = Earnings per share- EPS y_2 = Asset turnover ratio- AT

While,

$$X = (x_1, x_2, x_3)$$

X = Voluntary Disclosure

x_1 = Business data disclosure (BD) x_2 = Management analysis disclosure (MA) x_3 = Social and Board disclosure (SB)

$$FP = f(BD, MA, SB)$$

$$EPS = f(BD, MA, SB) \dots\dots\dots f_1 \dots\dots\dots \text{Equation 1}$$

$$AT = f(BD, MA, SB) \dots\dots\dots f_2 \dots\dots\dots \text{Equation 2}$$

From the above function, the following model is derived:

$$EPS_{it} = \alpha_2 + \beta_1 BD_{it} + \beta_2 MA_{it} + \beta_3 SB_{it} + \mu_{it} \dots\dots \text{Model 1}$$

$$AT_{it} = \alpha_3 + \beta_1 BD_{it} + \beta_2 MA_{it} + \beta_3 SB_{it} + \mu_{it} \dots\dots \text{Model 2}$$

Where:

$\alpha_0 - \alpha_4$ is the intercept for the models $\beta_1 - \beta_3$ is the coefficients of the explanatory variables μ as used in each model are the error terms that absorb the influence of omitted variables in the proxies used.

Table 1: Descriptive Statistics

Variables	Mean	Std. Dev.	Minimum	Maximum	Obs
EPS	2.0466	5.14	-14.45	25.87	95
AT	0.206	0.2238	-0.04	1.17	101
BD	9.6226	3.2644	0	14	105
MA	2.4667	1.1272	0	5	105
SB	7.981	2.3737	0	11	105

Source: Researcher's Study, 2020

Table 1 showed the summary statistics of all the variables obtained from the sampled companies for the period under study.

i is used to represent the organization, t is used to represent the period of study.

It was expected that voluntary disclosure would have a positive effect on financial performance represented by earnings per share and asset turnover. In other words, a good voluntary disclosure practice should lead to an increase in financial performance thereby resulting in a positive relationship between all the subvariables of financial performance and voluntary disclosure. Thus the coefficients $\beta_1 - \beta_4 > 0$ and all the coefficients should be positive/negative signed.

FINDINGS

Descriptive Analysis

This section of the analysis provides an overview on the data set while attempt is also made to describe the main attributes of the data. The descriptive analysis of the panel data obtained is done through numerical representation shown on Table 1, which shows the mean, maximum, minimum, and standard deviation of all variables of earnings quality measured by Return on asset (ROA) Return on equity (ROE), Earnings per share (EPS), Asset turn over (AT); and Voluntary disclosure measure by the researchers disclosure index.

Earnings per share of the sampled firms used was within the range between -14.45 and 25.87. This indicated that there is a wide gap between minimum and maximum levels of return on equity. The standard deviation of 5.14 is not too large

compared to the mean of 2.0466 and this suggests that there is a slim dispersion from the mean and the variable and this implies low volatility.

confirmed the low unpredictability as the difference between the minimum and maximum values of -0.04 and 1.17.

Asset turn over (AT) also reported a mean value of 0.206 and a standard deviation of 0.2238. This

Table 2: Regression Analysis for Model 1

Variable	Coefficient	Std Error	t-Stat.	Prob.
Constant	-5.773	2.184	-2.64	0.008
B	-0.9123	0.2062	-0.44	0.658
MA	0.3562	0.4031	0.88	0.377
SB	1.0221	0.2715	3.76	0.000
F-Statistic	20.19			
Prob.(F-Stat)	0.0005			
R-squared	0.1329			
Adjusted R-squared	0.1043			
Diagnostic Tests	Statistics	Probability		
Hausman test	69.52	0.000***		
Test Parameters (testparm)	1.37	0.2166		
Heteroskedasticity test	57.90	0.000***		
Wooldridge test for autocorrelation	0.036	0.8528		

Dependent Variable: EPS; Obs.: 101 significant at 5%

Source: Researcher's Study, 2020

Interpretation of Diagnostic Test

Table 2 showed the results of the diagnostic tests carried out to determine the choice and appropriateness of the estimation technique employed for this model as well as the regression output for the model. The Hausman test was carried out to determine whether fixed effect, random effect or pooled ordinary least square estimation technique is appropriate for the model. The hausman specification test has as its null hypothesis that the difference in coefficients of a model is not systematic and hence the random effect estimation technique is appropriate. The result of the hausman test showed a probability value of 0.0000 which is less than the 5% level of significance hence, the significance of this test result indicated that the null hypothesis of the hausman specification test should be rejected by the study therefore, the fixed effect estimation technique was utilized for the model.

In as much as the Hausman test result revealed the appropriateness of the fixed effect, the confirmation of the result of the Hausman test was carried out using Testparm. This test help to decide the most appropriate between a fixed effect and pooled OLS regression. The null hypothesis of these test are that the coefficients for all the explanatory variables are jointly equal to zero (0), that is fixed effects is not an appropriate estimator. The result of the test have *p-value* of 0.2166, which is more than the significance level of 5 percent. This is an indication that the coefficients of all the explanatory variables are jointly equal to zero (0), therefore fixed effect is the most appropriate estimator for the model; and the study do not reject the null hypothesis.

Also, the Breusch-Pagan / Cook-Weisberg test for heteroscedasticity was carried out to determine if the variance of the residual are constant. This test has a null hypothesis of constant variance of the residual, the result of the test showed a probability

value of 0.00 which is lower than the 5% level of significance. This suggests that the study rejects the null hypothesis of constant variance, indicating that the variance of the residual is not constant. In testing for autocorrelation in the panel data, the Wooldridge test was conducted. This test has a null hypothesis of no first-order autocorrelation and its result in this model showed a probability value of 0.8528 which is greater than the 5% level of significance. It however suggests that the non-rejection of the null hypothesis hence, the absence of autocorrelation in the model.

To put together these combinations of econometrics issues, the study remedied the issues by estimating the model with the option that produced robust standard error estimates. At the level of significance 0.05, the F-statistic value of 20.19 while the p-value of 0.0005 which is lower than 0.05. This means that we reject the null hypothesis which means that voluntary disclosure has a significant effect on earnings per share of oil and gas companies in Nigeria. This confirms that there is predictability and usefulness of the model.

Model 1

$$EPS_{it} = \alpha_0 + \beta_1 BD_{it} + \beta_2 MA_{it} + \beta_3 SB_{it} + \mu_{it}$$

$$EPS_{it} = -5.773 - 0.9123BD_{it} + 0.3562MA_{it} + 1.0221SB_{it}$$

Findings: The regression analysis estimates on Table 2 showed that Management analysis (MA) and Social and Board (SA) have positive effects on financial performance measured by Earnings Per Share (EPS). This was indicated by the sign of the coefficients, that is $\beta_2 = 0.3562 > 0$ and $\beta_3 = 1.0221 > 0$ respectively. Business Data has a negative effect on financial performance measured by Earnings per share (EPS) which is also indicated by the sign of the coefficient $\beta_1 = -0.9123 < 0$. This result was to an extent largely consistent with *a priori* expectation

Table 3: Regression Analysis for Model 2

Variable	Coefficient	Std Error	t-Stat.	Prob.
Constant	0.2224	0.9184	2.42	0.015
B	-0.1231	0.0071	-1.73	0.084
MA	-0.0117	0.0137	-0.86	0.392
SB	0.01722	0.0092	1.87	0.061

as it was expected that the voluntary disclosure measured by Business data (BD), Management Analysis (MA) and Social and Board (SB) will have a positive effect on Earnings Per Share (EPS). Business data (BD) was however inconsistent with the *a priori* because there was a negative effect on Earnings Per Share (EPS). The size of the coefficient of the independent variable show that a 1 unit increase in MA and SB, will lead to a 0.3562 and 1.0221 unit increase in EPS respectively, while a 1 unit increase in BD will lead to a 0.9123 unit decrease in ROE. Furthermore, the probability of the f-statistics of 0.0005 shows that the coefficients is statistically significant at 5% level of significant for BD, MA and SB.

Decision: At the level of significance of 0.05, the F-statistics is 20.19 while the p-value is 0.0005 which is lower than 0.05. From the result of the regression analysis, voluntary disclosure measured by Management analysis, Social and board has a positive effect on Earnings Per Share of sampled quoted firms in Nigeria, While Business data has a significant negative effect on Earnings Per Share. From the multiple regression estimates the adjusted R square is 0.1329. Therefore, the null hypothesis (H_{02}) of no significant relationship between voluntary disclosure and earnings per share of listed oil and gas firms in Nigeria was hereby rejected.

Findings from this research was consistent with the *a priori* expectation and aligns with Mutiva, Ahmed and Ndirangu (2015) who discovered a positive significant relationship between voluntary disclosures and return on investment using earnings per share as one of the measures of return on investment which is also in line with Agca and Onder (2007), palmer (2008) and Unuagbon and Oziegbe (2016)

F-Statistic	8.46	
Prob.(F-Stat)	0.0374	
R-squared	0.0987	
Adjusted R-squared	0.0709	
Diagnostic Tests	Statistics	Probability
Hausman test	-0.79	0.000***
Multiplier test	239.62	0.000***
Heteroskedasticity test	35.63	0.000***
Wooldridge test for autocorrelation	15.1	0.0025

Dependent Variable: AT; Obs.: 101

significant at 5%

Source: Researcher's Study, 2020

Interpretation of Diagnostic Test

Table 3 showed the results of the diagnostic tests carried out to determine the choice and appropriateness of the estimation technique employed for this model as well as the regression output for the model. The Hausman test was carried out to determine whether fixed effect, random effect or pooled ordinary least square estimation technique is appropriate for the model. The hausman specification test has as its null hypothesis that the difference in coefficients of a model is not systematic and hence the random effect estimation technique is appropriate. The result of the hausman test showed a probability value of 0.0000 which is less than the 5% level of significance hence, the significance of this test result indicated that the null hypothesis of the hausman specification test should be rejected by the study therefore, the fixed effect estimation technique was utilized for the model.

The study went further to test the appropriateness of the random effect estimation technique by conducting the Breusch and Pagan Lagrangian multiplier test. This test has a null hypothesis that random effect is not needed and not appropriate for the model, the result of this test showed a probability of 0.00 which is lower than the 5% level of significance. This showed that the study cannot accept the null hypothesis and hence the acceptance of the alternate hypothesis that random effect is appropriate for the model

Also, the Breusch-Pagan / Cook-Weisberg test for heteroscedasticity was carried out to determine if

the variance of the residual are constant. This test has a null hypothesis of constant variance of the residual, the result of the test showed a probability value of 0.00 which is lower than the 5% level of significance. This suggest that the study rejects the null hypothesis of constant variance, indicating that the variance of the residual is not constant. In testing for autocorrelation in the panel data, the Wooldridge test was conducted. This test has a null hypothesis of no first-order autocorrelation and its result in this model showed a probability value of 0.0025 which is lower than the 5% level of significance. It however suggests that the rejection of the null hypothesis hence, the presence of autocorrelation in the model.

To jointly deal with these combination of econometrics issues, the study remedied the issues by estimating the model with the option that produced robust standard error estimates. At the level of significance 0.05, the F-statistic value of 8.46 while the p-value of 0.0374 which is lower than 0.05. This means that we reject the null hypothesis which means that voluntary disclosure has a significant effect on asset turnover of oil and gas companies in Nigeria. This confirms that there is predictability and usefulness of the model.

Model 2

$$AT_{it} = \alpha_0 + \beta_1 BD_{it} + \beta_2 MA_{it} + \beta_3 SB_{it} + \mu_{it}$$

$$AT_{it} = 0.2224 - 0.1231BD_{it} - 0.0117MA_{it} + 0.01722SB_{it}$$

Findings: The regression analysis estimates on Table 3 showed that Social and Board (SA) has a positive

effect on financial performance measured by Asset Turnover (AT). This is indicated by the sign of the coefficients, that is $\beta_3=0.01722>0$. Business Data and Management Analysis has a negative effect on financial performance measured by Asset turnover (AT) which is also indicated by the sign of the coefficient $\beta_1=-0.1231<0$ and $\beta_2=-0.0117<0$. This result is inconsistent with *a priori* expectation as it was expected that the voluntary disclosure measured by Business data (BD), Management Analysis (MA) and Social and Board (SB) will have a positive effect on Earnings Per Share (EPS). Business data (BD) and Management Analysis was however inconsistent with the *a priori* because there was a negative effect on Asset Turnover (AT). The size of the coefficient of the independent variable show that a 1 unit increase in SB, will lead to a 0.01722 unit increase in AT respectively, while a 1 unit increase in BD and MA will lead to a 0.1231 and 0.0117 unit decrease in AT. Furthermore, the probability of the f-statistics of 0.0374 shows that the coefficients is statistically significant at 5% level of significant for BD, MA and SB.

Decision: the statistical significance of this model indicates that the study will reject the Null Hypothesis of this model which says no significant relationship between voluntary disclosure and earnings per share of listed oil and gas firms in Nigeria, hence the study will accept the alternate hypothesis.

Findings from this research is consistent with the *a priori* expectation and aligns with Unuagbon and Oziegbe (2016), Agca and Onder (2007) who both discovered a significant relationship between voluntary disclosures and asset turnover.

CONCLUSION AND RECOMMENDATION

The study examined the effect of voluntary disclosure on financial performance of oil and gas

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firms in Nigeria. The findings from the study provide relevant empirical evidence by showing that voluntary disclosure and financial performance have a significant positive and negative effects on earnings per share. Voluntary disclosure and financial performance have an insignificant positive and negative effect and a significant negative effect on asset turnover. This constituted statistical evidence and empirical foundation for the implications of financial performance of oil and gas firms in Nigeria.

Thus, this research concluded that a positive relationship exists between voluntary disclosure and financial performance of oil and gas firms in Nigeria.

The following recommendations were made based on the findings of this study;

- The findings of this study revealed that voluntary disclosure has a positive effect on the earnings per share of sampled firms. The study therefore recommended that management aim should be directed to increasing the level of information disclosed in the financial statements hereby building an organisation that will be attractive in the long run to investors hence ensuring going concern certainty.
- The study also revealed that there is a significant and positive relationship between voluntary disclosure and asset turnover indicating that there is a need for the incorporation of corporate responsibility duties in the financial statements as it's evident that it impacts positively on its performance. The adoption of a good corporate governing strategy invariably will promote the overall reputation of the firm.

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