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# Diversity, Equity, Inclusion and Forensic Accounting of Oil and Gas Firms in Nigeria Stock Exchange

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**Abstract:** *This study examined diversity, equity, inclusion and forensic accounting of oil and gas firms in Nigeria Stock Exchange between the period of 2016-2020. The following were the objectives of the study to, Determine the effect of diversity management and forensic accounting of oil and gas firms in Nigeria Stock Exchange, Ascertain the relationship between inclusion and forensic accounting of oil and gas firms in Nigeria Stock Exchange and Ascertain the relationship between equity and forensic accounting of oil and gas firms in Nigeria Stock Exchange. Three research questions are formulated in line with three objectives. Panel Least Squared (PLS) method of data analysis was used. The interested variables were culled from the annual report of the quoted oil and gas firm. The following variables were used diversity, equity, inclusion, as well as forensic accounting. The findings show that Diversity management has significant effect on forensic accounting of oil and gas firms in Nigeria Stock Exchange; Equity has no significant effect on forensic accounting of oil and gas firms in Nigeria Stock Exchange. Finally, Inclusion has significant effect on forensic accounting of oil and gas firms in Nigeria Stock Exchange. The study recommends that Management/ managers should ensure that the practices within the organisation foster development of workforce, consultation and readiness for feedback that will promote readiness for forensic accounting.*

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## Introduction

Diversity management and equal opportunities are two different terms. The term equal opportunities is associated with tolerant, rights based, and is entrenched in conformity of legal rules where- by it is geared towards increasing the proportion of minority and women in senior goals in organization (Greene & Kirton, 2002). Management and inclusion of diverse workforce had become a major concern and salient problem in organizations across all sectors (Choi, 2017). Diversity management and inclusion are required for organizational survival in order to be able to meet up with the dictate of the spate of globalization around the world. Diversity involves recognizing, respecting, accepting and tolerating individual uniqueness and differences. It is a construct that depicts the differences in individuals' gender, race, ethnicity, age, religious beliefs, socioeconomic status, physical abilities, sexual orientation and other ideologies. Inclusion on the other hand has been described as the involvement of employees in the organizational systems and processes (Downey et al. 2015).

Adequate exploration of these differences in a secured and conducive environment would promote harmonious workplace, especially in an organization that employs diverse people such as multinational corporations. In developed nations such as Europe and United States, workplace diversity management and inclusion have received adequate recognition. However, in emerging economies such as Nigeria, the state of diversity management and inclusion are yet to be established especially in multinational corporations such as Shell petroleum where there is multi cultural workforce., Forensic auditing is a relatively new career field that has expanded rapidly since its inception. Forensic auditing is perceived to have evolved rather inorganically in response to certain emerging fraud related challenges and has been precipitated by the surging number of white-collar crimes pressures. The scandals that recently rocked the corporate world with classical examples being the often cited Enron and WorldCom cases have also brought the field of forensic auditing to the forefront. Forensic accounting is seen as encapsulating all the other areas in the use of accounting for investigative purposes.

## **1.2 Objective of the Study**

The general purpose of this study was to examine diversity, equity, inclusion and forensic accounting of oil and gas firms in Nigeria stock exchange. Specifically, the study sought to:

1. Determine the effect of diversity management and forensic accounting of oil and gas firms in Nigeria Stock Exchange
2. Ascertain the relationship between inclusion and forensic accounting of oil and gas firms in Nigeria Stock Exchange
3. Ascertain the relationship between equity and forensic accounting of oil and gas firms in Nigeria Stock Exchange

## **1.3 Research Questions**

Based on the specific purposes, the following research questions were formulated to guide the study:

1. To what extent does diversity management affect forensic accounting of oil and gas firms in Nigeria Stock Exchange?
2. How does inclusion affect forensic accounting of oil and gas firms in Nigeria Stock Exchange?
3. To what extent does equity affect forensic accounting of oil and gas firms in Nigeria Stock Exchange?

## **2.1. LITERATURE REVIEW**

### **Diversity management**

The practices of diversity management have evolved over time. Before 1970s, the major approach to diversity management were liberal and radical approaches. According to Kirton and Greene (2010), liberal approach was under the philosophy of sameness, while radical approach was under the philosophy of positive discrimination. Diversity management has been defined as the utilization of human resources management practices for maintaining variations in human capital and ensure that such variations do not have negative influence towards the achievement of the organizational goals and objectives (Olsen and Martins 2012). Kirton and Greene (2010)

described diversity management as valuing employees' differences and effectiveness in the usage of such differences. The scholars further argued that diversity management has gained greater recognition in recent time, and it is a phenomenon that advocated for Equal Employment Opportunity (EEO) and Affirmative Action (AA) laws among others. Affirmative action programs in the United States were stemmed out of the civil right movement towards the eradication of cultural/ racial discrimination, and so on, while affirmative action programs in Australia were centered on combating the issue of gender discrimination.

According to Konrad, Prasad and Pringle. (2006) Affirmative Action programs comprises organizational goals for adequate representation of historically excluded groups, and mapping out strategies for achieving the goals, while Manoharan Gross and Sardeshmukh (2014) argued that Equal Employment Opportunity is majorly being driven by legislation. Kossek, Lobel and, Brown (2006) accentuated that, diversity management involves commitment to EEO, although, diversity management scope is much broader. In the opinion of Jayne and Dipboye (2004) there are varieties of programs in diversity management, the vital components include initiative for recruitment, promotion and retention of diverse group of workforces

### **Inclusion**

According to Ortlieb and Sieben (2014) inclusion is a new concept among researchers and still at its infancy stage in the organizational literature, this is one of the major reasons why much study has not been done on it, they therefore advocated for more empirical work on this concept as it relates with organizational practices. Also, in Shore et al. (2011) it was argued that, despite the fact that inclusion has started gaining popularity, it is still a new concept with no consensus among researchers as regards its definition. Therefore, scholars had given definition in their various ways. For instance, Hanappi- Egger (2012) defined inclusion as a means of valuing and enabling employees' full participation in the entire organizational activities. Ponce-Pura (2014) defined inclusion as the individual employees' sense of belongingness as it relates to their experiences and perceptions being recognized for their qualities and individuality within the organizational context. In the opinion of April and Blass (2010) inclusion of employees in organization's processes and procedures has to do with equal opportunity among workforce in the workplace. Roberson (2006) described inclusion as the removal of hindrances to the employee full participation and contribution to organizational activities.

### **Equity**

Equity is the net amount of funds invested in a business by its owners, plus any retained earnings. It is also calculated as the difference between the total of all recorded assets and liabilities on an entity's balance sheet (Greene & Kirton, 2002). An analyst routinely compares the amount of equity to the debt stated on a balance sheet to see if a business is properly capitalized. A lender or creditor will usually only extend credit to a business if it has a high proportion of equity to debt. (Nedha, 2011).

### **Forensic Audit**

Forensic audit has been defined by the Institute of Forensic Auditors (IFA) as an activity that involves the collection, verification, analysis and reporting of data with the aim of collecting

evidence to use in a court of law. The focus of forensic audit is the in-depth investigation and detection of fraud and it involves investigating the fraud and providing litigation support services in the court of law (Knezevic, 2015). Forensic auditing is the systematic application of auditing skills to situations or circumstances that have legal implications or consequences. According to Dada, Owolabi and Okwu (2011), forensic auditing arises from the integration of accounting, investigative auditing, criminology and litigation services. Forensic auditors are experts in financial matters who are trained in detecting, investigating and deterring fraud and white collar crimes which are to be presented to court for legal action or to public discussion and debate (Eyisi & Agbaeze, 2014).

Forensic audit evidence collected and evaluated could be presented in a court of competent jurisdiction in a case of litigation and could be used to correct a situation that could lead to fraud. According to Enofe, Omagbon and Ehigiator (2015), forensic audit focuses on the detection, analysis and communication of evidence of underlying financial and reporting events. It should be noted that forensic audit service is useful not only as a reactive measure but also as a proactive measure to curb fraud in the bank. Reactive forensic auditing investigates any suspicion of fraud and if the suspicion is confirmed, the person(s) involved are identified, the findings are backed up with concrete evidences for disciplinary action or criminal proceedings. Proactive forensic auditing identifies mistakes and deviant financial transactions before they graduate into fraud. The proactive approach looks for fraud indicators and uses the philosophy of “catch fraud before it catches you”. The proactive forensic auditing may revolve around a statutory audit, diagnostic tool and regulatory compliance.

### **2.3 EMPIRICAL REVIEW**

Krithi and Ramesh (2021) examined diversity and inclusion. as well as to shed light on future research avenues in the field of workforce diversity management. This research looked at a variety of empirical and conceptual studies on workforce diversity and its implications. Using the literature published between 1987 and 2021. The paper uses secondary data gathered for the review of workforce diversity and inclusion. A literature evaluation was commissioned to focus on workplace diversity and inclusion. Through the review, it was clearly understood the implication of workforce diversity and inclusion to the modern era. According to the findings of the review, there is a large body of research in the field of diversity and its outcomes. More study in the domain of inclusion and its related effects is needed because it is a comparatively recent topic of investigation. This study examines the effectiveness of literature reviews in broadening existing knowledge on a specific area and formulating research prospects for future studies for researchers. This study contributes a theoretical perspective to the management of key diversity and the development of diverse organizations.

Nhat, Meenakshi, Sagar Astha and Mohamme (2021), highlighted the impact of diversity management on organizational performance diversity management practice bring new and favorable opportunity in the organization as if there is proper diversity management practices then more able and efficient employees will be hired in the organization from different diversified areas with several difference in demographic factor, especially in hotels there is more scope and demand of diversified workforce, as in hotels customers visit from all over the world with different culture and language so in order to meet all the requirements of customers and

make guest comfortable and satisfied it is important to have diversified staff. Therefore an attempt is made to measure all the possible positive and negative impact of diversity management practices on organizational performance specifically in hotel organization. Methodology adapted for this study is based on literature review done in a systematic manner. Different scientific online databases such as web knowledge, emerald, saga, Pro-Quest, Science direct are considered in the process of literature. Secondary data was collected from various published and unpublished article, reports, etc. Both government and non-government organizations data were analyzed. diversity management practices, learning organization, organizational performance are the main three key words used to scan these online database. Relevant articles were studied in depth in order to understand what is already done and what is required to be done. Finding of the study indicate that if diversity management is done in the correct manner and on right basis by considering all its challenges and problem raised by it, the for sure it will increases organizational performance and will be beneficial for organization

Ohunakin, Adeniji, Ogunnaike, Igbadume, and Akintayo, (2019) examined effects of diversity management and inclusion on organizational outcomes. The importance of diversity management and inclusion on organization is of immense benefit especially in a Multinational Corporations, where diversity and inclusion are parts of their core values. However, in our context, which had been identified as the most diverse country in Africa, there is need to establish how the management and inclusion of these diverse workforce would benefit organizational activities, coupled with the fact that, there is dearth of research on these constructs in extant literature. This study investigated the effects of diversity management and inclusion on organizational outcomes (job satisfaction and job performance) among Shell Corporation employees. Pen and paper questionnaire of 384 copies were administered to the Lagos Branch employees of Shell Corporation. Cross-sectional research design was adopted. Confirmatory Factor Analysis (CFA), convergent and divergent validity, co-relational analysis, and structural equation model were used for the analysis. The findings showed positive effect of diversity management and inclusion on employees' job satisfaction and employees' job performance. It implies that diversity management and inclusion have the potentials of assisting organization in creating a climate in which employee will like to work harder with readiness to continue to work with the organization.

## **METHODOLOGY**

This chapter dealt with procedures used in carrying out the study, the following point were highlighted researcher design, area of study, population of the study, sample, and sampling techniques, sources of data. The research design employed in this research is the ex-post facto research design. The population of this study is 13 oil and gas firm in quoted in the Nigeria Stock Exchange, while the sample size is 5 oil and gas firm, namely Conoil, Eternal Oil, Forte Oil, Mrs Oil, Oando Oil from 2016-2020 . This study made extensive use of secondary sources of data as well as dummy variables. The secondary sources used in this study includes: journals, annual reports of the five selected oil and gas firm. This study employs panel least square using panel data between 2016 and 2020 covering period of 5 years for 5 oil and gas firms, to estimate and provide evidence on the nature of relationship

between dependent and independent variables Inferential statistics of the hypotheses were carried out with the aid of E-view 8.0 statistical software, using coefficient of correlation which is a good measure of relationship between two variables, tells us about the strength of relationship and the direction of relationship as well. Regression analysis predicts the value of a variable based on the value of the other variables and explains the impact or effect of changes in the values of the variables

### **Model Specification**

In an attempt to determine the diversity, equity, inclusion and forensic accounting of oil and gas firms in Nigeria stock exchange. The study modifies the work of Ohunakin, Adeniji, Ogunnaike, Igbadume, and Akintayo, (2019) examined effects of diversity management and inclusion on organizational outcomes. The model were as follows

$$FP = \alpha + \beta_1 DVM + \beta_2 INCL + \epsilon$$

Where;

FP = Firm Performance

DVM = Diversity management

INCL = Inclusion

Our model will be modifying in line with the state objectives. Algebraically, therefore

$$FA = F(DVM, EQT, INCL)$$

Where

FA = Forensic accounting

DVM = Diversity management

EQT= Equity

INCL= Inclusion

Econometric form of the model being

$$FA = \beta_0 + \beta_1 DVM + \beta_2 EQT + \beta_3 INCL + \mu$$

Where

Bo= constant

$B_0$  = Autonomous Intercept

$B_1$  = Coefficient of parameter DVM

$B_2$  = Coefficient of parameter EQT

$B_3$  = Coefficient of parameter INCL

U = Stochastic error term

## DATA PRESENTATION AND ANALYSIS

### 4.1 Introduction

This chapter presents and analyses the descriptive statistics, and panel regression analysis of the Dependent and Independent variables. The instrument for the data analysis is the E-view. The study investigates the diversity, equity, inclusion and forensic accounting of oil and gas firms in Nigeria stock exchange.

### 4.3 Presentation of Regression Result

**Table 4.3 Error Correction Model Result**

Variable	Coefficient	Std Error	T-statistics	Prob
C	0.704519	0.274510	2.566459	0.0155
DVM	0.026552	0.027209	2.975836	0.0069
EQT	0.885767	0.014466	1.123196	0.0601
INCL	0.272191	0.152099	2.789567	0.0036

**Source:** Author's computation using e-view version 8.1

R –Square	0.914231
Adjusted R-squared	0.903461
F-Statistics	129.2486
Durbin-Watson stat	2.069578
Prob (F-statistics)	0.000000

### 4.4 Interpretation of the Regression Result

The value of the R-square and the adjusted R-square show that the explanatory variables are robust in explaining variation in the dependent variables (RGDP), with a value of 0.914231 and 0.903461 respectively.

The F-statistics measures the overall significance of the explanatory parameter. From the result report in table above, our computed value of f-statistics is 129.2486, while its probability is 0.0000, given this value we reject the null hypothesis and accept the alternative hypothesis which state that there is a significant relationship between the variance of estimated regression model.

An A’p priori criterion is use to determine the existing finance theories and indicates the sign of the economic parameter under consideration. From the estimated regression model, it was obtained from the coefficient Coolum that all the variables conform to a’p priori expectation. This further suggests that increase in any of these variables increases the value of forensic accounting vice versa at a given percentage respectively.

T-statistics, this is the measure use to determine the individual statistical significance of the variables in the model. From the model it was obtained that the Diversity management is statistically significant, this implies that it impacted on forensic accounting, while equity is statistically insignificant, this also implies that it has not contributed to forensic accounting. However, inclusion is statistically significant; this implies that impacted on forensic accounting.

The Durbin-Watson statistics is used to test for the presence or otherwise of autocorrelation in our model when the value of Durbin-Watson is closer or a little bit above 2, it means the absence of autocorrelation amongst the explanatory parameter (Koutsoyannis 1997) from the table above, it was obtained that our Durbin-Watson result is (2.0), this satisfies the above state condition. This means the absence of autocorrelation among the explanatory variables.

### **Hypothesis Testing**

The researcher in this study, precisely in chapter one formulated a hypothesis and this has to be verified in order to find out the validity of otherwise of such proposition. The research hypothesis is based on relevant statistics from the regression result. The hypothesis is tested on the basis of quantitative statistical analysis in this study.

**Ho:** Diversity management has no significant effect on forensic accounting of oil and gas firms in Nigeria Stock Exchange

From the regression result we discovered that in the t-statistics column Diversity management is 2.975836 while its probability is 0.0000. Since its probability is less than 0.05% desired level of significance, we reject the null hypothesis and accept the alternative hypothesis, we therefore conclude in favour of alternative hypothesis which state that Diversity management has significant effect on forensic accounting of oil and gas firms in Nigeria Stock Exchange

### **Hypothesis Two**

**Ho:** Equity has no significant effect on forensic accounting of oil and gas firms in Nigeria Stock Exchange

From table above, we find out that computed value for equity is 1.123196 while its probability is 0.0601 this shown that the equity is statistically insignificant. Based on this analysis we accept (H0) and reject (H1), which implies that equity has no significant effect on forensic accounting of oil and gas firms in Nigeria Stock Exchange

### **Hypothesis Three**

**Ho:** Inclusion has no significant effect on forensic accounting of oil and gas firms in Nigeria Stock Exchange

Careful examination of t-test table results for Inclusion is 2.789567 while it's probability is 0.0036 this shown that the Inclusion is statistically significant at 5% level of significance. Based on this analysis we reject (H0) and accept (H1), which implies that Inclusion has significant effect on forensic accounting of oil and gas firms in Nigeria Stock Exchange

## **5.0 SUMMARY, RECOMMENDATION & CONCLUSION**

### **5.1 Summary**

The research explores the diversity, equity, inclusion and forensic accounting of oil and gas firms in Nigeria stock exchange for the periods of 2016-2020. From the empirical evidence done in this work it was realized that diversity, and inclusion had significant impact on forensic accounting in oil and gas firms in Nigeria. This finding is against the condition of null hypothesis, and reveals the followings

- The regression result shows that Diversity management has significant effect on forensic accounting of oil and gas firms in Nigeria Stock Exchange
- Equity has no significant effect on forensic accounting of oil and gas firms in Nigeria Stock Exchange
- Finally, Inclusion has significant effect on forensic accounting of oil and gas firms in Nigeria Stock Exchange

### **5.2 Conclusion**

The study focuses on the diversity, equity, inclusion and forensic accounting of oil and gas firms in Nigeria stock exchange from 2016-2020. The study regressed the diversity, equity, inclusion against forensic accounting, and the regression result reveals that about 91.42% of the systematic variation in the dependent variable is explained by the three independent variables such as diversity, equity, inclusion. The F-statistic is significant at the 5% level showing that there is a linear relationship between the forensic accounting and the three independent variables.

The result revealed that Diversity management has significant effect on forensic accounting of oil and gas firms in Nigeria Stock Exchange. Equity has no significant effect on forensic accounting of oil and gas firms in Nigeria Stock Exchange. Inclusion has significant effect on forensic accounting of oil and gas firms in Nigeria Stock Exchange. It implies that diversity management and inclusion have the potentials of assisting organisation in creating a climate in which employee will like to work harder with readiness to continue to work with the organization. Management/ managers should ensure that the practices within the organisation foster development of workforce, consultation and readiness for feedback that will promote readiness for forensic accounting.

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