Chief Executive Officer (CEO) Characteristics and Financial Performance of Quoted Non-Financial Firms in Nigeria

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Abstract

This study investigates the impact of accounting conservatism on firm financial performance in Nigeria. The study covers the period from 2005 to 2020 of seventy six firms listed on the floor of the Nigerian Exchange Group (NXG). The results of the generalized method of moments (GMM) reveal that while four of the variables CEO compensation, CEO with military experience, CEO age and CEO tenure are positively significant with firm performance (ROA); another five of the variables CEO shareholdings, CEO experience, CEO nationality, CEO with financial expertise and CEO reputations on award are negatively significant with firm performance (ROA) but CEO gender diversity is insignificant. The study concludes with some recommendations.

Keywords: *CEO Characteristics, Firm Performance, Quoted Non-Financial Firms, GMM, NXG.*

1.0 Introduction

Financial performance has long been a recurrent research topic in corporate governance, driven by a variety of issues. How to increase performance has always been one of the major concerns that businesses have. In an increasingly financialized environment, creating value has emerged as a key criterion for business evaluation (Ghardallou et al., 2020). Financial performance demonstrates how effectively a business may use its resources and obligations to produce steady income. It provides details regarding a company's financial situation, including whether it can be liquidated or continue to make money. Parties that heavily depend on financial statements to make wise business decisions should expect them to be a reliable source of crucial information. Accurate accounting information is crucial to convey to both present and potential investors in these reports. Numerous aspects that considerably explain the financial performance have been suggested by the literature. Egbadju (2023) revealed that ROE (return on equity); EPS(earnings per share); TobinsQ; ROA(return on assets); ROI(return on investments); RI(residual income);EVA(economic value added); etc. are various metrics that have been used to measure performance.

Companies' risk management and transfer practices are called into question by the value creation standards. As a result, a wealth of literature has been produced to examine the factors that influence a firm's performance in the corporate governance literature. Although great research works have

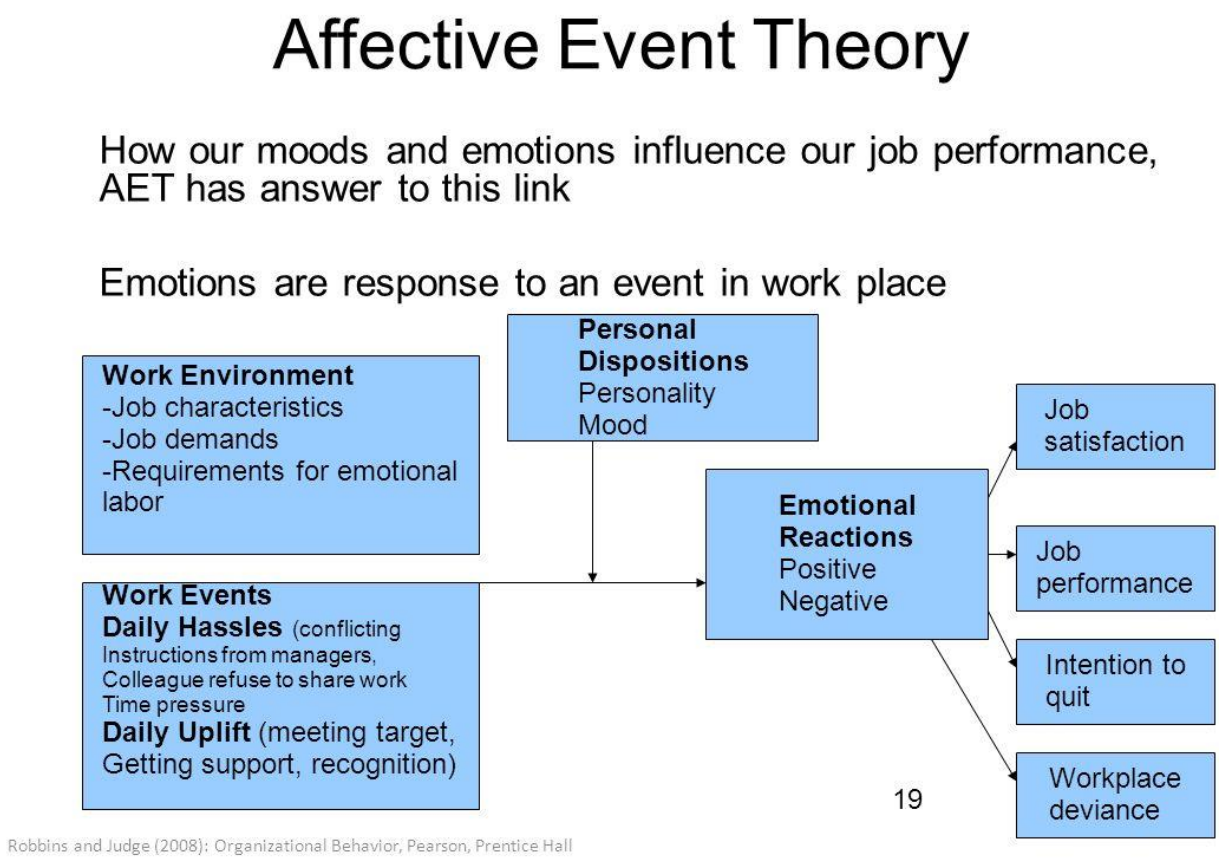
been done on corporate governance and its branches-board attributes, ownership structures, etc; only very few works have been done on chief executive (CEO) characteristics. The CEOs are, in fact, among the most important players in any business organization and so managers are almost always accountable for the success or failure of the business. The duties of executive managers are constantly evolving; they must control expenses, foster growth, and handle complexity (Ghardallou et al., 2020).

A company's strategic actions, including capital investments, acquisitions, international diversification, product diversification, divestitures, firm risk taking, leverage, and product innovation, are positively correlated with the qualities of its CEO (Gang et al., 2015). Strategic decisions made by executive management are critical to the survival of the company. In order to start a significant organizational transformation and generate value, their function is becoming more and more concentrated on growth-related investment challenges. The performance of the company is then connected with these strategic moves. Ghardallou et al. (2020) observed that there is an inverse relationship between the CEO's age and the company's strategic risk-taking and worldwide diversity; and that CEO tenure is negatively connected with product diversification, strategic risk, and strategic change. In the same vein, Gang et al. (2015) noted that CEO's personality has an impact on the firm's strategic activities and that higher self-concept levels were often linked to greater firm strategic activities and improved firm performance for CEOs. Various CEO characteristics have been considered by previous studies which include: experience, tenure, education, age, financial expertise, etc, and the results have been inconclusive.
Based on the inconclusive empirical evidence, the main objective of this study is to investigate the impact of CEO characteristics on the financial performance of quoted non-financial firms in Nigeria. We, therefore, hypothesized that all the CEO characteristics considered in this study have no significant relationship with financial performance represented by return on assets (ROA) of quoted non-financial firms in Nigeria. Following this introduction, the rest of the paper is divided into five sections with the literature review in section two, methodology in section three, discuss of results in section four and the fifth section concludes this paper.

2.0 Literature Review

2.1 Theoretical Underpinning or Framework.

2.1.1. Affective Events Theory (AET)



Source:https://www.google.com/search?q=affective+events+theory+(aet)&oq=Affective+Events+Theory+(AET)&gs_lcrp=EgZjaHJvbWUqBwgAEAAYgAQyBwgAEAAYgAQyCggBEAAYhgMYigUyCggCEAAYhgMYigXSAQo0MTUwNWowajE1qAIAsAIA&sourceid=chrome&ie=UTF-8#imgrc=r6YLMkr1vmpRCM&imgdii=jUcT2Zi6eX1-WM&ip=1

Affective Events Theory (AET), propounded by Weiss and Cropanzano(1996), proposed a link between job affect and on-the-job behavior. According to them, a person's affect is their emotional reaction to events at work or their feelings on their work. The idea of affective events suggests that situations that cause intense emotions in employees have a lasting impact on the attitudes, behaviors, and output of those employees as well as providing a framework for understanding such situations. Numerous aspects of the job, including activities, management styles, coworker actions, and job pressures, might have an emotional impact. Emotions have a crucial role in how workers respond to situations at work. For instance, an employee who works for a manager who is constantly yelling is likely to feel on edge all the time and react emotionally to that ranting. Consequently, this would impede the worker's ability to complete their duties efficiently, leading to subpar job output. It is imperative for managers or supervisors to have the ability to promptly resolve both large and little concerns to prevent employees' emotions from interfering with their

ability to perform their tasks. Thus, the affective hypothesis made it clear that a CEO's emotions could affect how well or poorly he or she performs at work, which could have an impact on the firm's overall value since the director's effectiveness at work could influence the firm's worth.

2.2. Empirical Literature

Dao and Thanh (2023) empirically tested the impact of chief executive officers (CEO) and firm performance in Vietnam. The study made use of sampled 245 listed firms between the period 2015 and 2020 in Vietnamese Stock Exchange. The results of the generalized method of moments (GMM) showed that CEO's experience, tenure and financial expertise were all positively related with performance represented by return on assets (ROA)

Yakubu et al. (2023) empirically examined whether board characteristics and life cycle have ever had any influence firms performance in Ghana. The study used secondary panel data over five years period from 2009 to 2018 obtained for 15 firms listed on the Ghana Stock Exchange. The OLS regression results indicated that while CEO's tenure was positively and significantly related with performance, number of executive directors was negatively and significantly related with it.

Gao et al. (2023) carried out a research study to determine the extent to which CEO financial background impacted corporate innovation in China. Annual secondary panel data which covered the period 2017 to 2021 collected from Chinese A-share listed companies was used. The OLS regression results indicated that the CEO financial expertise negatively impacted corporate innovation.

Setiawan and Gestanti (2022) researched on the extent to which CEO characteristics and firm performance in Indonesia. The study used secondary panel data over eight years period from 2010 to 2017 obtained on 65 manufacturing firms listed on the Indonesia Stock Exchange (IDX).
The OLS regression results indicated that female CEO was significantly positive with firm performance; CEO education was significantly positive with firm performance while CEO age was insignificant with performance

Ghardallou et al. (2020) embarked on this research to investigate the effect of CEO characteristics on firm performance in Saudi Arabia**.** The study used secondarily sourced audited reports of 120 firms listed on the floor of Tadawul Stock Exchange over the period 2014 to 2017. The results of the OLS revealed that CEO experience, tenure, financial expertise positively and significantly impacted firm's performance

Edi et al. (2020) empirically investigated if CEO characteristics had impacted financial performance in Indonesia. The study used secondary panel data over the period from 2010 to 2016 obtained for some firms listed on the Indonesia Stock Exchange. The OLS regression results indicated that CEO experience positively and significantly impacted firm's performance

Saidu (2019) studied whether there is any relationship between CEO characteristics and financial performance of firms in Nigeria. The researchers used annually sourced panel data collected over

the period from 2011 to 2016 on 37 selected firms quoted on the NXG. The results of the OLS revealed that while CEO experience and financial expertise positively and significantly impacted performance.

Vintilă and Gherghina (2012) carried out a study to ascertain if there is any relationship between CEO characteristics and financial performance of firms in the United States of America. The researchers used annually sourced panel data collected over certain period of selected firms quoted on three Stock Exchanges in America. The results of the OLS revealed that while CEO tenure was positively and significantly related with performance, CEO age was insignificant.

2.3. **Gap in Literature:** Many research studies on CEO characteristics have been carried out both in developed and developing economies. While a lot of research works have been done on corporate governance, board attributes, ownership structures, only very few works have been done on CEO characteristics. This study differs from others in that it uses variables like CEO percentage shareholdings; CEO compensation; CEOs with military experience; CEO nationality and CEO reputations from award which to the best of my knowledge none has used. This study also covers a longer time periods (2005 to 2020) than the other studies except Gao et al. (2023) who used a more recent data from 2017 to 2021. With respect to the number of firms, this study uses more firms (76) than previous studies.

3.0 Methodology

3.1 Research Design

Using the ex-post facto research design, often referred to as the descriptive or correlational research design, the study investigates if there is any relationship between corporate governance and accounting conservatism of enterprises in Nigeria. The population of the study consists of 106 non-financial enterprises listed on the floor of the Nigerian Exchange Group (NXG). In order to conduct this study, secondary data from 76 out of 106 organizations' annual reports were gathered over a period of sixteen (16) years, from 2005 to 2020, totaling 1,216 observations.

3.2 Measurement and Definitions of Variables.

Table1

S/N	Variables Names	Definitions	Variable Types	Measurements	Authorities
1	ROA		Dependent	See Section 3.2.1*	Dao and Thanh (2023)
2	ROA(-1)		Instrumental	Preceding or Last year ROA	Dao and Thanh (2023)
3	CEOSH	Chief Executive Officer (CEO) Shareholdings	Independent	Proportion (%) of shares controlled by the CEO	None used it

4	CEOCP	Chief Executive Officer (CEO) Compensation	Independent	Total salaries and bonuses of CEO	None used it
5	CEOEX	Chief Executive Officer (CEO) Experience	Independent	Total number of firms CEO has worked	Dao and Thanh (2023)
6	CEOME	Chief Executive Officer (CEO) Military Experience	Independent	A dummy variable which equals '1' if the board has a CEO who was a former Army, Navy or Airforce officer, otherwise '0'	None used it
7	CEOAG	Chief Executive Officer (CEO) Age	Independent	Total number of years of CEO.	Setiawan and Gestanti (2022)
8	CEOT	Chief Executive Officer (CEO) Tenure	Independent	Total number of years CEO has been in that position.	Dao and Thanh (2023); Yakubu et al. (2023)
9	CEON	Chief Executive Officer (CEO) Nationality	Independent	CEO country of origin	None used it
10	CEOFE	Chief Executive Officer (CEO) with Financial Expertise	Independent	A dummy variable which takes the value '1' if CEO has professional qualification in accounting and finance, otherwise '0'	Dao and Thanh (2023); Gao et al. (2023)
11	CEORE	Chief Executive Officer (CEO) Reputations	Independent	A dummy variable which takes the value '1' if CEO has won an award, otherwise '0'	None used it
12	CEOGD	Chief Executive Officer (CEO) Gender Diversity	Independent	A dummy variable which takes the value '1' if CEO is a female, otherwise '0'	Setiawan and Gestanti (2022)
13	LEV	Leverage	Control	Total debts/ Total assets	-
14	MTB	Market-To-Book	Control	Market Value/Book Value	-
15	SIZE	Firm Size	Control	Log of Total Assets	-
16	BTM	Book-To-Market	Control	Book Value/Market Value	-

17	YDUM	Year Fixed Effect Dummy	Control	A dummy variable which takes the value '1' for each year	-
18	IDUM	Industry Sector Fixed Effect Dummy	Control	A dummy variable which takes the value '1' for each industry	-

Source: Researcher's Computations from Extant Literature.

3.3 Model Specification

The functional equation of financial performance to test the ten (10) hypotheses specified is stated as in equation 1:

ROA = f (CEOSH, CEOCP, CEOEX, CEOME, CEOAG, CEOT, CEON, CEOFE, CEORE, CEOGD) (Eq1)

Introducing the four control variables give rise to equation 2 as:

ROA = f (CEOSH, CEOCP, CEOEX, CEOME, CEOAG, CEOT, CEON, CEOFE, CEORE, CEOGD, LEV, MTB, SIZE, BTM) (Eq2)

Eq2 becomes Eq3 when the year dummy and industry sector dummy variables are introduced to control for specific fixed effect.

ROA = f (CEOSH, CEOCP, CEOEX, CEOME, CEOAG, CEOT, CEON, CEOFE, CEORE, CEOGD, LEV, MTB, SIZE, BTM, IDUM, YDUM) (Eq3)

The functional testable model will be derived as:

$$ROA = \beta o + \beta_1 CEOSH + \beta_2 CEOCP + \beta_3 CEOEX + \beta_4 CEOME + \beta_5 CEOAG + \beta_6 CEOT + \beta_7 CEON + \beta_8 CEOFE + \beta_9 CEORE + \beta_{10} CEOGD_{it} + \beta_{11} LEV_{it} + \beta_{12} MTB_{it} + \beta_{13} SIZE_{it} + \beta_{14} BTM_{it} ++ \beta_{15} YDUM + \beta_{16} IDUM + \varepsilon_{it} \quad (Eq4)$$

Since we are using panel data, the model will be specified in the appropriate form as:

$$ROA_{it} = \beta o + \beta_1 CEOSH_{it} + \beta_2 CEOCP_{it} + \beta_3 CEOEX_{it} + \beta_4 CEOME_{it} + \beta_5 CEOAG_{it} + \beta_6 CEOT_{it} + \beta_7 CEON_{it} + \beta_8 CEOFE_{it} + \beta_9 CEORE_{it} + \beta_{10} CEOGD_{it} + \beta_{11} LEV_{it} + \beta_{12} MTB_{it} + \beta_{13} SIZE_{it} + \beta_{14} BTM_{it} ++ \beta_{15} YDUM_{it} + \beta_{16} IDUM_{it} + \varepsilon_{it} \quad (Eq5)$$

3.4 Dynamic Data Analysis using Generalized Method of Moments (GMM):

In this study, we used the Generalized Method of Moments (GMM) regression estimation technique. GMM is a dynamic panel or longitudinal data estimator that can effectively handle the

dynamism in corporate finance in a globalized economic environment with firms and countries individual or specific effects.

Generalized Method of Moments (GMM) regression estimation technique is a generic method for the estimation of statistical model parameters. The essence of using GMM for a dynamic panel data is to practically solve the problem of endogeneity bias which simultaneously tackles unobserved heterogeneity (Chung et al.,2018). Endogeneity simply means that the independent or explanatory variables and the disturbance or error term are correlated. When the independent variable and the stochastic disturbance or error term of the regression equation are correlated, we say endogeneity problem has occurred (Ullah et al., 2018). But when the independent variable is uncorrelated with the stochastic disturbance or error term, the situation is exogenous or orthogonal and this is desirable for our model. The lagged value of the dependent variable was included in a dynamic model to capture its past influence on the current outcome, and this leads to correlation between the independent variable and the stochastic error term; and so OLS estimates are no longer BLUE except those estimators that consider deviations from past or original observation (Arellano & Bond, 1991; Arellano & Bover, 1995). For as much as static models do not consider endogeneity problem, they produce estimation results that are biased and misleading whereas dynamic models results of the generalized method of moments recognizes the various sources of endogeneity such as: unobserved heterogeneity in panel data, omitted variables, measurement error, and simultaneity (Man, 2019). GMM is designed to handle the problems of multicollinearity, heteroscedasticity and autocorrelation but especially second order correlation. Many studies in corporate finance which tries to explain causal-effect relationships often encounter difficulties in dealing with endogeneity and this can lead to inconsistent and biased parameter estimates (Wintoki et al., 2012) or we may not even get the right coefficient sign-positive or negative (Ketokivi & McIntosh, 2017), thereby resulting in misleading inferences, conclusions and interpretations (Li et al., 2021). Li et al. (2021) observed that out of about twelve (12) papers where endogeneity bias were ever mentioned, only three of them used the dynamic model approach while only one applied the rigorous way by reporting the results of the test.

To identify endogeneity in our model, we run a fixed effect regression model for only the independent variables with each independent variable being a dependent variable in turn and then extract its residual. This residual variable is used to replace the main dependent variable in the original regression equation and then, rerun and observe the p-value. If the p-value of the residual variable is less than or equal to 5%, then there is an endogeneity in our model. The endogeneity test results in Table 2 below showed that RESME(0.0016) and RESIZE (0.0034) have endogeneity problem since their P-values are less than 5%.

Table 2 Endogeneity Test Results

S/N	Estimated Residuals of Variables	P-Values	S/N	Estimated Residuals of Variables	P-Values
1	RESSH	0.4777	8	RESFE	0.9312
2	RESCP	0.8597	9	RESRE	0.6326
3	RESEX	0.5572	10	RESGD	0.6993
4	RESME	0.0016	11	RESLEV	0.5918
5	RESAG	0.9889	12	RESMTB	0.1897
6	REST	0.4389	13	RESIZE	0.0034
7	RESN	0.8262	14	RESBTM	0.2796

Source: Researcher's Computations (2023) Using EViews10 Software.

Therefore, only a dynamic model like the GMM can eliminate this endogeneity. By including the lagged value of the dependent variable, that is, ROA_{it-1}, due to unobserved heterogeneity transforms the static model to a dynamic one. That means, including the lagged dependent variable to equation 5, we have equation 6 below:

$$ROA_{it} = \beta o + \beta_1 ROA_{it}(-1) + \beta_2 CEOSH_{it} + \beta_3 CEOCP_{it} + \beta_4 CEOEX_{it} + \beta_5 CEOME_{it} + \beta_6 CEOAG_{it} + \beta_7 CEOT_{it} + \beta_8 CEON_{it} + \beta_9 CEOFE_{it} + \beta_{10} CEORE_{it} + \beta_{11} CEOGD_{it} + \beta_{12} LEV_{it} + \beta_{13} MTB_{it} + \beta_{14} SIZE_{it} + \beta_{15} BTM_{it} + + \beta_{16} YDUM_{it} + \beta_{17} IDUM_{it} + \varepsilon_{it} \quad \text{Eq6}$$

Where the definitions are as stated in Table2 above.

β1, β2, β3, β4, β5, β6, β7, β8, β9, β10, β11 and β12 are the beta coefficients of the independent variables. From this study, we expect β1 to β12 to be greater than zero.

ε_{it} = Error term for year 'i' in year 't'

This study adapted the model previously used by Dao and Thanh (2023) who also used the dynamic generalized method of moments (GMM)

4.0. Method of Data Analysis

4.1 Univariate Data Analyses (Descriptive Statistics)

Table 3

	ROA	CEOSH	CEOCP	CEOEX	CEOME	CEOAG	CEOT	CEON	CEOFE	CEORE	CEOGD
Mean	0.054008	1.341445	296902.3	3.818259	0.274725	60.30854	2.752325	3.105664	0.770076	0.256974	0.890955
Median	0.051178	0.000000	10274.00	4.000000	0.000000	59.00000	2.000000	1.000000	1.000000	0.000000	1.000000
Maximum	6.193164	75.69183	26188551	9.000000	4.000000	88.00000	25.00000	66.00000	1.000000	2.000000	1.000000
Skewness	8.510965	7.514652	8.711553	1.667403	3.361206	-0.169646	6.075365	4.198301	-1.283681	1.305299	-2.508572
Kurtosis	176.9865	69.89069	101.4774	13.06478	19.92469	5.126521	99.46028	37.58651	2.647838	3.225010	7.292934
Jarque-Bera	1506405.	231682.9	492983.8	5541.409	16346.89	228.5758	465915.9	62439.23	331.0117	338.4293	2149.167
Probability	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000	0.000000
Observations	1216	1216	1216	1216	1216	1216	1216	1216	1216	1216	1216

The statistics in Table 3 show that the mean values of the variables as well as the maximum values. Since the mean values are lower than the maximum values, it confirms that there are no outliers in our data. The Jarque-Bera Statistics and its Probability of 0.000000 for all the variables show that the distribution is not normal. However, Ghasemi and Zahediasl (2012) noted that, in accordance with the central limit theorem (CLT), violating the normality assumption shouldn't be a significant problem once the observation is 100 and above. Our observation is 1216, and so normality assumption does not matter here.

4.2 Bivariate Data Analysis (Correlation Analysis)

The correlation analyses among the variables are meant to first determine the association between each pair of the dependent and independent variables as well as among the explanatory variables. The degree of association may be weak (0.00 to 0.5), moderate (0.51 to 0.8) or high (0.81 and above). A very high association among the regressors poses a problem of multi-collinearity (Gujarati, 2003)

Table 4. Covariance Analysis:
Date: 10/11/23 Time: 17:52
Sample: 2005 2020
Included observations: 1216
Balanced sample (listwise missing value deletion)

Covariance
Correlation

	ROA	CEOSH	CEOCP	CEOEX	CEOME	CEOAG	CEOTE	CEONE	CEOREE	CEOGD
ROA	0.094360 1.000000									
CEOSH	-0.060078	38.47699								
	-0.031530	1.000000								
CEOCP	-4916.081	-256205.5	2.40E+12							
	-0.010326	-0.026649	1.000000							
CEOEX	-0.000624	-0.196299	-3638.093	0.495288						
	-0.002887	-0.044966	-0.003335	1.000000						
CEOME	0.016066	-0.004762	121532.4	0.012735	0.331119					
	0.090892	-0.001334	0.136270	0.031448	1.000000					
CEOAG	-0.076549	6.297763	-1397039.	-0.083969	-0.084763	83.56584				
	-0.027260	-0.111064	-0.098604	-0.013052	-0.016114	1.000000				

CEOT	0.008153	0.377778	-3424.870	0.098690	-0.092566	-0.880472	1.455986				
	-0.021996	-0.050473	-0.001831	-0.116215	-0.133315	-0.079822	1.000000				
CEON	-0.053347	-1.384553	-874.1135	-0.123654	0.079171	0.887095	-0.284903	20.82823			
	-0.038053	-0.048908	-0.000124	-0.038499	-0.030147	-0.021263	-0.051736	1.000000			
CEOFE	-0.000493	-0.427167	47625.83	-0.002057	0.013757	0.136874	0.024203	0.249992	0.177059		
	-0.003813	-0.163658	-0.073027	-0.006947	-0.056817	-0.035583	-0.047669	-0.130179	1.000000		
CEORE	-0.004182	-0.177765	-23945.12	-0.005706	-0.046901	0.281661	-0.118095	-0.011731	-0.026963	0.202773	
	-0.030235	-0.063641	-0.034309	-0.018006	-0.181002	-0.068424	-0.217345	-0.005708	-0.142298	1.000000	
CEOGD	-0.001849	-0.055589	-11292.83	-0.026580	-0.013051	-0.022991	-0.044844	-0.211015	-0.031564	-0.017033	-0.097154
	-0.019310	-0.028751	-0.023376	-0.121172	-0.072766	-0.008069	-0.119231	-0.148339	-0.240657	-0.121352	1.000000

Source: Researcher's Computations (2023) Using EViews13 Software.

From Table 4 above, all the variables have weak associations and this attest to the fact that there is no problem of multicollinearity among the variables.

4.3 Regression Models Estimation Results and Hypotheses Testing.

Table 5. Dependent Variable: ROA

Method: Panel Generalized Method of Moments
Transformation: First Differences
Date: 10/11/23 Time: 17:43
Sample (adjusted): 2005 2020
Periods included: 16
Cross-sections included: 76
Total panel (unbalanced) observations: 1216
White period (period correlation) instrument weighting matrix
White period (cross-section cluster) standard errors & covariance (d.f.
corrected)
Standard error and t-statistic probabilities adjusted for clustering
Instrument specification: @DYN(ROA,-2)
Constant added to instrument list

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ROA(-1)	-0.187228	0.004866	-38.47906	0.0000
CEOSH	-0.011385	0.000896	-12.70889	0.0000
CEOCP	2.14E-08	9.52E-09	2.243198	0.0279
CEOEX	-0.363529	0.012739	-28.53706	0.0000
CEOME	0.672588	0.020550	32.72914	0.0000
CEOAG	0.006027	0.000399	15.09940	0.0000
CEOT	0.050162	0.014575	3.441700	0.0010
CEON	-0.009881	0.002672	-3.697719	0.0004
CEOFE	-1.087522	0.061615	-17.65039	0.0000
CEORE	-0.229745	0.018610	-12.34546	0.0000
CEOGD	-0.008072	0.033986	-0.237513	0.8129

Effects Specification

Cross-section fixed (first differences)

Mean dependent var	0.010036	S.D. dependent var	0.381076
S.E. of regression	0.438851	Sum squared resid	194.9016
J-statistic	65.67434	Instrument rank	75
Prob(J-statistic)	0.418566		

Source: Researcher's Computations (2023) Using EViews13 Software.

4.3 Discussion of the Regression Results.

Table 5 above shows the regression estimation results of the relationship between CEO characteristics alone (CEOSH, CEOCP, CEOEX, CEOME, CEOAG, CEOT, CEON, CEOFE, CEORE, CEOGD) and financial performance of the 76 sampled firms.

A look at the coefficient (-0.187228) of ROA (-1) shows that it is negatively significant (t-Statistics = -38.47906 and p= 0.0000) at the 1% levels of significance. This result contradicts the extant literature that the dependent variable and its lag move in the same direction and must be significant (Egbadju & Jacob, 2022). The negative coefficient means that the current year profit is not directly affected by previous period profit and this is not a good sign at all. Again, since the p-value of Sargon statistic or J-Statistic (0.418566) is higher than the threshold of 5% and 10% or even the 25% or more suggested by Roodman (2009), our model is free from the problem of instruments proliferation.

From the result above, all the CEO characteristics (CEOSH, CEOCP, CEOEX, CEOME, CEOAG, CEOT, CEON, CEOFE and CEORE) statistically and significantly impacted performance apart from CEOGD which is insignificant.

Particularly, CEOSH relationship with ROA is negatively significant with a coefficient of -0.011385, a t-Statistic of -12.70889 and a p-value of 0.0000 at the 1% levels of significance.. This suggests that an increase in CEOSH will reduce ROA. That is, the more CEO shareholdings increases, the less profitable the firms will be. The sign or direction is contrary to our expectations but the size or magnitude is in line with our expectations. We, therefore, reject the null hypothesis of no significant relationship and accept the alternative hypothesis that there is a significant relationship between CEOSH and firm performance. No previous study made used of this variable.

CEOCP relationship with ROA is positively significant with a coefficient of 2.14E-08, a t-Statistic of 2.243198 and a p-value of 0.0279 at the 1% levels of significance.. This suggests that an increase in CEOCP will increase ROA. That is, the more the compensation of CEO, the more profitable the firm become. The sign or direction as well as the size or magnitudes are in line with our expectations. We, therefore, reject the null hypothesis of no significant relationship and accept the alternative hypothesis that there is a significant relationship between CEOCP and firm performance. No previous study made used of this variable.

CEOEX relationship with ROA is negatively significant with a coefficient of -0.363529, a t-Statistic of -28.53706 and a p-value of 0.0000 at the 1% levels of significance.. This suggests that an increase in CEOEX will reduce ROA. That is, the more experienced CEO is, the less profitable the firm will be. The sign or direction is contrary to our expectations but the size or magnitude is in line with our expectations. We, therefore, reject the null hypothesis of no significant relationship and accept the alternative hypothesis that there is a significant relationship between CEOEX and firm performance. This result is not in line with any previous study but contradicts those of Dao and Thanh (2023); Ghardallou et al. (2020); Edi et al. (2020) and Saidu (2019).

CEOME relationship with ROA is positively significant with a coefficient of 0.672588, a t-Statistic of 32.72914 and a p-value of 0.0000 at the 1% levels of significance.. This suggests that an increase in CEOME will increase ROA. That is, the more CEOs with military experience, the more profitable the firms become. The sign or direction as well as the size or magnitudes are in line with our expectations. We, therefore, reject the null hypothesis of no significant relationship and accept

the alternative hypothesis that there is a significant relationship between CEOAG and firm performance. No previous study made used of this variable.

CEOAG relationship with ROA is positively significant with a coefficient of 0.006027, a t-Statistic of 15.09940 and a p-value of 0.0000 at the 1% levels of significance.. This suggests that an increase in CEOAGCEOAG will increase ROA. That is, the older the CEO, the more profitable the firm become. The sign or direction as well as the size or magnitudes are in line with our expectations. We, therefore, reject the null hypothesis of no significant relationship and accept the alternative hypothesis that there is a significant relationship between CEOAG and firm performance. This result is not in line with any previous study but contradicts those of Vintilă and Gherghina (2012) and Setiawan and Gestanti (2022) which were insignificant.

CEOT relationship with ROA is positively significant with a coefficient of 0.050162, a t-Statistic of 3.441700 and a p-value of 0.0010 at the 1% levels of significance.. This suggests that an increase in CEOAGCEOAG will increase ROA. That is, the older the CEO, the more profitable the firm become. The sign or direction as well as the size or magnitudes are in line with our expectations. We, therefore, reject the null hypothesis of no significant relationship and accept the alternative hypothesis that there is a significant relationship between CEOAG and firm performance. This result is in line with that of Dao and Thanh (2023); Yakubu et al. (2023); Ghardallou et al. (2020) and Vintilă and Gherghina (2012) but contradicts no previous study.

CEON relationship with ROA is negatively significant with a coefficient of -0.009881, a t-Statistic of -3.697719 and a p-value of 0.0004 at the 1% levels of significance.. This suggests that an increase in CEON will reduce ROA. That is, the more CEO from many countries that are hired, the less profitable the firms will be. The sign or direction is contrary to our expectations but the size or magnitude is in line with our expectations. We, therefore, reject the null hypothesis of no significant relationship and accept the alternative hypothesis that there is a significant relationship between CEON and firm performance. No previous study made used of this variable.

CEOFE relationship with ROA is negatively significant with a coefficient of -1.087522, a t-Statistic of -17.65039 and a p-value of 0.0000 at the 1% levels of significance.. This suggests that an increase in CEOFE will reduce ROA. That is, the more CEO with financial expertise that are hired, the less profitable the firms will be. The sign or direction is contrary to our expectations but the size or magnitude is in line with our expectations. We, therefore, reject the null hypothesis of no significant relationship and accept the alternative hypothesis that there is a significant relationship between CEOFE and firm performance. This result is in line with that of Gao et al. (2023) but contradicts those of Dao and Thanh (2023); Ghardallou et al. (2020) and Saidu (2019) which were positively significant.

CEORE relationship with ROA is negatively significant with a coefficient of -0.229745, a t-Statistic of -12.34546 and a p-value of 0.0000 at the 1% levels of significance.. This suggests that an increase in CEORE will reduce ROA. That is, the more CEO with reputations from awards that are hired, the less profitable the firms will be. The sign or direction is contrary to our expectations but the size or magnitude is in line with our expectations. We, therefore, reject the null hypothesis

of no significant relationship and accept the alternative hypothesis that there is a significant relationship between CEORE and firm performance. No previous study made used of this variable.

CEOGD relationship with ROA is negatively insignificant with a coefficient of -0.008072, a t-Statistic of -0.237513 and a p-value of 0.8129 at the 81.29% levels of significance.

4.4 Additional Tests of Robustness Comparing three Models.

To test the robustness of our results, we model three scenarios.

Model 1 includes the control variables as well as both the industry fixed effect and year fixed effect dummy variables.

Model 2 includes both the industry fixed effect and year fixed effect dummy variables but excludes the control variables.

Model 3 includes the control variables alone but excludes the industry fixed effect and year fixed effect dummy variables

$$ROA_{it} = \beta o + \beta_1 ROA_{it}(-1) + \beta_2 CEOSH_{it} + \beta_3 CEOCP_{it} + \beta_4 CEOEX_{it} + \beta_5 CEOME_{it} + \beta_6 CEOAG_{it} + \beta_7 CEOT_{it} + \beta_8 CEON_{it} + \beta_9 CEOFE_{it} + \beta_{10} CEORE_{it} + \beta_{11} CEOGD_{it} + \beta_{12} LEV_{it} + \beta_{13} MTB_{it} + \beta_{14} SIZE_{it} + \beta_{15} BTM_{it} + + \beta_{16} YDUM_{it} + \beta_{17} IDUM_{it} + \varepsilon_{it}$$ ----------Model 1

$$ROA_{it} = \beta o + \beta_1 ROA_{it}(-1) + \beta_2 CEOSH_{it} + \beta_3 CEOCP_{it} + \beta_4 CEOEX_{it} + \beta_5 CEOME_{it} + \beta_6 CEOAG_{it} + \beta_7 CEOT_{it} + \beta_8 CEON_{it} + \beta_9 CEOFE_{it} + \beta_{10} CEORE_{it} + \beta_{11} CEOGD_{it} + \beta_{12} YDUM_{it} + \beta_{13} IDUM_{it} + \varepsilon_{it}$$ ----------

Model 2

$$ROA_{it} = \beta o + \beta_1 ROA_{it}(-1) + \beta_2 CEOSH_{it} + \beta_3 CEOCP_{it} + \beta_4 CEOEX_{it} + \beta_5 CEOME_{it} + \beta_6 CEOAG_{it} + \beta_7 CEOT_{it} + \beta_8 CEON_{it} + \beta_9 CEOFE_{it} + \beta_{10} CEORE_{it} + \beta_{11} CEOGD_{it} + \beta_{12} LEV_{it} + \beta_{13} MTB_{it} + \beta_{14} SIZE_{it} + \beta_{15} BTM_{it} + + \beta_{16} YDUM_{it} + \beta_{17} IDUM_{it} + \varepsilon_{it}$$ ----------Model 3

Where the three scenarios were taken into considerations, the regression results in Table 6 below did not significantly differ from that of Table 5 above which does not include the control variables as well as both the industry fixed effect and year fixed effect dummy variables.

It should be observed that in all models, CEO Gender Diversity (CEOGD) is not significant.

This attest to the robustness of the fact that CEO Characteristics has helped the firms to achieve profitability for the period under consideration..

Table 6

CEO Characteristics including both Control as well as the Year and Industry Variables			CEO Characteristics including Year and Industry Variables alone			CEO Characteristics including Control Variables alone		
VARIABLES	t-Stats	p-Values	VARIABLES	t-Stats	p-Values	VARIABLES	t-Stats	p-Values
ROA(-1)	-16.59087	0.0000	ROA(-1)	-35.39574	0.0000	ROA(-1)	-24.32415	0.0000
CEOSH	-3.933217	0.0002	CEOSH	-15.54680	0.0000	CEOSH	-1.337486	0.1852
CEOCP	1.639652	0.1053	CEOCP	0.306177	0.7603	CEOCP	4.425327	0.0000
CEOEX	-16.81099	0.0000	CEOEX	-33.31102	0.0000	CEOEX	-16.43479	0.0000
CEOME	8.175912	0.0000	CEOME	18.46238	0.0000	CEOME	3.735712	0.0004
CEOAG	8.989499	0.0000	CEOAG	20.34383	0.0000	CEOAG	12.53190	0.0000
CEOT	8.708390	0.0000	CEOT	7.065354	0.0000	CEOT	5.300257	0.0000
CEON	-2.206071	0.0305	CEON	-2.488949	0.0151	CEON	-1.818744	0.0730
CEOFE	-0.149332	0.8817	CEOFE	-3.130198	0.0025	CEOFE	-1.384136	0.1705
CEORE	-0.923513	0.3587	CEORE	-26.17012	0.0000	CEORE	3.773098	0.0003
CEOGD	-0.333060	0.7400	CEOGD	0.607823	0.5452	CEOGD	-1.154663	0.2519
LEV	-0.873440	0.3852	IDUM	-3.059293	0.0031	LEV	-8.824342	0.0000
MTB	-1.308585	0.1947	YDUM	-4.166975	0.0001	MTB	-0.452189	0.6525
SIZE	5.512135	0.0000	-	-	-	SIZE	5.981814	0.0000
BTM	3.713140	0.0004	-	-	-	BTM	9.477826	0.0000
IDUM	-2.355973	0.0211	-	-	-	-	-	-
YDUM	-5.048230	0.0000	-	-	-	-	-	-

Source: Researcher's Computations (2023) Using EViews13 Software

4.5 Regression Diagnostics Test

Table 7. Arellano-Bond Serial Correlation Test
Equation: Untitled
Date: 10/11/23 Time: 17:45
Sample: 2005 2020
Included observations: 1216

Test order	m-Statistic	rho	SE(rho)	Prob.
AR(1)	-0.025561	-38.863091	1520.409535	0.9796
AR(2)	-0.126228	-39.347817	311.721226	0.8996

Source: Researcher's Computations (2023) Using EViews13 Software

4.5.1 Arellano and Bond Serial Correlation Diagnostic Tests of AR (1) and AR (2).
When an estimator uses lags as instruments with the assumption that the disturbance or error term is white noise, such an estimator would produce inconsistent results if the disturbance terms are indeed serially correlated (Arellano & Bond, 1991). Thus, it is very necessary to be sure of no autocorrelation by carrying out test statistics of no serial correlation by validating the instrumental variables through a second-order residual serial correlation test (Arellano & Bond, 1991). The AR (1) may be or may not be significant but AR (2) must never be insignificant at all. AR (2) is more important in evaluating our results as it shows whether there is second-order serial correlation. If AR (2) is significant, it indicates that some of the lagged dependent variables which might be used as instrumental variables are bad instrument and thus endogenous. Since the p-values of AR (1) = 0.9796 and AR (2) = 0.8996 in Table 7 above are greater than 0.05, we then accept the null hypothesis that there is no serial correlation.

Conclusion and Recommendations

This study investigates the relationship between CEO characteristics and financial performance of listed firms in Nigeria. Using secondary data over the period from 2005 to 2020 of 76 firms listed on the floor of the Nigerian Exchange Group (NXG), the generalized method of moments (GMM) results reveal that CEOCP, CEOME, CEOAG and CEOT are positively significant with performance; CEOSH, CEOEX, CEON, CEOFE and CEORE are negatively significant with performance while CEOGD is insignificant.

Based on the results above, the study recommends the followings:

- Management should maintain or increase the present level of CEO pay, tenure, age bracket as well as CEO with military experience since these variables increase profitability.
- Investigate the reason CEO shareholding, experience, nationality, financial expertise and reputations could not increase profitability.
- Increase the number of female CEOs in the helm of affairs if this could lead to increase in profitability.

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