Do Chief Executive Officer's Attributes Impact on the Performance of Nigerian Firms?

ODUBUASI, Augustine Chukwujekwu[1], ANENE, Johnson I.[2] & OKEKE, Prince Chinedu[3]

[1] Ph.D, Accounting Department, Faculty of Management and Social Sciences,Hezekiah University, Imo State, Nigeria

[2] Ph.D, Public Administration Department, Faculty of Management and Social Sciences, Hezekiah University, Imo State, Nigeria

[3] Ph.D, Accountancy Department, Faculty of Management Sciences, Chukwuemeka Odumegwu Ojukwu University, Anambra State, Nigeria

Correspondence: ODUBUASI, Augustine Chukwujekwu, Ph.D, Accounting Department, Faculty of Management and Social Sciences, Hezekiah University, Imo State, Nigeria. Tel: 234-806-4135-334. E-mail: Auglaw03@gmail.com

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Abstract

This study investigated the effect of Chief Executive Officer's (CEO) attributes on the performance of manufacturing firms listed on the Nigeria Stock Exchange (NSE). In line with the ideals of upper echelon theory that firms are reflective of the cognitive behaviours of the CEO, we examined such attributes as CEO education, experience and gender on the performance and value of manufacturing firms. Secondary data were collected from the firms' annual reports from 2013 to 2021, which was made suitable by the adoption of *ex post facto* research design. Thirty-six firms were purposely selected for the study wherein the data were analysed with the descriptive statistics, correlation and panel regression analysis. The results of the study indicate that CEO characteristics jointly have a significant effect on firm performance and firm value which were measured by Return on Equity (ROEQ) and Tobin's Q (TOBNQ) respectively, of the manufacturing firms at 1% significant levels. The study therefore, recommends that CEO characteristics should not be independently sought for, but jointly as complementary components in individuals being considered for the CEO position. Additionally, appointing a female CEO should not be a fulfilling task, but a woman could be made the CEO if she possesses other complementary attributes, required for driving the firm towards greater performance and value, as would do by a male counterpart.

Keywords: CEO Education, CEO Experience, CEO Gender, Top Executive, Cognitive Bases

1. Introduction

The CEOs are the heads of management delegated by the Board of directors to run the affairs of the company in order to achieve its strategic objectives for sustainable corporate performance (NCCG, 2018). Hence, the CEO is the operational head that runs the day-to-day activities of the enterprise and is responsible for all business decisions. The CEO is the next in authority to the Chairman of the Board but seems so powerful because he carries out core economic duties of the enterprise, which might attract him reward/ incentive when the company outperforms its targets. The CEO could also be held accountable when underperformance of the company is reported. From the aforementioned, Ting, Chueh and Chang (2017) refer to the CEO, as a top position in a firm, while Gorn, Jiang and Johar (2008) stressed that he is the image of the business entity. In furtherance, Lindeman (2019) posits that the CEO is entrusted with the resources of the enterprise hence, he is the authority for overseeing the entire operations of the company, especially by ensuring efficient use of all the resources and making strategic decision for the growth and sustainability of the business organisation.

Meanwhile, Daellenbach et al. (2009) argue that innovative competition, strategic navigation and cost reduction and control ability of enterprise depends on the value and cognitive behaviour of the CEO, which makes him perceive, filter and uniquely decode information. No wonder Hambrick and Mason (1984) did argue in their seminal paper "why do organisations act the way they do?", and eventually came out with the conclusion that organisation outcomes are viewed as a reflection of the values and cognitive bases of powerful actors in the organisation. Their study expounded on how background and psychological components of the top management like age, career

experience and education of the top management could determine the organizational outcomes with respect to the firm's level of diversification, embrace of innovation, competitive undertakings and performance outlook of the firm (Hambrick & Mason, 1984). But, can it be said to apply to all climes, especially in Nigeria?

On the other hand, firm performance is a basis for measuring the economic outcome of business enterprises, which guarantees a return to all the stakeholders and enhances sustainability. The primary reason of establishing a business venture, which is profit making must always be met for the accomplishment of accounting going concern. Any time this objective is defeated, the CEO is viewed inefficient and unproductive. However, performance could be measured from accounting perspectives using profitability indexes like Return on Assets (ROA), Return on Equity (ROE), Earnings Per Share (EPS), Net profit margin and Gross profit margin or firm value using Tobin's Q, market to book value. Research has shown that CEO idiosyncrasy have relationship with earnings management (Altarawneh, Shafie, Ishak, & Ghaleb, 2022; Alhmood, Shaari, & Al-dhamari, 2020; Qawasmeh & Azzam, 2020), some established relationship between CEO and Corporate Social Responsibility obligation (Li, Hang, Shah, Akram, & Ozturk, 2020; Tran & Pham 2020; Xu & Hou 2021) whereas some established link between CEO and firm performance (Putri & Rusmanto, 2019).

1.1 Statement of the Problem

Many corporate failures across the globe have raised a lot of interests among practitioners and researchers on what become the core reasons behind various collapse experienced in the word, and attention has been shifted to investigating the role that CEO idiosyncrasy could play in such phenomenon. It cannot be waived with certainty that the CEO of Enron in 2001 was not aware that the debts of the company were kept off the books, which eventually cost the shareholders a whooping sum of $74 billion. It cannot be debunked with ease that the CEO of WorldCom just woke up to realise that the company had lost $180 billion without him being complacent in 2002. How can we exonerate the Executives in the case of AIG company, where in 2005 the Executives of the company collected an incentive or award of $167 million bonus, but not long the shareholders of the same company lost $62 billion almost in that year (Ali & Xin, 2020). The list is endless, and research has shown that organisational outcomes are a reflection of the behaviours, background and psychological disposition of the CEO, that encompasses the age, experience and educational qualification (Hambrick & Mason, 1984), hence the need for this study. Albeit, few studies have been undertaken on CEO cognitive behaviours and firm performance. Some studies in foreign nations for instance include, Gottesman and Morey (2010) in US, Ghardallou (2022) in Saudi Arabia, Kokeno and Muturi (2016) in Nairobi, Kenya, and Ali and Xin (2020) in Pakistan. Similar study in Nigeria was on financial service firms (Saidu, 2019). Therefore, this study undertakes to investigate the effect of CEO attributes on performance of manufacturing firms in Nigeria. The focus on Nigerian manufacturing firms is informed by its rising profile in employment provisions and increasing tax revenue to the government.

1.2 The Objective of the Study

The main objective of this study is to examine the effect of CEO characteristics on the performance of firms in Nigeria. The specific objectives of the study are as follows;

1) To investigate the effect of CEO characteristics (education, experience and gender) on ROEQ of manufacturing firms in Nigeria,
2) To investigate the effect of CEO characteristics (education, experience and gender) on Tobin's Q of manufacturing firms in Nigeria.

The study will be useful to investors and External auditors as it would help them beam their light of suspicion to any firm whose CEO maintains certain attributes, Researchers/Scholars will be engrossed with additional rich content on CEO attributes and firm performance from Nigeria, especially the untapped manufacturing sector. The study is structured such that the next section deals with the review of related literature; the following is the methodology, subsequently followed by data analysis, while section five would house conclusion and the study recommendations.

2. Review of Related Literature

2.1 Conceptual Review and Hypotheses Development

2.1.1 CEO Education and Firm Performance

CEO educational qualification refers to the CEO's ability to advance in education to obtain any Post Graduate degree or any professional qualification. It is argued by Hambrick (2007) that the advancement of the CEO in education reflects in his value system and cognitive preference powers, Sitthipongpanich and Polsiri (2015) added that higher education empowers CEOs with greater cognitive complexity that will foster learning, recognising opportunities and

accepting innovations. In the same way, Lunkes, Pereira, Santos and Rosa (2019) believe that CEOs with sound educational qualifications provide immeasurable human capital for the organisation to which they belong. To this end, Ghardallou, Borgi, Alkhalifah (2020) made an empirical submission, that the firms with CEOs that have post graduate degrees have indicated more skills in stock management performance. Li, Hang, Shah, Akram, and Ozturk (2020) found a positive relationship between CEO educational background and innovation using listed Chinese firms. More so, Saidu (2019) argue that Nigerian firms that are managed by well-educated CEO, out-perform the firms with less educational development CEO. On the contrary, Kaur and Singh (2018) found no association between CEO education and the performance of firms sampled. With the tune of arguments as noticed in literature, we present our hypotheses in the null forms as follows;

1) CEO education has no significant effect on return on equity of manufacturing firms in Nigeria.
2) CEO education has no significant effect on Tobin's Q of manufacturing firms in Nigeria.

2.1.2 CEO Experience and Firm Performance

CEO experience is a means of measuring if the CEO has gained prior experience by heading any company in the past. Peni (2014) relatively sees CEO experience as the period of years the CEO had been at the executive carder of the firm in question which he is presently leading. It is believed that experienced CEOs take more strategic decisions that position their companies to take comparative advantage in the market, thereby making outstanding and remarkable performances. The study by Peni (2014) reported that more experienced CEOs have the tentacle of a higher professional network, grounded knowledge of the firm and that of the industry built by experience. Therefore, Peni (2014) documented positive statistically significant effect on the financial performance of firms and firm value. Alhmood, Shaari and Al-dhamari (2020) found in their study that CEO experience has a positive and statistically significant effect on earnings management of industrial and service firms listed on the Amman stock exchange. A similar result reported that CEO experience has a positive but no significant effect on firms' earnings management (Qawasmeh & Azzam, 2020). Therefore, we hypothesise in a null form that;

1) CEO experience does not have any significant effect on return on equity of manufacturing firms in Nigeria.
2) CEO experience does not have any significant effect on Tobin's Q of manufacturing firms in Nigeria.

2.1.3 CEO Gender and Firm Performance

CEO gender is a measure that ascertains if the firm's CEO is a woman. Barua, Davidson, Rama and Thiruvadi (2010) opined that female has greater skills of ethical behaviours better than the male, while Amelia and Eriandani (2021) pose the argument that women are not easily compromised and are more conservative than their male counterpart. Literature documentation on female CEO records thus; Altarawneh, Shafie, Ishak and Ghaleb (2022) found that female CEO is negatively and significantly affecting discretionary accrual of firms on the Malaysian market. Likewise, Obazee and Amede (2019) reported that CEO gender has a statistically significant effect on the financial reporting timeliness of firms in the financial service sector of the Nigerian economy. Ashafoke, Dabor and Ilaboya (2021) reported that CEO gender has a positive and no significant effect on the financial reporting quality (FRQ) of listed banks on the Nigeria Stock Excahnge (NSE). On their part, Amelia and Eriandani (2021) discovered that female CEO has no significant effect on the earnings management of Indonesian firms. Furthermore, Putri and Rusmanto (2019) investigated the effect of CEO characteristics on the earnings management of firms listed on the Indonesian Stock Exchange. They found that CEO gender has a negative statistically significant effect on both the accrual earnings management (AEM), and real earnings management (REM) of the firms. Hence, we hypothesise in null forms that;

1) CEO gender has no significant effect on return on equity of manufacturing firms in Nigeria.
2) CEO gender has no significant effect on Tobin's Q of manufacturing firms in Nigeria.

2.2 Upper Echelon Theory

The Upper Echelon Theory (UET) was established on the perception that the attributes of the top management or the CEO would generally manifest on the firm's decision-making and the firm's outlook. UET was first established in a seminar paper by Hambrick and Mason (1984), with the title 'why the organisations act the way they do'. The paper built that the characteristics of the top management had the propensity to influence the enterprise performance. Hambrick and Mason (1984) posit that a firm's outlook is a reflection of the values and cognitive bases of powerful actors in the organization. They aligned some observable demographic characteristics such as gender, education level, nationality, and tenure as representations of psychological differences, which are capable of enhancing managerial competence of the CEO.

2.3 Empirical Review

Ali and Xin (2020) investigated the impact of CEO characteristics on the performance of firms listed on the Pakistan stock exchange. They used five variables like CEO age, gender, compensation, ownership and duality to represent CEO characteristics and measured performance with ROE strictly sampled non-financial sectors for the periods 2012 to 2017. They sourced secondary data from the firm's website and the Pakistan stock exchange website. The data were analysed with descriptive statistics, correlation and regression analysis. It was found that CEO compensation, CEO duality and CEO ownership have a positive statistically significant effect on the performance of non-financial sector firms in the Pakistan market, while CEO tenure has a negative and no significant effect on firm performance.

Lindeman (2019) assessed the relationship between CEO characteristics and firm performance using 291 companies on the S&P 500 and 482 CEOs for seven years spanning from 2010 to 2016. They collected panel data from Execucomp and Datastream. The six independent variables of the study are CEO age, experience, duality, ownership, gender and salary, while the dependent variables are the return on assets (ROA) and Tobin's Q. The tools used are descriptive statistics, variance inflation factor, and regression analysis with a fixed effect model. The result indicates that female CEO, experience and duality positively affect firm performance, whereas CEO age, compensation and ownership have no significant effect on firm performance.

Another study from the developing nation India was conducted by Mukherjee and Sen (2022) on the impact of CEO attributes on corporate reputation, financial performance and corporate sustainability growth. Using the purposive sampling technique, they sampled 138 non-financial companies on the Indian stock exchange from 2011 to 2018. The objectives of the study were built around CEO gender, age, education, duality, remuneration, tenure, nationality, and busyness. The data were tested with certain tools like descriptive statistics, correlation and regression analysis and yielded the result that indicate that CEO remuneration and tenure have a significant positive association with reputation, and duality and busyness have a negative association with reputation. Female CEO and remuneration have a positive association with company performance. They also found that CEO age is associated with sustainable corporate growth negatively. While CEO tenure appears to have a significant and positive association with firm's sustainable corporate growth.

Saidu (2019) determined the effect of CEO attributes (ownership, education and nationality) on performance of financial service firms', listed on the Nigerian stock exchange market. The study covered six years from 2011 to 2016 and collected secondary data with panel features, upon which descriptive statistics and ordinary least square regression estimation were conducted. Their findings show that CEO education and experience positively affect the financial performance of the financial service sector.

Ghardallou (2022) sought to understand the effectiveness of CEO characteristics (education and tenure) as moderating role in the relationship between corporate sustainability and firm performance in Saudi publicly traded companies spanning from 2015 to 2020. The study was expanded by using three dependent variables; return on assets (ROA), return on equity (ROE) and Tobin's Q. Secondary data for the study were collected from the Bloomberg database and the annual reports of the firms selected for the study. Analysis was done with descriptive statistics tool, correlation and regression technique, which produced results that indicate that CEO education and tenure are positive moderators on the relationship between corporate social responsibility (CSR) practice and the financial performance of firms in Saudi Arabia. Kokeno and Muturi (2016) investigated the effect of CEO attributes on the financial performance of firms listed on the Nairobi, Kenya Security Exchange, and they found that CEO educational qualification and CEO age have both positive statistically significant effects on the performance of firms sampled. A similar study by Gottesman and Morey (2010) that assessed the association between CEO attributes and the performance of U.S firms found no significant association between the variables. Hamori and Koyuncu (2015), in another study concluded that, CEO experience has an inverse association with the financial performance of firms sampled.

2.4 Summary of Reviewed Literature

Literature on CEO attributes and firm performance is relatively scarce and the few cited were done in foreign economies like Gottesman and Morey (2010) did in the U.S, Ghardallou (2022) worked in Saudi Arabia, Kokeno and Muturi (2016) studied in Nairobi Kenya, Ali and Xin (2020) conducted their study in Pakistan. The only study performed in Nigeria was on financial service firms (Saidu, 2019). It becomes imperative that such a study on CEO attributes and firm performance be conducted on the Nigerian manufacturing sector which stands as the gap in literature. The sector is so important because of its ability to generate more number of employments as well as tax revenues to the government.

3. Methodology

The study used *Ex-post facto* research design. *Ex-post facto* research design is an experimental design in which the researcher examines the effect of naturally occurred events (Landman, 1988). The study population comprises of the forty-four (44) firms listed under the four sectors comprising the manufacturing sector of the Nigerian economy namely; Conglomerate- 5 firms, Agriculture- 5 firms, consumer goods- 21 firms, and Industrial goods- 13 firms. Panel data were sourced from the annual reports of the firms from 2013 to 2021. The sample size was thirty-six (36) firms that had operated consistently from 2013 to 2021 purposely selected. The bases of selection are that the firms must have their annual reports published and must be readily available for the nine-year coverage. Analysis was done using Stata 14 version, with some analytical techniques. Descriptive statistics was used to measure the central tendency, and the distribution pattern of the data. Correlation analysis assessed the level of relationship and the direction of relationships among the variables. The panel regression analysis that includes random effect (RE) and fixed effect (FE) models were carried out, and Hausman effect test that indicated the better model that should be interpreted between RE and FE models was further conducted. We ran variance inflation factor test, which was used to check the multicollinearity problem. The multicollinearity test checked if the independent variables of the study were highly correlated to one another. We also conducted test for Heteroscedasticity, which checked for the presence of an outlier. Heteroscedasticity ascertains if the residual of the error term is constant. The validity of the models was tested with the help of the F-test and P-value. The R^2 measured the overall impact of the independent variables on the dependent variable, a test that assessed the goodness of fit of the models, while the significance of the individual independent variables was tested with t-test, all at 95% confidence level.

Model specification

$$ROEQ_{it} = \beta_0 + \beta_1 CEDU_{it} + \beta_2 CEXP_{it} + \beta_3 CGEND_{it} + \beta_4 FSIZ_{it} + \beta_5 FLEV_{it} + \mu \text{ ---equ 1}$$

$$TOBNQ_{it} = \beta_0 + \beta_1 CEDU_{it} + \beta_2 CEXP_{it} + \beta_3 CGEND_{it} + \beta_4 FSIZ_{it} + \beta_5 FLEV_{it} + \mu \text{ -equ 2}$$

Where: ROEQ= Return on equity; TOBNQ = Tobin's Q; CEDU=CEO Education; CEXP= CEO Experience; CGEND= CEO Gender; FSIZ= Firm Size; FLEV= Firm leverage; β_0= Intercept; β_1- β_5= Coefficients; μ= Error term.

Table 1. Variable measurement

Variables	Acronym	Measurement	Apriori expectation
Return on Equity	ROEQ	Net income divided by equity	
Tobin's Q	TOBNQ	(Market cap + total liabilities)/ (common stock + total liabilities)	
CEO Education	CEDU	'1' if CEO has post-graduate qualification or advanced degree otherwise '0'	+
CEO Experience	CEXP	'1' if the CEO had got experience in the topmost position of a firm before the current job, otherwise '0'	+
CEO Gender	CGEND	Dummy variable '1' if CEO is a woman otherwise '0'	-
Firm Size	FSIZ	Log of total assets	-
Firm Leverage	FLEV	Log of total debt to equity	-

Source: Authors' compilation (2022).

4. Data Analysis and Interpretation

4.1 Descriptive Statistics Table

Table 2. Descriptive Statistics

stats	CEDU	CEXP	CGEND	FSIZE	FLEV	TOBNQ	ROEQ
mean	.962963	.5709877	.0123457	7.13839	57.04313	1.813336	1.156038
p50	1	1	0	7.1	55.49	1.14625	1.185542
min	0	0	0	5.35	4.1	.1241	-.431798
max	1	1	1	9.23	150.45	11.2986	2.716437
sd	.1891447	.4957007	.110939	.9094032	20.96799	1.679679	.4781763
N	324	324	324	323	323	324	266

Source: authors' computation (2022)

Table 2 above shows that on average, 96% of the CEOs have acquired advanced education and professional advancements, while the remaining 4% have not advanced in education. It's an indication that the CEOs pursue advancement in post-educational qualifications alongside their careers. Furthermore, an average of 57% of the CEOs had got experience in the job before ascending to their latest appointment as the CEO, while 43% of the CEOs are novel to the office. The table shows that only 1% of the firms' CEOs for the nine-year periods of study are women, while others are males.

4.2 Normality Test

Table 3. Shapiro-Wilk W test for normal data

Variable	Obs	w	v	z	Prob>z
CEDU	324	0.84964	34.300	8.329	0.00000
CEXP	324	0.99952	0.109	-5.225	0.00000
CGEND	324	0.99990	0.024	-8.836	0.00000
FSIZ	323	0.98143	4.225	3.395	0.00034
FLEV	324	0.92435	17.209	6.703	0.00000
TOBNQ	323	0.68783	71.211	10.050	0.00000
ROEQ	266	0.98000	3.832	3.135	0.00086

Source: authors' computation (2022).

We tested for the normality of the data sets using the Shapiro-Wilk W test which showed that CEDU, FSIZ, FLEV, TOBNQ and ROEQ are normally distributed at a 1% level while CEXP and CGEND are not normally distributed.

4.3 Correlation Analysis

Table 4. Correlation analysis

	CEDU	CEXP	CGEND	FSIZ	FLEV	TOBNQ	ROEQ
ROASS	1.0000						
BOSIZ	0.1099	1.0000					
BOGDIV	0.0232	0.0182	1.0000				
BOIND	0.0268	-0.0307	-0.0149	1.0000			
BOMEE	-0.0358	0.0518	0.0404	-0.0564	1.0000		
BOMEE	-0.1808	0.0044	-0.0037	0.1594	0.2713	1.0000	
BOMEE	-0.0914	0.0745	-0.0120	0.0838	0.3675	0.5188	1.0000

Source: authors' computation (2022).

From Table 4 above, we discover that none of the variables is highly correlated with another as the independent variables correlation coefficients are less than 0.70. For the avoidance of doubt, we conduct a Variance Inflation Factor to verify if truly no high correlation exists as presented below.

4.4 Multicollinearity Test

Table 5. Multicollinearity Test

Variable	VIF	1/VIF
CEXP	1.01	0.986657
CEDU	1.01	0.990131
FLEV	1.01	0.991971
FSIZ	1.00	0.995463
CGEND	1.00	0.999118
Mean VIF	1.01	

Source: authors' computation (2022).

The Table 5 above shows that the mean VIF is 1.01, which is far less than the acceptable bench mark mean VIF of 10. Hence we can derive from the result that no high collinearity exists among the independent variables.

4.5 Heteroscedasticity Test

Table 6. Heteroscedasticity Test

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
Ho: Constant variance
Variables: fitted values of ROEQ
chi2(1) = 0.85
Prob > chi2 = 0.3567

Source: authors' computation (2022).

The probability value of 0.356, which is higher than the critical value of 5%, indicates that the variance error term in homoscedasticity. Meaning that, no presence of a heteroscedasticity problem was found.

4.6 Omitted Variable Test

Table 7. Omitted Variable Test

Ramsey RESET test using powers of the fitted values of ROEQ
Ho: model has no omitted variables
F(3, 64) = 2.47
Prob > F = 0.0626

Source: authors' computation (2022).

The Table 7 presents the result that tested weather the model was misspecified or have omitted variable. The rule of this test is that the model was misspecified, if the Probability is significant at 5%, which implies that there is omitted variable. From that Table 7, the P-value of the result is 0.06, which indicates that the model is not misspecified and there is no omitted variable in our model.

4.7 Regression Summary Table

Table 8. Regression Summary Table MODEL 1

Items	OLS	FEM	REM
Con	0.406 (0.133)	3.793 (0.000)	.869 (0.039)
CEDU	-.203 (0.12)	-.078 (0.470)	-.094 (0.383)
CEXP	.066 (0.231)	.064 (0.235)	.061 (0.234)
CGEND	-.110 (0.66)	-.143 (0.509)	-.122 (0.575)
FSIZE	.058 (0.058)	-.412 (0.003)	-.013 (0.815)
FLEV	.008 (0.000)	.008 (0.000)	.009 (0.000)
R^2	0.157	0.189	.157
F-stat	9.74	10.51	47.56
P-value	0.0000	0.0000	0.000
HAUSMAN TEST P-value		0.1335	

Source: authors' computation (2022)

Test of hypotheses and discussion of results

Interpretation of the result of model one:

$ROEQ_{it} = \beta_0 + \beta_1 CEDU_{it} + \beta_2 CEXP_{it} + \beta_3 CGEND_{it} + \beta_4 FSIZ_{it} + \beta_5 FLEV_{it} + \mu$ ---equ 1

From Table 8 above, it is shown that model 1 is valid for making inferences since its P-value across the three regression methods vis-à-vis OLS, Fixed Effect model (FEM) and Random Effect Model (REM) are significant at a 1% level. Meanwhile the Hausman test for selecting the better of FEM and REM methods has a P-value of 0.133, indicating that REM is most preferred in making inferences. Although, the R^2 shows that the variables have the capacity to determine 18.9% of the changes in ROEQ, whereas the remaining 81.1% is contained in the factors outside our model. Therefore, we conclude that CEO characteristics (education, experience and gender alongside the control variables) statistically affect the performance of manufacturing firms at 1% level. The result agrees with the upper-echelon theory of Hambrick and Mason (1984). Those individual variables react to return on equity (ROEQ) as explained below;

CEDU has a coefficient of -0.094 and a P-value of 0.383, which shows that CEO education has an inverse relationship with the performance of firms. More so, the probability indicates that CEO education is not significant in determining the performance strength of the CEO. The result points to the fact that, the more the CEO acquires advanced learning, the more he becomes less effective, which might be propelled by the pride in the qualifications so acquired and may resort to arm chair executive, as against when he had not obtained the advanced or post-graduate certificate. The study concludes that CEO education has a negative and no significant effect on return on equity

(ROEQ) of manufacturing firms in Nigeria. This result is in conformity with the findings of Kaur and Singh (2018), which posited that no association exists between CEO education and performance

CEO experience (CEXP) has a coefficient of 0.061 and a probability value of 0.234. The result shows that the CEOs with previous top position experience had the advantage of increasing the ROEQ of manufacturing firms by 0.061, indicating that the more experienced the CEOs are, the more they add to their strength of purpose for driving the firm forward. However, the probability score of 0.234 is far higher than the critical value of 5%, meaning that experience is not significant in determining the CEOs' performance ability in changing the ROEQ of manufacturing firms in Nigeria. Therefore, we conclude that CEO experience has a positive and no significant effect on the ROEQ of manufacturing firms in Nigeria. Our finding did not agree with the result of Peni (2014), who found that CEO experience has a positive and a significant effect on firm performance. The result agrees with the findings of Qawasmeh and Azzam (2020), which reported that CEO experience has a positive but no significant effect on earnings management of the firms.

Female CEO has a negative impact on firm performance and no significant effect on ROEQ, as it shows indices -0.122 (0.57). The result implies that engaging women as the CEO could retard the ROEQ of manufacturing firms by 0.122, when all other variables are held constant. This could be the practical reason that warranted all the 36 manufacturing firms across the nine years we covered to have engaged women for just 1% of the 324 firm-year observation. Hence female CEOs have had an inverse and no significant effect on the ROEQ of manufacturing firms in Nigeria from 2013 to 2021 financial years. The result is in line with the finding of, Dabor and Ilaboya (2021), who reported that CEO gender has no significant effect on the financial reporting quality (FRQ) of listed banks on the NSE.

Firm size (FSIZ) recorded a coefficient of -0.013, which implies that firm size has relatively-negative association with the ROEQ of manufacturing firms in Nigeria. The P-value of 0.815 signifies that FSIZ is not significant in amassing shareholders returns. The results imply that larger firms might have a complex structure and very large resources that may make efficient management difficult, in that case reacting negatively to firm performance. That being said, we conclude that firm size has an inverse and no significant effect on the ROEQ of manufacturing firms in Nigeria.

Leverage (FLEV) has a coefficient of 0.009, which signifies a positive association with the ROEQ of manufacturing firms in Nigeria. It also possesses a P-value of 0.000, far less than the critical value of 0.05. This depicts that leverage has a positive and significant effect on the ROEQ of manufacturing firms in Nigeria. The result amplifies the chances of taking advantage of none tax deductible on debt charges, to increase the performance of manufacturing firms.

4.8 Regression Summary Table for MODEL 2

Table 9. Regression Summary Table MODEL 1

Items	OLS	FEM	REM
Con	.224 (0.801)	13.481 (0.000)	4.815 (0.001)
CEDU	-1.673 (0.000)	-.958 (0.001)	-1.015 (0.001)
CEXP	.167 (0.356)	-.125 (0.324)	-.162 (0.208)
CGEND	-.140 (0.862)	.380 (0.439)	.381 (0.453)
FSIZE	.289 (0.004)	-1.534 (0.000)	-.322 (0.107)
FLEV	.018 (0.000)	.005 (0.136)	.006 (0.049)
R^2	0.11	0.13	0.089
F-stat	7.87	8.52	23.22
P-value	0.0000	0.0000	0.0003
HAUSMAN TEST P-value		0.0051	

Source: authors' computation (2022).

Interpretation of result of model two:

$TOBNQ_{it} = \beta_0 + \beta_1 CEDU_{it} + \beta_2 CEXP_{it} + \beta_3 CGEND_{it} + \beta_4 FSIZ_{it} + \beta_5 FLEV_{it} + \mu$ --equ 2

From Table 9 above, it is shown that model 2 is valid for making inferences since its P-value across the three regression methods vis-à-vis ordinary least square (OLS), Fixed Effect Model (FEM) and Random Effect Model (REM) are significant at a 1% level. Meanwhile, the Hausman test for selecting the better result between FEM and REM has a P-value of 0.0051, indicating that FEM is most preferred in making inferences. However, the R^2 shows that the variables have the capacity to determine 13% of the changes in firm value measured with TOBNQ, whereas the remaining 87% is contained in the factors outside our model. Therefore we conclude that CEO characteristics (education, experience and gender alongside the control variables) have a statistical significant effect on the firm value of manufacturing firms at a 1% level as measured by TOBNQ. The result is in agreement with the upper-echelon theory of Hambrick and Mason (1984). Those individual variables react to ROEQ as explained below;

CEO education (CEDU) has a negative effect on firm value as proxy with Tobin's Q (TOBNQ) with the coefficient -0.958, which indicates that firm value would be reduced by 0.958 should CEO advancement increase by one unit if other variables are held constant. The Probability value of 0.001, which is less than the critical value of 5%, shows that CEO education has a significant effect on the firm value. Hence, we accept the alternate hypothesis and conclude that CEO education has a significant effect on TOBNQ. The result reflects that found by Sitthipongpanich and Polsiri (2015), who argued that higher education empowers CEOs with greater cognitive complexity that will foster learning, recognising opportunities, and accepting innovations.

CEO experience (CEXP) has a coefficient of -0.125 and a probability value of 0.324. The indices indicate that the previous executive positions held by the CEO, does not determine his ability to improve the firm value as a CEO. The result shows that the CEOs with previous top position experiences have no significant effect on TOBNQ, since its probability value is greater than 0.05 critical value. The result implies that no hard and fast rule could be applied to enhancing firm value, other than understanding the peculiarities of the firm and its environments. Hence, we conclude that CEO experience has a negative and no significant effect on the manufacturing firm's value. The result is contrary to the findings by Peni (2014) that CEO experience has a positive and significant effect on firm value as measured by TOBNQ.

Female CEO on the other hand, has a coefficient of 0.38, with a P-value of 0.439. The regression coefficient means that female CEO has a positive effect on the TOBNQ of manufacturing firms. This implies that the value of the firms could be enhanced by 0.38 units, should the female CEO be increased by one unit, supposing that every other variable is held constant. The P value simply expresses that the female CEO has no significant effect on firm value since it is higher than the critical value of 5%.

The control variables reacted differently to the firm value; Firm size (FSIZ) showed a coefficient of -1.534, which indicates that firm value has an inverse effect on TOBNQ. The firm size significantly impacts TOBNQ since the P-stat 0.000 is less than 5% critical value. With this, we conclude that firm size has an inverse and significant effect on the TOBNQ of manufacturing firms in Nigeria.

Finally, leverage (FLEV) has a positive and no significant effect on the value of manufacturing firms in Nigeria. The result denotes this on table 4.8, as it indicates a coefficient of 0.005; with a P-stat of 0.136. The coefficient proves that firm value can increase by 0.005 unit should the leverage increase by one unit, when other variables are constant. However, the probability value of .136 is higher than the critical value, implying that no significant effect exists.

5. Conclusion and Recommendation

In response to the quest for identifying the attributes of the CEO that aid improvement of performance and value of manufacturing firms; the study chose CEO experience, gender and advanced education as the proxies for measuring CEO characteristics while ROEQ and TOBNQ represented firm performance and firm value respectively. The study's conclusion is in line with the upper-echelon theory that CEO attributes (experience, education and gender) had a significant impact on the performance and the value of manufacturing firms in Nigeria, as was empirically shown from the data of the firms analysed, which span from 2013 to 2021 financial years. The study recommends that the CEO characteristics should be considered systematically in a joint manner and not particularly as a single factor to derive the expected benefits of improving firm performance and value. More so, the clamor for female CEO should not be prioritized but can be accepted if other CEO attributes are found in that woman, whenever the drive to improve the performance of the manufacturing firms is aroused.

6. Suggestion for Further Study

The study noted that CEO education was taken to mean advanced education or Post graduate programs which, however, did not indicate a significant impact on the performance drive. We also realized that most CEOs in manufacturing sector, undertake workshops and symposiums where they build most of the positive energy with which they drive the performance of their companies. To this end, the study suggests that subsequent interested researchers on this area should exploit, as supplement to the post-graduate programs, the impacts of these practical workshops as a catalyst to driving the performance of firms.

References

Altarawneh, M., Shafie, R., Ishak, R., & Ghaleb, B. A. (2022). Chief executive officer characteristics and discretionary accruals in an emerging economy. *Cogent Business & Management, 9*(1), 1-20. https://doi.org/10.1080/23311975.2021.2024117

Amran, N.A., Yusof, M.A., Ishak, R., & Aripin, N. (2014). Do characteristics of CEO and chairman influence government-linked companies performance? *Procedia Soc Behav Sci, 109*, 799-803. https://doi.org/10.1016/j.sbspro.2013.12.546

Ghardallou,W. (2022). Corporate Sustainability and Firm Performance: The Moderating Role of CEO Education and Tenure. *Sustainability, 14*, 3513, 1-16. https://doi.org/10.3390/su14063513.

Ghardallou, W., Borgi, H., & Alkhalifah, H. (2020). CEO characteristics and firm performance: A study of Saudi Arabia listed firms. *Journal of Asian Finance Economics and Business, 7*(11), 291-301. https://doi.org/10.13106/jafeb.2020.vol7.no11.291

Gorn, G. J., Jiang, Y., & Johar, G. V. (2008) Babyfaces, trait inferences, and company evaluations in a public relations crisis. *Journal of Consum Res, 35*(1), 36-49. https://doi.org/10.1086/529533

Gottesman, A. A., & Morey, M. R. (2010). CEO educational background and firm financial performance. *Journal of Applied Finance, 20*(2), 1-13.

Hambrick, D. C. (2007). Upper echelon theory: an update. *Academic Management Review 32*(2), 334-343. https://doi.org/10.5465/amr.2007.24345254

Hambrick D. C, & Mason, P. A (1984). Upper echelons: the organization as a reflection of its top managers. *Acad Manag Rev, 9*(2), 193-206. https://doi.org/10.5465/amr.1984.4277628

Hamori, M., & Koyuncu, B. (2015). Experience matters? The impact of prior CEO experience on firm performance. *Human Resource Management, 54*, 1, 23-44. https://doi.org/10.1002/hrm.21617

Kaur, R., & Singh, B. (2018). Measuring the immeasurable corporate reputation. *Metamorphosis, 17*(1), 53-64. https://doi.org/10.1177/0972622518778210

Kokeno, S. O., & Muturi, W. (2016). Effect of chief executive officer's charactristics on the financial performance of firms listed at the Nairobi Securities Exchange. *International Journal of Economics, Commerce and Management, 7*(4), 307-318.

Li, H., Hang, Y., Shah, S.G.M., Akram, A., & Ozturk, I. (2020). Demonstrating the impact of cognitive CEO on firms' performance and CSR activity. *Front Psychol, 11*, 278. https://doi.org/10.3389/fpsyg.2020.00278

Lindeman, T. (2019). *CEO characteristics and firm performance*. Master's Dissertation, University of Vaasa

Lunkes, R. J., Pereira, B. S., Santos, E. A., & Rosa, F. S. (2019). Analysis of the relationship between the observable characteristics of CEOs and organizational performance. *Contaduría y Administración, 64*(4), 1-22. https://doi.org/10.22201/fca.24488410e.2018.1785

Mouta, C., & Meneses, R. (2021). The impact of CEO characteristics on organizational culture and on the silo effect. *Revista Brasileira De Gestão De Negócios, 23*(2), 207-225. https://doi.org/10.7819/rbgn.v23i2.4100

Nigerian Code of Corporate Governance 2018.

Peni, E. (2014). CEO and Chairperson characteristics and firm performance. *Journal of Management & Governance. 18*(1), 185-205. https://doi.org/10.1007/s10997-012-9224-7

Putri, E. A., & Rusmanto, T. (2019). The impact of CEO characteristics on earnings per share and earnings management. *Int J Sci Technol Res, 8*(10), 925-929.

Serfling, M. (2014). CEO age and the riskiness of corporate policies. *Journal of Corporate Finance, 25*, 251-273.

https://doi.org/10.1016/j.jcorpfin.2013.12.013

Sitthipongpanich, T., & Polsiri, P. (2015). Do CEO and board characteristics matter? A study of Thai family firms. *Journal of Fam Bus Strat, 6*(2), 119-129. https://doi.org/10.1016/j.jfbs.2015.01.002

Ting, H. I, Chueh, H, & Chang, P. R (2017). CEO power and its effect on performance and governance: evidence from Chinese banks. *Emerg Mark Rev*. https://doi.org/10.1016/j.ememar.2017.09.005

Tran, M., & Pham, B.-N. (2020). The influence of CEO characteristics on corporate environmental performance of SMEs: evidence from Vietnamese SMEs. *Management Science Letters, 10*(2020), 1-12. https://doi.org/10.5267/j.msl.2020.1.013

Xu, Z., & Hou, J. (2021). Effects of CEO overseas experience on corporate social responsibility: evidence from Chinese manufacturing listed companies. *Sustainability, 13*, 5335. https://doi.org/10.3390/su13105335