



EFFECT OF CEO ATTRIBUTES ON VALUE OF FIRMS LISTED ON NIGERIA STOCK EXCHANGE

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Abstract

This study investigated the power of CEO cognitive bases in shaping the value of manufacturing firms listed on Nigeria exchange limited 2014 to 2023, as a way to fine tune the sustainability of the firms. Four objectives were set to be achieved by the study which included determining the effect of CEO education, CEO experience, CEO gender diversity and CEO tenure as they affect the value of manufacturing firms in Nigeria. The research question and hypotheses were structured in line with the objectives of the study. Ex post facto research design was adopted by the study and secondary data was collected from the annual reports and accounts of the thirty sampled manufacturing firms. Ordinary least square regression estimation technique was applied and the result showed that CEO experience and CEO gender diversity have statistical significant effect on the value of manufacturing companies listed on Nigeria exchange limited. However, CEO education has weak significant effect while CEO tenure has no significant effect on the value of firms sampled. the study recommends amongst others that shareholders should encourage their CEO to engage in workshop and symposiums which will advance their knowledge and experience in manufacturing sector, and not concentrating on seeking for CEO with past experiences and higher education, for such has ended up not adding to the firm value of the manufacturing sector investigated. By implication, a new narrative is set which underscores the important attributes that foster productivity of CEO in manufacturing firms.

Keywords: CEO, gender diversity, manufacturing, long-serving, firm value

Introduction

In the fields of finance and economics, corporate governance and the function of top executives have long been the focus of intense interest and examination. A company's performance and, eventually, it's worth are greatly impacted by the efficacy of its executives, especially the Chief Executive Officers (CEO) (Odubuasi, Anene, & Okeke, 2022). Numerous studies have examined CEO characteristics, which include a variety of qualities like tenure, gender, and education and experience, in an effort to determine their impact on business performance (Palia et al., 2013). Many people may tend to believe that Chief

Executive Officers of firms play vital roles in enhancing firm values, but some of them were involved and indicted in financial statement fraud. Troy et al. (2011) have stated that the Chief Executive Officer of Tyco, Kozlowski, had manipulated their earnings and as a result, their company lost a total sum of one hundred billion dollars in market value. Chief Executive Officers of Satyam, India were also accused of falsifying the books of account of their company to make it appear attractive to investors (Bhasin, 2016).

Investors consider the attributes of Chief Executive Officers before they make decisions whether to invest or not to invest in an organization (Razali et al., 2022). Thus, CEOs maximize the shareholders' wealth and enhance the firm value. Bialowas and Sitthipongpanich (2014) argue that the success or otherwise of the business is dependent on the experiences and competencies of CEOs in running the business. Law and Ningnan (2022) believe that Chief Executive Officers can influence the firm value because they have the authority to take business management decisions. Although several studies were conducted on the impact of CEO characteristics proxy by CEO tenure and CEO duality, their findings were not consistent. While the studies conducted by Supriyantoa and Khob (2022), Bsoul et al. (2022) revealed that CEO tenure had a positive significant impact on firm value, the studies carried out by Imasuen et al.

(2021), Khan et al. (2021) showed that CEO tenure had a negative significant impact on firm value. The period of this study is extended from 2013 to 2022 financial year because most of the studies conducted on CEO characteristics and firm value did not use data that is up to 2022 financial year. The events in the economy might have made their findings irrelevant.

According to Hambrick and Mason (1984), a company's performance is greatly impacted by the psychological makeup of its CEO. CEO education is seen to provide a deeper understanding of company strategy and finance, potentially affecting firm value (Hermalin & Weisbach, 1998 in Odubuasi, Anene & Okeke, 2022). This is especially true for graduate degrees in business, finance, or economics. On the other hand, a background in technology or engineering might offer a distinct viewpoint on innovation and competitiveness, which can impact organisation value (Hambrick & Mason, 1984). A CEO's expertise, whether determined by senior management positions or industry tenure, is critical. A CEO's capacity to make well-informed decisions, handle industry-specific issues, and improve business performance is bolstered by their extensive industry expertise (Hitt et al., 1997; Catalist, 2020; Odubuasi, Anene & Okeke, 2022).

Research suggests that having more women in CEO roles can enhance corporate governance and decision-making (Adams & Ferreira, 2009), however its effect on firm value is still up for debate. As a result, gender diversity in leadership roles has drawn more attention. Another important consideration is the duration of the CEO. Long-serving CEOs may have a better grasp of their companies, which could improve strategic planning and performance (Bradley, Mark & Kenneth, 2022); but, extremely long tenures may encourage complacency and resistance to change. A company's success, sustainability, and financial health are all reflected in its firm value, which is a complex idea. It is affected by a wide range of elements, such as the traits of the CEO and corporate governance procedures, which are vital in determining the course of a business. The strategic vision, experience, and leadership style of a CEO can have a big impact on the value of the company. Oji (2023) in online Guardian Newspaper has reported that low confidence and poor patronage had been continuing to threaten the operations and survival of manufacturing firms in Nigeria which had led to the depreciation and stagnation of their share price which was below the book value on the Nigerian Exchange (NGX) Limited. Thus, the researchers are interested in conducting a study on the impact of CEO characteristics on the firm value of listed manufacturing firms in Nigeria. The main objective of this study is to examine the impact of CEO characteristics on firm value of listed manufacturing firms in Nigeria

Statement of the problem

Numerous instances of business failures were directly linked to the declining company values that resulted from the CEOs' leadership style and managerial disposition. Xerox, WorldCom, and Enron are a few examples of these failures (Odubuasi, Ofor, & Ilechukwu, 2022). To determine how CEO attributes affect business performance, several studies have looked at a variety of CEO qualities, including tenure, gender, experience, and education. The majority of prior research has focused on CEO traits to evaluate their impact on business value and performance. For example, a 2003 study by

Bertrand and Scholar examined how CEO education more especially, whether or not the CEO holds an MBA degree affects business outcomes. Research by Pascal & Nahid (2018), Piruna and Thitima (2014) examined the relationship between CEO tenure and business value, while Odubuasi, Anene, and Okeke (2022) investigated the impact of CEO qualities on the financial performance of financial service organizations in Nigeria.

Although a significant amount of research has been done on the relationship between CEO attributes and firm performance and value, no study has been done on the relationship between CEO attributes and firm value in Nigerian manufacturing firms - a significant industry that has boosted the country's production activities.

Objective of the study

The main objective of the study is to investigate CEO characteristics on the firm value of quoted manufacturing firms in Nigeria. The specific objectives are:

1. To examine the effect of CEO education on firm value in quoted manufacturing firms in Nigeria.
2. To investigate the impact of CEO experience on firm value in quoted manufacturing firms in Nigeria.
3. To assess the relationship between CEO gender and firm value in quoted manufacturing firms in Nigeria.
4. To analyze the effect of CEO tenure on firm value in quoted manufacturing firms in Nigeria.

Research Questions

The research question is formulated in line with the objectives as follows;

1. To what level does CEO education affect firm value in quoted manufacturing firms in Nigeria?
2. To what extent does CEO experience affect firm value in quoted manufacturing firms in Nigeria?
3. To what extent does CEO gender affect firm value in quoted manufacturing firms in Nigeria?

4. To what level does CEO tenure affect firm value in quoted manufacturing firms in Nigeria?

Research hypotheses

The research hypotheses are stated as follows:

HO₁: CEO education has no significant effect on the firm value of quoted manufacturing firms in Nigeria

HO₂: CEO experience has no significant effect on the firm value of quoted manufacturing firms in Nigeria.

HO₃: CEO gender has no significant effect on the firm value of quoted manufacturing firms in Nigeria.

HO₄: CEO tenure has no significant effect on the firm value of quoted manufacturing firms in Nigeria.

Significance of the study

The research result will be of huge value to the underlisted;

- Shareholders: CEOs with certain characteristics, such as higher education, relevant experience, and strong leadership skills, are more likely to make decisions that lead to improved firm performance. This can result in higher stock prices, dividends, and other forms of shareholder returns. Additionally, CEOs who are able to manage the firm's resources effectively and mitigate risks can help to reduce the firm's overall risk profile and make it more attractive to investors.
- Management: the study result would enable the management to understand the CEO characteristics that are most important for driving firm value, management can take steps to recruit and develop CEOs with those characteristics. This can lead to improved firm performance, increased employee morale, and an enhanced reputation for the firm

Scope of the study

The study focuses on Nigerian manufacturing firms, examining CEO characteristics including education, experience, gender and tenure. Impact of the aforementioned variable on firm value will be evaluated using financial metrics from 2014 to 2023, considering market capitalization and

firm value which shall be measured with Tobin's Q.

CEO Education

CEO education is one of the most important components of human capital, affecting their worldview and decision-making. Postgraduate managers outperform those with less education (Farag & Mallin, 2018; King et al., 2016). Urquhart and Zhang (2022) argue that a CEO with a PhD from a top 100 university has an even greater effect. Vo et al. (2020) found that CEOs with training or education perform better than those without, however postgraduate degree holders led less apparent business performance. Shen et al. (2022) found that CEOs with master's and PhD degrees improve company performance following debt and equity statements.

CEO Experience

CEO experience is the knowledge and skills that CEOs have developed through their education, work experience, and other experiences (Harvard Business Review, 2018). It is the foundation upon which CEOs build their leadership and decision-making abilities.

CEO Gender

This study explores whether a female CEO minimizes financial statement manipulation of earnings, which lowers business value. Some believe women are more cautious, sceptical of trickery, and multitaskers. The 2008 global financial crisis highlighted the heated discussion over gender diversity in senior management (Shen, 2021). Female CEOs may perform better and reduce earnings management because of their ethics, risk aversion, and conservatism (Peni & Vahamaa, 2010). According to gender theory, women are more objective and conservative than men (Yu & Damien, 2022). Thus, a female CEO would select morally and avoid earnings management.

CEO Tenure

CEO tenures are measured in years. According to the Upper Echelon Theory (Hambrick & Mason, 1984), the CEO's tenure may affect company decisions. In their first year, new CEOs can make non-routine modifications to cover

high costs and losses. They can then credit these changes in future profits (Urquhart & Zhang, 2022). Importantly, long-term CEOs can have a lot of expertise that helps them make decisions that reduce profit manipulation or involve no deceit (Wafa et al. (2020). Finkelstei and Hambrick (1996) and Yu ad Damien (2022) found that longer CEO tenures improve internal policy knowledge and corporate plan uniformity, increasing efficiency.

Concept of Firm Value

Finance and economics have prioritized business value recently. Several academic methodologies for estimating firm value are currently used by investors and practitioners to invest and corporate finance choices (Odubuasi et al., 2022). All assets, liabilities, and intangible assets make up a company's firm value. It's what investors would pay for the company. Company value is generally assessed by market capitalization, which is the total value of all outstanding stock. This study describes corporate value using Tobin's Q. This ratio affects various financial transactions (Chung & Pruitt, 1994). Market value to replacement cost of a firm's assets is Tobin's Q.

Theoretical Framework

Upper Echelon Theory: In 1984, Hambrick and Mason proposed the Upper Echelon Theory (UET). The idea explains how top management traits affect organizational strategy and performance. UET states that top managers' cognitive backgrounds and values influence organizational decision-making. This is because top managers are the most powerful players in firms and heavily impact strategic choices. UET has several links to CEO traits. According to a study, CEOs with more education and experience make more inventive and risky strategic decisions. Internationally experienced CEOs usually pursue global expansion methods. UET can explain how CEO traits affect firm value. Carpenter, Geletkanycz, and Sanders (2004) revealed that more risk-averse CEOs were less likely to make strategic purchases.

Empirical Review

CEO ownership, education, and origin affect firm performance, according to Sani (2019).

Balanced panel data from 2011-2016 is used for ordinary least square regression in the study. Firm performance is examined in relation to CEO origin, education, and ownership. Studies rarely explore these core CEO traits. Financial firms listed on the Nigerian Stock Exchange from 2011 to 2016 are sampled. Research shows that CEO education boosts profits. When the CEO has been with the company before, stock performance improves. Shareholders can utilize the findings to choose a CEO. Further studies should examine CEO ownership and whether it empowers them. Chief executive officer compensation, age, education, gender, and firm performance were evaluated (Suherman & Titis, 2023). The current research investigates whether gender affects firm performance and CEO remuneration in Chinese-listed firms, where female CEOs are rare. In 2018, this study estimates cross-sectional economic models utilizing data from 2,600 Chinese-listed enterprises. CEO gender is not significant enough to affect firm performance, but female CEOs, who can perform the same roles as male CEOs, earn less on average, which leads to gender discrimination in China's listed firms. The conclusions of this study also affect CEO pay, financial performance, and gender discrimination research.

A study by Caiyun and Hui (2020) examined if CEO overconfidence affects a firm's value after mergers and acquisitions. Overconfident CEOs boost corporate value after mergers and acquisitions, according to the study. The study also found that CEO overconfidence can explain merger and acquisition decisions and likelihood. Young CEOs also increased the impact of CEO overconfidence on a firm's value after mergers and acquisitions, while female CEOs were more risk-averse and had lower leverage and volatility than male CEOs. CEO traits and corporate success in private listed Chinese enterprises were explored by Anderson and Sundaram (2015). Firm performance is examined using fixed effects regressions on CEO age, tenure, political affiliation, dualism, and gender. Including Shenzhen and Shanghai Stock Exchange A-share private enterprises, the final panel data sample includes 16,010 firm-year observations from 2010 to 2020. Findings, CEO age, tenure,

and political connection favorably affect corporate performance, according to five hypotheses. CEO gender and duality do not affect firm performance, contrary to assumptions. Originality/value, Future corporate governance and political ties study on private listed corporations is affected by findings.

In Australia, Yun and Damien (2022) explored how CEO demographics affect corporate performance. Panel regression models and event research methodology are used to examine CEO attributes and firm performance from January 2003 to December 2018. Results show that CEO attributes such as gender, CEO-chairperson duality, education level, and geography significantly impact firm performance after loan and equity announcements. CEO traits reinforce the Upper Echelon Theory and have substantial implications for board members and HR departments researching CEO efficiency and fairness. In 2023 Suherman, Destria and Titis investigated how CEO attributes including age, education, nationality, and gender affect business performance in a developing Southeast Asian country (Indonesia). Balanced firm-level panel data from 2010 to 2020 is used for 203 Indonesia Stock Exchange nonfinancial companies. Return on assets, equity, and Tobin's Q measured corporate performance. Panel data regression in a fixed effects model with clustered standard errors was used.

Results show that female CEOs, education, and nationality boost firm performance, whereas CEO age can help or hurt it. Several robustness testing confirmed the primary analysis. Research limitation/implications, when hiring CEOs, evaluate personal traits. CEO traits boost firm performance. Female CEOs bring fresh insights, but senior CEOs' experience gives them an edge. Foreign CEOs comprehend international market regulations, and educated CEOs can handle intellectual challenges better. However, elder CEOs are more conservative and unable to adjust to changing business settings, which may lower firm performance. Originality/value, Syncing CEO traits and firm performance is a contribution to corporate governance studies. It also stresses that emerging nations like Indonesia have different economic, legal, social, and

cultural systems than Western nations. Yun shen (2021) thorough review of CEO & business performance literature. A company's CEO influences performance through leadership, social capital, and legitimacy. Using a bibliographic mapping approach, we identify the top 51 publications on CEO traits. Several Upper Echelon Theory papers spawned four categories. Pascal, Nahid, Ruoyun (2018) examined how three prominent CEO traits affect firm valuation. A sample of 2702 Australian firm observations from 2001–2011 shows that CEO age is consistently related with lower firm valuation. CEO tenure lowers valuation, but more so in high-growth enterprises. However, CEO duality mainly benefits high-growth enterprises. The study emphasizes CEO traits' impact on corporate valuation. CEO traits and firm performance were examined by Caiyun and Hui (2020). Our sample data includes 10,446 2008–2016 Chinese listed company observations. A Quantile Regression method shows that CEO age does not affect firm performance, contradicting earlier findings. CEO tenure only negatively affects high-valuation enterprises (75th and 90th). Low-valuation corporations benefit from CEO political links, whereas high-performance firms do not. Osazevbaru (2022) examined the impact of CEO duality on the firm value of listed non-financial firms in Nigeria from 2010- 2019. The study used secondary data. The sample size of the study was 76 listed non-financial firms in Nigeria and the technique of data analysis was panel data regression. The findings showed that the CEO duality had a negative insignificant impact on firm performance of listed non-financial firms in Nigeria. The setback of this study is that it concentrated on listed non- financial firms in Nigeria but the present study focuses on listed manufacturing firms in Nigeria. The period of this study is another weakness because it stopped at 2019; however, the current study extends its period to 2023. Mubeen et al. (2021) evaluated the impact of CEO duality on firm value of A-listed firms in China from 2012- 2017. The source of data was secondary and the sample size of the study was 417 firms. Panel data regression was used to analyze the data.

Bsoul et al. (2022) assessed the impact of CEO tenure on the firm value of service and insurance companies in Jordan from 2015 to 2019. The study used a sample size of 82 firms whereas the technique of data analysis was multiple regression and secondary data was used in the study. The findings of the study revealed that the CEO tenure had a positive significant impact on the service and insurance companies in Jordan. The current study focuses on listed manufacturing firms in Nigeria whereas the former study concentrated on service and insurance firms in Jordan. Furthermore, the period of this study stopped at 2019, thus the period of the current study is extended to 2023. This study was conducted in Jordan but the present study is carried out in Nigeria. Khan et al. (2021) examined the influence of chief executive officer tenure on the corporate social and environmental performance of listed firms in India from 2009-2015. The data was analyzed by the use of fixed effect panel regression. The source of the data and the sample size of the study were secondary and 547 firms respectively. The results of the study showed that CEO tenure had a negative significant influence on the firm value of listed firms in India. The weakness of this study is that it was conducted in India while the current study is conducted in Nigeria and not only that the period of this study stopped in 2015 and for this reason, the current study extends its period to 2023. The domain of the current study is listed as manufacturing firms in Nigeria.

Gap in Literature

Although a significant amount of research has been done on the relationship between CEO attributes and firm performance and value, no study has been done on the relationship between CEO attributes and firm value in Nigerian manufacturing firms - a significant industry that has boosted the country's production activities. For instance, while Yun and Damien (2022) explored how CEO demographic characteristics affected company performance in China, this study will analyze how CEO traits affected firm value in Nigerian manufacturing enterprises from 2014 to 2023.

Methodology

This study examines the impact of CEO characteristics proxy by CEO tenure and CEO duality on the firm value of listed manufacturing firms in Nigeria. The correlational research design is used for this study. The source of data is secondary and the technique of data analysis is panel data regression. The population and sample size of the study are the 23 listed insurance firms on the Nigeria Stock Exchange as at 31st December, 2023.

Research Design

Ex post facto research is a quasi-experimental study that examines how a pre-study independent variable affects a dependent variable. Ex post facto research begins after the fact without researcher intervention.

Population of the Study

The thirty-six manufacturing enterprises listed on the Nigeria Exchange Limited as of October 31, 2022, are the study's population. The study examined 2014–2023 yearly reports.

Sample Size and Sampling Technique

A random sample of thirty manufacturing enterprises was picked from the population from 2014 to 2023.

Sources of Data Collection

This research uses secondary data from the selected firms' 2013–2022 annual reports.

Method of Data Analysis

Descriptive statistics, correlation, and OLS regression were used. The study tested

heteroscedasticity with Breusch-pagan and multicollinearity with variance inflation factor. CEO proxies include education, experience, gender, and tenure. While Tobin's Q measures corporate worth. This was done with Strata 14.

Model Specification and Operationalization of Variables

For model validity, the F-test and P-value were used. R2 estimated the overall impact of the independent factors on the dependent variable, assessing the models' soundness of it, whereas t-tests investigated the significance of each independent variable at 95% confidence.

$$TOBINQ_{it} = \beta_0 + \beta_1 CEDU_{it} + \beta_2 CEXP_{it} + \beta_3 CGEND_{it} + \beta_4 CTEN_{it} + \mu \quad \text{---equ 1}$$

Where: TOBINSQ= Tobin's Q; CEDU=CEO Education; CEXP= CEO Experience; CGEND= CEO Gender; CTEN=CEO Tenure; β_0 = Intercept; β_1 - β_5 = Coefficients; μ = Error term.

Variable Measurement

Return on Equity =ROEQ= net income divided by Total equity

CEO EDUCATION= CEDU ('1' if CEO has post-graduate qualification or advanced degree otherwise '0') apriori expectation is +

CEO EXPERIENCE =CEXP ('1' if the CEO had got experience in the topmost position of a firm before the current job, otherwise '0') apriori expectation is+

CEO GENDER= CGEND (Dummy variable '1' if CEO is a woman otherwise '0') apriori expectation is –

CEO TENURE = CTEN (dummy variable'1' if CEO has a specific period of time otherwise'0') apriori expectation is+

Data analysis and interpretation

Table 1 – Descriptive statistics

stats	TOBINSQ	CEO_EXPR	CEO_GEND	CEO_TENU	CEO_EDU
mean	.2919661	.0215338	.0890411	.6769759	.0171821
p50	.07	.1	0	1	0
max	1.35	.03	1	1	1
min	-.86	0	0	0	0
sd	.5090489	.386737	.285292	.4684374	.1301735
N	295	296	292	291	291

Source: Stata 14 output

Table 1 shows 2014–2023 data mean distribution, maximum, minimum, standard deviation, median, and count. According to table 1, average Tobin's Q is 0.29, minimum -0.86 and maximum 1.35, standard deviation 0.5. Significant data variance is shown by the greater standard deviation than the earnings management mean. CEO experience ranged from 2% to 3%, 0 to 0, and 0.38 to 0.38,

demonstrating significant variance between sampled firms. CEO gender averages 0.089, peaks at 1, and varies 0.2. The average score was 0.67 and the standard deviation was 0.46, indicating that organizations evaluate CEO tenures similarly. CEO education averages 0.017, ranges 0.13, and tops 1. The evaluations reveal that industry CEOs rarely hold postgraduate degrees.

Table 2

Shapiro-Wilk W test for normal data

Variable	Obs	W	V	z	Prob>z
TOBINSQ	295	0.90360	20.235	7.054	0.00000
CEO_EXPR	296	0.51578	101.942	10.848	0.00000
CEO_GEND	292	0.93545	13.428	6.089	0.00000
CEO_TENU	291	0.99591	0.848	-0.387	0.65080
CEO_EDU	291	0.70223	61.751	9.664	0.00000

Source: Stata 14 output

The study utilized Shapiro-Wilk w to test data normality and find outliers. Table 2 shows that CEO tenure 0.65 is normally distributed because their joint P-value is greater than 5%. All other

variables' joint probabilities are not normally distributed since their P-values are below 5%. The study uses spearman correlation for nonparametric correlation.

Table 3: Correlation Matrix

	TOBINSQ	CEO_EXPR	CEO_GEND	CEO_TENU	CEO_EDU
TOBINSQ	1.0000				
CEO_EXPR	0.0076	1.0000			
CEO_GEND	0.1357	0.0087	1.0000		
CEO_TENU	0.0029	0.3398	0.0290	1.0000	
CEO_EDU	-0.0816	-0.1095	-0.0407	-0.0215	1.0000

Source: Stata 14 output

According to the correlation table above, CEO experience, tenure, and gender have positive and very low correlations with Tobin's Q at 0.007, 0.002, and 0.135. Tobin's Q is negatively correlated with CEO education (TOBINSQ/CEO_EDU = -0.081). CEO experience has a positive and very low association with CEO gender at 0.008, a positive and moderate relationship with CEO tenure at

0.33, and an inverse and low relationship with CEO education at -0.109. CEO gender has a positive and very low association with CEO tenure at 0.089, whereas CEO education has a negative and very low correlation (-0.04 and -0.021). Multicollinearity was absent since no correlation coefficient was above 0.7. The study examined multicollinearity using VIF.

Table 4: Variance Inflation Factor

Variable	VIF	1/VIF
CEO_EXPR	1.05	0.948682
CEO_TENU	1.05	0.951014
CEO_EDU	1.00	0.995161
CEO_GEND	1.00	0.996446
Mean VIF	1.03	

Source: Stata 14 output

Table 4, shows that mean VIF of 1.03 is lower than the acceptable mean VIF of 10. For that, no case of high correlation of independent variables

is recorded and conclude that no multicollinearity does not exist in our data.

Table 5: Breusch-Pagan / Cook-Weisberg test for heteroskedasticity

Ho: Constant variance
Variables: fitted values of TOBINSQ

chi2(1) = 1.99
Prob > chi2 = 0.1583

Source: Stata 14 output

Heteroscedasticity test rules out heteroscedasticity if the probability value exceeds the 5% threshold value. Table 5 shows

that 0.15 is bigger than 0.05. We infer that our data lacks heteroscedasticity.

Table 6 – Ramsey RESET test using powers of the fitted values of TOBINSQ

Ho: model has no omitted variables
F(3, 282) = 1.84
Prob > F = 0.1399

Source: Stata 14 output

The result in Table 6 contains the test of whether the model was miss specified using the Ramsey

reset test. By its rule, a model is miss specified if the prob>F is lesser than 5%.

Table 7: Regression results

Source	SS	df	MS	Number of obs	=	290
Model	4.73484966	4	1.18371242	F(4, 285)	=	4.79
Residual	70.445749	285	.247178067	Prob > F	=	0.0009
				R-squared	=	0.0630
				Adj R-squared	=	0.0498
Total	75.1805987	289	.26014048	Root MSE	=	.49717

TOBINSQ	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]
CEO_EXPR	-.018858	.0055266	-3.41	0.001	-.0297361 -.0079799
CEO_GEND	.2180921	.1042039	2.09	0.037	.0129852 .423199
CEO_TENU	.058971	.0639615	0.92	0.357	-.0669258 .1848679
CEO_EDU	-.3795303	.2248277	-1.69	0.092	-.8220637 .0630031
_cons	.2864494	.052231	5.48	0.000	.183642 .3892568

Source: Stata 14 output

Table 7 shows OLS regression estimation results.

F(4, 285) = 4.79 and Prob > F = 0.0009 imply that our model is valid and good for inferences. With an R2 of 0.063, the model will explain 6.3% of the changes in firm Value (Tobin's Q) of Nigeria Exchange Group manufacturing enterprises.

Hypotheses testing and results discussion

H1: CEO education has no significant effect on the firm value of quoted manufacturing firms in

Nigeria.

CEO education also has a regression coefficient of -0.379 in Table 7. The data suggests that CEO education and firm valuation on Nigeria Exchange Limited-listed manufacturing enterprises are adversely related. Using CEOs with advanced degrees would lower the value of Nigerian manufacturing enterprises. At a 10% significance level, CEOs with greater education affect manufacturing business value (P>/t/= 0.092). Thus, the study chose the alternative hypothesis that CEO education has

a statistically significant effect on business value in Nigeria Exchange Limited's manufacturing sector. Orekhova, Kudin, and Kupera (2019) found that CEOs with higher degrees adjust faster to new positions that boost firm profitability.

H2: CEO experience has no significant effect on firm value of quoted manufacturing firm in Nigeria.

In Table 7, CEO education has a regression coefficient of -0.379. Statistically, CEO education and business valuation on Nigeria Exchange Limited-listed manufacturing firms are inversely related. Thus, Nigerian industrial enterprises with advanced-educated CEOs would lose value. CEO with higher education is a 10% significant predictor of manufacturing business value ($P > /t/ = 0.092$). Thus, the study used the alternative hypothesis that CEO education has a statistically significant effect on business value in Nigeria Exchange Limited's manufacturing sector.

According to Orekhova, Kudin, and Kupera (2019), CEOs with higher degrees adapt faster to new positions that boost firm profitability.

H3: CEO gender has no significant effect on firm value of quoted manufacturing firm in Nigeria.

CEO gender diversity regression coefficient is 0.21. This suggests that CEO gender diversity boosts Nigeria Exchange Limited corporate value. The study suggests that a female CEO appointment would enhance Tobin's Q by 0.21 units at constant other factors. Female CEOs influence Tobin's Q in Nigeria's listed manufacturing sector ($P > /t/ = 0.037$). Thus, we accept the alternative hypothesis that CEO gender diversity increases firm value of listed industrial companies on the Nigeria exchange group at 5%. The conclusion supports Altarawneh, et al. (2022), who found that women CEOs negatively effect discretionary accrual in Malaysian enterprises. The Nigerian study indicated that female CEOs have a positive but minor effect on bank FRQ (Ashafoke, Dabor & Ilaboya, 2021).

H4: CEO tenure has no significant effect on firm value of quoted manufacturing firm in Nigeria.

Table 7 demonstrates that CEO tenure has a positive effect on manufacturing business value from 2012 to 2021 with a regression coefficient of 0.058. The lengthier term of the CEO increases the value of manufacturing companies. The P statistic of 0.357 suggests that CEO tenure does not strongly affect manufacturing business value. NEXG manufacturing firms' Tobin's Q shows no effect from CEO tenure on firm value. Amelia and Eriandani (2021) found that CEO turnover had no effect on earnings management of Indonesian stock exchange-listed enterprises.

Summary of findings

The findings made from the hypotheses tested were summarized as follows;

- i. CEO education has a negative and no significant effect on firm value of manufacturing firms listed on Nigeria exchange limited.
- ii. CEO experience has a negative and statistically significant effect on the value of firms listed in the manufacturing sector of Nigerian exchange limited at a 1% level.
- iii. CEO gender has a positive and statistical significant effect on firm value of manufacturing sector in Nigeria at 5% level.
- iv. CEO tenure has positive and no significant effect on the value of firms within manufacturing sector of Nigerian economy.

Conclusion

The study undertook an investigation to unravel the characteristics of the CEO that influence the value of the organisation as asserted in upper echelon theory. We sampled firms from manufacturing sector of Nigeria economy that has not been considered by researchers. The study sourced secondary data from financial statement of the firms' published within 2012 and 2021. OLS regression estimation technique was used for making inferences after testing for the assumption OLS regression. The study drew

conclusion that CEO experience, CEO gender diversity and CEO education are very crucial attributes that were found to determine the firm value from the perspective of Tobin's Q, of the manufacturing sector firms in Nigeria. This study examines the impact of CEO characteristics on firm value of listed manufacturing firms in Nigeria. This study analyzes the impact of CEO tenure and CEO duality on the firm value of listed firms in Nigeria. The findings of this study show that chief executive officer tenure is robustly correlated with the firm value of listed firms in Nigeria whereas chief executive officer duality is negatively correlated with the firm value of listed firms in Nigeria. The study therefore, concludes that CEO tenure has a strong impact on the manufacturing firm value of listed firms in Nigeria. This could be as a result of their experiences in the business over time while CEO duality has a negative influence on the firm value of listed manufacturing firms in Nigeria and the reason could be that CEOs are very powerful to the extent that they do not welcome good ideas from their employees.

Recommendations

In line with the findings of the study, the following recommends were made;

1. Shareholder should encourage the CEO's take up workshops and symposiums which will advance their knowledge and experience in manufacturing, and not concentrating on seeking for CEO with past experiences, for such has ended up not adding to the firm value of the manufacturing sector investigated.
2. Appointment of female CEO should not be made a priority since the study did not find them a veritable instrument for preparing improving firm value.
3. The shareholder are encouraged to consider appointing CEO with advanced education to their organisations, as it will assist them raise their firm value.
4. Tenure of the CEO can be decided by the shareholders to either be short or long, since neither of them has any strong influence empirically on the

value of firms under manufacturing sector on the Nigeria exchange group.

Limitations and Suggestion for further studies

The study used only 30 firms from the manufacturing sector, out of the entire 36 firms listed under the sector, because we were challenged by getting the data of all the firms. The result is valid though, because the sample represents 83% of the population. The study therefore encourages further studies on larger number of firms and sectors other than manufacturing for the purpose of this investigation, to know if the result would be the same with this study.

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