



FEMALE CHIEF EXECUTIVE OFFICER CHARACTERISTICS AND FINANCIAL PERFORMANCE OF LISTED DEPOSIT MONEY BANKS IN NIGERIA*Dr. Abdulazeez Abubakar¹, Dr. Murtala Abdullahi²**Ahmadu Bello University, Zaria, Nigeria¹, Kaduna State University, Kaduna, Nigeria**Corresponding authors' email and mobile: abdulazeezasadauki@gmail.com/+2348032844660¹,**murtala.abdullahi@kasu.edu.ng/+23480699179552²*

Abstract

This study examined the effect of female Chief Executive Officer (CEO) characteristics on financial performance of listed deposit money banks (DMBs) in Nigeria for the period 2007–2022. Specifically, the study seeks to investigate if female CEO characteristics (proxy by female CEO financial expertise, female CEO nationality, female CEO industry knowledge and female CEO shareholding) have any impact on the performance of listed DMBs in Nigeria. The study adopted census sampling of the adjusted population of 13 DMBs. Secondary panel data were collected from the annual reports and accounts of the banks and analyzed using panel corrected standard error regression technique. The results showed that female CEO financial expertise, female CEO industry knowledge and female CEO shareholding have positive significant effect on financial performance of the DMBs. The results also revealed that female CEO nationality has positive but insignificant effect on financial performance. Based on the findings, the study concluded that overall, female CEO characteristics have significant impact on financial performance of listed DMBs in Nigeria. It is recommended among others that the listed DMBs should prioritize engaging independent female directors as CEO taking into consideration the level of their financial expertise, industry knowledge and experience and their share of ownership as both have significant impact on financial performance.

Keywords: female CEO characteristics, industry knowledge, financial performance, DMBs, resource dependence theory

1. Introduction

The attention of the global financial and management researches has been drawn and directed toward identifying the magic role women can play to restore the lost integrity and rebuild business confidence in the banking sector globally. The focus was primarily to analyze the increasing participation of women in economic, financial and management activities despite the growing complexities of the global business today that affects corporate transparency, reporting system and financial performance, the overall. Financial performance is one of the major firm level factors used for decision making as it has the potency to reveal the financial health and capability of a firm to sufficiently cater for the multiple yearnings of its diverse stakeholders' groups (Demaki, 2018; Mohammad & Bujang, 2020).

The sustainability and growth of businesses are hinged on ensuring that the needs of its stakeholders whose major interest is profit and value maximisation are always satisfied (Bagh *et al.*, 2023). Achieving this requires the presence of an effective board leadership and efficient membership combination which will ensure that the needs of primary stakeholders are first satisfied through sustainable maximisation of firm's profit (Demaki, 2018). This becomes an issue of concern in Nigeria,



particularly considering the number of banks' performance related problems that triggered the need for various corporate governance reforms in the country. However, the Nigerian banking sector has in the recent years uncovered the potential of involving women in governance and leadership due to their extensive experience, prudence, commitment in leadership and passion in banking and financial services that brought tremendous benefits to the sector and lifted the sector business to greater height.

It is obvious that the Nigerian banking sector has witnessed mass appointments of female directors between 2015 and 2024 recording about 10 female CEOs, calling the shots in the board rooms. The opportunities given to women in the sector is not in compromise with positions taking by many scholars that female CEOs are better managers of resources than their males' counterpart because they are more diligent, prudent and steward in aspect of leadership and financial matters (Benmelech & Frydman 2013; Bertrand & Schoar, 2003).

Several studies were carried out on the effect of CEOs and female directorship characteristics on financial performance both within and outside Nigeria (Pangestu et al., 2019; Rehman et al., 2021; Akindayomi et al., 2024). However, very few studies were conducted on the effect of female CEOs characteristics on financial performance (Satriyo & Harymawan, 2018). Satriyo and Harymawan (2018) is a foreign study and their analysis covered between 2014 and 2015 with focus on manufacturing sector. This creates gaps for another study given the significant grows of female CEOs in the banking sector and the importance of banks in the Nigerian economy which necessitates the need to investigate their activities regularly.

The study focused on banking sector, specifically, the DMBs as the sector has overwhelming appointment of female directors in the recent years and has the dominance of female CEOs over all others sectors in addition to its relevant and significant contributions to the Nigeria's economy both in terms of tax revenues, employment, growing GDP and attractions of foreign earnings. Therefore, this study seeks to investigate the effect of female CEO characteristics on financial performance of listed DMBs in Nigeria. The study also hypothesized that female CEO characteristics has no significant effect on financial performance of listed DMBs in Nigeria.

2. Literature Review

Empirical Review

Female CEO Characteristics and Financial Performance

Jalbert, Jalbert and Furumo, (2013) studied the relationship between CEO gender and financial performance of 165 publicly traded firms using annual Forbes CEO data on a regression model for the period 1997 - 2006. The results revealed that CEO gender influenced financial performance. Zhang and Xin Mu (2016) analyzed the effect of female executive on performance using a multi-approach perspective. The study documented that female executives affect firm performance positively. Diks, Rodriguez and Driessen (2016) examined the effect of CEO characteristics on firm value using sample of 483 CEOs in charge of firms on the S&P 500 for the period 2000 – 2015. The results of linear regression model showed that CEO's age, compensation, tenure and gender have significant impact on firm value.

Garcia-Blandon, Argilés-Bosch and Ravenda (2019) used regression model to study the effect of CEO characteristics on firm performance using a sample of all best performing CEOs in the world released by Harvard Business Re-view in 2016. The results revealed that CEO qualification, tenure and nationality have significant positive effect on performance. Pangestu, Gunawan and Wijaya (2019) examined the effects of female directors' presence and characteristics on firm profitability using a sample of 364 publicly-traded non-financial firms in Indonesian for the period 2013 – 2016. The study adopted panel regression and the results showed that presence of female directors on the board has



positive impact on profitability. The results also indicated that female director's education, age, and foreign nationality have no significant impact on profitability.

Yin (2021) investigated relationship between female directors and the quality of accounting information of 51 firms in China for the period 2008 – 2018 using multiple regression models. The results indicated that higher ratio of female directors on board, female director's education and financial background have positive significant effect on the quality of accounting information of firms.

Bunea, Feleaga and Ionescu (2023) examined the effect of CEO characteristics on financial performance of 21 listed banks in Romanian for the period 2018 – 2022 using panel regression equation. The results indicated that age, gender diversity, education and nationality have significant positive effect on financial performance. Yusuf and Yahaya (2023) investigated the relationship between CEO attributes and financial performance using sample of 112 listed firms in Nigeria for the period 2010 - 2019. The study used pooled OLS multiple regression and the results showed that CEO nationality and tenure have significant positive relationship with financial performance.

Huang (2023) employed Cat Boost algorithm and examined the effect of female executive characteristics on corporate solvency of Chinese listed firms for the period of 2016 – 2021. The results showed that female executive characteristics have significant effect on corporate solvency. Triana and Asri (2017) analyzed the impact of female directors on firm performance using a sample of 347 firms listed in Indonesia for the period of 2011 - 2015. The study used secondary dataset on multiple regression and the results showed that female director has a positive significant effect on firm performance. Satriyo and Harymawan (2018) examined the impact of female CEO on firm performance using secondary dataset from 26 firms listed in the Indonesian for the period 2014-2015. The results revealed that female CEO has negative but insignificant effect on firm performance.

Chukwujekwu, Johnson and Chinedu (2022) studied the effect of CEO attributes on the performance of 36 manufacturing firms listed in Nigeria for the period 2013 – 2021. The study adopted multiple regressions as technique of analysis and the results showed that CEO education, experience and gender have significant positive effect on firm performance. Rehman, *et al.* (2021) examined the effect of CEO characteristics on firm's performance of 200 listed firms in Pakistan using panel regression model for the period of period 2010 - 2019. The results indicated that CEO tenure and duality are negatively associated with a firm's performance while female CEO, CEO education and insider promoted CEO have significant positive effect on firm's performance.

Akindayomi, *et al.* (2024) examined the effect of CEO characteristics on financial performance of listed firms in Nigeria for the period 2005 –2022. The study used panel regression analysis and the results showed that CEO origin has a significant positive effect on financial performance. The results further showed that CEO gender and CEO tenure have negative but insignificant effect on financial performance.

Theoretical Framework

The study used Resource dependence theory to underpin the relationship between the dependent and independent variables, among the variables of the study. Resource dependence theory had its focus on building framework for the role played by female directors as resources to the organization. Following the framework of this theory, are the works of Pfeffer and Salancik (1978) and Barney (1991) who noted out, the various resources an economic entity controls that are significant to its financial performance on the overall.

According to these studies, in addition to firm level resources, assets, capabilities and other resource factors like external resources such as environmental information, knowledge, skills, expertise, affiliation and connection among others are relevant factors that increase board of governance efficiency and improve firm financial performance. In line with this assertion, Hagendorff



and Keasey (2008) and Augustine (2011) suggested that, appointing outside directors and female directors on corporate boards increase firm's chance to access huge resources such as skills, information, legitimacy, political connections, social connections, and economic affiliations (financers, buyers and suppliers among several other key components) that are critically important to financial performance.

3. Methodology and Model Specification

The study adopted both ex-post facto and correlation research design to analyze the cause, effect and determine the statistical association between female CEO characteristics and financial performance of listed DMBs in Nigeria. The study used adjusted population of 13 DMBs for the period 2007 – 2022 out of 14 DMBs listed by Nigerian Exchange Group (NGX) as at 31st December, 2022. Meanwhile, one bank was dropped for incomplete annual reports and accounts of all the years in the study period, hence, used adjusted population as sample size by adopting census sampling approach. Secondary panel data were obtained from the annual reports and accounts of the sampled banks for the period covered by the study using quantitative method. Secondary panel data were used due to the quantitative nature of the variables under study. The study used panel corrected standard error regression as technique for data analysis which established cause, effect and statistical relationship among the variables of the study.

Variables Definition and Measurement

Table 1

Variables Measurements and Definitions

Variable	Type	Variables Measurement and Source
ROA	Dependent	Earnings before interest and tax (EBIT) divided by total asset (Adamu & Haruna, 2020).
FCEOF	Independent	Dummy variable, 1 if female CEO has financial expertise otherwise 0.
FCEON	Independent	Dummy variable, 1 if female CEO is Nigerian otherwise 0.
FCEOI	Independent	Dummy variable, 1 if female CEO has more than 10 years industry experience otherwise 0.
FCEOS	Independent	The proportion of shares owned by the female CEO to sum total of firm outstanding shares (Thompson, 2016).

Sources: Compiled by the Author

Model Specification

The models used to empirically test the hypothesis formulated is as follows:

$$ROA_{it} = \alpha + \beta_1 FCEOF_{it} + \beta_2 FCEON_{it} + \beta_3 FCEOI_{it} + \beta_4 FCEOS_{it} + \varepsilon_{it} \dots \dots \dots 1$$

Where: ROA=Financial performance of firm *i* at time *t*; FCEOF=Female CEO Financial expertise of firm *i* at time *t*; FCEON=Female CEO Nationality of firm *i* at time *t*; FCEOI=Female CEO Industry Knowledge of firm *i* at time *t*; FCEOS=Female CEO's Shareholdings of firm *i* at time *t*
 $\alpha, \beta_1, \beta_2, \beta_3, \beta_4$ =Parameters to be estimated; ε =Error term.

4. Result and Discussion

In this section, summary of descriptive statistics, correlation matrix and regression results is presented and discussed as follows;



Table 2
Descriptive Statistics

Variable	Min	Max	Mean	Std. Div.	N
ROA	-0.0147	0.0391	0.0252	0.4434	64
FCEOF	0.0009	0.7033	0.0264	0.0903	64
FCEON	0.0001	0.1849	0.0774	0.3745	64
FCEOI	0.0020	0.5700	1.0645	0.4141	64
FCEOS	0.0000	0.1100	0.0496	0.0706	64

Source: Stata output

From Table 2, shows a mean value of 0.0252 and standard deviation of 0.4434 for ROA implying low level of dispersion of the data. This followed by the minimum value of -0.0147 and maximum values of 0.0391. The difference between the mean value and its standard deviation as well as the negative minimum value of -0.0147 indicates that some firms recorded loss within the period of study.

FCEOF shows a mean value 0.0264 and a standard deviation of 0.0903 indicating a significant variation across the sampled banks. The mean value of the variable is lower than the standard deviation value indicating that the data is relatively not normal. The variable has the minimum and maximum values of 0.0009 and 0.7033 respectively indicating a wide gap between the lower and the upper end values of FCEOF. The average and a standard deviation value of

FCEON are 0.0774 and 0.3745 respectively indicating a significant variation across the sampled banks. The standard deviation value of the variable is greater than the average value shows that the data is relatively not normal. The variable also has the minimum and maximum value 0.0001 and 0.1849 respectively. This implied that there is a wide gap between the lower and the upper end values of FCEON.

The table also reveals a mean value of 1.0645 and a standard deviation of 0.4141 implying another wide dispersion of dataset from the mean value for FCEOI across the banks. The variable shows minimum and maximum values of 0.0020 and 0.5700 of female CEO industry knowledge financial performance respectively. This signifies that there is a wide variation between the lower and the upper end values of FCEOI. The average and a standard deviation value for FCEOS stood at 0.0496 and 0.0706 indicating a low variation of dataset from the mean value for FCEOS across the banks. This followed by a minimum and maximum value 0.0000 and 0.1100 respectively indicating a wide gap between the lower and the upper end values of FCEOS.

Correlation Matrix

Table 3
Correlation Matrix

Variables	ROA	FCEOF	FCEON	FCEOI	FCEOS
ROA	1.0000				
FCEOF	0.0429	1.0000			
FCEON	0.1106	0.3001	1.0000		
FCEOI	0.0661	-0.2991	-0.1949	1.0000	
FCEOS	0.0131	0.1339	-0.0281	0.0044	1.0000

Source: Stata output



From the table, the correlation between FCEOF, FCEON, FCEOI, FCEOS and ROA show positive coefficients of 0.0429, 0.1106, 0.661 and 0.0131 respectively. This implies that both four dependent variables moved in the same direction with ROA, meaning that increase in both causes increase in ROA. The independent variables appeared not to be highly correlated among themselves. This is evidenced by the highest correlation coefficient value of 0.3001 between FCEON and FCEOF. Given that none of the correlation's coefficients between the independent variables themselves is equal to or above 0.8, it suggests the possible absence of harmful multi-collinearity (Gujirati, 2004).

Regression Results and Discussion of Findings

The study ran Heteroskedasticity test in order to resolve the issues of sizes differential problem associated with the study observations. This is because the data for some variables are collected in decimal while others are collected in units. The study carried out the test using Breusch-pagan/cook-weisberg test for Heteroskedasticity and the results of the test reveals a χ^2 value of 93.16 and a p-value of 0.000 which is significant at 1% level of significance. This signifies that Heteroskedasticity problem exist in the data of this study. Also, the study ran autocorrelation test in order to check whether there is serial correlation in the data of the study or otherwise. The test was conducted using Wooldridge test and the test shows a χ^2 value of 11.23 with p-value of 0.000 which is significance at 1% level of significance. This show that autocorrelation exists in the data of the study. Therefore, the study further conducted panel corrected standard error (PCSE) model to correct these problems as presented in Table 4.

Table 4

Summary of Fixed Effect Regression Results

Variables	Coefficient	t - value	p – value
Intercept	0.1456	2.81	0.000***
FCEOF	0.2155	2.78	0.000***
FCEON	0.1137	0.84	0.623
FCEOI	0.1491	2.67	0.001***
FCEOS	0.0942	2.32	0.013**
R ²	0.5477		
Wald Chi ²	29.14		0.000***

*** Denotes significance at 1% ** Denotes significance at 5% * Denotes significance at 10%.

Table 4 reveals that there is sign of significant positive association between FCEOF and financial performance of listed DMBs in Nigeria. This is observed from the computed beta value 0.2155 and p-value 0.000 which is statistically significant at 1% level of significance. This signifies that as FCEOF increases the financial performance increases. The result is consistent with Zang and Xi Mu (2016), but inconsistent with Jalbert, Jalbert and Furumo (2013).

FCEON provides sign of an insignificant but positive association with financial performance. This is observed from the coefficient of 0.1137 and p-value 0.623 which is not statistically significant at all level of significance. This indicates FCEON does not have any influence on financial performance. This result is consistent with Chukwujekwu, *et al.* (2022). The study however contradicts the findings of the results by Satriyo and Harymawan (2018).

FCEOI has a sign of significant positive relationship with financial performance. This is seen from the coefficient value of 0.1491 and p-value 0.001 which is statistically significant at 1% level of significance. This indicates that the higher the industry knowledge female CEO acquired the more increase on financial performance. This result is consistent with Triana and Asri (2017). The study however contradicts the findings of the results by Satriyo and Harymawan (2018).



FCEOS also shows sign of significant positive association with financial performance. This can be seen from the beta value 0.0942 and p-value 0.013 which is statistically significant at 5% indicating that increase in the ratio of FCEOS causes increase in financial performance of DMBs in Nigeria. The result is in line with finding of Rehman *et al.* (2021). The study however contradicts the findings of Akindayomi *et al.* (2024).

The results showed R^2 value of 0.5477 which explains that about 54.77% of the total variation in financial performance of listed DMBs in Nigeria is caused by the combined effect of the independent variables of the study whereas the remaining 45.23% is caused by other variables outside the model of this study. The regression results of the study further show a Wald χ^2 value of 29.14 with a p-value of 0.000 which is significant at 1% level of significance. This implies that the model of the study is well fitted with the variable combination of the study.

5.1 Conclusion and Recommendations

The study examined the effect of female CEO characteristics on financial performance of listed DMBs in Nigeria. The results showed that FCEOF, FCEOI and FCEOS have positive significant effect on financial performance of the DMBs. FCEOS also have a positive but insignificant effect on financial performance of the DMBs. In view of the findings, it was concluded that overall, female CEO characteristics have significant impact on financial performance of listed DMBs in Nigeria. Based on the findings, the study recommends that the listed DMBs should prioritize engaging independent female directors as CEO taking into consideration the level of their financial expertise, industry knowledge and experience and their share of ownership as both have significant impact on financial performance.

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