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EFFECT OF BOARD SKILL DIVERSITY ON FINANCIAL PERFORMANCE OF QUOTED DEPOSIT MONEY BANKS IN NIGERIA

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Abstract

The monitoring role of the board of directors is a critical corporate governance control mechanism, especially in countries like Nigeria where external control mechanisms are less well developed. The skills set of the board affects the quality of this monitoring role and hence the financial performance of the firm. This study examines the effect of board skill diversity on financial performance of quoted deposit money banks in Nigeria. The population comprises of all the quoted deposit money banks in Nigeria while thirteen (13) quoted deposit money banks were sampled based on their being listed on the Nigerian Exchange Limited (NGX) all through the study period of 2010 to 2022. The data were analyzed using Shapiro-Wilk Normality, Pearson correlation, Heteroskedasticity Breusch-Pagan Test, Hausman specification test and Breusch-Pagan Lagrangian Multiplier Test while hypotheses were tested using robust random effect regression model. The results show that board skill diversity has a significant positive effect on financial performance (proxied by return on assets) of quoted deposit money banks in Nigeria for the period under review. The study recommends that deposit money banks in Nigeria should constitute their boards with directors with diverse backgrounds, experiences and expertise to enhance their board skill as this will lead to better decision-making, improved strategic planning, risk management and overall financial performance of their organizations.

Keywords: Skills Diversity, Return on Assets, Listed Deposit Money Banks, Financial Performance

1. Introduction

Board diversity as a mechanism of corporate governance is an age-old term and refers to the demographic characteristics of a board of director. Diversity may be viewed in various ways but this study focuses on diversity from the angle of the skills set of members on the board of directors. Corporate governance, to which board diversity is one of the mechanisms, is as old as the history of modern corporations. Corporate governance can be defined as that responsibility and accountability that companies owe their diverse stakeholders. It is the system by which companies are directed and controlled (Cadbury Committee, 1992). According to Jenkinson and Mayer (1992), corporate governance refers to the processes and structures by which the business and affairs of institutions are directed and managed, in order to improve long term shareholders' value by enhancing corporate performance and accountability, while

taking into account the interest of other stakeholders. The pride of place that corporate governance currently enjoy stem from the recent failures and scandals of some world class corporations like Enron, WorldCom, Lehman Brothers, Polaroid, Swiss Air and Woolworths just to mention a few.

There have been several studies on corporate governance and financial performance most of which use mechanisms like board size, number of board meetings, and independence of the board, among others but only a handful used board diversities. Some of such prior studies that used other mechanisms aside from board diversity are Kajola, (2008), Uwuigbe, (2011) Akpan and Riman, (2012), Joshua, et al (2013), Obetan, et al (2014), Adekunle and Aghedo, (2014) and Ogege and Boloupremo, (2014). This paper uses board diversity demographics with particular emphasis on skills and return on assets as financial performance proxy. The results of past research work in this area

are as diverse as the number of studies carried out thereby creating a need for more study.

The key issue addressed by this current study is whether skills diversity of the board members of listed deposit money banks in Nigeria affects their financial performance. As mentioned earlier, majority of the studies on corporate governance and financial performance in Nigeria use board size, board composition, audit committee and independence of the board as against board diversity. That a lot of these studies did not look at board diversity and that the results of previous studies are almost as varied as the number of studies creates a need for this work.

The null hypotheses formulated for testing in this study is that the skills set of the members of board of directors of listed deposit money banks in Nigeria does not significantly affect their financial performance.

2. Literature Review

2.1 Conceptual Issues

In this section of the paper, we will define and review the concepts of board diversity, skill and financial performance. Before the conceptual discussion on board diversity however, there is a need for an appreciation of the concept of corporate governance, the ambit of which, board of directors and consequently board (skills) diversity falls. The term corporate governance is a relatively new one both in the public and academic debates although the issues it addresses have been around for much longer dating as far back as Adam Smith's (Wealth of Nations) time of 1776 (Bocean & Barbu, 2007). Corporate governance is the rules, processes or laws by which businesses are operated, regulated and controlled. Well-defined and enforced corporate governance provides a structure that, at least in theory, works for the benefit of everyone concerned by ensuring that the enterprise adheres to accepted ethical standards and best practices as well as to formal laws. According to the Australian Securities Exchange (ASX) (2010), corporate governance is defined as the framework of rules, relationships, systems and processes within and by which authority is exercised and controlled in corporations. It went further to state that corporate governance encompasses the mechanisms by which

companies, and those in control, are held to account. It concluded that corporate governance influences how the objectives of the company are set and achieved, how risk is monitored and assessed and how performance is optimized,

Another definition of corporate governance was that provided by Imhanze (2015) in an article in the September 2015 edition of the Nigeria Bar, wherein he defined corporate governance as the framework of rules and practices by which a board of directors ensures accountability, fairness and transparency in a company's relationship with its all stakeholders (financiers, customers, management, employees, government and the community). Additionally, he stated that the corporate governance framework consists of (1) explicit and implicit contracts between the company and the stakeholders for distribution of responsibilities, rights and rewards, (2) procedures for reconciling the sometimes-conflicting interest of stakeholders in accordance with their duties, privileges and roles and (3) procedures for proper supervision, control and information flows to serve as a system of checks and balances. Corporate governance can therefore be seen as acting responsibly, fairly and transparently to all stakeholders of a company.

There are several corporate governance mechanisms that include board size, board composition, and independence of directors, audit committees, number of board meetings, chief executive officer duality and board diversity, among others. An important discuss in recent academic literature is that a diversified board engender sound corporate governance observance. Both the Higgs Review of 2003 and Walker Review of 2009 stressed the importance of board diversity. Board diversity, as a corporate governance mechanism, does not have a uniform definition though matters like gender, race, age, experience, skills, education background, professional qualification, personal attributes, etc are considered as critical features that determine diversity. Board diversity means having people of different attributes on the board of directors. The attribute selected for this study is skills diversity.

Skills generally refer to the ability and expertise to carry out an assignment well. According to the Webster dictionary (2018), skill is the ability to use one's knowledge effectively and readily in execution

or performance. It further defines skills as the dexterity or coordination especially in the execution of learned physical tasks. Skills may be specific or general and have different dimensions. Amongst the dimension of skills are educational background, professional certifications, competency and prior work experience to mention but a few. An important attribute of skills is the level of education attained by the respondent. It is often argued that top managers of the firm are hired largely because of their superior ability and hence the possibility of delivering superior performance. Such ability consists of observable characteristics like educational backgrounds and work experiences as well as unobservable characteristics like leadership and entrepreneurial skills (Bhagat, Bolton & Subramanian, 2010). Bhagat et al (2010) further stated that since the unobservable characteristics are relatively difficult to identify and measure, the observable characteristics may play an important role. According to Wailderdsak and Suehiro (2004) and Barro and Lee (2010), education level is often viewed as a good proxy for human capital, knowledge base, or intellectual competence.

Closely related to the level of formal education attained, as a determinant of skills, is how associated the field of study is to the work being performed or the industry being considered. It is usual for persons whose study biases are in close proximity to the area of engagement to be more proficient than those from study areas that are remote.

Another attribute of skills is the length of relevant experience. The learning curve principle would suggest that as an individual perform the same task over and over, he gains experience and expertise and would be able to perform the task more timely and accurately. Experienced directors will help in delivering superior performance than those that are inexperienced or are less experienced. Skills acquisition may be from studies in formal and informal settings as well as from functions performed over time. This explains why both education and experience are critical attributes of skills, among other attributes.

Corporate financial performance could be viewed as the financial returns associated with investments in a given entity. Financial performance and profitability

are loosely and interchangeably used to mean one and the same thing. Financial performance is usually a measure of the health and wellbeing of a company. According to Barney (2002) in Gentry and Shen (2010), financial performance is the fulfilment of the economic goals of the firm. In this study, an accounting financial performance measure of return on assets (ROA) is used as proxy for financial performance. Return on assets is the earnings after taxation expressed as a proportion of assets used to generate the profit.

2.2 Empirical Review

Findings from prior studies are almost as varied as the number of works thus there are mixed results. Empirical studies are replete with the relationship between the various attributes of skills and firms' financial performance especially in the developed economies. According to the upper echelon theory, organizational outcomes are shaped by, among other things, the demographic characteristics of top executives. Such characteristics include level of education attained which is an attribute of skills. Hambrick and Mason (1984), based on the upper-echelon theory, argued that higher level of education is associated with open mindedness, capacity for information processing, and tolerance to changes. This proposition was further confirmed by Bantel and Jackson (1989) wherein they opined that more educated top managers are inclined to be more proactive in developing technical innovations. In another similar work by Hitt and Tyler (1991), it was shown that the type of education (i.e., major area of study) affects the firm's strategic decision models. In our present work, the area of study by the members of the board of directors, whether finance and business related or not, is one of the measures of the skills set of the directors. Top managers with higher educational level are more likely to undertake significant changes in corporate strategy (Wiersema & Bantel, 1992). It is instructive to state that these proactive technical innovations and significant changes in corporate strategies would have positive effect on the financial performance of the firms in question.

Hosny and Elgharbawy (2022) found that skills diversity positively affect financial performance. Along the same line, Gomez and Bernet (2019) found

that diversity can help organizations improve both patient care quality and financial results. In that study which was healthcare related, professional skills relevant to health care was used as diversity attributes in addition to other variables. Similarly, Adegboyegun and Igbekeyi (2022) opined that board diversity has an insignificant effect on performance except for financial expertise diversity that has a positive effect on financial performance. Financial expertise is a subset of skills and is an index used in this seminar work. They went further to state that diversity on the board in terms of gender; ethnicity and educational backgrounds alone will not really improve or reduce performance of the firms while diversity in terms of financial expertise will do. On the other hand, Hoyt and Matuszek (2001) found that multi-skilled worker (MSW) was a non-significant predictor of financial performance. In the same vein, Esley, Carland and Carland (1998) found that the diversity in academic major in highest earned degree and functional background were negatively linked to revenue. Similarly, Wellalage and Locke (2013) found that though board ethnicity and age diversity increase financial performance, that board gender, education and occupational diversity reduce firm financial performance. Board education and occupational diversity forms a critical element of this work.

It is noteworthy to mention that studies on the association between skills and firms' financial performance in the developing economies generally and Nigeria in particular are few. Most of the studies that used educational background, as a subset of skills, to relate to financial performance are in three spheres which are top-echelon generally, fund management area and the Chief Executive Officers (CEO) specifically. But whether the emphasis is on top echelon, fund managers or CEO, they can be extrapolated to the boards of directors and would produce similar results. In one of such studies in the developed world on the association between the demographic diversity of top managers and firm performance carried out by Smith, Smith, Olan, Sims, Jr. O'Bannon and Scully (1994), they found that educational heterogeneity positively influences return on investments (ROI). and yet in another study, using similar dependent variable as the one in the present study, Hambrick, Cho and Chen (1996) provided

evidence that the average education level of top management team members is positive and significant. The use of top management teams in these studies, as mentioned earlier, can be extended to the members of the board of directors.

In an Asian study, Cheng, Chan and Leung (2010) found that university degrees held by the board chairman are positively associated with seven measures of performance, namely earnings per share (EPS), return on assets (ROA), cumulative returns, cumulative abnormal returns, change in EPS, change in ROA, and market-to-book ratio (Tobin's q). Though board chairman was the central focus in the quoted study, the same can be said of other board members as contained in this present study. In a similar study related to the headship of an organization, and focusing on the Chief Executive Officer (CEO), Jalbert, Rao and Jalbert (2002), employing a sample consisting of Forbes 800 firms found that the prestige of a CEO's graduate school is positively related to ROA. They however show mixed results on whether a graduate degree leads to better performance. They further opined that CEOs having a graduate degree are found to have significantly better performance based on Tobin's q, and significantly worse performance in terms of ROA. Subsequent studies showed similar diverse results. For example, Gottesman and Morey (2006) found no evidence that CEOs from prestigious schools outperform their counterparts from less prestigious schools. They further found that CEOs holding an MBA perform no better than those without such qualifications. Similarly, in a later study by Baghat, Bolton and Subramanian (2010) which used a larger sample size, they equally failed to find a significant relationship between CEO education and long-term firm performance. It is instructive to note however that their study provided empirical evidence that hiring new CEOs with an MBA leads to short-term improvements in firm performance. In this present study, graduated weights were assigned to the level of educational attainments of the individual members of the board of directors. Rose (2007) too did not find a link between firm's performance as measured by Tobin's q and the educational background of board members. Nganga (2017), contrary to the above finding however, found that the educational background of board of directors

significantly and positively affects the financial performance of commercial banks in Kenya. This finding is similar to that of Ujunwa (2012) who found that the diversity of the board of directors in terms of educational qualification was important to the financial performance of firms.

Viewed from the perspectives of the performance of funds under management, there are array of studies in the existing literature that provided association between educational qualification of the fund managers and the performance of the firms in question. In a study, Golec (1996) found that better performing funds can be expected from those with managers that have MBAs. In another study that corroborated this relationship but using risk-adjusting excess returns as a measure of funds' performance, Chevalier and Ellison (1999) found that better fund performance can be expected from funds whose managers attend higher SAT-undergraduate institutions. It should be noted that in the United States of America (USA), higher SAT-undergraduate schools are more prestigious than their counterparts. SAT is an acronym for Scholastic assessment Tests, formerly Scholastic aptitude Tests, usually for colleges and universities entrance/admission in the USA. Further research in the literature by Gottesman and Morey (2006b) on the relationship between manager's education and mutual fund performance, revealed that the quality of MBA programmes attended by the managers, measured using average GMAT score and Business Week ranking, is positively associated with fund performance. That study also revealed that managers holding MBAs from top business schools are likely to show significantly better performance than those without MBAs or holding MBAs from unranked programmes. The inferences from these studies are that the level and quality of education received by those placed at the helm of affairs in corporations, which may include directors, have positive significant effect on performance and hence relevant to this work.

2.3 Theoretical Framework

There are several theories on corporate governance. The theories include agency, stakeholder, resource dependence and stewardship theories. While this work is underpinned by resource dependence theory and

upper echelon theory, below is a brief explanation of the theories generally. Agency theory is one of the oldest theories in corporate governance studies. It is premised on modern corporations' model in which ownership is divorced from management where the managers acting as agents of owners are perceived to be self-interested and pursue objectives different from those of the owners. According to Shapiro (2005) some incentives like commissions, bonuses, piece rates, equity ownership, stock options, profit sharing, share cropping, deductibles, etc are used as options to align the agent's interests with the principal's objectives.

Resource dependence however look at directors, as corporate governance tool, from the perspective of resources those directors can offer an organization. The theory opposed the agency theory's view of the suspicion by the shareholders that the managers will act opportunistically and selfishly. The key contribution of the resource dependence theory, as developed by Pfeffer and Salancik (1978), is the observation that the board, and in particular its constitution of the non-executive element, can provide the firm with a vital set of resources. Seeing the board as a source of resources presents a good dimension to the board's role of creating high performance. As a result of the resource contents of the board members, this theory underpins this work.

The upper echelons (UE) theory originally published in 1984 by Hambrick and Mason (1984) states that organizational outcomes are partially predicted by managerial background characteristics of the top-level management team. The emphasis in this definition is the top-level management team, which with the roles played by a typical board of directors, can be extended to it. The backgrounds of the top management team or the board of directors members range from their education, skills, gender, religion, ethnicity, age and the likes, a key aspect (skills) is the subject matter of this study and hence the relevance of the theory. In that 1984 seminal paper on upper echelons perspective, the fulcrum of the theory was vividly captured in Hambrick and Mason (1984)'s subheading of the work, the organization is a reflection of its top managers (the so-called "upper echelons"). In a later update work, Hambrick (2007) stated that the central

premise of upper echelons theory is that executives' experiences, values, and personalities greatly influence their interpretations of the situations they face and, in turn, affect their choices. These choices most often result in improved organizational performance.

Carpenter, Glutamic, and Sanders-Win (2004) dimensioned the central tenets of upper echelons perspective into three as below:

- i. That strategic choices made in firms are reflections of the values and cognitive bases of powerful actors,
- ii. That the values and cognitive bases of such actors are a function of their observable characteristics like education or work experience, and
- iii. That as a result of the above, significant organizational outcomes will be associated with the observable characteristics of those actors.

These three central tenets, according to Carpenter et al (2004) frame the upper echelon proposition that an organization and its performance will be a reflection of its top managers and provide a basis for studying underlying team dynamics by demographic proxy. It is instructive to mention that because of the strategic roles that board of directors play in organizations, the upper echelon theory, though in most studies emphasizes top management teams (TMT), can be extended to members of the board of directors in place of TMT and may produce similar outcomes.

In a strategic level research work, Waldman, Javidan and Varella (2004) tried to integrate charismatic leadership theory with the upper echelons perspective in an attempt to better understand the leadership role of chief executive officers (CEOs). The work is relevant to the present study. Waldman et al (2004)'s findings with regards to an expected interaction between charisma and perceived environmental uncertainty in the prediction of performance were however weak. When they however substituted intellectual stimulation for charisma, interaction results became somewhat stronger. Although the study did not find an expected interaction between charisma and strategic change in the prediction of firm performance, charisma was related to both subjective and objective measures of strategic change.

In a meta-analytic study based on upper echelons theory and focusing on CEOs strategic actions vis-à-vis firm performance, Wang, Holmes, in-Sue Oh and Zhu (2016) found that Chief Executive Officer (CEO) characteristics like tenure, formal education, prior career experience, and positive self-concept, are significantly associated with firm strategic actions, which in turn are significantly related to future firm performance. Wang et al (2016) further found that CEO characteristics such as age, tenure, formal education, and prior career experience are positively related to future firm performance. These findings, and for that matter, the upper echelon theory is very relevant to this work and hence underpins same.

The stakeholder theory expands on the limitations of agency theory by emphasizing the entire stakeholders as against a narrow focus on owners-managers (principal-agent) relationship. As a typical firm is fundamentally a nexus of stakeholder relationships who hold the tangible and intangible resources needed for the firm's maintenance, focus should be on these entire stakeholders. Freeman, et al (2004) believed that stakeholder theory begins with the assumption that values are necessarily and explicitly a part of doing business.

Stewardship theory, which is related to the resource dependence theory, postulate motive of executive different from that put forward by the agency theorists. Here, as against the self-interested and self-serving motives of executives under agency theory, stewardship theory emphasizes the pro-organization motives. The theory affirms that the problem of governance may lie not in the self-interest of the executive but rather in the assumptions that distant others (investors and regulators) make as to their self-interested motives. Donaldson and Davis (1991) argue that in agency theory, shareholder interests require protection of incumbency of roles of board chair and CEO while stewardship theory argues that shareholder interests are maximized by shared incumbency of these roles. This study is however underpinned by the resource dependence theory as directors are viewed from their resource supply context.

3. Methodology

The study used a longitudinal research design to address the research objective. The design is used to examine the statistical relationship between two or more variables. The population of the study consists of all the quoted deposit money banks in Nigeria on the Nigerian Exchange Limited for the period 2010 to 2022. The sample size of this study comprises of thirteen (13) quoted deposit money banks in Nigeria listed all through the 2010 – 2022 period. The study employed panel data mainly from secondary sources which are quantitative in nature. The data were obtained from the annual reports and accounts of the quoted banks submitted to the Nigerian Exchange Limited. The technique of data analysis employed by this study is robust random effect regression analysis. The study adopted this technique and ascertained the effect of board skill diversity on financial performance of quoted deposit money banks in Nigeria. The data were analyzed using STATA 15 and the outcome were used to test the research formulated hypothesis. In view of this, panel data analysis was adopted for the study. Various robustness tests were carried out to test the validity of the research result.

Financial performance is proxied by return on assets (ROA) which is measured by profit after tax over total assets and is a function of board skill diversity. Board skills on the other hand was measured using weights

attached to highest level of educational attainment, related professional certifications, extent of relevant experience and study areas, whether banking and business related or otherwise. The cumulative weights for the indices were ten (10) and board members were rated on this scale of 10. Therefore;

$$ROA = f(BSKD)$$

Econometrically, the above equation is rewritten into a model as follows:

$$ROA_{it} = \beta_0 + \beta_1 BSKD_{it} + \mu_{it} \dots \dots \dots (1)$$

Where:

β_1 : parameter to be estimated with a-priori expectation.

ROA = Return on Assets

BSKD = Board Skill Diversity

β_0 = Constant

μ = Error term

i = Firms

t = Periods

$\beta_1 > 0$

Table 1: Variable Measurement

Variable	Acronym	Type of variable	Measurement	Justification
Return on Assets	ROA	Dependent	Profit after tax/Total assets.	Semra et al. (2016), Siti and Hassan (2015)
Board Skill Diversity	BSKD	Independent	This is the percentage of women on the board of directors.	Enakirerhi and Chijuka (2016), Semra et al. (2016), Siti and Hassan (2015).

Source: Researcher's compilation, 2023.

4. Result and Discussions

The data of thirteen (13) deposit money banks regarding return on assets (ROA) and board skill diversity (BSKD) were used. The data were analyzed with the aid of Stata 15 software using Descriptive Statistics, Shapiro-Wilk Test, Pearson Correlation, Heteroscedasticity test, Hausman Specification Test and robust random effect regression model.

4.1 Descriptive Statistics

Table 2: Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min.	Max.
ROA	169	0.0163	0.023	-0.111	0.127
BSKD	169	7.530	0.492	6.080	8.560

Source: Researcher's Computation using STATA 15 software

Table 2 shows that return on assets (ROA) has a minimum value of -0.111, a maximum value of 0.127 and a mean value of 0.0163 that is within the minimum and maximum indicating a good spread within the period studied. The table also reveals that ROA has a standard deviation of 0.023 that is more

than the mean, which implies that it had a strong growth during the period under review. Table 2 also shows that the board skill diversity (BSKD) has a minimum value of 6.080, a maximum value of 8.560 and a mean value of 7.530 that is within the minimum and maximum values indicating a good spread within the period studied. The Table also reveals that BSKD has a standard deviation of 0.492 that is less than the mean.

4.2 Shapiro-Wilk Test for Normality

Table 3: Normality Test

Variable	Obs	W	V	z	Prob. Chi2
Residual	169	0.97759	2.889	2.420	0.00775

Source: Researcher's Computation using STATA 15 software

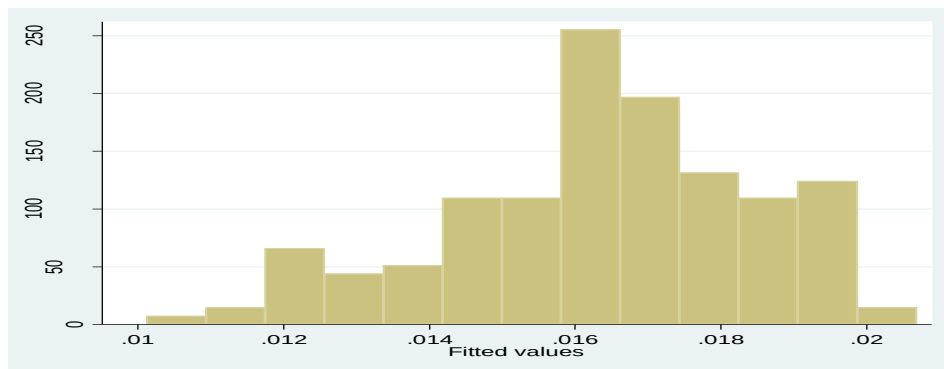


Figure 1: Normally Distributed

Table 3 above shows the probability value of residual of 0.00 which is not normally distributed around the mean value as corroborated by figure 1 above. This indicates that one of the basic assumptions of linear regression technique is violated, which according to Gujarati (2003) is corrected using robust regression technique.

4.3 Pearson Correlation

Table 4: Pearson Correlation

Variable	ROA	BSKD
ROA	1	
BSKD	0.0926	1

* = Significant at 1%

** = Significant at 5%

Source: Researcher's Computation using STATA 15 software

The correlation matrix determines the degree of relationships between the proxies of independent variable and the dependent variable. The result from table 4 shows 9% positive and weak association between board skill diversity (BSKD) and return on assets (ROA) of quoted deposit money banks in Nigeria, from correlation coefficient of 0.0926.

4.4 Heteroscedasticity Test

Table 6: Heteroscedasticity test

Type of test	Chi2	P-Value
Heteroscedasticity Test	79.33	0.0000

Source: Researcher's Computation Using STATA 15 software

To establish that the data for this study was robust for the model, heteroscedasticity test was carried out. However, the study revealed that data is heteroskedastic; as such the basic linear regression model would not be reliable. This can be confirmed from the heteroskedasticity result in table 6 below which revealed the chi2 value of 79.33 with a p-value of 0.0000. In order to correct for this anomaly, the robust linear regression technique was used as suggested by (Hoechle, 2007).

Table 7: Hausman Specification Test

Chi2	1.33
Prob. Chi2	0.2484

Source: Researcher's Computation using STATA 15 software

The data for this study is panel and panel data can lead to an error that is clustered and possibly correlated over time. This is due to the fact that each financial firm may have its own entity specific characteristic that can determine its information (i.e. unobserved heterogeneity). And this may affect the outcome variable or even the explanatory variables. Then, Hausman specification test was run and the result shows that the random effect model is more appropriate. This can be confirmed from the Chi2 value of 1.33 with a p-value of 0.2484 in table 7 which is not significant at all levels of significance as suggested by (Hoechle, 2007).

Table 7 above presents the result of a Hausman specification test conducted.

4.5 Breusch-Pagan Lagrangian Multiplier Test

Table 8: Breusch-Pagan Lagrangian Multiplier Test

Variable	Chibar2	P-Value
BSKD	41.59	0.0000

Source: Researcher's Computation using STATA 15 software

Based on the result of Hausman test that supported Random Effect Model (REM) regression, the Breusch-Pagan Lagrangian Multiplier test was conducted to give an insight into an actual test to be carried out between Random Effect Model and Pooled Ordinary Least Square Regression. From the Breusch-Pagan Lagrangian Multiplier test, the chibar2 value of

(41.59) and the probability of (0.0000) in table 8 below, therefore, suggests that REM is more appropriate instead of Pooled Ordinary Least Square.

Table 8 above presents the result of the Breusch-Pagan Lagrangian Multiplier test conducted.

Board Skill Diversity and Financial Performance using Robust Random Effect Model (REM)

Table 9: Robust Random Effect Regression Model

Variable	Coefficients	z-value	Prob.
Cons.	.0044973	1.09	0.275
BSKD	.0009367	2.54	0.011
R-sq overall	0.636		
Wald chi2	6.47		
Prob. >chi2	0.0110		

Source: Researcher's Computation using STATA 15 software

Table 9 above indicated that approximately 64% variation of return on assets is predicted by the effect of board skill diversity with (Overall R-sq of 0.636). The Wald chi2 value of 6.47 with a P-value of 0.0110 signified that the model is fit for the study.

To examine the effect of board skill diversity on financial performance of quoted deposit money banks in Nigeria, the formulated hypothesis was tested using a robust random effect regression model.

The result also reveals that the z-value of 2.54 and the corresponding p-value of 0.0110 shows that board skill diversity (BSKD) has a significant positive effect on return on assets (ROA) of quoted deposit money banks in Nigeria for the period under review. Based on this, the null hypothesis which says that board skill diversity (BSKD) has no significant effect on return on assets (ROA) of quoted deposit money banks in Nigeria is rejected.

4.6 Discussion of Findings

Board Skill Diversity (BSKD) and Return on Assets

The study reveals that board skill diversity (BSKD) has a significant positive effect on financial performance, proxied by return on assets (ROA) of quoted deposit money banks in Nigeria for the period under review. This implies that a percentage increase

in board skill diversity increases the financial performance of quoted deposit money banks in Nigeria. This finding is in line with the a-priori expectation and also in line with the theories of resource dependence and upper echelon. This finding is equally in consonance with the findings in Gotec (1996), Chevalier and Ellison (1999), Jalbert, Rao and Jalbert (2002), Cheng, Chan and Leung (2010), Ujunwa (2012), Nganga (2017). Hosny and Elgharbawy (2022), Gomez and Bernet (2019), Adegboyegun and Igbekoyi (2022, among others. The finding however differ from those of Hoyt and Matuszek (2001), Ensley, Carland and Carland (1998) and Wellalage and Locke (2013).

5. Conclusion and Recommendations

The deposit money banks harnessing board skills as a strategic approach will increase their financial performance in Nigeria. This can be achieved by

References

- Adegboyegun, A. E., & Igbekoyi, O. E. (2022). Board diversity and financial performance of listed manufacturing firms in Nigeria. *Saudi Journal of Business and Management Studies*, 7(2), 50-60.
- Adekunle, S. A., & Aghedo, E. M. (2014). Corporate governance and financial performance of selected quoted companies in Nigeria. *European Journal of Business and Management*, 6(9).
- Akpan, E. S., & Riman, H.B. (2012). Does corporate governance affect bank profitability? Evidence from Nigeria. *American International Journal of Contemporary Research*, 2(7).
- Australian Stock Exchange (ASX) 2010.
- Bantel, K. A., & Jackson, S. E. (1989). Top management and innovations in banking: Does the composition of the top team make a difference? *Strategic Management Journal*, 10(S1), 107-124.
- Barney, J. B. (2002). Strategic management: From informed conversation to academic discipline. *Academy of Management Perspectives*, 16(2), 53-57.
- Barro, R. J., & Lee, J. W. (2010). A New Data Set of Educational Attainment in the World, 1950-2010. NBER Working Paper No. 15902. *National Bureau of Economic Research*.
- Bhagat, S., Bolton, B. J., & Subramanian, A. (2010). CEO education, CEO turnover, and firm performance. *Available at SSRN 1670219*.
- Bocean, C.G., & Barbu, C.M. (2007). Corporate Governance and Firm Performance. *Management and Marketing* 5(1), 125-131.
- Cadbury Committee, 1992.
- Carpenter, M. A., Geletkanycz, M. A., & Sanders, W. G. (2004). Upper echelons research revisited: Antecedents, elements, and consequences of top management team composition. *Journal of Management*, 30(6), 749-778.
- Cheng, S., Chan, & Leung, (2010). Board Size and Firm Performance: The Moderating Effects of the Market for Corporate Control. *Review of Quantitative Finance and accounting*, 31(2), 121-145.
- Chevalier, J., & Ellison, G. (1999). Career concerns of mutual fund managers. *The Quarterly Journal of Economics*, 114(2), 389-432.
- Donalson, L., & Davis, J.H. (1991). Stewardship Theory or Agency Theory: CEO Governance

- and Shareholder Returns. *Australian Journal of Management*, 16(1), 49-64.
- Ensley, M. D., Carland, J. W., & Carland, J. C. (1998). The effect of entrepreneurial team skill heterogeneity and functional diversity on new venture performance. *Journal of Business and Entrepreneurship*, 10(1), 1.
- Freeman, R. E., Wicks, A. C., & Parma, B. L. (2004). Stakeholder theory and "The corporate objective revisited". *Organization science*, 15(3), 364-369.
- Gentry, R.J., & Shen, W. (2010). The Relationship Between Accounting and Market Measures of Firm Performance: How Strong is it? *Journal of Management Issues*, 22(4), 514-550.
- Golec, J. H. (1996). The effects of mutual fund managers' characteristics on their portfolio performance, risk and fees. *Financial Services Review*, 5(2), 133-147.
- Gomez, L. E., & Bernet, P. (2019). Diversity improves performance and outcomes. *Journal of the National Medical Association*, 111(4), 383-392.
- Gottesman, A. A., & Morey, M. R. (2006). Manager education and mutual fund performance. *Journal of empirical finance*, 13(2), 145-182.
- Gottesman, A. A., & Morey, M. R. (2006b). Does a better education make for better managers? An empirical examination of CEO educational quality and firm performance. An Empirical Examination of CEO Educational Quality and Firm Performance (April 21, 2006). *Pace University Finance Research Paper*, (2004/03).
- Hambrick, D. C., & Mason, P. A. (1984). Upper echelons: The organization as a reflection of its top managers. *Academy of management review*, 9(2), 193-206.
- Hambrick, D. C., Cho, T. S., & Chen, M. J. (1996). The influence of top management team heterogeneity on firms' competitive moves. *Administrative science quarterly*, 659-684.
- Hambrick, D. C. (2007). Upper echelons theory: An update.
- Higgs, D. (2003). Review of the role and effectiveness of non-executive directors, London: DTI.
- Hitt, M. A., & Tyler, B. B. (1991). Strategic decision models: Integrating different perspectives. *Strategic management journal*, 12(5), 327-351.
- Hosny, K., & Elgharbawy, A. (2022). Board diversity and financial performance: empirical evidence from the United Kingdom. *Accounting Research Journal*, 35(4), 561-580.
- Hoyt, J., & Matuszek, T. (2001). Testing the contribution of multi-skilled employees to the financial performance of high-tech organizations. *The Journal of High Technology Management Research*, 12(2), 167-181.
- Imhanze, I. (2015). Assessing Corporate Governance Through Judicial Decisions. *The Nigeria Bar*, 17/09/2015.
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure. *Journal of Financial Economics*, 3(4), 305-360.
- Joshua, O., Joshua, S. G., Tauhid, S. (2013). Corporate governance principles application and the financial performance of deposit money banks in Nigeria: An impact assessment. *Research Journal of Finance and Accounting*, 4(2), 53-64.
- Kajola, S. O. (2008). Corporate governance and firm performance. The case of Nigerian listed firms. *European Journal of Economics, Finance and Administrative Sciences*, 14(14), 16-28
- Nganga, B. (2017). Influence of Corporate Governance on Financial Performance of Commercial Banks in Kenya.
- Obetan, O. I., Ocheni, S., & John, S. (2014). The effects of corporate governance on the performance of commercial banks in Nigeria. *International Journal of Public Administration and Management Research*, 2.
- Ogege, S., & Boloupremo, T. (2014). Corporate governance and financial performance of banks: Evidence from Nigeria. *Acta Universitatis Danubius. OEconomica*, 2(2), 216-230.

- Pleffer, J., & Salancik, G. R. (1978). *The External Control of Organizations: A Resource Dependence Perspective*. New York: Harper & Row.
- Rose, C. (2007). Does female board representation influence firm performance? The Danish evidence. *Corporate Governance: An International Review*, 15(2), 404-413.
- Shapiro, S. P. (2005). Agency Theory. *Annual Review of Sociology*, 263-284.
- Smith, K. G., Smith, K. A., Olan, J. D., Sims Jr, H. P., O'Bannon, D. P., & Scully, J. A. (1994). Top management team demography and process: The role of social integration and communication. *Administrative science quarterly*, 412-438.
- Ujunwa, A. (2012). Board characteristics and the financial performance of Nigeran quoted firms. *Corporate Governance: The international journal of business in society*.
- Uwuigbe, O. R. (2011). Corporate Governance and Financial Performance of Banks: A Study of Listed Banks in Nigeria. *Theses.covenantuniversity.edu.ng*.
- Wailderdsak, N., & Suehiro, A. (2004). Top executive origins: Comparative study between Thailand and Japan. *Asian Business and Management*, 3, 85-104.
<https://doi.org/10.1057/palgrave.abm.9200071>
- Walker, D. (2009). A review of corporate governance in UK banks and other financial industry entities, 1 - 175
- Wang, G., Holmes Jr, R. M., Oh, I. S., & Zhu, W. (2016). Do CEOs matter to firm strategic actions and firm performance? A meta-analytic investigation based on upper echelons theory. *Personnel Psychology*, 69(4), 775-862.
- Waldman, D. A., Javidan, M., & Varella, P. (2004). Charismatic leadership at the strategic level: A new application of upper echelons theory. *The Leadership Quarterly*, 15(3), 355-380
- Webster Dictionary (2018).
- Wellalage, N. H., & Locke, S. (2013). Corporate governance, board diversity and firm financial performance: new evidence from Sri Lanka. *International Journal of Business Governance and Ethics*, 8(2), 116-136.