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Corporate Governance and Bank Performance: A case of the Nigerian Financial Sub- Sector

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Abstract: This study examined the link between company governance and its fiscal returns, using director's stock ownership, in the Nigerian banking sector. The 2009 banking scandals and their aftermath effects in the Nigerian banking sector, which arose from poor corporate control, amongst other factors, paved the way for research in this discourse, its importance has attracted attention over time, and even in the 21st century. Directors' stock ownership was used to proxy company governance, with leverage, liquidity, and corporate size controlled for. Firm performance was proxy by Returns on Asset with keen interest on deposit money banks. This study used a purposive sampling technique of fourteen (14) deposit money banks from 2014 – 2018 as the sample of the study, which was sourced from the Nigeria Stock Exchange (NSE) annual publication 2018. The Panel Least Squares methodology was employed to examine the variables and their effects. The panel Fixed Effect as selected by the Hausman test result shows that director's stock ownership and liquidity were statistically significant on banks' returns in Nigeria, while leverage and corporate size have no significant consequence on banks performance in Nigeria during the period under review. To this end, the study suggests that; the regulatory bodies should strengthen the corporate governance framework to improve bank performance in Nigeria. Secondly, strategies should be put in place to boost up liquidity level to enhance more liquidity for its effect to remain positive and significant to bank's performance in Nigeria.

Keywords: Corporate Governance, Directors' Stocks, Financial Sector, Firm Performance, Hausman Test.

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Introduction

The term corporate control or governance as the case may be, refers to an automatic system of guidelines, practices, and procedures by which a going concern is organized. Thus, it's a framework by which the board of directors ensures accountability, to uphold the success of an establishment in the long run. Due to its relevance in the corporate parlance, corporate governance has gained extensive attention both in literature, as well as for practitioners in different economies of the world. Corporate governance is an important tool that can be used to drive corporate performance within an entity, hence, countries' governments and directors of establishments put in efforts to ensure stern compliance with the rules of conduct of company governance. For a developing country like Nigeria, issues on corporate governance are most evident within the banking/ financial industry, even when other sectors may be affected, and the reason is not far-fetched. The financial sector as a whole interlink other sectors of the economy together, with business transactions extending to the international arena through financial investments and other forms of businesses, thus any form of funds mismanagement and/or lack of professionalism can generate a ripple effect on the entire economy if not globally. Hence, corporate control remains the focus of every corporate firm, with more attention to the financial sector especially deposits money banks.

The 2009 banking scandals experienced in the Nigerian banking sector and as widely publicized, involving several perceived big banks, for example, Oceanic Bank, Intercontinental Bank, Fin Bank, and some others, were due to the excessively high level of unproductive risk assets caused by poor corporate governance amongst other salient factors as well (Adeoye & Amupitan 2015).

Discoveries from the study done by CBN and NDIC on banks in the Nigerian banking sector, to ascertain the level of soundness, stability, and reliability of the sector led to the replacement of the corporate financial leaders of some banks and an injection of 620 billion nairas into the sector (Sanusi 2011). Given the fall out of the bank consolidation exercise of 2004/05, the banking sector was presumed to be financially stable, but that was not the case as shortly after the exercise, we had the 2009 banking scandal. The aftermath of these scandals paved way for researches on the effectiveness of corporate governance with policymakers questioning the effectiveness and compliance of corporate policies and their operations in the Nigerian banking companies. This, however, has led to the unavoidable pressures for more directives and by-laws to drive and control corporate conducts, even to the international arena, hence the BASEL Committee of the G20s. Going forward, the banking sub-sector of the Nigerian economy, has experienced segments of policy reforms geared towards a sound, strong, and reliable system, but this seems to be a far cry as the number of banks continues to dwindle by the day; either through acquisition, merger, de-listing from the Nigerian stock market, or an out-right foreclosure, revealing the non-compliance rate of banks. . It is important to note here that the issues and failures of corporate governance are not limited to only the banking sector, its hazard cuts across the economic system of any nation. Interestingly, Ozili, (2020), identified some reasons for corporate policy failures in Nigeria, among which was the political factor, and conflicting

codes in the country's corporate governance guidelines.

However, the issue of principal and agent relationship cannot be left out, even as seen in extant literature in this discourse. There will always be a manageable conflict between principals and agents. Smith (1776) spells it out to say- with an expansion of company's scope comes the need for a gradual disconnection of responsibilities and control, and since there is a huge gap between individuals with the resources to own an entity, and those to manage the entity, hence the agency and principal relationship, and this can create some forms of incentive problems (Degennaro & Robotti 2007).

According to Andres and Vallelado (2008), it is almost impossible, if not completely impossible, to monitor agents who habitually have impressive information about their firm performance. Going forward, shareholders have devised more than a few means to incentivize managers to act in their best concerns (Owino & Kivoi 2016). Besides, Bhagat, and Bolton (2019), goes further to opine that, to make straight a better-spurred compensation, policies should also be matched with the anomalous trading by managers. This is because the expanse of stock procured by an insider may have a signaling effect vis-à-vis the prospects of the firm. Hence, the need to study, probably director stock ownership, in terms of company policies and its returns. All things being equal, firms with strong corporate governance that tends to limit agency costs arising from operations, will likely attract more investments both local and international.

Director stock ownership is an important indicator in engendering corporate guidelines on firm performance, and much has not been done in this aspect; in terms of directors' ownership as a measure of corporate governance and fiscal performance, in the Nigerian banking sub-sector. This study stems from the seminal work of Bhagat, and Bolton (2019), and the corresponding recommendation for further research and comparability of the use of directors' stock ownership due to its consistency and direct connection to long term performance in the US economy, which is also almost absent in other measures employed by previous studies in emerging countries like Nigeria. Thus, this research is done with some model modifications, to validate the positive and consistent effect of directors' stock ownership and performance prospect in the Nigerian banking sub-sector as seen in the study of Bhagat, and Bolton (2019) in the US banking sector.

Findings from this study will also reveal how complaints the Nigerian banking sub-sector is with the corporate governance guidelines and conducts given the series of studies in this regard, which in turn will show if corporate policies have made constructive impacts on banks' returns over time. Hence, this study will be of relevance to financial regulators, policy designers in firms, researchers especially in corporate governance, as it will reveal the effect of directors' stock ownership on firm performance in Nigeria, and also enhance the comparison of findings in other developing countries. As seen in literature, the application of Directors' stock ownership as a measure for corporate governance is rare, especially in the case of Nigeria, hence this study.

To accomplish this, the study is divided into the following subsectors- the next segment - 2, examines relevant works, 3, is the methodology, while interpretation of results is done in 4, and 5, is the concluding segment of the study.

Literature Review
Corporate Governance and Performance: A review of Literature

A lot of literature under the corporate governance study has over time defined and measured corporate governance through various variables. Some of these studies employed the principal component analysis, composite index, single index as a measure of corporate governance. Also in this discourse, some works of literature are on economic growth, firm performance; both for banks and nonbanks, others included its effect on family-owned business, etc. Furthermore, the African Development Bank (2011), noted the discrepancies in measuring and computing corporate governance, because the unbiased indicators that can be readily available across firms and countries, in the case of cross-country analysis are rare. Although the development bank has taken it further to publish indices that measure protection level for minority shareholders, against principal-agent conflict of interest, which in itself is against corporate governance (World Bank 2017).

This study, however, adopts the explanation of corporate governance as provided by Tiwari (2010) to include the legal framework, as well as the cultural and institutional framework designed by an organized set of people to direct the

lines of influence managers wield on their professional conduct. For more definitions see the works of Maune (2017, 2015, 2008), Owino, and Kivoi, (2016), Škare, and Hasić, (2016), Gangone and Ganescu (2014), Elbannan and Elbannan (2014), Pass (2004), Anderson and Campbell (2002), Weimer and Pape (1999), and many others.

Financial performance, on the other hand, can be measured either by its operating performance, that is returns on assets (ROA), or by stock valuation, or a company's stock returns (ROE). Most studies adopt the ROA, which shows the operating performance of firms, as well as the sustainability of the firms' prospects. ROE is also a good reflection of firm performance, as it shows management's efficiency. It is worthy of note here that an active and automated corporate system attracts investments; both foreign and local, and even raise more funds that can build up a well-founded foundation for firm performance (Ehikioya 2009), hence this study.

There are a series of theories underlying corporate governance, out of which are the: agency, and shareholders/ stakeholders' theory. Managers are assumed to be owners of firms and hence are bound to maximize profits (Mueller 2006). However, the agency theory highlights both the legal and contractual relationship that exists between two parties, that is, the managers and the shareholders, thus in some cases, the managers are not owners of the firms, but mere agents acting on behalf of the owners. In theory, this ought to be the case, but it is hardly so in practice. Mangers over time have been seen to make managerial decisions that led to losses and which in turn affects

shareholders' value negatively. One of the objectives of agency theory is to minimize

managerial conflicts that can transpire between the owners of funds and their agents, in situations where agents are not representing the interests of their principals. The professional interests between the principals and their agents in relations to goals, risk appetite, and priorities, amongst other factors, will always be at variance, and this generates costs, which contains the cost of observing and sealing the agreements with agents, and other costs that may arise (Abdullah & Valentine 2009). While the agency theory highlights the dissension of interest and agency cost that may arise among principals and agents, it is also relevant to examine corporate governance and performance of the going concern, as the agency theory alone is not all-encompassing to test corporate governance efficiency especially in the banking sub-sector (Bloomfield, 2013).

The shareholders/stakeholders' governance models are two schools of thought with contrary opinions, postulated in favor of shareholders' wealth maximization, and the latter for other stakeholders' concerns. According to the shareholders model, they are the residual claimants that absolve the economic risk of the firm in the case of liquidation, and/or any other unfavorable occurrence, hence, their interest is paramount. However, the stakeholders' model, according to Post, Preston, and Sachs (2002), opines that the interests of all participants ought to be paramount as well in the governance of corporations. This is because other stakeholders are also important factors of the company mix for firm productivity, and are also affected in the event of a liquidation. Hence, the residual claimants or risk

bearers of the firm are not the only shareholders (Penger & Černe 2014). Under this view, the stakeholders' model will suffice as a suitable model in aligning corporate governance, especially in the financial sector, with emphasis on banking firms that have some minority shareholders, like small depositors. This theory, however, is not without flaws, as it is difficult to meet the interest of all stakeholders in practice, therefore, some interest will always be at the expense of some other components of the organization.

There is a piece of vast knowledge on corporate governance and firm returns across the globe and some research extend to its effect on economic growth. Starting from recent studies, for instance, the study of Bhagat, and Bolton, (2019), on a sample period from 2003 to 2016, using series of diverse models and guesstimate techniques, established director stock ownership to be consistent and directly related to future corporate performance with an inverse relationship with future bank risk. The works of Ciftci, Tatoglu, Wood, Demirbag, and Zaim, (2019), done on the effect of internal corporate controls and systems on companies performance in Turkey, a prime example of family capitalism put forward that irrespective of firms owned by families or mixed, market performance was still positive to corporate management.

On country specifics, the study of Owino, and Kivoi, (2016) estimated the effect of corporate management on bank returns in Kenya's bank financial sector. The study concentrated on three aspects of corporate management namely, the capability of auditing and reporting principles, efficacy of the management, and protection of marginal shareholders. Using control variables such as

bank liquidity, inflation, and interest rate, whereas bank performance was proxied by return on assets (ROA). Using Panel data for the period 2005-2014 obtained from 30 licensed banks and analyzed using the Generalized Method of Movements (GMM). The study revealed that liquidity, the efficacy of boards of directors, and the strength of auditing and reporting standards had a constructive consequence on bank performance. Protection of minority shareholders and inflation rate, on the other hand, had a negative effect on performance. In light of these findings, the study recommends strengthening the corporate governance framework to improve bank performance in Kenya. Using the principal/agent factor in assessing corporate governance on economic performance, emphatically on developing countries, Mueller (2006), concludes that the effect of corporate governance on any economy hinges upon the stage of development of that economy. Maune (2017) studied the impact of company policy on the Zimbabwean economy for 47 years; (1968-2015), and found that well-functioning company policy is sacrosanct for economic advancement. The study employed an econometric analysis on a multiple linear regression analysis.

Using the various components of board features on ROA, the reading of Shaharudin, Tinggi, Tan Kah, Johari, and Myint (2019), studied the connection between board features and corporate management among Malaysian listed companies. The study investigated this on 30 corporate organizations under the Bursa Malaysia (KLSE) and Thomson Reuters DataStream system from 2011 to 2015. Their work revealed an adverse

relationship between board features and returns, also none of the relationships was statistically significant, having employed the Panel regression analysis of the fixed and random effects as well as the Hausman test.

Studies on China's economy support that corporate management and financial returns are positively correlated, mostly in the banking sector. The study of Jiang, Feng, and Zhang (2012), suggests that state-owned banks in China, performed poorly, and inefficient, and hence low profits for the period under view, due to lack of well-functioning codes of corporate governance, while banks with foreigners as majority shareholders had positive bank performance in the period under view. This was attributed to the singular variable of global corporate best practices introduced into modes of operations by foreign shareholders. The study of Rowe, Shi, and Wang (2011) used the pooled OLS regression technique of analysis and noticed that banks that had introduced and implemented the world corporate governance best practices into their operations tend to perform better and more efficiently than others that had not. Therefore, their study opines that the adoption of the global corporate policies and best practices into the entire banking sector of China will promote an efficient, stable, and reliable banking system.

Wahba (2014) examine the effect of managerial ownership on the relationship between debt and firm performance in Egypt. Panel regression techniques of Generalized Least Square (GLS) were employed. Findings show that managerial ownership concentration moderates the relationship between debt and firm performance, with the relationship being negative (positive) in the presence (absence) of managerial ownership concentration. This finding implies that the

optimal capital structure is more likely to be contingent on contextual variables as well as the roles, power, and stakes of key internal and external actors.

This study is not without shreds of evidence from the Nigerian economy, as the investigation of Ibrahim, Adesina, Olufowobi, and Ayinde (2018), used the OLS- multiple regression tool, to analyze the influence of board, and board composition size, among other variables on corporate performance, and found that there is a substantial effect of both variables on bank efficiency. Their study, however, recommends that board scope should be adequate to maintain bank effectiveness and competence. Ene, and Bello (2016), reveals that the connection between firm management and profits, in Nigeria is moderately significant. Their study employed the OLS analytical technique in examining board size and the relative size of non-executive directors on performance for periods between 2004 and 2013 on the average number of listed banks in Nigeria. Similarly, the study of Abdulazeez, Ndibe, and Mercy (2016) also report a progressive and significant relationship between company directors and corporate performance of 15 banks as the sample size for the study, and for the periods between 2006 and 2012, and therefore advises banks to increase their board size but not without some measures of controls. Their study however employed a series of analytical methods to avoid misleading results. Also, on compliance rate, Ofurum 2011, surveyed the relationship between corporate management and performance in Nigerian firms, using three performance indicators on a panel data set ranging from 2004 to 2008, on ten firms from different sub-sectors of the economy. Using the single linear regression on a panel data methodology, the findings from the study disclosed that, the direct result between governance and performance indicators was only dependent on the compliance rate of the firm, thus, a firm with a high compliance rate tends to perform better.

Contrarily, Oyerinde (2014), used returns on equity and net interest earnings as measures of bank returns, and insiders' loans, and board size as measures of corporate management on all listed banks in the Nigerian stock exchange, for both pre and post bank consolidation periods in Nigeria. The study used the Hausman test on a panel database to conclude that insiders' loan had an adverse effect on bank returns based on consistent evidence from the two separate models, while board size tends to be inconsistent, as it was seen to be statistically significant and positive on bank performance under the ROE model, and negative in the net interest-earning model. Bebeji, Mohammed, and Tanko (2015) records no strong link between board scope and bank performance, which is against other studies done on the Nigerian economy. Using the multivariate analysis, for a period of 9years post-consolidation, on a sample size of five banks, the result however judging by their signs, reveals that the extent of board scope will affect both the returns on equity and assets adversely. Going further, the reading of Udeh, Abiahu, and Tambou (2017) also proved that there is a negative and a non-significant relationship between corporate management and performance among quoted banks in Nigeria. The study investigated board configuration on returns on capital employed, and sample extent of 7 banks for period pre and post guidelines of corporate governance in Nigeria between 2003 and 2008, then 2009 and 2014 using the OLS regression exploration, and found no

significant difference in firms' financials for the periods studied. Babatunji, Md Uzir, Mohammad, and Ishrag, (2019) employed primary data through a questionnaire to examine the influence of company governance exacts on non-performing medium-sized firms in Nigeria. Corporate governance factors engaged were board scope, director's competence, ownership, and board assessment team. Having employed the co-variance-based structural equation modeling (CB-SEM) technique, the study, however, exposed that company governance has a noteworthy influence which was also positive on the non-financial performance of medium-sized firms in Nigeria. Thus, the study recommends, the need to develop and implement a corporate governance code of ethics for the non-listed firms alongside a regulatory agency for ensuring monitoring and compliance. Investigation of corporate governance and performance on non-financial firms listed in the Nigerian stock market was carried out by Mohammed, and Buhari, (2019) on a group of 23 firms from 2008 to 2017. Employing a series of tests including the GLS fixed effect and Hausman specification; the result revealed that corporate management was still statistically insignificant, though positive.

Furthermost, Ibrahim, and Danjuma (2020), found a substantial relationship between board conformation, scope, and ROA, which was a proxy for performance in the Nigerian banking industry. Their research involved 15 quoted banks in the Nigerian Stock Exchange, for periods 2015-2019, having employed panel data analysis using regression technique. This further proves the inconsistency of board size as a measure of corporate governance in banks. To support this, Ozili (2020) reviewed the extant literature on corporate management and performance and found directors to be the most popular proxy for corporate governance and also, too much focus on some specific components of company governance while there are others.

A careful study of the reviewed literature will reveal the inconsistency in findings which forms the basis of departure from previous studies and the omission of directors' stock ownership as a vital variable for the measure of corporate governance in most Nigerian literature as reviewed in the preceding section, and this has created a gap for this study. Hence, this study re-examines this issue with the inclusion of directors' stock ownership alongside other control variables to test the effect of corporate governance on performance with a stern effort on the banking sector.

Methodology
This study adopted a longitudinal research design. This type of research design is appropriate for a study of this nature because the data were gathered over some time and they are historical, as such cannot be manipulated by the researcher. The fifteen (15) deposit money banks listed in the Nigeria Stock exchange as of 31st December 2018 constitute the population statistics of this study. This study used a purposive sampling technique of fourteen (14) deposit money banks from 2014 – 2018 as the sample of the study. These 14 banks were selected because they had an uninterrupted business operation during the period under review. This period was informed because it captures the post-compulsory adoption of the International Financial Reporting Standard (IFRS) in the Nigerian financial sector. All variables were

sourced from the Nigeria Stock Exchange (NSE) annual publication 2018. The variables collected were firm performance (ROA), Directors Share Ownership (DSO), Liquidity (LIDTY), Leverage (LEVR), and Firm size (FSIZE).

Descriptive statistics of the variables were first carried out to summarize the properties of the variables and are presented in a more convenient form. Correlation analysis was adopted to determine the strength and direction of connection between the variables. The study further used panel unit root test to ascertain the stationarity of the variables, because the literature suggests that panel-based unit tests have higher power than unit root tests based on individual time unit root tests (Levin, Lin, Chu & Shang 2002; Breitung, 2000; Im, Pesaran & Shin, 2003) Fisher-type tests using ADF and PP tests (Maddala & Wu, 1999; & Choi, 2001). While these tests are frequently characterized as panel unit root statistics, in theory, they are merely multiple-successions of unit root experiments that are useful to panel databases (where the presence of cross-industries spawns "repeated successions" out of a single series). Given the nature of the data (panel data), these experiments become necessary for the reason that econometric exploration showed that using a non-stationary set of information often results in bogus regression estimates. Stationarity indicates that the process mean and variance seems stable and any stochastic shock will return to a proper mean level.

The Johansen panel co-integration statistics was used to define the long-run connection among variables. The general concern in the obtainability of panel data has led to the importance of extending several statistical tests to panel data. Contemporary studies have focused on analytical statistics of cointegration in a panel survey; Pedroni (1999), Pedroni (2004), Kao, Chiang, and Chen (1999) and a Fisher-type test using an underlying Johansen methodology (Maddala & Wu 1999). Finally, the panel multiple regression technique is used to analyze the variable of interest. The fixed and random effect regression was carried out on the variables. The Hausman test is carried out on the random effect to select the best estimation between fixed and random effect. If the Hausman test probability value is significant, then the fixed effect is preferred; otherwise, the random effect is preferred. The panel regression approach is preferred because it can handle heterogeneity across firms that constitute the sample of this study.

Theoretical Framework and Model specification

The study is grounded on the Agency Theory (AGT) as developed by Jensen and Mecklin (1976). This theory is preferred because it clarified the connection between the principal (owner) and agents (managers). Most tenets of corporate management policies are in line with the position of the agency theory. The theory assumes that the growth potentials of the establishment are dependent on the correlation between the agents and principal to reduce agency costs. The AGT is also perceived as a contractual association between shareholders (principal) that provide capital to the firm and the no-executive directors or CEO (agent) who runs the company where the manager is obligated to maximize shareholders' wealth. Some decision-making authority is allocated to the agent to smooth the operation of the business and as a reward, they are set to juicy

incentives and remuneration package. This can attract them to reveal more information to shareholders on the company's condition. Abd EL Salam (1999) supported this position in his study that managers of high profitable firms tend to disclose more information in other to increase their compensation.

From the AGT perspective, directors are seen as an agent that protects principal (shareholders) interest. The principal is interested in monitoring the capital structure, liquidity, investment, growth among other actions and decisions of agents in the company. This monitoring action can generate three (3) type of cost (a) Monitoring cost; expenses incurred by the principal to limit the unusual activities by the agent, (b) Bonding cost; expenses incur to ensure that agent interest is always aligned with that of principal interest, (c) Residual cost; incur due to monitoring and bonding cost where the agent still not perform the activities that align with principal's interest. Thus, conflicting interests between shareholders, managers, and debt holders of the firm can bring about agency costs that hurt shareholders' value if not properly managed (Ahmad, Tansey, Busser, Nolte, Jeffries, Gisselbrecht, & Michelson, 2012). Thus, resolving the conflict of interest between owners and agents is the primary stake of this theory. One of the assumptions of this theory is that of optimum capital structure (leverage) which is attained at the point where the benefit of debt finance (tax shield) offset the agency cost of debt (Jensen & Mecklin, 1976).

From the foregoing, firm performance becomes a function of agents' activities and decision stated as;

$$Z = f(W, P) \dots\dots\dots (1)$$

Where;

Z = Firm performance

W = agents' activities

P = vector of other firm-specific variables that are significant determinants of firm performance.

This study, therefore, adapted and modified equation (1) to suit the objectives. Thus, the functional form of the panel regression model is given as;

$$ROA = f(DSO, LIDTY, LEVR, FSIZE) \dots\dots\dots\dots\dots\dots\dots (2)$$

The estimated panel regression model with standard assumption of constant mean and variance is given as;

$$ROA_{it} = \alpha + \beta_1 LDSO_{it-1} + \beta_2 LIDTY_{it} + \beta_3 LEVR_{it} + \beta_4 FSIZE_{it} + \varepsilon_{it} \dots\dots\dots\dots (3)$$

Where:

ROA= Returns on Asset (Proxy for firm performance)

LDSO= Log of Director's stock ownership

LIDTY = Liquidity

LEVR = Leverage

FSIZE = Firm Size

α = Constant

εit = error term

i and t denotes bank and time respectively

A priori expectation as derived from theoretical literature is stated as:

$\beta_1, \beta_2, \beta_3, \beta_4 > 0$

Operationalization of Variables

Both dependent and independent variables in the model were measured as follows;

Firm Performance: It is the dependent variable proxied by Return on Assets (ROA). It was calculated as $ROA = \frac{Net\ Profit}{Total\ Asset} \times \frac{100}{1}$

Directors Stock Ownership: is the total amount of shares owned and controlled by the directors of the firm.

Liquidity: the ratio of total cash to total asset

stated as

LIDTY$= \dfrac{Total\ Cash}{Total\ Asset} \times \dfrac{100}{1}$

Leverage: the ratio of aggregate liability to total asset given as

$$LEVR = \dfrac{Total\ Liability}{Total\ Asset} \times \dfrac{100}{1}$$

Firm Size: This variable was proxy by log of total asset

Data Presentation and Analyses
Descriptive Statistics

An evaluation of the Jarque-Bera statistics (Table 1) for the entire variable indicates probability values of approximately zero (0) except for FSIZE, thus the variables are not normally distributed as shown by their corresponding probability values that are significant at 5% level respectively. Only FSIZE possesses a flat distribution (< 3.0) property that is relative to normal as shown by its Kurtosis value. Other variables displayed a peaked distribution (> 3.0) property that is relative to normal. All the variables have a long tail to the right (except for LDSO) as revealed by their corresponding positive Skewness values. A significant difference was observed between the minimum and maximum figures of the variables through the sample period studied. LIDTY and LEVR were far apart from their mean as indicated by their large standard deviation value. Since the determinants are not normally distributed, the unit root test of the variables becomes imperative.

Correlation Analysis

From the correlation matrix in Table 2, LDSO and LEVR have a significant weak negative relationship with deposit money

banks' performance (ROA). Meaning, increase in LDSO and LVER significantly reduces bank performance in Nigeria during the studied period. LIDTY was not statistically significant with ROA, though it was positive. Indicating that increased liquidity spurs bank performance in Nigeria. Also, FSIZE has a non-significant negative relationship with ROA. An increase in FSIZE decreases bank performance during the period of study. Finally, the correlation coefficients among the explanatory determinants are low with a maximum of 0.26 between FSIZE and LEVR which shows that there is no cause for concern for multi-colinearity among the explanatory variables.

Unit Root Test

The Im, Pesaran, and Shin W – statistic is used to confirm the stationarity of the determinants. As observed in Table 3, the determinants were all stationary at the first difference and trend and intercept because the p-values are all less than the norm of 0.05.

Co-integration Test Analysis

Given the nature of the data (Table 4), the panel co-integration test becomes necessary to clarify the existence of a long-run relationship among the determinants of interest. As observed in Table 4, only one co-integrating relationship was found between the variables under consideration. This means that the variables indeed have a long-run relationship using the Trace and Max-Eigen test value at 5% level of confidence respectively.

Panel Regression Estimation

The panel regression result in Table 5 elucidates the impact of corporate governance on firm performance in Nigeria, with special inclusion of Directors' stock ownership (DSO) while LIDTY (Liquidity), LEVR (Leverage), and Firm size (FSIZE) were

controlled for. The results are analyzed thus; Using the pooled (stacked) estimation, it can be observed that the R^2 is 0.32 which suggests that LDSO, LIDTY, LEVR, and FSIZE explain about 32% of systematic variations in ROA with an adjusted value of 0.250 (25%). The F-stat (4.67) and p-value (0.0014) is an indication that the hypothesis of a significant linear relationship between the dependent and independent determinants cannot be rejected at 5% level while the D.W statistics of 2.210192 points to the fact that the existence of serial correlation in the residuals is unlikely. Remarking on the individual appraisal of the explanatory determinants, we also observed that LDSO and LEVR tend to have a negative effect (-1.04) and (-0.002) which did not conform to *Apriori* expectation though only LDSO is statistically significant (p=0.0566) at 10% level. LIDTY and FSIZE seemed to have a positive (0.014) and (0.083) effect on ROA though not significant at 5% and 10% levels.

Using the Panel OLS Fixed Effect and Random Effects estimation with respect to the Hausman test used to select the best model suitable for this study. The Hausman statistics conducted on the random effect in Table 5 shows that the Chi-square statistic of 5.20 which is significant 5% (Prob 0.021) points to the correlation between the error term and the explanatory determinants (Endogeneity) is significant to give a serious source of concern, thus we ignore the RE estimation and accept the (FE) estimation. From the Fixed Effect estimation in Table 5, it can be deduced that the R^2 is 0.56 which suggests that LDSO, LIDTY, LEVR, and FSIZE

explain about 56% of systematic variations in ROA with an adjusted value of 0.42 (42%). The F-stat (3.96) and p-value (0.0000) indicate that the hypothesis of a significant linear relationship between the exogenous and endogenous determinants cannot be rejected at a 5% level. Only LDSO and LIDTY pass their significant test as indicated by their corresponding probability that is < 10% while the D.W statistics of 1.99 revealed that the existence of serial correlation in the residuals is unlikely.

Discussion of Findings and Policy Implication
Based on the individual performance of the explanatory determinants in table 5, we observe that log directors' stock ownership (LDSO) seems to have a significant adverse effect (-0.010) which fails to conform to *Apriori* expectation though statistically significant (p=0.0667) at 10% confidence. This could be caused by a low level of compliance with agency theory recommendations. This means that a 1% increase in the log of director's stock ownership will result in a 1% significant decrease in DMBs performance in Nigeria and this finding is in line with that of Wahba (2014) who found that managerial share ownership concentration moderates the relationship between debt, liquidity and firm performance, with the relationship being negative (positive) in presence (absence) of managerial ownership concentration. Also did not conform to the finding of Bhagat, and Bolton, (2019) whom also observed in the literature that director stock ownership is consistent and directly related to future corporate performance with an inverse relationship with future bank risk. This result could be attributed to the essence of fairly good corporate governance as a set of processes that ensures outside investors a fair

return on their investment.

Liquidity appeared to have a constructive (0.016) effect and statistically significant at 5% (p=0.016) in table 5. This means that decision pressure on liquidity over the years in DMBs in Nigeria is in the right direction as this pressure has definitely and significantly influenced banks' performance through the studied period in Nigeria. Specifically, a 1% increase in liquidity resulted in a 2% unit increase in banks' performance. Findings presented in table 5 further show that leverage appeared to have a negative (-0.028448) influence which is likewise not statistically significant at 5% (p=0.445) confidence level. This variable acted in this direction could be attributed to the fact that achieving optimal capital structure is not the first order dominant objective of DMBs in Nigeria. Rather the major use of internal financing, followed by debt instrument before equity as the last resort is predominant. Hence, DMBs in Nigeria follow pecking order theory and not agency theory in constructing capital structure. A 1% increase in leverage ratio decreases banks' performance by 3%.

This also show that DMBs in Nigeria over the studied period are highly profitable with more growth prospect; thus have less desire of external fund due to high retained earnings. Finally, FSIZE appeared to have a positive (0.050631) influence which is statistically not significant at 5% (p=0.87). A one percent increase in banks' scope will result in a 5% increase in deposit money banks' performance in Nigeria during the studied period.

The novel finding of the study is that we have been able to demonstrate for the first time to the best of our knowledge that director's stock ownership is a significant corporate governance variable that determines DMBs performance in Nigeria; which has moderated the relationship between leverage, liquidity, banks size and firm performance in Nigeria. This has been lacking in the Nigerian empirical literature.

Conclusion and Recommendations
This study used the panel Least Square (PLS) fixed effect methodology to examine the effect of corporate governance on firm performance in Nigeria. The directors' stock ownership was used to proxy corporate governance with leverage, liquidity, and firm size controlled for. Firm performance was proxy by ROA with a keen interest in deposit money banks. Panel data from 2014-2018 were obtained from the Nigeria Stock Exchange (NSE) annual publication 2018. Findings show that director's stock ownership and liquidity have a significant effect on banks' performance in Nigeria, while leverage and firm size have a non-significant effect on banks' performance in Nigeria. However, the residual cost that is still very high in the banking sector could also be responsible for the negative impact of the director's stock ownership on DMB's performance. The findings further uphold the pecking order theory rather than agency theory concerning the capital structure of DMBs in Nigeria.

This study concludes that although director's stock ownership significantly affects banks' performance and the effect has yielded the desired benefit to stockholders since its effect is significant. In light of these findings, the study recommends the following;

1. We suggest that corporate governance researchers should consider director stock ownership as a measure of corporate governance suggested by Bhagat, and Bolton (2019); this will also aid in the comparability of results across different studies in both financial and non-financial firms in Nigeria.

2. Public policymakers and long-term investors should find this result especially relevant given their strong interest in long-term corporate performance.

3. Regulatory bodies should strengthen the corporate governance framework to improve bank performance in Nigeria by moderating the proportion of stock ownership by directors.

4. Excess liquidity encouragement strategy should be put in place to enhance more liquidity for its effect to remain positive and significant to banks' performance in Nigeria, this can be achieved by excluding DMBs from Treasury Single Account (TSA) framework.

5. The desired level of a debt-equity mix (capital structure) should be determined by the supervisory authorities, to enable DMBs to adjust their leverage level towards the optimal capital structure that will maximize the value of the firm and shareholders' wealth in the long run.

6. A more effective and efficient asset management approach should be adopted by DMBs, to spur cash generation via asset, for their size to have a significant effect on their performance in the long run.

Table 1: *Summary Statistics*

	ROA	LDSO	LIDTY	LEVR	FSIZE
Mean	2.431571	8.720429	16.93343	86.67500	7.323286
Median	1.755000	8.930000	11.74000	85.58500	6.600000
Maximum	17.36000	10.38000	184.1600	850.5600	9.600000
Minimum	-9.530000	4.240000	0.010000	0.600000	4.880000
Std. Dev.	3.322867	1.152237	28.53451	101.2958	1.464455
Skewness	1.797478	-1.363149	5.055756	6.253446	0.087798
Kurtosis	12.49013	6.086858	28.80443	47.76607	1.563474
Jarque-Bera	300.3764	49.47072	2240.324	6301.234	6.108790
Probability	0.000000	0.000000	0.000000	0.000000	0.047151

Source: Authors Computation (2020).

Table 2: *Pearson Correlation Matrix*

Correlation t- Statistics Probability	ROA	LDSO	LIDTY	LEVR	FSIZE
ROA	1.000000 ------- -------				
LDSO	-0.285137 -2.453139 0.0167	1.000000 ------ ------			
LIDTY	0.031374 0.258841 0.7965	0.068559 0.566686 0.5728	1.000000 ------ ------		
LEVR	-0.236219 -2.004644 0.0490	0.167566 1.401598 0.1656	-0.096236 -0.797286 0.4281	1.000000 ----- -----	
FSIZE	-0.164061 -1.371462 0.1747	-0.014053 -0.115895 0.9081	-0.240043 -2.039062 0.0453	0.267885 2.292835 0.0250	1.000000 ----- -----

Source: Authors Computation (2020).

Table 3: Stationarity Test

Im, Pesaran and Shin W-stat				
	Stationarity Test at 1st Difference			
	Intercept		Trend and Intercept	
Variables	Statistics	Prob. Value	Statistics	Prob. Value
ΔROA	-1.26693	0.1026	-1.74950	0.0401*
ΔLDSO	-	-	-2.11097	0.0174*
ΔLIDTY	-12.2300	0.0000	-11.6499	0.0000*
ΔLEVR	136.090	0.0000	128.615	0.0000*
ΔFSIZE	112.492	0.0000	228.709	0.0000*
* = Significance at 1% level of Confidence				

Source: Authors Computation (2020).

Table 4: Panel Cointegration Test
Unrestricted Cointegration Rank Test (Trace and Maximum Eigenvalue)

Hypothesized No of CE (s)	Fisher Stat (from trace test)	Prob.	Fisher Stat (from max-eigen test)	Prob.
None	26.41	0.0002*	23.37	0.0007*
At most 1	8.908	0.1788	9.638	0.1408
At most 2	4.789	0.5711	2.314	0.8887
At most 3	5.594	0.4701	4.998	0.5440
At most 4	6.404	0.3795	6.404	0.3795

Source: Authors Computation (2020).

Table 5: *Panel Regression Results and Diagnostics Tests*

Variables	POOL			Random Effect Method			Fixed Effect Method		
	Coefft	t-Stat	Prob	Coefft	t-Stat	Prob	Coefft	t-Stat	Prob
C	10.71	1.88	0.0659	8.3461	1.37	0.1755	0.3532	0.17	0.8683
LDSO	-1.04	-1.95***	0.0566	-0.5021	-1.14	0.2610	-0.010***	-1.87	0.0667
LIDTY	0.014	0.92	0.3610	0.0065	1.01	0.3193	0.016**	2.49	0.0160
LEVR	-0.002	-0.71	0.4811	-0.0006	-0.36	0.7236	-0.0022	-0.77	0.4451
FSIZE	0.083	0.21	0.8383	-0.2524	-0.51	0.6093	0.3915	0.17	0.8683
AR (1)	0.310	3.39	0.0014						
R-Square	0.318276			0.051053			0.564167		
Adj. R-Square	0.250103			-0.023374			0.421683		
F-stat.	4.668687			0.685951			3.959517		
Prob	0.001419			0.604985			0.000064		
DW	2.210192			1.899547			1.993644		
Hausman Test									
Chi-Square Statistic: 5.200000									
d.f.: 4									
Prob.: 0.021									

Source: Authors Computation (2020).

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