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Board Diversity and Earnings Quality of Listed Deposit Money Banks in Nigeria

ONUOHA Ositadimma Jim*, OKPANACHI Joshua, JIM-SULEIMAN Saratu, AGBI Samuel Eniola

Accounting Department, Faculty of Management Sciences, Nigerian Defence Academy, Kaduna, Nigeria
*Corresponding author: ossytata@gmail.com

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Abstract Instability due to frequent threats of financial distress has been a major problem facing deposit money banks (DMBs) in Nigeria. Efforts by the Nigerian government in the past to address this problem seem to have yielded little results as recent developments of instability in the banking industry indicate. In making such efforts, not much attention has been directed to the area of deceptive earnings reporting, and how board diversity can help checkmate such practices to enhance the quality of earnings reports which is essential in detecting in time financial distress warnings and identifying the necessary steps required to arrest the distress. In view of this, the study investigated the issue of board diversity as it affects the earnings quality of 13 out of 14 listed deposit money banks in Nigeria. The board diversity variables studied include board independence, block-shareholding, gender, age, expertise in accounting and finance, and board diversity combined index (representing the joint effect of the board diversity attributes on earnings quality). Earnings quality was measured from the accruals quality perspective using loan loss provision accruals quality. The study adopted fixed effect regression, employing two models to achieve the research objectives. It was found that Board Diversity Index had negative and significant effect on the discretionary loan loss provision of listed deposit money banks in Nigeria. Hence, the study concluded that the joint effect of the board diversity attributes improves the earnings quality of listed deposit money banks in Nigeria. The study recommended that the regulatory authority for the DMBs should ensure that appointment of board members aligns with corporate governance code demands on board diversity best practices, as this holds the potential of optimizing the joint effect of the board diversity attributes on earnings quality in a typical unitary board system setting as obtains in Nigeria.

Keywords: *board diversity, statutory diversity, demographic diversity, combined effect, earnings management, earnings quality*

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1. Introduction

The business world has witnessed the collapse of a good number of companies in the past, including the high profile ones, such as Banco Espirito Santo (2014) in Portugal and General Electric (2018) in the US. In Nigeria, the scenario has not been different. Issues bordering on the continued existence of large corporate entities such as Cadbury Nigeria Plc. (2006), Intercontinental Bank (2009), Afribank Plc. (2011) Oceanic Bank Plc 2011), have at one time or the other surfaced.

Researchers have been able to trace many corporate failures to financial distress due to deceptive financial reporting by management which failed to reveal the early warning signs of financial distress that could have been nipped in the bud. Among them are Enron (2001), WorldCom (2002), Tyco (2002), Parmalat (2003), Satyam (2009), Banco Espirito Santo (2014), General Electric (2018), Intercontinental Bank (2009), Afribank (2011), Oceanic Bank Plc. (2011) [1,2,3,4,5,6,7]. Studies have attributed deceptive financial reporting to the opportunistic behaviors of managers (which lowers earnings quality) and inefficient boards that could not effectively carry out their oversight functions over management activities [8,9].

Concern about unbiased financial reports of companies is mainly on the quality of the earnings contained in such reports as the main objective for being in business is earnings [10]. The earnings that continue to accrue to every business venture play a major role in the continued existence or otherwise of the business. Thus, the earnings figure is regarded as the most important item in financial statements. Also, users of accounting information rely on it for most of their economic decisions such as investment [11], management performance appraisal [12], among others. Its quality is often taken to represent a measure of the financial reporting quality [13,14]. It is essential in detecting in time financial distress warnings which calls into action the necessary steps required to avert it [14,15] and ensure stability.

There is also the concern that the quality of the earnings report is often distorted by management. Managers manipulate earnings to achieve some opportunistic purposes. Managers manifest opportunistic behaviours when they use their professional knowledge to overstate earnings, conceal losses, engage in earnings smoothing by understating earnings in periods of good performance and use the reserve to report favourable earnings in periods of poor performance. Such practices (earnings management) affect the quality of reported earnings as a picture of good performance against poor performance by the firm is presented for the given period [8]. Apart from being detrimental to corporate success, opportunistic behaviours of managers constitute a serious agency problem of conflict of interest between management (agent) and shareholders (principal) as such behaviours do not align with shareholders' interest.

Scholars are of the view that diverse board members will increase the quality of earnings and consequently ensure long-time success and survival of companies [16,17]; as the board is an internal control mechanism responsible for monitoring and preventing such defects as earnings management [18,19,20] which erodes earnings quality. To ensure that the board lives up to its expectations, researchers are of the opinion that its composition should be such that reflects the necessary diversities of experience, age, gender, executive and non-executive directors, in such a way that the board would be able to objectively and effectively discharge its monitoring and oversight functions [14,21]. This study, therefore, looks at the issue of board diversity and earnings quality of listed deposit money banks in Nigeria.

The banking sector was chosen because it is the sector with a major problem of instability due to frequent threats of financial distress. As banks occupy a vital position in every economy, the Nigerian government has in the past taken measures to address the problem of financial distress in the banking sector. Such measures include the consolidation policy introduced by the Central Bank of Nigeria (CBN) in 2004 which involved increasing the capital base of banks from N2billion to a minimum of N25billion [22].

However, such efforts seem to have yielded little results. The Diamond Bank distress that led to the merger with Access Bank toward the end of 2018 [23] is a pointer. Early 2019 again, fresh news about seven deposit money banks (DMBs) in secret merger and acquisition talks due to distress problems left many depositors anxious [24]. These suggest that the problem of financial distress and instability in Nigerian banks persists. In trying to find solution to the issue of financial distress in Nigerian banks, not much attention has been directed to the area of deceptive earnings reporting and how board diversity can help checkmate such practices to enhance the quality of earnings reports, which is essential in detecting in time financial distress warnings, and identifying the necessary steps required to arrest it. This agrees with the observations made by Sanusi [25] and Ugwu et al [26], that such measures as consolidation taken by the government in the past only succeeded in creating big banks but did not remove the fundamental weakness in corporate governance that exist in many banks; and as a result, banks with financial statements not qualified by auditors were declared unhealthy by the Central Bank of Nigeria some few months later. This is consistent with the observation of experts around the world who have linked the collapse of several corporate bodies in the past to deceptive financial reporting by management and the inability of poorly diversified boards to checkmate such practices [8].

Looking at the Diamond Bank distress in 2018, reports show that lack of enough independent directors on the board of Diamond Bank was among the major factors that led to it as the board could not effectively exercise oversight over management activities [27]. The argument by scholars is that, with proper composition of the board to reflect necessary diversities of gender, age, education, block shareholding, and independent directors, corporate boards would be better equipped to perform their oversight functions effectively [8,21,28] and this would go a long way in fighting the opportunistic behaviours of managers which erode the quality of earnings that are expected to send financial distress warnings and ensure corporate survival.

Though the argument appears plausible, existing empirical evidences from different countries show mixed results of the individual effects of board diversity attributes on earnings quality; just as there are theoretical arguments in favour and against board diversity. For instance, it was found that gender diversity does not improve earnings quality by reducing the earnings management practices of managers in Nigeria by Bala and Kumai [29], Enofe et al [8] and Solanke et al [30], and in Malaysia by Hashim et al [10]. This is contrary to the findings of Zwet [20] in the U. S, Isa and Farouk [7] in Nigeria, that gender diversity improves earnings quality by lowering earnings management. Also, Park and Shin [31] in Canada, Rahman and Ali [32] in Malaysia, and Bala and Kumai [29] in Nigeria did not find board independence improving earnings quality by way of reduction in earnings management practices. This does not agree with the findings in Nigeria by Hassan [13], Fodio et al [33], Uwuigbe et al [34], Enofe et al [8], Kutigi et al [35], Dabor and Mohammed [36] and the findings in Portugal by Alves [37] that board independence improves earnings quality by reducing discretionary earnings reporting.

The reason for the mixed results might not be far removed from testing the individual effects of the diversity attributes because "thus far studies have largely ignored their combined effect for a given outcome" [[21]:31]. Hoang et al [28] carried out a study on the joint effect of the board diversity attributes on earnings quality. They found the joint effect of the statutory attributes of board diversity to have positive effect on earnings quality of non-financial firms in Vietnam while the joint effect of the demographic attributes has not. They did not examine the joint effect of both the statutory and demographic diversity attributes on earnings quality. Woschkowiak and Visser [38] found the overall (joint) effect of the demographic diversity attributes of board on the financial performance of the firms to be significant and positive. They did not extend their study to the joint effect of both the statutory and demographic variables on firm performance. However, they suggested further research that would conceptualise board diversity in broader terms to reflect other characteristics of board diversity to test for their combined effect as different diversity aspects complement one another to achieve a joint effect. Studies in Nigeria are yet to emphasise the joint effect of board diversity attributes (a proxy for board diversity) on a dependent variable such as earnings quality.

In view of the foregoing, this study looks at the effect board diversity has on the earnings quality of listed deposit money banks in Nigeria. The study examines the joint effect of both the statutory and demographic board diversity aspects which previous studies have largely ignored. This is expected to reconcile the issue of conflicting results of the single effects of board diversity attributes and the theoretical arguments for and against board diversity.

The main objective of the study, therefore, is to examine the effect of board diversity on earnings quality of listed deposit money banks in Nigeria. In doing this, the study assesses the effect of board independence on earnings quality of listed deposit money banks in Nigeria, examines the effect of block shareholding by board members on earnings quality of listed deposit money banks in Nigeria, evaluates the effect of board gender on earnings quality of listed deposit money banks in Nigeria, assesses the effect of age of board members on earnings quality of listed deposit money banks in Nigeria, evaluates the effect educational qualification of board members has on earnings quality of listed deposit money banks in Nigeria, and examines the joint effect of board diversity attributes (board independence, director block shareholding, board gender, age of board members, educational qualification of board members) on the earnings quality of listed deposit money banks in Nigeria.

Based on the objectives, the following hypotheses were formulated in null form and tested by the study:Ho_1:Board independence does not improve the earnings quality of listed deposit money banks in Nigeria, Ho_2:Block-shareholding by board directors does not improve the earnings quality of listed deposit money banks in Nigeria, Ho_3: Number of female members on the board does not improve the earnings quality of listed deposit money banks in Nigeria,Ho_4:Number of younger directors on the board does not improve the earnings quality of listed deposit money banks in Nigeria, Ho_5:Educational qualification of board members in accounting and finance does not improve the earnings quality of listed deposit money banks in Nigeria, Ho_6: The joint effect of board diversity attributes (board independence, board block-shareholding, board gender, age of board members, educational qualification of board members) does not improve the earnings quality of listed deposit money banks in Nigeria.

The findings of this research will be beneficial to the government and its regulatory agencies such as the Central Bank of Nigeria (CBN) and the Financial Reporting Council of Nigeria (FRCN) in reviewing the implications of the current regulations in providing guidance for boards of directors in ways that align with the delivery of monitoring best practices for high quality financial reporting. It will also be useful to other emerging economies with low level investor protection who are striving to improve corporate governance and corporate information transparency. The study also supplements literature on board diversity and earnings quality issues. It will be of significance to participants in the financial reporting process such as the management of the banks, the boards of directors and standard setters in appreciating the place of board diversity in corporate governance practice. The study will also be of significance to accounting educators and researchers in carrying out further research on the effect of board diversity on other dependent variables.

2. Literature Review

This section reviews literature in order to provide insight to the research issues covered. The concepts of board diversity, board diversity attributes of board independence (independent directors), director block-shareholding, gender, age, educational background of board members, and the concept of earnings quality are reviewed. Review of the theories upon which this work is anchored, and review of related empirical studies carried out by other scholars are also dealt with.

2.1. Board Diversity

Campbel and Minguez-Vera [39] defined board diversity as the variety inherent in the board's composition; and can be measured in a number of dimensions. In the view of Ferreira [40], Labelle et al [41], Ben-Amar et al [42], and Hoang [21], board diversity has two aspects: board structure (structural diversity or statutory diversity) and demographic attributes of board members (demographic diversity).

In explaining the two aspects, scholars such as Labelle et al [41] and Ferreira [40] have drawn attention to the many functions of the board as bestowed on it by legal provisions so to be able to adequately provide oversight over the activities of management and ensure that management, as agent of the shareholders (the principal), plays fair in its duty of maximizing shareholders' wealth and is restrained from providing false information about its performance to stakeholders [41]. According to Ferreira [40], the board monitors managers and provides advice on strategic issues; and serves as a link to external resources crucial to the firm's operations. For monitoring and control, it is usually a matter of the statute or law [42] and the attention is on structural or statutory diversity aimed at ensuring that "the financial interests of board members are aligned with shareholders rather than managers" [[41]: 336] as required by agency theory. The role is usually directed towards ensuring effective management of the organisation in the best interest of the shareholders [43]. For advice and other resource provisions, researchers draw attention to the need for diversity of skills, knowledge, intelligence, experience, perspectives, connections [41] which meets the demands of resource dependence theory.

The argument is that for the board to perform these functions effectively, its composition needs to be richly diverse in terms of its structural attributes; and in terms of the members' personal attributes that have to do with age, gender, educational qualification and nationality, ethnicity, culture [40]. Making it clearer, scholars have been able to classify these functions into monitoring (supervisory) and resource provision (management) roles based on the dual role expected of a sole (unitary) board system which obtains in many jurisdictions such as Nigeria and Australia, Brazil, Canada, Egypt, India, Italy, Japan, Malaysia, Norway, Philippines, Singapore, South Africa, South Korea, Sweden, Thailand, Turkey, USA, Ukraine, United Kingdom, Zimbabwe; as contrasts with separating the two roles in a dual (two-tier) board system such as practiced in Austria, Belgium, China, Croatia, Czech Republic, Denmark, Estonia, Georgia, Germany, Holland, Indonesia, Latvia, Mauritius, Poland, Spain and Taiwan. Bulgaria, Finland, France and Switzerland are known to practice the mixed system where firms are free to choose between the sole or two-tier board systems [44]. This is consistent with the views of Hillman and Dalziel [45], Labelle et al [41], and Ben-Amar et al [42] who classified the roles as fiduciary and advisory. The emphasis of the fiduciary role is on the monitoring and control functions of the board which hedges the business against any demands and practices that may be prejudicial to the firm's success [43]. In doing this, the board has a duty to participate actively in the firm's decision making as this is the hallmark of its monitoring and control function [44]. It carries with it the obligation to scrutinize, evaluate and regulate management actions [45].

The attention of the advisory role is on advising and other resource provision functions of the board. Unlike the two-tier board system, in a sole board system which Nigeria practices, the two roles are seen not to operate in isolation; they interact to jointly produce effect. While structural diversity focuses more on ensuring effectiveness in the board's fiduciary role of providing oversight functions [41,42], demographic diversity complements this role by providing the board with superior advisory capability to be able to discharge its functions effectively [40] as "information generated during the advisory process enhances the monitoring process" [[44]: 242]. All of that act in synergy to sustain business success and prosperity which in themselves, are disincentives to earnings management and which fosters a conducive environment for persistent credible corporate earnings reports useful for decision-making. The importance of credible corporate earnings reports does not only lie with decision-making. It has been identified as a monitoring tool. According to Eisenhardt [[46]:60],

…information systems also curb agent opportunism. The argument here is that, since information systems inform the principal about what the agent is actually doing, they are likely to curb agent opportunism because the agent will realise that he or she cannot deceive the principal.

In the light of the foregoing, what follows is how each of the attributes fits in the overall picture.

2.1.1. Structural Diversity of Board

As Hoang [21] observed, structural diversity of board has to do with the diversity of the board in terms of structural attributes. It is about the statutory characteristics of board members and usually a matter of regulation based on governance best practices [42]. The law is usually firm on it and without ambiguity [43]. Such attributes evident in the Nigerian code of corporate governance are separation of the Managing Director/Chief Executive Officer (MD/CEO) and the Board Chairman's roles; appropriate mix of executive, non-executive and independent non-executive directors [47]. Both the Nigerian Code of Corporate Governance and CBN Code of Corporate Governance for Banks and Discount Houses in Nigeria, forbid the duality role of the CEO [47,48,49,50]. Such other structural diversity attribute not evident in our code of corporate governance recommendations on board diversity is non-executive directors owning 5% or more of the company's equity (board block-shareholding). Scholars argue that it is an attribute that can be effective in monitoring and controlling the earnings management activities of managers as it aligns such directors' interests with shareholders' interests [42].

i. Board Independence

Board independence is a corporate governance principle that advocates for separation between management and governance of the firm, such that the board should be free from undue influence by the company's management team and any other influence that may impair its ability to transparently and objectively discharge its corporate governance duties [43,51]. According to Ibhawoh [[52]:1], board independence "ensures the board's unfettered ability to fairly and impartially direct the affairs of the company". As one of the ways of enhancing board independence and diversity, jurisdictions the world over have come up with regulatory guidelines on executive/non-executive-directors mix. The Nigerian Code of Corporate Governance (2018) recommends appropriate mix of executive directors, non-executive directors and independent non-executive directors (independent directors) "relative to the scale and complexity of the company's operations".

Executive directors are both employees of the company and at the same time, board directors. They have a dual role as members of the company's management team and board of directors [53]. A non-executive (or non-management) director is not an employee of the company. He has no responsibilities for the daily management of the organization. He is appointed from outside based on his personal qualities, experience and specialist knowledge; and is expected to bring an outside experience, wealth of knowledge and objectivity to bear on all issues of consideration before the board [53]. His outside experience and wealth of knowledge can be very valuable in making the business grow and in developing enviable long-term strategy. Worthy of note, "a non-executive director may be representing a major shareholder" [53]. He is different from an independent director.

An independent director is also a non-executive director, but he "generally has no other links with the company other than sitting on the board" [53]. According to the Nigerian Code of Corporate Governance (2018), an independent non-executive director (independent director) "should be free from such relationships or circumstances with the company, its management, or substantial shareholders as may, or appear to, impair his ability to make independent judgment". The Code does not permit an independent director to hold shares more than 0.01% of the paid-up capital of the company. In addition to the majority of the board being non-executive directors, the Nigerian Code of Corporate Governance (2018) goes further to recommend that most of the non-executive directors be independent directors. Independent directors are appointed so to gain true separation between management and governance. Prior to appointment, consideration must have been given with regard to “skills, experience and expertise missing on the board”; and consideration must have also been given to diversity aspect [51]. This wealth of knowledge and experience is a resource for the firm and is expected to help direct the company aright.

It is the opinion of scholars that the proportion of independent directors on the board measures how independent the board is, as independent directors are seen as a symbol of board independence because they are expected to play an active role in ensuring that the board acts independently. This reflects the degree of objectivity exercised by the board in arriving at decisions, and in its monitoring and control functions which meets the view of agency theory. Scholars, therefore, see independent directorship as an important attribute of board diversity that checks management’s propensity to earnings manipulation [12,54,55,56,57] which erodes the quality of the reported earnings of the firm [19,35]. This has been pinned down to two aspects.

One is that a highly independent board brings objectivity to bear on arriving at decisions that ensure good returns on investment are maintained which projects the resource dependence perspective that the board represents a resource and connection to external resources for the firm; and this creates a condition that serves as a disincentive for managers to manipulate earnings. The other is that a highly independent board makes the board effective in its monitoring and control functions in checking earnings management [35,58,59]; an aspect that bears the thrust of agency theory which seeks to ensure that management’s interest is aligned with shareholders’ interest.

Some other arguments hold that majority of independent directors could mean a board that is insufficiently informed and hence prone to making wrong decisions. The argument is that due to information asymmetry between them and the management, they lack adequate inside information to take good decisions that would enhance their monitoring and control functions, which could have a negative effect on earnings quality [35,60]. This argument doesn’t seem to hold much water as many jurisdictions have taken steps to checkmate it. The Nigerian Code of Corporate Governance (2018), for instance, provides that independent directors should be provided in a timely manner, with quality and comprehensive information relating to the management of the company and on all board matters to facilitate the effective discharge of their duties. Based on such premise and using independent director as a proxy for board independence, this work expects organisations with higher fractions of independent directors to have high earnings quality.

ii. Director Block Shareholding

The Nigerian Code of Corporate Governance is silent on the issue of non-executive director block-shareholding. According to the Code, a block-holder or a “significant shareholder” as it put it, is a shareholder who owns not less than five per cent (5%) of a company’s ordinary shares. Therefore, a non-executive director who is also a block-holder owns at least five percent (5%) of a company’s ordinary shares. The code does not permit independent directors to be block-shareholders. It classified independent directors as part of the non-executive directors. Under the Code, independent directors are only permitted to hold shares not more than 0.01% of the paid-up capital of the company. The Code is silent on the remaining part of non-executive directors being block-holders. By implication, the remaining part of non-executive directors (i.e., the non-independent non-executive directors) can be block-holders. Included in this part are non-executive directors who are individual block-holders, representatives of individual block-holders and representatives of institutional investors (institutions other than individuals with equity stakes in companies usually not less than 5% of the ordinary shares). At least, by mentioning that an independent non-executive director should not be a representative of a significant shareholder (block-holder) implies that the code recognises block-holding but seemingly assumes diffused equity ownership. The CBN Code of Corporate Governance for Banks and Discount Houses in Nigeria is a little bit more open on this as it states that shareholding of 5% and above by any investor must be approved by CBN. So, like Abu et al [9], this work sees block-holders as including institutions and individuals with not less than five percent (5%) equity stake in a company.

Such block-holders in the board would have a good motivation to perform their board functions pretty well because they have huge stakes in the company [61]. Campbell and Minguez-Vera [39] pointed out share ownership level as one of the factors that determine the effectiveness of the board in its monitoring function. However, some scholars contend that block-holding might create agency problems between block-holders and other stake holders as the block-holders might take advantage of their position to pursue objectives that would favour them more than other stakeholders [62,63,64].

That argument seems to be weak vis-à-vis arguments that the perception of minority shareholders and other stakeholders is that the presence of block-holders in the board carries with it the assurance of a healthy monitoring environment. Further, as Prasad [43] articulated, ordinarily directors would not be able to provide oversight functions with the same vigil and interest as the owners except they own considerable interest in the firm. This agrees with the view that block-holding offers directors the incentive to align their interests with the interest of other shareholders at large [65,66]; which boils down to business prosperity interests and need for high quality earnings reports useful for investment decisions. They have the ability to weld forces and be of a good influence on the board in this regard [21,67]. Thus, they can be very effective in monitoring the discretionary behaviours of managers and in the overall monitoring and control of the management team [13,54,68,69,70]; thus, holding good prospects for agency theory. Accordingly, they have the propensity to produce high quality financial reports that would serve the need of all stakeholders. Their presence would tend to improve corporate governance [70]; because they have the incentive to show more commitment to the board functions than other board members [21,43,71]. The foregoing controversy surrounding block-holding provides the motivation for this work to examine the effect of block-shareholding by board directors on the quality of the earnings reports of listed deposit money banks in Nigeria.

2.1.2. Demographic Diversity of Board

This has to do with the diversity of the board in terms of demographic attributes of the individual board members such as gender, age, and educational qualification of directors. It is of natural characteristics of board members and complements structural diversity of board in enhancing the board's fiduciary role by providing it with superior advisory capability [40]. The emphasis is on advice resource and external resource provisions, and hinges on diversity of skills, knowledge, intelligence, experience, perspectives, connections, among others, to be able to achieve this. As observed by Labelle et al [41], this is gradually gaining the acceptance of corporate governance codes the world over. In response to this need, the Nigerian Code of Corporate Governance provides that there should be diversity targets in arriving at the appropriate mix of knowledge, skills, experience, fresh perspectives as are reflected in age, culture, gender and other areas relevant for promoting better decision making and effective governance.

Critiques of the demographic diversity of board say heterogeneity tends to engender disagreement among board members which has the potential of creating conflicts and thus weaken team spirit [21,40]. However, demographic heterogeneity holds benefits that have continued to command the attention of scholars. In complementing the monitoring role of the sole board by its advisory benefits, demographic diversity fosters creativity arising from cognitive conflict of the diverse perspectives of board members [21,40]. It, therefore, enables the board to arrive at sound decisions that have passed through a robust range of perspectives. In this respect, members are able to examine, ask knowledgeable questions, debate and make contributions in the process of arriving at such decisions. Further, in addition to being a resource itself [42] by virtue of the availability of skills, knowledge, intelligence, experience, fresh perspectives, etc., which it offers the board, demographic diversity enables the firm benefit from connections and access resources that wouldn't have been available to it without the help of its diverse board members [40,42,72]. According to Ferreira [40], such benefits include having access to big investors, having favourable dealings with regulators, winning government contracts, etc., made possible by the connections and affiliations of its richly diverse board.

i. Board Gender

The attention in business research literature concerning gender is usually on attributes of people as a result of their biological sex [73]. However, the female gender has been the focus of most corporate governance research works on gender issues because traditionally, "corporate boardrooms have largely been a male consortium" [74] and the general call is to recognize the neglect of the female gender in board appointments [75,76]. In response, some countries like Spain have called on their listed companies to include women in their boards. For Spain, this is contained in its Unified Good Governance Code of Listed Companies otherwise known as Comision Nacional Del Mergado De Valores [77]. The Nigerian Code of Corporate Governance (2018) recommends the inclusion of women in the board as a way of promoting board diversity for the purpose of better decision-making and effective governance. Some countries have gone ahead to introduce quotas for women inclusion in the board. For instance, with effect from January 2008, all listed companies in Norway are to observe 40 percent quota for women in the board or face dissolution [40]. Here in Africa, similar example is not far-fetched. In Ghana, the government through its Affirmative Action Policy of 1998 demands that all government and corporate boards set aside 40 percent quota for women representation [78].

Of more importance is the issue of establishing the business case for women inclusion in the board. This is the area of interest for this work. It has been recognized that women being in the board could impact corporate governance in some special ways [72,74]. Like Marshall [74] and Burgess and Tharenou [75] would want to know, do women possess any particular attributes that set them apart to be able to impact board functions in special ways? Such attributes have been identified as traits and orientations traditionally attributable to women [79]. Among them is being co-operative and intuitive [73]. Others include being altruistic, nurturing, conservative, risk averse, and trustworthy as against attributes like being competitive, aggressive, risk-taking, etc., traditionally associated with the masculine gender [80,81].

The quality of being corporative seems to predispose them to being amenable to rules and laid down procedures as seen in their positive attitude towards board meetings. This is seen in Huse and Solberrg [82] observation that women are better prepared for board meetings than their male counterparts. Adams and Ferreira [72] and Ferreira [40] found out that women attend board meetings better than men and that boards with higher fractions of female directors experience improved male attendance to board meetings. This suggests that the presence of women in the board improves board behavior and performance and brings about a more active board; thus, making such boards tougher monitors [40,72,82]. This meets the hopes of agency theory that the activities of management should be properly monitored to align with owners' interest.

By being prepared for board meetings and participating actively in such meetings, women naturally influence board decisions and would have no need to rely on the information from management to be able to do their jobs [82]. This is because attending board meetings remains the most important source of information for directors to do their duties [72]. It has been said this enhances directors' independence [40,72].

With regard to having preferences for altruism, Heminway [81] reckoned that this trait in psychology identifies women with being more trustworthy than men and thus, well suited for fiduciary assignments like corporate governance. Heminway [81] argues that this difference in trusting behavior between men and women calls for gender diversity in the board as a way of strengthening board fiduciary behavior. This benefit is particularly important and meets agency theory perspective vis-à-vis monitoring to present corporate earnings report as it actually is, which reduces information asymmetry between management and owners.

Concerning being intuitive, nurturing and conservative, extant literatures indicate that these attributes play a vital role in risk-taking. Being risk-averse may seem an undesirable quality in women as the firm is expected to take some measures of risk to achieve objectives. However, this represents a resource to the firm in line with resource dependence theory as it holds the benefit of moderating risk preferences, thereby contributing richly to the board decision-making process in guiding the risk-appetite of the firm [81].

Further arguments look at women inclusion in the board as an efficiency objective to pursue; and demonstrates an economically rational conduct as it explores the widest talent pool to bring in diversity of perspectives and talents available from the women population [39,72,75,77,83]. This brings a resource dependence benefit to the firm as it is believed to enhance board effectiveness and efficiency [39,72,77].

In addition, Campbell and Minguez-Vera [39] have argued that in-roads on the importance of women in the board have not been based solely on *a priori* reasons as they apply to our discussion so far, but also on *a posteriori* positions. The latter is germane to such empirical observations as made by Arun et al [84], that higher fraction of women in the board restrains earnings management practices which enhances earnings quality reports of firms. Research has also revealed that corporate financial reports of firms with women in their boards show more transparency due to the active involvement of women in board functions which brings about improved monitoring [85,86,87]. Based on such attributes as meets the requirements of agency theory and resource dependence theory, this work expects the presence of women in the board to directly and indirectly influence board monitoring which will enhance the earnings quality of listed deposit money banks in Nigeria.

ii. Age of Board Members

The aspect of age diversity that has been commanding the attention of scholars is diverse perspectives. The argument is that age diversity in the board offers the benefits of diversity in knowledge, experience, skill, and thus, diverse perspectives [88,89]. However, this study focuses on the effect an increased proportion of young board members has on board monitoring to produce reliable earnings reports given that young board directors are usually more agile and energetic [90]; and thus, have the energy and the drive to carry out the active responsibilities of the board [88]. This meets the expectations of agency theory from the board in the discharge of its duties in monitoring to checkmate discretionary reporting by management. A higher proportion of young directors in the board is therefore, expected to enhance earnings quality.

iii. Educational Qualification of Board Members

Board monitoring to enhance earnings quality is one that requires requisite knowledge. Education equips the individual director with the required knowledge, skills, and cognitive orientation to be able to deal with board matters effectively [21,87]. In addition, it has been argued that education equips the directors with robust cognitive ability to be able to deal effectively with ambiguity and complexity in information processing [91,92].

For effective job in monitoring to ensure high earnings quality, the board should be able to demonstrate enough rigour in their monitoring functions, asking management knowledgeable questions [29,93]; and it will take a board equipped with the required sophistication in the knowledge of accounting, finance and financial reporting issues to measure up to this expectation [55,93]. This requirement meets the demands of agency theory for effective monitoring by the board to enhance earnings quality. This work, therefore, looks at the effect increased proportion of directors who possess accounting and finance education has on the quality of the earnings of listed deposit money banks in Nigeria.

2.2. Earnings Quality

According to Erah and Ikhu-Omoregbe [14], the earnings of a firm amount to the profit accruing from its business activities. It represents the net reward for the firm's business efforts and the reason for shareholding which comes to the shareholder in the form of dividend and enhanced share value [14,94].

Earnings quality refers to the extent to which the earnings figure as contained in the financial report represents the actual or fundamental earnings of the firm for the period being reported [21,94,95,96]. The fundamental or actual earnings is that which faithfully represents the true economic performance of the firm and thus, fairly reflects the current operating performance of the firm and useful in directing forecast accuracy about the future performance and profitability of the firm [14,21,94,97]. The underlying idea is that the earnings report "should faithfully represent changes in wealth" [[96]: 3]. This represents the accruals quality or earnings management perspective and hence, the analyst view of faithful representation in accounting [11,94]. It is about how faithfully accruals accounting has been applied.

There are other views; all bordering on a variety of perspectives. Hence, it has been said that the meaning of earnings quality is contextual; that to understand it properly, one has to look at it generally from the perspectives of the different users of the earnings information - decision-usefulness perspective [11,94]. Extant literature in accounting research has presented many of such views on earnings quality. Some examples on the common ones will help broaden our horizon on this. Debt holders such as creditors and suppliers for instance, are concerned with how easily the earnings can be converted to cash flows. From their own perspective, the quality is high if it can easily be realised as cash flows; as against a growing gap between accrued earnings and cash flows which is indicative of artificial earnings [11,94]. This creates doubts as to the ability of the firm to meet its debt obligations. This view also borders on faithful application of accruals accounting.

On the other hand, auditors, standard setters and regulators would generally view earnings quality from the perspective of conformity to the requirements of Generally Accepted Accounting Principles (GAAP) and Financial Reporting Standards (FRS). For them, earnings are of high quality when they are derived according to GAAP and FRS requirements [94]. This reflects their need of earnings report useful for both performance and stewardship valuations based on faithful application of principles and standards [11].

For contract compensation purposes, the user would want to know whether the earnings figure is reliable enough to serve as an indication of management's performance to deserve compensation [94]. Managers on their part, would want a high earnings figure that is persistent for it to be regarded as high quality because it would enhance their reputation for good performance [94]. This also reflects the view of forecasters and some particular decision-makers who would rely on the persistence value of earnings to be able to make predictions about the future earnings of the firm. It enables investors make investment decisions as whether to buy, hold or sell their stakes in the firm [11]. Therefore, for this group of users, high earnings that are persistent are of a high quality. According to Dechow and Schrand [94], this will only hold true if the earnings figure is reliable and if it persists in the future.

Closely associated with reliability and persistence is smoothness. Some see earnings smoothness as an attribute of high earnings quality [94]. The argument is that smoothness reflects consistent earnings stream void of non-recurring or one-time items, and this reflects high quality for predictive use [11]. Critiques argue that this attribute is only desirable if accruals are used to smooth-out misleading fluctuations in earnings due to transitory or one-time items in order to achieve a more useful earnings report; otherwise, it can lead to opportunistic earnings smoothing that might spell trouble for the firm when such earnings are eventually written down in the future [94,98]. Thus, in the absence of opportunistic behaviour, persistence and smoothness are considered as qualities that are suggestive of reliable earnings report useful for decision-making.

Again, from investment perspective, earnings quality is also viewed in terms of increase or decline in returns compared to scale of operations, which borders on firm operating performance [14,94]. A low quality would, therefore, serve as a signal to reconsider resource allocation [95,99]; but then, the figure must be reliable enough to reflect the actual performance of operations which would rightly direct the allocation of resources to investments [95].

Others may view earnings quality in terms of the relevance of the earnings report [94]. To be of high quality, the earnings report must be relevant and reliable to meet the decision needs of the user [94]. Relevance also connotes timeliness. A high quality earnings report must be timely enough to be relevant for decision-making [94]. Some unpopular views about earnings quality that call for more research include earnings that people are not surprised with, earnings that reflect consistent reporting choices, earnings void of long-term estimates, sustainable earnings, earnings that are not drawn from reserves, earnings that do not require much explanations, etc. [11,19].

In all the aforesaid and with regard to other perspectives not recounted herein, the bottom line remains that reliability lies at the root of the different perspectives of earnings quality which boils down to true representation of the economic performance of the business operations. This is consistent with the view of Dechow and Schrand [94] that lack of transparency or fraudulent reporting is low quality; while a high quality earnings report reflects the true economic performance of the firm and can be relied upon for decisions and in arriving at accurate evaluations on the performance of management in running the business of the firm [14,21,97]. This work, therefore, is concerned with the precision of the reported earnings in being representative of the actual earnings for the period being reported (the accruals quality perspective or earnings management perspective); which according to Francis et al [96], reflects the overall quality of the financial report. Such is required of an earnings report to be useful in detecting early the warning signs of financial distress and identifying in time the looming challenges of the economic actions needed to redeem the situation [14,15].

Looking at the reliability of earnings (earnings quality) reports, it is important to look at the factors that shape the quality of earnings. The factors have been categorized into internal and external factors. The external factors which are factors outside the financial reporting system of the firm include the state of the economy, macroeconomic conditions, nature of the business and the industry the firm belongs, and the operating environment [11,14,21,94,96]. The external factors are not within the control of management to manipulate in achieving a discretionary purpose.

The internal factors include accounting and auditing functions, internal controls and corporate governance [11,14]. The accounting function being under the control of management, comes in as a ready tool in manipulating earnings by such practices as capitalization of revenue expenses, early recognition of revenues, shifting of current expenses and revenue to a future period, over or understatement of provisions (such as provision for bad debts and loan loss provision), changes in the application of GAAP and financial reporting standards [11,14,21,100]; which amount to altering transaction results to give false corporate report of the earnings for the period [95]. This is earnings management, and it affects the quality of reported earnings. Earnings management and earnings quality are related concepts [96,101]. According to Dechow and Schrand [94], Lo [101], and Erah and Ikhu-Omoregbeh [14], high earnings management gives rise to low earnings quality and vice versa. This gives rise to the agency problem of information asymmetry as the interest of management in indulging in earnings management does not align with shareholders' interest of being furnished with reliable earnings information useful for decision-making; and the board has a duty here to overcome this problem by monitoring and controlling management behaviour towards earnings management. This work, therefore, seeks to examine how the board diversity attributes of independent directors, block shareholding, gender, age and education impact board functions directly in monitoring and controlling management's discretionary behavior and indirectly in offering superior board advisory capacity and resource provision to ensure business prosperity which will act as a disincentive to earnings management practices by management. The overall effect is expected to be seen in enhanced earnings quality reports.

2.2.1. Measures of Earnings Quality

Researchers have come up with a number of models on how to measure earnings quality. Each model represents an attempt to empirically measure the quality of earnings in line with a particular perspective of the earnings quality concept; that is, each model attempts to capture 'decision-usefulness' and thus, context specific, just as earnings quality is context specific [11,19]. However, according to Dichev et al [11], some of them, such as the models to measure consistent reporting choices, avoiding long term estimates, sustainability earnings, as perspectives of earnings quality, are under-developed; and as Dechow et al [19] pointed out, some researchers have used measures that did not match the specific context of earnings quality they sought to measure, either because they saw such measures as substitutes for earnings quality measurement or they were simply not sure of which measure to use. Others simply wanted to make a case of the robustness of their results by using multiple proxies which might not have been proper [19]. This implies that researchers should be careful not to adopt measures that are not appropriate for specific earnings quality contexts and also, for the theoretical construct they seek to test; so to avoid a mismatch between earnings quality proxy and context, and between earnings quality proxy and theoretical construct which might give misleading results. For example, as noted by Dechow et al [19], it would amount to a mismatch to test whether audit quality affects accruals quality when it is a fact that the auditor's responsibility is only to exercise an opinion on whether the financial report meets GAAP requirements and the statute. Accrual proxies represent the kind of defects that internal control mechanisms such as the board can monitor and prevent, and not external control like the external audit [19].

Some of the common measures of earnings quality available include models to measure earnings quality based on persistence, predictability, smoothness and faithful representation (accruals quality) perspectives of earnings quality [14,19,95,102]. Others include variability, the of ratio of accrual to cash flow, ratio of cash flow from operation to income, value relevance, timeliness, conservatism, etcetera [14,19,95,102]. There have been attempts by researchers to classify the measures. Francis et al [102] classified them into accounting-based and market-based measures. The accounting-based measures make use of accounting information only in the measurement of earnings quality, and accounting information can be influenced by management to achieve a discretionary purpose. The measures include accruals quality, persistence, predictability and smoothness. While the accruals quality measure can be seen as an information reliability or earnings management measure indicating high earnings quality (reliability) when earnings management is reduced, the persistence, predictability and smoothness are regarded as information enhancing measures as they indicate high quality of earnings when less noisy items or less misleading fluctuations in earnings due to transitory or one-time items are reflected in order to achieve a more useful earnings report [103]. The market-based measures which rely on the relationship between the financial report and the stock market, make use of both accounting information and market-based information in their measurement [21]. They include value relevance, timeliness, etc. The argument is that earnings should also reflect income in terms of stock returns due to increase or decrease in earnings which leads to fluctuations in the share price of the firm [21]. The market-based information cannot be influenced by management to achieve a discretionary purpose [21].

In line with the position taken by this study to view earnings quality from the perspective of the accruals quality (information reliability or earnings management perspective) of the reported earnings, this study adopts accruals quality in the measurement of earnings quality of listed deposit money banks in Nigeria. This is also in agreement with the theoretical construct of the study as the board is an internal control mechanism to monitor and prevent management from opportunistic accruals management that erodes earnings quality. Research has found out that management usually prefers influencing or managing accruals because it provides them cover in their application of GAAP rules, accounting methods and standards without being detected [104]. Therefore, as a measure of earnings quality, the accruals quality model measures the extent to which reported accruals represent the actual accruals of the firm for the period being reported; that is, the extent to which reported accruals represent the truth [94,95,96,105], because it is the extent to which the accruals have been influenced by management that determines the earnings quality of the report, and that is what the accruals quality model seeks to establish.

Developing a generally acceptable metrics under the accruals model has not been an easy one for researchers because earnings quality through accruals quality cannot be observed directly [104]. In developing the accruals model, scholars categorised accruals into two components. According to Dechow et al [19], the objective is to identify the component that is the result of management's discretion or manipulation or due to error (the discretionary component), from the component that reflects the actual or fundamental earnings of the firm (the non-discretionary component). The effort is directed towards isolating the discretionary component (which serves as a measure of earnings quality) from the total accruals using regression techniques [104]. Obtaining a higher level of the discretionary component suggests low earnings quality [19].

Unlike methods that consider all accruals in their measurements, a particular method makes use of specific or single accruals in firms like banks and insurance companies with peculiar types of businesses that result in such accruals being large and thus, have significant effect on earnings [106]. Such accruals in the banking industry is Loan Loss Provision (LLP). Loan loss provision is an example of specific or single accrual, and just like the total accruals, it has the discretionary and the non-discretionary components [106,107]. The non-discretionary component as pointed out earlier, represents the fair and objective aspect of the provision while the discretionary component represents the part that has been affected by the manager's discretion [106]. The method also makes use of regression technique to isolate the discretionary component of the loan loss provision accrual.

This method is normally adopted by researchers in measuring earnings quality in the banking industry because the banking business is one of such that is peculiar which involves granting of loans. Thus, to mitigate the effect of potential uncollectable loans, banking regulation has provided for loan loss provision on monthly basis based on the manager's assessment (not guided by any precise criteria for the assessment) of the existence and magnitude of such loans [106,108]; and this usually involves a large amount of money that has significant effect on earnings [106]. This implies that an increase in the amount of such provision spells a significant reduction of net earnings while a decrease will as well bring about a material increase in net earnings [106]. It, therefore, follows that since bank managers have discretionary powers over it, they find it a ready tool for earnings manipulation when the need arises. Besides, as a key driver of accruals in the banking industry, research has confirmed that bank managers make use of it to influence earnings reports [98,106,108]. This work, therefore, uses loan loss provision accruals quality in assessing the earnings quality of listed deposit money banks in Nigeria.

2.3. Theoretical Review

As alluded to earlier on, scholars have been able to classify board functions into monitoring and resource provision roles. The three types of board systems (unitary, two-tier and mixed) for corporate entities being practiced by many jurisdictions are hinged on these two roles and convey the thrusts of agency theory and resource dependence theory. In the unitary (sole) board system which obtains in Nigeria and many other countries, a single board plays the two roles (monitoring and resource provision). This contrasts with what obtains in the two-tie (dual) system where the two roles are separated by having two boards in the same company that are responsible for each of the roles. The mixed system is an abstraction from the unitary and the two-tie systems. In the mixed system, firms are free to choose between the unitary (sole) or two-tier (dual) board systems [44]. The monitoring function of the board is explained by agency theory and falls within the purview of statutory board diversity, while the resource provision function is the focus of the resource dependence theory and the concern of demographic board diversity [41,42,44,45]. Thus, this study uses a combination of the agency theory and resource dependence theory as lens in examining the effect of board diversity on earnings quality of listed deposit money banks in Nigeria. This is because Nigeria practices the unitary(sole) board system where the monitoring and the resource provision functions of the board are performed by a single board; and an interplay of the thrusts of the two theories is expected in a unitary board system setting.

2.3.1. Agency theory

The monitoring function of the board of directors is explained by agency theory. It is the main theory that explains the reason for the emergence of the board of directors in corporate governance [41]. The theory hinges on the view that modern corporate business is set up by shareholders (principals or owners) who lack the expertise to run the business and thus delegate the duty of running the business to managers (agents). This includes delegation of the responsibility to make decisions that affect the business [65]. The theory assumes the interests of agents are different and often in conflict with owners' interests and so are not expected to approach their jobs with the same measure of commitment as the owners [46,54,109,110]. This brings the problem of monitoring the agent which involves active participation in his decision-making process concerning the enterprise [44]. In modern day corporations with large and diffused ownership, the principal would find it difficult to monitor the job of the agent to ascertain that he has behaved appropriately; as this accrues some huge monitoring costs [46,65]. Also embedded in the agency relationship are such residual costs as the pursuit of self-serving interests, earnings manipulation by agents, etc. With regard to this, company law wades in to limit deviations from owners' interests and thus minimize conflict of interest and agency costs. The law sets up regulations and creates an organ (the board of directors) as a trustee to monitor and control the agents (managers) to ensure they stay within the bounds of regulations, so the interests of the owners (shareholders) are protected [41,43].

In order to be effective in this monitoring function, Hillman and Dalziel [45] have identified board incentives as a primary driver for it. According to them, board incentives drive the board to monitor, much as it does to what they called "board capital" (comprising of human capital - experience, expertise, skills, reputation, etc. and relational capital - network of ties to other firms and external contingencies) in providing advice resources and relational resources to the firm. From agency theory perspective, board diversity therefore, creates diverse incentives to monitor. Prominent among such incentives identified by researchers are board independence [45] and director-equity-holding [45,65]. Such attributes that enhance independence are the preponderance of outside directors in the board and separation of the CEO and board chairman's roles. Block-holding by directors also creates the incentive to monitor [45,61,111,112]. Such are attributes of statutory diversity.

Therefore, with diversity of incentives as encouraged by statutory (structural) board diversity, monitoring best practices as articulated by agency theory is expected to be well delivered. However, Hillman and Dalziel [45] pointed out in their work that researchers have consistently ignored the integrating aspect of agency theory and resource dependence theory in the monitoring function of the board. This would likely hold true in a unitary board system where the monitoring and resource provision functions of the board are combined in one board; as against the dual board system where they are separated, and the two functions performed by two different boards. They observed that such other attributes as can be associated with demographic diversity, bring about "heterogeneous board abilities to monitor" management actions [[45]: 388]. This aspect has been considered by resource dependence theory.

2.3.2. Resource Dependence Theory

The advisory role of the board is articulated by resource dependence theory. The theory abstracts from the organization-environment relations. The thrust of the theory is that the environment offers constraints and opportunities (resources) to the firm; and the firm seeks to manage these constraints and resources for its survival and prosperity [113,114]. The firm attempts to eliminate or at least, minimize the constraints and exploit the resources to its fullest advantage. The theory recognizes the board as one of the options available to the firm in achieving this; others being mergers/vertical integration, political action, executive succession, joint ventures/other inter-organisational relationships [113,114,115]. In this regard, the board represents a resource in managing these dependencies so to ensure the survival and continued operations of the firm.

In corollary to resource provision, the theory views the board as representing a capital to the firm by virtue of the availability of skills, knowledge, intelligence, experience, perspectives, etc. which it brings to bear on its advisory role; as well as serving as link to external resources useful for the well-being of the firm [40,42,45,113].As pointed out earlier, such links include having access to big time investors, having favourable dealings with regulators, winning government contracts, etc. [40,45,113,114,116]; all made possible by the connections and affiliations of board members.

It, therefore, stands to reason that demographic diversity of board has roots in resource dependence theory and brings to the board broader resource pool and connectedness [40,44,113]. Therefore, demographic diversity can go a long way in determining how well a firm can manage its dependencies on the external environment compared to industry standards [117]. Thus, resource dependence theory gives insight to the position of demographic diversity as a resource in complementing the monitoring role of the board by virtue of its advisory benefits, heterogeneous ability to monitor, and connections to external resources. This enhances board's effectiveness in monitoring the opportunistic behaviours of management. Indeed, in a unitary board system arena, agency theory and resource dependence theory offer good reasons to expect that board diversity will enhance the performance of the board in making managers do their job "with the same anxious vigilance" as the owners. This will positively affect firm performance and reduce such agency costs as discretionary earnings manipulation which will in turn enhance earnings quality reports.

2.4. Review of Empirical Studies

Several research studies have been carried out relating to the effects of different corporate governance dynamics on earnings quality which often serves as a measure of financial reporting quality. Specifically, on board diversity as an aspect of corporate governance dynamics, empirical evidences abound as to the effects of the individual board diversity elements on earnings quality. Reports of such effects are largely mixed as can be observed in the empirical reviews that follow.

Kutigi et al [35] carried out a study on the effect of board size and independence on earnings quality of listed deposit money banks in Nigeria for the period 2007 to 2016. The study found that board independence positively affects earnings quality. Their study tested for only the single effect of board independence on earnings quality. This study is expanded to include more board diversity variables and their overall (combined) effect on the earnings quality of listed deposit money banks in Nigeria.

However, in a similar study by Bala and Kumai [29], the result was different. Bala and Kumai [29] examined the effect of board characteristics on earnings management of listed food and beverages firms in Nigeria from 2009 to 2014. They found that board independence does not improve earnings quality by reducing earnings management. The domain of their study is different from the present study. Their study tested for the single effect of board independence on earnings management. In addition to the single effect, the present study examined the combined effect of board independence with other board diversity variables on the earnings quality of listed deposit money banks in Nigeria.

Alves [37] also conducted a study on the effect of board independence on the earnings quality of 33 Portuguese listed non-financial firms from 2003 to 2010. The study found that board independence significantly improves earnings quality by reducing earnings management. The present study improved on Alves [37]'s study by employing more recent data and also by focusing on deposit money banks. In addition, more board diversity attributes were included in the present study and their joint effect on earnings quality was tested.

Dabor and Mohammed [36] examined the effect of ownership structure (directors' shareholding) on earnings management (by implication, earnings quality) in the Nigerian banking sector for the period 2005 to 2009. The result revealed that directors' shareholding is significantly associated with low level earnings management in Nigerian banks. Dabor and Mohammed [36]'s test of the effect of ownership interest on earnings quality by directors' shareholding was not based on block shareholding by board directors. The present study went beyond this limit by looking at the effect of board directors' block shareholding on earnings quality.

Isa and Farouk [7] studied the effect of board ownership (measured by ratio of shares held by directors to the total shares issued) on earnings management of high and low leveraged banks in Nigeria from 2008 to 2015. The study found that board ownership is not significantly associated with low level earnings management (i.e. does not improve earnings quality) in both the high and low leveraged banks. The finding is not consistent with that of Dabor and Mohammed [36]; and like Dabor and Mohammed [36], their test of directors' shareholding was not on block shareholding by board directors. The present study fills this gap by looking at the effect of director block shareholding on earnings quality and the joint effect with other board diversity variables on earnings quality of listed deposit money banks in Nigeria.

Solanke et al [30] carried out a study on board female gender diversity and earnings management of listed deposit money banks in Nigeria from 2007 to 2016. The study found that gender has no significant effect on earnings management. However, Zwet [20] got a different result after examining the influence of board diversity on earnings management of U. S. non-financial firms from 2008 to 2013. Zwet [20] found that gender diversity significantly improves earnings quality by lowering earnings management. Like Solanke et al [30], Zwet [20] examined only the single effect of gender diversity (which is a demographic diversity variable) on earnings quality. The present study has improved on their studies by examining not only the single effect of gender, but also the combined effect of gender with other demographic and statutory diversity variables on the earnings quality of listed deposit money banks in Nigeria.

Hashim et al [10], in their research on board diversity and earnings quality of listed non-financial firms in Malaysia for the year 2017, investigated the effect of age on a cross-sectional data of 90 out of 745 listed companies. The study found that age (measured by young directors equal or less than 45 years of age) did not significantly affect the earnings quality of the sampled firms. The present study is in the financial sector and on a panel data instead of a cross-sectional data. In addition to the individual effect of age (measured by young directors less than 60 years of age in accordance with the civil service retirement age of 60 years in Nigeria), the present study examined the joint effect of age with other demographic, and statutory board diversity variables on the earnings quality of listed deposit money banks in Nigeria. Also, Zwet [20] examined the effect of age on earnings management of U.S. non-financial firms (from 2008 - 2013) on a sample size of 3,886 firm-year observations. Age was measured by the standard deviation of the age of the board members. The study found that age had a significant positive relation with earnings management; and thus, does not support earnings quality. By measuring age using the standard deviation of the age of the board members, it is not clear which of the age diversity characteristics (young or old) effect the study set out to examine, and how such characteristics effect is expected to impact earnings quality. The present study overcame this limitation by examining the effect of youthful age on earnings quality; as it is expected that young directors would be actively involved in monitoring management to checkmate earnings management practices, because it is an active responsibility that demands a great deal of physical and mental stamina that youthful age possesses.

Hemathilake et al [118], in a cross-sectional study, examined the effect of board financial expertise (a proxy for educational qualification) on earnings quality in their study of board characteristics and earnings management of 60 listed non-financial firms in Sri Lanka. They found that board financial expertise has positive and insignificant effect on earnings management; indicating that board financial expertise does not improve earnings quality. Contrary to Hemathilake, et al [118]'s study, the present study is on a panel data in the Nigerian financial sector. In addition to the single effect of board financial expertise on earnings quality, the study examined the effect of the interaction of board financial expertise with other board diversity variables on the earnings quality of listed deposit money banks in Nigeria. Bala and Kumai [29] got a different result when they examined the financial expertise of board members, as one of the variables included in their study of the effect of board characteristics on earnings management of listed food and beverages firms in Nigeria (2009 - 2014). The study found that board financial expertise improves earnings quality by reducing earnings management. Bala and Kumai [29]'s study was in the non-financial sector. The present research work extends their study to the financial sector; and in addition, examines the combined effect of board financial expertise with other board diversity variables on the earnings quality of listed deposit money banks in Nigeria.

Wambui [119] examined the combined effect of some demographic diversity attributes (gender, age and nationality) on the financial performance of commercial banks in Kenya for 2012 to 2017 period. The study found that the combined effect of board diversity attributes of gender, age and nationality had insignificant effect on the financial performance of commercial banks in Kenya. Statutory diversity was not included in the study, and Wambui [119] did not indicate which board governance system Kenya operates; because in a unitary board system where the monitoring and the resource provision functions of the board are performed by a single board, the demographic board diversity attributes are not expected to function in isolation. They interact with statutory (structural) board diversity attributes to jointly produce effect. The present study seeks to fill this gap by extending Wambui [119]'s work to the combined effect of both the demographic and statutory board diversity attributes on earnings quality of listed deposit money banks in Nigeria. Woschkowiak and Visser [38] also, investigated the combined effect of some demographic attributes (gender, age and nationality) on firm financial performance in 17 European countries. The study was on cross-sectional data of European board of directors in the year 2016. They found a positive and significant joint effect of the demographic diversity variables on the financial performance of European firms. Their study was on a cross sectional data. The present study is on a panel data. Just like Wambui [119], Woschkowiak and Visser [38] examined only the joint effect of the demographic diversity variables and did not extend their study to the joint effect of both the statutory and demographic variables on firm performance. This work extends their study to the financial sector by examining the joint effect of both the statutory and demographic board diversity attributes on the earnings quality of listed deposit money banks in Nigeria.

Hoang et al [28] carried out a study on the effect of board diversity on earnings quality of 150 listed non-financial firms in Vietnam from 2006 to 2010. The 150 listed non-financial firms were sampled. They classified the demographic attributes (gender, age, educational qualification and nationality) as diversity-in-boards, and the statutory attributes which are consistent with the statutory provisions in Vietnam (CEO duality, director block shareholding, representative directors' ownership and promoters) as diversity-of-boards. They combined the four accounting-based earnings quality measures of accruals quality, earnings persistence, earnings predictability and earnings smoothness into what they referred to as a single standardized aggregate measure of earnings quality. Hoang et al [28] found that diversity-of-boards (statutory diversity) improves earnings quality while diversity-in-boards (demographic diversity) does not improve earnings quality. Again, their study failed to establish the combined effect of both the structural and the demographic attributes of board diversity on the earnings quality of the sampled firms. However, Hoang et al [28] did not indicate which type of board system Vietnam operates. This work extends their study to the financial sector in Nigeria and tests the combined effect of both the statutory and demographic board diversity attributes on the earnings quality of listed deposit money banks in Nigeria, as Nigeria operates a unitary board system where the statutory and demographic attributes of board diversity interact to produce effect.

3. Methodology

This work adopted ex-post facto research design in examining the effect of board diversity on earnings quality of listed deposit money banks in Nigeria. The choice of the ex-post facto research design is due to the fact that this research is a post event study which makes use of data extracted from secondary source – the annual financial reports and accounts of listed deposit money banks in Nigeria. In addition, ex post facto research design is usually employed where the hypotheses to be tested are about cause-and-effect relationships like this work, and there had not been a prior influence over the research data by the researcher.

3.1. Population and Sample Size

The population of study comprises of 14 deposit money banks listed on the Nigerian Stock Exchange (NSE) and remain listed from January 2007 to 31st December 2019. This period was chosen as it was considered reasonably long enough to reflect the effect of practices that have been around for quite some time in the banking industry up to the recent times, covering pre and post IFRS adoption (2012-2014) periods in Nigeria; so the study results are relevant in arriving at current and future policies on board diversity best practices. Out of the 14 banks, Jaiz Bank was not listed on the Nigerian Stock Exchange till February 9, 2017. The researcher, therefore, applied purposive sampling technique to remove Jaiz Bank from the list. The remaining 13 banks form the sample size.

3.2. Model Specification

This study views earnings quality from the accruals quality (earnings management) perspective and uses Loan Loss Provision (LLP) accruals quality in assessing the earnings quality of listed deposit money banks in Nigeria. The study uses the residual from the LLP model which represents the discretionary loan loss provision (DLLP) as a proxy for earnings quality. The study adapted Kanagaretnam et al [103] model for Discretionary Loan Loss Provision (DLLP) in estimating the discretionary component of Loan Loss Provision (LLP). The model is shown below.

$$\begin{aligned} LLP / Ta_{t-1it} &= \alpha_0 + \alpha_1 LLA_{it-1} / TA_{it-1} \\ &+ \alpha_2 LCO_{it} / TA_{it-1} + \alpha_3 \Delta LOAN / TA_{it-1} \\ &+ \alpha_4 LOAN / TA_{it-1} + \alpha_5 NPL / TA_{it-1} + \varepsilon_{it} \end{aligned} \qquad \text{(i)}$$

where
LLP = Loan Loss Provision.
LCO = Loan Charge-offs
LLA= the beginning balance of Loan Loss Allowance
ΔLOAN = change in total loans outstanding scaled by beginning assets
LOANS = total loans outstanding
NPL= non-performing loans
TA= the beginning total assets
e = the residual (Discretionary Loan Loss Provision-DLLP)
α_0 = the intercept
it = firm and time

In the second stage, the effect of board diversity on the value of DLLP is tested. Negative DLLP indicates high earnings quality. The study also controls for Firm Size and Earnings Before Tax and LLP (EBTLLP) which previous studies have associated with accruals management [103]. On firm size for instance, the level of incentives to practice earnings management by big firms are considered not the same compared with small firms [120]. Firm size is measured using the natural logarithm of total assets. EBTLLP is included to control for performance [103]; as older firms are expected to have higher earnings due to reasons bordering on more market experience, and relatively lower capital costs compared with younger firms which are still at the stage of developing their market position [121]. EBTLLP is scaled by total assets at the beginning of the year. The control variables are in line with Kanagaretnam et al [103] model which this study adapted.

$$\begin{aligned} EQ_{it} &= \alpha_0 + \beta_1 IDD_{it} + \beta_2 BSD_{it} + \beta_3 GD_{it} + \beta_4 AD_{it} \\ &+ \beta_5 EQD_{it} + \beta_6 FS_{it} + \beta_7 EBTLLP_{it} + \varepsilon_{it} \end{aligned} \qquad \text{(ii)}$$

where,
EQ = DLLP
IDD = board independence
BSD = block shareholdings
GD = board gender
AD = board Age
EQD= board education
FS = Firm Size
EBTLLP = earnings before tax and loan loss provision
it = firm and time
α_0 = the intercept
e = the error term
β= coefficient

To be able to examine the combined effect of both the structural and demographic board diversity variables and achieve objective 6, the study adopted Wambui [119] model.

$$EQ_{it} = \alpha_0 + \beta_1 BDCBit + \beta_3 FS_{it} + \beta_4 EBITLLP_{it} + \varepsilon_{it} \qquad \text{(iii)}$$

where
BDCB = Board Diversity Combined
All other variables are as earlier defined

3.3. Variables, Definition and Measurement

The variables used in this study are adopted from existing literature, in line with the research problem and research objectives. Thus, the dependent and independent variables of the study are determined according to the approach used by previous studies and availability of data for measurement purposes. Board age is measured in line with the civil service retirement age of 60 years in Nigeria. Thus, board members less than 60years of age were considered as young directors. These are presented in Table 1.

Table 1. Measurement of Variables

Variables	Definition	Type	Measurement	Sources
EQ	Earnings quality	Dependent Variable	Residual of loan loss provision.	Kanagaretnam et al [103], Hadriche [122].
IDD	Independent Director Diversity	Independent Variable	Independent directors on board/board size.	Alves [37], Hassan [13].
BSD	BLOCK Shareholding Diversity	Independent Variable	Block shareholders on board/board size.	Farouk and Bashir [123] Marquardt [124].
GD	Gender Diversity	Independent Variable	Female directors on board/board size.	Kang et al [88], Hashim et al [10].
AD	Age Diversity	Independent Variable	Board members less than 60years of age/board size.	Hashim et al [10]
EQD	Educational Qualification Diversity	Independent Variable	Board members with 1st Degree or above or equivalent in Accounting and/or Finance/board size.	Bala and Kumai [29], Adamu et al [125].
BDCB	Board Diversity combined	Independent Variable	Summation of the five board diversity variables.	Wambui [119].
FS	Firm Size	Control Variable	Natural logarithm of total assets.	Kanagaretnam et al [103], Ozili [126].
EBTLLP	Earnings Before Tax and Loan Loss Provision	Control Variable	Earnings before tax and LLP/ beginning total assets.	Kanagaretnam et al [103], Abu-Serdaneh [127].

Source: Compiled by the researcher.

3.4. Sources of Data

The nature of data used in this study is quantitative; derived through secondary sources only. They were extracted mainly from the annual financial reports of listed deposit money banks in Nigeria as seen on the individual banks' websites, and from the official website of the Nigerian Stock Exchange (NSE). In addition to the annual financial reports, the study made use of the general internet and the services of the Biographical Legacy and Research Foundation (BLERF), Nigeria, in sourcing for the age of board members.

3.5. Methods of Data Analysis

For data analysis, descriptive statistics and multiple regression analyses were used. The descriptive statistics helps in understanding the nature of the data. It discloses such values as the mean value, standard deviation, minimum and the maximum values of the individual variables used in the study. Regression analysis was adopted for the study because of its ability to predict and explain variation in earnings quality as a result of board diversity attributes. The choice of the appropriate regression technique is however dependent on the nature of data analyzed. Hence, panel data statistical regression method was used for data analysis as the data collected have both time series and cross-sectional elements. The time series aspect is from 2007 to 2019 period while the sample of 13 listed deposit money banks in Nigeria reflect the cross-sectional aspect. STATA 13 statistical software package was used for data analysis.

Kanagaretnam et al [103] two-step regression model was used to extract residuals. The residual from the LLP model was used as the dependent variable for the study, while board diversity attributes of independent director, director block shareholding, gender, age, and educational qualification represent the independent variables and the addition of the five diversity indicators was used to test their joint effect on earnings quality.

4. Results and Discussion of Findings

This section discusses the descriptive statistics which dwells on preliminary analysis to understand the data; followed by regression results, hypotheses testing and discussion of findings.

4.1. Descriptive Statistics

Table 2 shows the mean, standard deviation, minimum and maximum values of the individual variables used in the study. The number of observations is 169 (13x13) representing 13 sampled banks for 13 years (2007-2019).

Table 2. Descriptive Statistics

Variables	Obs	Mean	Std dev.	Min	Max
EQ	169	0.02	0.02	0.00	0.17
IDD	169	0.12	0.08	0.00	0.33
BSD	169	0.06	0.11	0.00	0.45
GD	169	0.15	0.10	0.00	0.38
AD	169	0.72	0.12	0.33	0.94
EQD	169	0.39	0.13	0.10	0.69
BDCB	169	1.07	0.59	0.14	2.07
FS	169	20.78	0.96	18.67	22.88
EBITLLP	169	0.04	0.05	-0.38	0.15

Source: STATA output (2020).

The mean value of EQ measured by the value of discretionary loan loss provision (DLLP) is 0.02 with standard deviation of 0.02. The mean value compared with the standard deviation suggests that EQ among the sampled deposit money banks varied moderately. On the board diversity variables, independent director diversity

(IDD) has an average proportion of approximately 0.12 (12%) of the board with a standard deviation of 0.08. The mean value is far less than 50%, suggesting that there is a low proportion of independent directors in the sampled banks; and this low proportion is similar across the banks as indicated by the standard deviation of 0.08. The proportion of directors that are block shareholders varied among sampled banks from 0% (showing that some of the sampled banks had no block shareholders in the board) to 0.45 (45%). The mean value of 6% shows a low proportion of block holders in the board, with a standard deviation of 11%.

The representation of females on the board has a mean value of 0.15 (15%) which is low; and this is similar across the firms as indicated by the standard deviation of 0.10 (10%). The table also shows that there are some boards with no female directors as the minimum is zero. Age diversity (AD) shows a mean value of 0.72 and a standard deviation of 0.12. The mean value signifies that 72% of the board members were less than 60 years of age which represents a high proportion. The maximum value of 94% implies a high concentration of young directors on the boards of some banks. Educational qualification diversity (EQD) has a mean and standard deviation of 0.39 and 0.13 respectively. The mean value of 0.39 implies that 39% of the 13 sampled banks have board members who possess a minimum of 1st degree or equivalent in accounting and/or finance. The standard deviation of 0.13 compared with the mean shows that this was a common trend among the sampled banks. The combined board diversity value shows an average value of 1.07 with relative low variability of 0.59; meaning that this is common among the boards and ranges from the minimum value of 0.14 to a maximum value of 2.07.

The mean of the natural logarithm for the total assets used to measure FS is 20.78, with a standard deviation of 0.96, minimum and the maximum values of 18.67 and 22.88 respectively. The standard deviation of 0.96 shows low dispersion of individual firm size from the mean, implying that the banks were similar in size. Earnings before tax and loan loss provision (EBTLLP) shows an average value of 0.04 with a standard deviation 0.05. The standard deviation indicates that this was not a common trend among the sampled banks as deposits constitute a major part of the banks' assets.

4.2. Regression Results

Table 3 presents the regression results for the two models used in the study to examine the effect of board diversity on earnings quality of listed deposit money banks in Nigeria. The study used fixed effect regression with robust Discroll-Kraay Standard error.

Interpretation

Table 3 reveals the result of the fixed effect robust model using Driscoll-Kraay standard error to correct for some assumption violations. The first model (Model 1) relating to the first five (5) hypotheses reveals an R2 of 0.2414. This shows that the individual board diversity variables and the control variables were able to explain changes in the earnings quality of the listed deposit money banks at 24.14%. Others (75.86%) were accounted for by factors not captured in the study. The F-statistics of model 1 indicates a significant joint effect of the variables on earnings quality measured by discretionary loan loss provision. This also signifies that the model of the study is fit {F (7,12) =22.35; P<0.001}. Regarding the board diversity index (model 2), Table 3 shows an explanatory power of 21.25%. The F-statistics show that the model is significantly fit for the data {F (3,12) =7.70; P=0.0039}.

Table 3. Fixed Effect Regression with Discroll-Kraay Standard Error

	Model 1			Model 2		
				Combined BD		
Variables	Coefficients	t	P-value	Coefficients	t	P-value
IDD	-0.1914	-5.78	0.000			
BSD	-0.1213	-2.75	0.018			
BG	-0.0202	-2.28	0.042			
EQD	-0.0782	-2.29	0.041			
AD	-0.0115	-0.74	0.476			
BDCB				-0.0003	-2.69	0.020
EBITLLP	0.2648	2.60	0.023	0.2559	2.74	0.018
FS	-0.0004	-4.81	0.000	-0.0002	-1.63	0.130
CONST	0.2648	12.96	0.000	0.2037	4.57	0.001
R2	0.2414			0.2125		
F-stat	22.35		0.000	7.70		0.0039
No of Observation	169			169		
No of group	13			13		

Note: * p<0.05 significance level.

4.3. Hypotheses Testing and Discussion of Findings

The hypotheses formulated in the study were tested using information from Table 3.

Ho$_1$: Board independence does not improve the earnings quality of listed deposit money banks in Nigeria. Table 3 reveals that board independence (number of independent directors on the board) has a coefficient of -0.1914 and a statistically significant p-value of 0.000 at 5% level of significance. This indicates that increase in the number of independent directors decreases discretionary loan loss provision (i.e., improves earnings quality) of listed deposit money banks in Nigeria. An increase in the proportion of the independent directors on the board, holding other variables constant, will lead to 0.1914 decrease in the discretionary loan loss provision. This by implication, suggests that the presence of the independent directors reduces earnings manipulation; hence, enhances the earnings quality of the banks. Therefore, hypothesis H_{01} is rejected.

In theory, independent directors are expected to be effective in monitoring the opportunistic behaviours of management as their objective mind-set is a quality that enhances their monitoring role. This aligns with the view of agency theory and resource dependence theory as articulated in this study. Further, it agrees with the works of Hassan [13], Fodio et al [33], Uwuigbe et al [34], Enofe et al [5], Kutigi et al [35], Dabor and Mohammed [36], and Alves [37] reviewed in this work, who found that independent directors are associated with higher earnings quality. However, it is contrary to the findings of Park and Shin [31], Rahman and Ali [32], and Bala and Kumai [29] that the presence of independent directors in the board does not improve earnings quality.

H$_{02}$: Block-shareholding by board directors does not improve the earnings quality of listed deposit money banks in Nigeria. Table 3 shows a negative coefficient of -0.1213 and a P-value of 0.018 which is significant at 5% level of significance. The finding implies that any increase in the proportion of directors with block shareholding will lead to 0.1213 units decrease in discretionary loan loss provision. That is, director block shareholding improves the quality of earnings by decreasing earnings management (discretionary loan loss provision). Thus, the study rejects hypothesis H_{02}.

This is in line with arguments in literature that the presence of block-holders in the board carries with it the assurance of a healthy monitoring environment as block-holding offers directors a strong motivation to monitor management's earnings manipulation because they have huge stakes in the company. This ensures they align their interests with the interest of other shareholders at large as expected by agency theory. This finding is consistent with the works of Dabor and Mohammed [36] and others who found that director-shareholding enhances earnings quality. The finding, however, contradicts the work of Isa and Farouk [9]) who found board ownership of equity shares not to lower earnings management (i.e. does not improve earnings quality) of the listed deposit money banks in Nigeria.

Ho$_3$: Number of female members on the board does not improve the earnings quality of listed deposit money banks in Nigeria. The results show that female gender representation in the board has a negative coefficient of -0.0202 and a P-value of 0.042 which is significant at 5%. This suggests that female board members negatively and significantly influence discretionary loan loss provision of listed deposit money banks in Nigeria. This shows that an increase in the proportion of female board members will reduce discretionary loan loss provision by 0.0202. This further implies that a gender diversified board will improve earnings quality of listed deposit money banks in Nigeria. Therefore, the study rejects hypothesis H_{03}.

This finding agrees with the view of scholars that the presence of women in the board improves board behavior and performance and brings about a more active board; thus, making such boards tougher monitors [40,72,82]; and meets the expectations of agency theory that the activities of management should be properly monitored to align with owners' interest. The finding also agrees with studies that have identified women preferences for altruism as a trait in psychology which identifies them with being more trustworthy than men and thus, well suited for fiduciary assignments like corporate governance [81]. This benefit is particularly important vis-à-vis monitoring to present corporate earnings report as it actually is, which reduces information asymmetry between management and owners. The finding is consistent with previous findings by Zwet [20], and Isa and Farouk [9] who found that board gender diversity improves earnings quality. It is contrary to the findings of Bala and Kumai [29], Enofe, et al [5], Solanke et al [30], and Hashim et al [10] that gender diversity does not improve earnings quality.

Ho$_4$: Number of younger directors on the board does not improve the earnings quality of listed deposit money banks in Nigeria. The regression result of age diversity (AD) of board members measured by proportion of young directors (directors below 60 years of age) reveals that age of board members has a negative coefficient of -0.0115 and an insignificant P-value of 0.476. This means that presence of young directors who are below 60 years of age insignificantly improves earnings quality by reducing earnings management in the listed deposit money banks in Nigeria. Therefore, the study accepts hypothesis H_{04}.

Considering the percentage representation of board members (see Table 2) less than 60 years of age (72% on the average) and the minimum value of 33% against a maximum value of 94%, this finding could mean that more of the sampled banks had lower representation of young directors on their boards where their effect on earnings quality were not significant, while there was a high concentration of them in the boards of fewer banks. The finding could also mean that age alone, without knowledge (expertise), hasn't much to contribute towards improving earnings quality; because it requires not just physical stamina but also mental stamina which youth and expertise can afford, for young directors to be able to serve as a resource to the firm in sharpening the board's monitoring capabilities. By a combination of these two qualities (youth and expertise), age would be able to meet the expectations of agency theory in monitoring, and resource dependence theory in serving as a resource to the firm in matters of the active responsibilities of the board. The finding is inconsistent with prior studies by Zwet [20] who found that age of board directors had a significant positive relation with earnings management; and thus, does not support earnings quality. However, the finding is consistent with Hashim et al [10] who found that age of board directors does not significantly affect earnings quality.

Ho_5: Educational qualification of board members in accounting and finance does not improve the earnings quality of listed deposit money banks in Nigeria. Model 1 in Table 3 shows that educational qualification of board members, has a negative coefficient of -0.0782 and a p-value of 0.041 which is significant at 5% level of significance (P=0.041). This shows that educational qualification of board members has negative and significant effect on discretionary loan loss provision; and thus, improves earnings quality of the listed deposit money banks in Nigeria. The study, therefore, rejects hypothesis H_{05}.

The result suggests that the presence of members in the board who have expertise knowledge in accounting and finance will not only enhance the board's monitoring ability in discovering earnings management where it has occurred, but also serve as a deterrent to management in earnings manipulation practices. Thus education (expertise in accounting and finance) is a strategic resource for the firm as it equips the board with the appropriate competence for monitoring corporate financial reporting. The finding is in line with prior empirical findings by Bala and Kumai [29] who found that expertise of the board members reduces earnings management and thus increases earnings quality; but inconsistent with Hemathilake, et al [118] who found that board financial expertise does not improve earnings quality.

Board Diversity Index Model

Ho_6: The joint effect of board diversity attributes (board independence, director block-shareholding, board gender, age of board members, educational qualification of board members) does not improve the earnings quality of listed deposit money banks in Nigeria. The result of model 2 shows that board diversity combined (BDCB) index has a negative coefficient of -0.0003 and a statistically significant p-value of 0.020 at 5% level of significance; indicating that the combined effect of the board diversity variables improved earnings quality by lowering earnings management practices in the sampled banks. Hence, the study rejects hypothesis H_{06}.

Thus, overall board diversity is associated with reduced earnings management, and by implication, high earnings quality. It further implies that when the board has a good mix of the diversity attributes of board independence, director block shareholding, board gender, age diversity, and educational background, it will enhance its oversight and monitoring functions in improving the earnings quality of listed deposit money banks in Nigeria. The finding is in line with the work of Hoang et al [28] which reported that statutory board diversity attributes combine to jointly improve the earnings quality of listed non-financial firms in Vietnam. On the contrary however, this study differs from Hoang et al [28] who found that the combined effect of demographic board diversity attributes does not improve the earnings quality of the firms. In that respect, this work further differs from Hoang et al [28] by testing the joint effect of both the statutory and demographic attributes of board diversity in a typical unitary (sole) board governance system which Nigeria practices. Hoang [28] did not test the joint effect of both the statutory and demographic attributes of board diversity on earnings quality and did not state the type of board system Vietnam practices. The present finding supports the argument in literature that in a unitary (sole) board system, a good mix of the board diversity attributes combine to jointly influence board functions in producing results [40,44]. This might be different in the dual (two-tier) board system where the monitoring and resource provision roles are separated. The finding seems to reconcile the mixed results of testing the individual effects of the board diversity attributes on earnings quality and provides answer to the general objective of this study, which is to find out whether board diversity improves the earnings quality of listed deposit money banks in Nigeria.

5. Conclusion and Recommendations

From Model 1, the study found that board independence significantly reduced DLLP of the sampled banks in Nigeria. Based on that, the study concludes that board independence improves the earnings quality of listed deposit money banks in Nigeria. Secondly, the study found that block-shareholding by board directors decreased discretional loan loss provision of the sampled banks. The study, therefore, concludes that board block-shareholding improves the earnings quality of the listed deposit money banks in Nigeria. Thirdly, the results of model 1 show that the proportion of female board gender negatively and significantly influenced discretionary loan loss provision in the sampled banks. Hence, the study concludes that the presence of female directors in the board improves the earnings quality of listed deposit money banks in Nigeria.

In addition, the study found that young directors had negative and insignificant influence on DLLP of the listed banks, showing that their presence in the board insignificantly reduced earnings management in the banks. The study concludes that the presence of young directors in the board insignificantly improves earnings quality of listed deposit money banks in Nigeria. The result may likely be significant when combined with other attributes such as expertise. Further, the study found that Educational qualification of board members in accounting and/or finance had a negative and significant effect on DLLP. Therefore, the study concludes that a diversified board with a good number of members with expertise knowledge in accounting and/or finance enhances the earnings quality of listed deposit money banks in Nigeria. Finally, on the combined effect model, the results show that the joint effect of the statutory board diversity attributes (board independence, director block shareholding) and the demographic board diversity attributes (board gender, age of board members, expertise knowledge of board members in accounting and/or finance) on DLLP was negative and significant. This shows that the board diversity attributes jointly function to reduce earnings management practices in the sampled banks. The study, therefore, concludes that the joint effect of board diversity attributes improves the earnings quality of listed deposit money banks in Nigeria.

In line with the findings and the conclusions of this study, the following recommendations are made on how board diversity can be improved to ensure high earnings quality in the listed deposit money banks in Nigeria. With regard to board independence, the study recommends that appointment of independent directors to the boards of the listed deposit money banks in Nigeria should always give regard to such qualities that will enhance the board's ability to monitor management's earnings management practices. Such qualities include relevant educational background and knowledge which improve board monitoring effectiveness in enhancing earnings quality. In addition, importance should be attached to strict monitoring of the banks to ensure compliance with the regulatory minimum representation of independent directors in the board.

The study also recommends that necessary regulations should come up to ensure a good representation of block-shareholders on the boards of the listed deposit money banks in Nigeria. This is because they have the incentive to show more commitment to board functions than other board members and thus, aligning their interest with that of other shareholders in ensuring effective monitoring by the board to enhance earnings quality. On board gender diversity, the study recommends regulatory enforcement of quota for women representation on the boards of listed deposit money banks in Nigeria as is already the practice in some countries. Consideration should be given with regard to expertise and experience when making such appointments so to enhance women contribution to board control and monitoring effectiveness in ensuring high earnings quality.

In appointing young directors to the board, consideration should be directed towards appointing those with the requisite knowledge in accounting and finance. This is because they possess the physical and mental stamina to carry out the active responsibilities of the board, which monitoring to checkmate discretionary behaviours of management requires. The study recommends that special attention should be given to expertise in accounting and finance knowledge when making appointments to the board such that the board would be well equipped to effectively monitor discretionary behaviours of management. This aspect of diversity should be linked with the age diversity of appointing young directors to the board because coupled with expertise knowledge in accounting and finance, such young directors possess the right combination of qualities which holds the benefit of sharpening the boards monitoring capabilities in ensuring high earnings quality of listed deposit money banks in Nigeria.

In line with the findings on the combined board diversity effect, the study recommends that appointments to boards of banks should align with corporate governance code demands on board diversity best practices, as this will be conducive for the delivery of an optimal joint effect of the board diversity attributes on earnings quality in a typical unitary (sole) board system setting which obtains in Nigeria.

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