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BOARD ELEMENTS AS A PREDICTOR TO FINANCIAL PERFORMANCE OF LISTED AGRICULTURAL FIRMS IN NIGERIA

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ABSTRACT

The wrong mentality of conflict of interest and having too much control or pocketing the shareholders and directors of a firm is causing serious problems in a firm and this has lead to business failures. The board impairment, gender diversity and conflicting laws arising from the nature or structure of ownership are other causes of failures in board characteristics. Thus, this study investigated the effect of board characteristics on financial performance of listed agricultural firms in Nigeria. Three proxy of board characteristics (Board size, Board Independence and Board Gender Diversity) and two measures of financial performance which include Return on Asset (ROA) and Return on Equity (ROE). These dimensions and measures were used to formulate six specific objectives, research questions and hypotheses. The study adopted an ex-post facto research design. The population of the study was 5 listed agricultural firms in Nigeria. Census sampling technique was used and considered all 5 listed agricultural firms. This study employed secondary sourced which covered a period of 10 years from 2012-2021. This study adopted descriptive statistics, Unit Root Test and Multiple Regression method of data analysis. The study result indicated board size has an insignificant effect with return on assets and return on equity; board independence has an insignificant effect with return on assets; board independence has a significant effect with return on equity, board gender diversity has significant effect with return on assets; board gender diversity has no significant effect with return on equity. Based on the findings, this study concludes that there is an insignificant effect of board characteristics on financial performance of listed agricultural firms in Nigeria. The study carefully recommends that listed firms in Nigeria should consider highly the need to admit more female board members to balance up the ratio of gender diversity. This will not only give credence to the contemporary propagation of gender equality but having more female members who are resourceful in risk evaluation will serve as a check to the possibility of bankruptcy and improve profitability.

Keywords: Board Characteristics, Board Size, Board Independence, Board Gender Diversity, Financial Performance

INTRODUCTION

The concept of the board is derived from the attributes or incentives variable that plays a significant role in monitoring and controlling managers and can be described as a bridge between company management and shareholders (Oyedokun. 2019). To understand the role of the board, it should be recognized that boards consist of a team of individuals, who combine their competencies and capabilities that collectively represent the pool of social capital for their firm that is contributed towards executing the governance function (Westphal, 2001). Board characteristics refer to features of corporate boards that are tasked with overall management of the firm. The success or collapse of firms is associated with the role acted by the management and firm governance as a process. In this paper, the characteristics of board of directors that were studied include board size, independence and gender diversity (Fakile & Adigbole, 2019).

In some other cases, the owners and managers of a firm, engage in an act to satisfy their personal interest to the detriment and overall wellbeing of the affected firm. According to (Ponnu 2008) weak business culture and poor corporate governance are capable of creating incentives for appointment of wrong and dubious people into companies' boards.

However, despite the apparent positive effects of board characteristics on the financial performance of companies, there is still a high degree of opacity concerning the effect of the characteristics on financial performance. For instance, the study by Orozco et al (2018) indicates that there is a positive relationship between board size and financial performance. However, Topal and Dogan (2014) argued that the relationship between board size and financial performance is negative. The same is the case for board diversity. Ombaba (2016) indicated that board diversity was instrumental in improving a company's ROA. However, Kilic (2015) opined that board diversity (particularly gender diversity) did not have any significant influence on financial performance. Accordingly, these, discrepancies in research findings curtail organization's ability to affect the relationships positively. In the light of the foregoing, it became empirically evident that earlier studies were generally focused on either deposit money banks, insurance firms both foreign and local, or rural banks in the country, which gave rise to a research gap in the context of assessing the phenomena of board characteristics and financial performance of listed agricultural firms in Nigeria.

Conceptual Framework

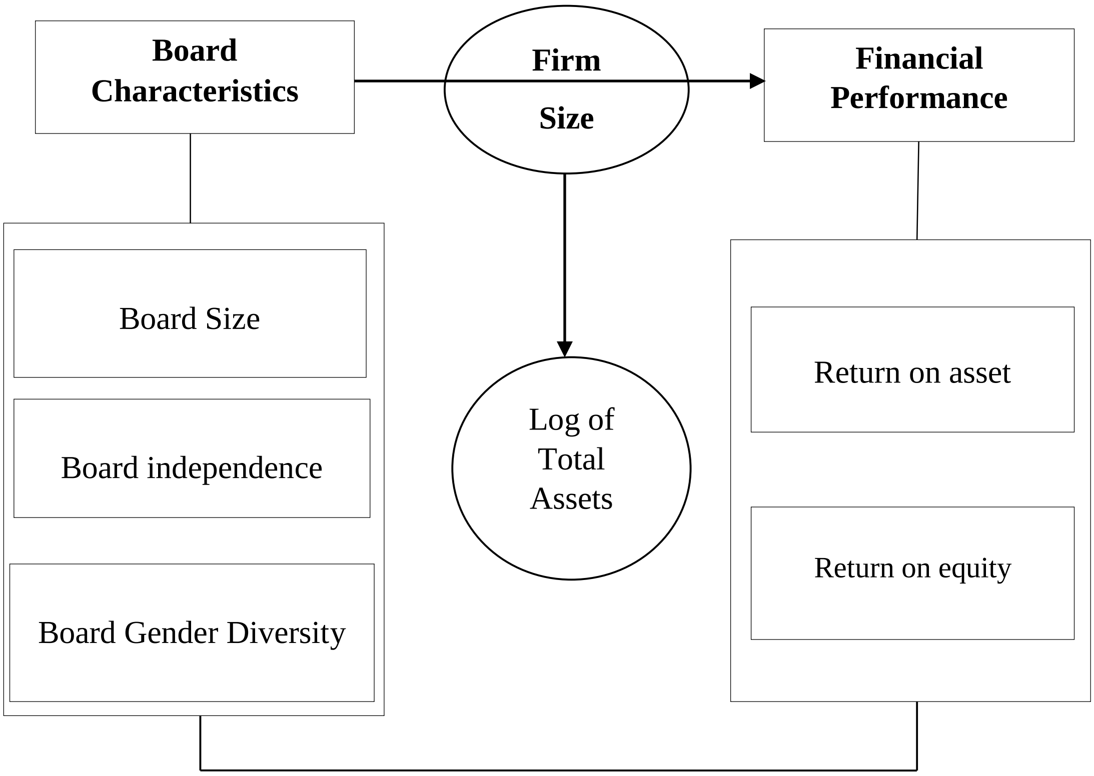

Figure 1.1 Conceptual framework of board characteristics and financial performance
Sources Fakile and Adigbole (2019), Abubakar et al (2021) and Abimbola et al (2022)

Board Size and Financial Performance
This is the number of directors that make up the board. It is argued that large board creates room for diversity in skills that can positively impact on the performance of the firm. Large board have access to wide-ranging information that is of benefit to the firm. Through establishment of committees, they delegate workloads thereby achieving efficiency (Ilaboya & Obaretin, 2015). Naimah and Hamidah (2017) suggested no association between board size and firm performance.

Adusei (2011) investigated the effect, in a panel regression model, of Board Size on ROE and found that Board Size has a negative effect on ROE. Sarkar and Sarkar (2018) study showed a positive relationship between board size and financial performance. On the contrary, it is argued that large board size can mean high remunerations to board members, which could impact negatively on performance (Ghabayen, 2012). Decision making process is sluggish and valuable time is wasted for a large board size. When board size is beyond the acceptable level of five (5), directors are likely to dwell more on trivialities thereby prolonging decision-making. These studies suggest there is significant relationship between board size and firm performance (Akpan & Amran, 2014; Kakanda et al, 2017; Onyali & Okerekeoti, 2018). While Rahman and Razali (2019), Yassin (2021), Oyedokun (2019) and Nwanne and Okonknwo (2019) found an insignificant effect of board on performance.

Board Independence and Financial Performance

Numerous empirical studies investigated the relationship between board independence and performance. Some studies revealed positive, negative and no relationship between board independence and financial performance. Huang (2010) concluded that independent directors act as a monitoring mechanism that ensures companies are properly managed by corporate image and performance. A study conducted on a sampled US firms be Zhang, Zhu and Dung (2013) claims that independent directors have more dives background and represent external stakeholders of companies. As such, they have a stronger orientation towards better operation strategies than their counter parts in the boardroom studies Sharif and Rashid (2014), Kaur et al; between board independence and improved corporate performance. Altuwaijri and Kalyanaraman (2016), Dong et al (2017), Ahmed and Hamdan, 2015; Buallay et al., 2017; Khalifa et al., 2020) investigation showed a positive i nfluence between board independence and firm performance of non-financial listed companies. Also Dong et al (2017) found a positive association between board independence and financial performance. Also some studies reveal a significant relationship between board independence and firm performance (Emeka-Nwokeji & Agubata, 2019; Naseem et al, 2017; Salem et al, 2019; Kanakriyah, 2021; Bekiaris, 2021). While other studies averred an insignificant relationship (Akpan & Amran, 2014; Rashid, 2017; Rashid & Pervin, 2019; Rahman & Razali, 2019; Yassin, 2021).

Board Gender Diversity and Financial Performance

There are different empirical studies that investigated the relationship between gender diversity and financial performance. Some studies revealed positive, negative and no relationship between gender diversity and financial performance. Parrotta and Smith (2013) investigated Danish firms from 1997 to 2007 and disclosed that female board members positively influence return on equity (ROE). Naimah and Hamidah (2017) also suggest a significant positive relationship between females on the board and performance of listed firms in Vietnam. Bøhren and Strøm (2010) study disclosed a high significant negative association between gender diversity and firm performance using Tobin's Q, ROA and market return on stock. Meanwhile, Alvarado *et al.* (2011), Darmadi (2011) investigation showed no significant relationship between gender diversity and firm performance. Christiansen et al (2016) also revealed a positive relationship between gender diversity and firm performance in a large sample of European companies. In the Pakistani perspective, Zahoor (2016) noted a positive relationship between gender diversity and firm performance.

Tarigan et al (2018) found a positive relationship between one element of board diversity and financial performance. In their study, the three authors reviewed the impact of gender, national, and educational diversity on the financial performance of firms listed in Indonesia. Accordingly, their study showed that that national diversity promoted increased financial outcomes while education and gender had the opposite effect. Regarding gender diversity, there is a contradiction between various scholars' findings. In their study, Earley and Mosakowski (2015) noted that women are considered to have cognitive styles that incline towards their feelings, which enhances their focus on harmony and the ability to facilitate dissemination of information. Similarly, Adusei et al (2017) argued that microfinance institutions with boards that have female directors report better financial results. However, the two authors also cautioned that boards that constitute 50% or more female directors had a negative effect on financial performance. However, other studies such as Kilic (2015) and Wang (2020) indicate the lack of a significant relationship between gender diversity and financial performance. According to Kilic (2015), there is a negative relationship between gender diversity and financial performance. In their study, the authors noted that the inclusion of women in boards is based on an ethical and economic perspective rather than financial performance. However, their general conclusion is that diversity in the composition of boards influences financial performance significantly. Wang (2020) also found that gender diversity did not have any positive impact on financial performance. Accordingly, there is a need for more elaborate studies concerning the effect of gender diversity and financial performance to define the actual relationship.

Empirical Review

Collin (2021) examined the relationship between board characteristics and financial performance of insurance firms in Kenya from 2013 – 2018. The data were collected from SI insurance firm that were licensed to operate in Kenya as of 31 December, 2018. The study employed regression analysis in analyzing its data and found out that board composition negatively and significantly affects financial performance. The result also showed that board diversity positively and significantly affects financial performance. The findings also showed that board independence positively and significantly affects financial performance. The result also indicated that board size negatively and significantly affects financial performance.

Mukesh and Rajat (2021) examined the relationship between board characteristics and financial performance of the Indian textile firms. The variables board size and board independence represent the board characteristics. 40 samples were used representing the top 100 BSE – listed textile firms from 2015 – 2019. The study employed the panel data regression model in analyzing the data. The study used Accounting and market-based financial measures. It found out that board size had a significant positive relationship while board independence have a significant inverse relationship with the firm's financial performance.

Isaac et al (2021) carried out a research on corporate governance and financial performance of insurance firms in Kenya, using regression analysis to analyze his data and find out that board diversity positively and significantly affects financial performance of firms. This implied that firms with a bigger ratio of professional directors perform better than the firms with less proportion of professional directors to the board. Firms should engage more professional directors in order to provide provisional guidance and enhance financial performance.

Pasquate (2021) carried out a research on the characteristics of boards of directors and the performance of insurance companies. The study used a dynamic pooled regression model to test the impact of a wide range of board specific factors. The survey was conducted on a sample of 119 listed insurance companies operating in the period 2009 – 2019. The sample includes companies from three geographical areas North America, Europe and Asia. He found out that board independence has a potential positive impact on insurer's market performance. The findings indirectly shows the opportunity for insurance companies to improve corporate fair value by strengthening internal governance model through effective board policies, an adequate qualification of board members and a well balanced membership of the board.

Research Design

This study adopted Ex-post facto research design. This design seeks to identify antecedents of a present situation. In ex-post facto research design, the variable is not controlled or manipulated by the researcher, because it has already occurred in the past. The data involved are from the published annual reports of listed agricultural firms founded in the Nigerian Exchange Group.

Population for the Study

A population is seen as an entire group of individuals, events or objects that posses a similar characteristic. Target population is referred to as a computed set of individuals, cases or objects with some common observable characteristics of a particular nature that is distinct from other population. A population is a well-defined or set of people, services, elements, events group of things or households that are being investigated. This population insists that the population of interest is homogenous. The targeted population of this study consists of all the listed five (5) agricultural firms in the Nigerian Exchange Group (NGX) and the time frame considered for this study was 2012-2021 for the purpose of secondary data collection.

Table 3.1 Listed Agricultural Firms in the Nigeria Exchange Group.

S/N	Agricultural Firms
1.	Ellah Lakes Pc
2.	FTN coca processors Plc
3.	Livestock Feeds Plc
4.	Okomu Oil Plam Plc
5.	Preco Plc

Source *www.ngx.com.ng*

Sample and Sampling Technique

The sampling technique used in this study was census sampling technique. As the name implies, it is a sample chosen purely on the basis of convenience. Five (5) listed agricultural firms were chosen simply because as at the time of this research work and analysis. Only five agricultural firms that were listed in Nigerian Exchange Group formally known as Nigeria Stock Exchange.

Method of Data Collection

The study used secondary data for the analysis. Secondary data was collected from published annual reports of the selected sample size of listed agricultural firms in the Nigerian Exchange Group. The secondary data provided a reliable source of information required by the researcher to investigate the phenomenon and sort efficient methods for solving problems arising from situations.

Measurement of Study Variables

The desire for testing operations in research makes the measurement of variable necessary.
They essentially move the variables from theoretical, conceptual level to empirical level.

Board Characteristics (Independent Variable)

I. **Board Size (BS)** This refers to the total number of members that constitute the board of directors of an organization. But for purpose of this study, board size is extracted direct from the annual report

II. **Board Independence (BI)** This is the proportion of members of the board who are non-executive directors that influence board. Mathematically BI = Number of independent directors divided by total number of directors.

III. **Board Gender Diversity (BGD**) This explains the number of women on the board. But for purpose of this study, board gender diversity = total number of board members divided by total number female in the board.

Financial Performance (Dependent Variable)

1. **Return on Assets** is an indicator of how profitable a company is relative to its total assets

$$\text{Mathematically ROA} = \frac{\text{Profit before tax}}{\text{Total Assets}}$$

2. **Return on Equity (ROE)** Return on Equity is the measure of financial performance calculated by dividing net income by shareholders equity.

$$\text{Mathematically ROE} = \frac{\text{Profit After tax}}{\text{Total Equity}}$$

Method of data Analysis

This study adopted descriptive statistics, Correlation, Unit Root Test and Multiple Regression method of data analysis. Descriptive statistics was used to ascertain the central tendency of each of the variables of the study. Unit root test were to check the stationarity of the variables. Multiple Regressions was used to estimate the significant level between board characteristics measures and financial performance measures of listed agricultural firms in Nigeria.

Model Specification

The functional effect of the dependent variables on independent variables, the disturbance, co-efficient and intercepts for board characteristics and financial performance for the purpose of the research are stated below

ROA = f(BOS, BI BGD) equation 1a

ROE = f(BOS, BI BGD) equation 2a

This can be written in Ordinary Least Square (OLS) form as

$ROA_{it} = a_0 + a_1BOS_{it} + a_2BI_{it} + a_3BGD_{it} + e_{it}$ *Equity1b*

$ROE_{it} = a_0 + a_1BOS_{it} + a_2BI_{it} + a_3BGD_{it} + e_{it}$ *Equity2b*

ROA = Return on Asset as measure for financial performance

ROE = Return on Equity as measure for financial performance

BOS = Board Size as dimension for board characteristics

BGD = Board Gender Diversity as dimension for board characteristics

BI = Board Independence as dimension for board characteristics

BGD = Board Gender Diversity as dimension for board characteristics

a_0 = Constant Term

a_1………… a_3, $\eta 1$ …………η_3 and β_1..................... β_3 = Coefficient Terms

i = No of firms

t = Time Period ranging from 2012 – 2021 (10 years)

Decision Rule

Accept Ho_1 to Ho_7 for If P (Greater than) > 0.05. Otherwise reject.

The relationship is assumed to be linear if the correlation coefficient ranges from -1.0 (perfect negative correlation) to +1.0 (perfect positive relationship). The correlation coefficients were calculated to determine the strength of the relationship between independent and dependent variables.

For the coefficient values, the following interpretation scheme applied was stated below, (a) No Relationship = 0, (b) Low/Weak Relationship = 0.1-0.2, (c) Moderate or Relatively Strong Relationship = 0.3-0.5, (d) High/Strong Relationship = 0.6-0.7, (e) Very High/Very Strong Relationship = 0.8-0.9, (f) Perfect Relationship = 1

Summary of Findings

Summary of Hypotheses tested

S/N	Hypothesis	Prob. Value	Decision	Remark
1	The effect of board size on return on assets of listed agricultural firms in Nigeria is not significant.	0.215	Accepted	Insignificant

2	The effect of board size on return on equity of listed agricultural firms in Nigeria is not significant	0.155	Accepted	Insignificant
3	The effect of board independence on return on assets of listed agricultural firms in Nigeria is not significant	0.405	Accepted	Insignificant
4	The effect of board independence on return on equity of listed agricultural firms in Nigeria is not significant	0.019	Rejected	Significant
5	The effect of board gender diversity on return on assets of listed agricultural firms in Nigeria is not significant	0.188	Accepted	Insignificant
6	The effect of board gender diversity on return on equity of listed agricultural firms in Nigeria is not significant	0.000	Rejected	Significant
7	Firm size does not significantly control the relationship between board characteristics and financial performance of listed agricultural firms in Nigeria	0.944	Accepted	Insignificant

Source Complied by Researcher (2022)

Summary of Findings

The study determined the effect of board characteristics and financial performance of listed agricultural firms in Nigeria. The study specific objectives was to investigate the effect of board size (BS), board independence (BI) and board gender diversity (BGD) on return on asset (ROA) and return on equity (ROE). The study used two theories but it was anchored on stakeholders' theory. The study employed expos facto research design and secondary source of data collection which was obtained from Nigerian Exchange Group (NGX). The ordinary least square multiple regression was used in analyzing the data collected on the variables of the study from Nigerian Exchange Group. The study therefore summary are as follows;-

1. The effect of board size on return on assets of listed agricultural firms in Nigeria is not significant.
2. The effect of board size on return on equity of listed agricultural firms in Nigeria is not significant.
3. The effect of board independence on return on assets of listed agricultural firms in Nigeria is not significant.
4. The effect of board independence on return on equity of listed agricultural firms in Nigeria is significant.
5. The effect of board gender diversity on return on assets of listed agricultural firms in Nigeria is not significant.
6. The effect of board gender diversity on return on equity of listed agricultural firms in Nigeria is significant.
7. Firm size does not significantly control the relationship between board characteristics and financial performance of listed agricultural firms in Nigeria

CONCLUSIONS

This research work assessed board characteristics and financial performance of listed agricultural firms in Nigeria. In agreement with prior evidence from developed countries that show significant linkage between board characteristics and financial performance, our study concluded the following;

1. Board size has insignificant effect with return on assets of listed agricultural firms in Nigeria.
2. Board size has insignificant effect with return on equity of listed agricultural firms in Nigeria.

3. Board independence has insignificant effect with return on assets of listed agricultural firms in Nigeria.
4. Board independence has significant effect with return on equity of listed agricultural firms in Nigeria.
5. Board gender diversity has significant effect with return on assets of listed agricultural firms in Nigeria.
6. Board gender diversity has significant effect with return on equity of listed agricultural firms in Nigeria.
7. Firm size has insignificant effect on controlling the relationship between board characteristics and financial performance of listed agricultural firms in Nigeria

RECOMMENDATIONS

In consonance with this study's findings, it is recommended that

1. Listed firms in Nigeria should consider highly the need to admit more female board members to balance up the ratio of gender diversity. This will not only give credence to the contemporary propagation of gender equality but having more female members who are resourceful in risk evaluation will serve as a check to the possibility of bankruptcy and improve profitability.
2. In view of the significant effect of board independence return on equity. In this vein, the recommendation is that the indigenous agricultural firms should essentially consider appropriately increasing board independence of the firms as well as increasing shareholders proportion so as to enhance and improve on their financial performance.
3. Firms should admit board members that are resourceful. This will help the board have the required human resources to evaluate the best possible financing option vis a vis cost of capital and any agency issues that may arise from such investment decision.
4. To improve efficiency of the board of directors of listed agricultural firms. The non-executive directors should work alongside with the executive directors. It is therefore, recommended that the firms mostly in Nigeria should endeavour to increase the number of executive directors in their boards.
5. It is recommended that a corporate governance policy intervention should not only focus on corporate governance variables of the study but should also deliver wider consideration for other best practices of corporate governance in relation to board accountability and effectiveness as well as relations with shareholders.
6. Also, the board independence should be strengthening so that it can constantly perform oversight functions.
7. Listed firms should increase their assets and improve the scope of their operations in order to increase their size, since firm size positively and significantly contributes to their financial performance.

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