

## Board Characteristics and Firm Performance of Quoted Insurance Companies in Nigeria

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### Abstract

*The Nigeria Insurance Association (NIA) has attributed the continued poor performance of the Nigerian Insurance firms to, among other factors, weak corporate governance practices and lack of effective monitoring by the board of directors. This has increased the research attention towards the impact of different attributes and compositions of the board of directors on the performance of Nigerian Insurance companies. In that regards, this study therefore examines the effect of selected board characteristics on the performance of the insurance firms quoted on the Nigerian Exchange Group (NGX) for the period of 2012-2020. The study adopts correlational research design. It uses secondary data extracted from audited annual reports of the twenty-two (22) quoted insurance firms in Nigeria, which constitutes the sample size of the study. The study adopts a dual model approach by the use of two firm performance proxies, return on assets (ROA) and Tobin's Q, while introducing firm size and leverage as control variables. It analyses data collected using descriptive statistics, correlation matrix and random effect panel regression technique. The result of the first model shows that board size, independence, gender and nationality diversity have no significant on ROA. The outcome of the second model shows that board size has a significant negative impact on Tobin's q measure of performance, while board independence and gender diversity exert significant positive effects on the Tobin's q. In line with the findings, the study recommends, among others, that the insurance companies should reduce the number on their boards for effective performance. It also recommends the need for more female presence in the board together with more independent non-executive directors in order to engender effective monitoring of the management for sustainable performance and attainment of set organisational goals.*

**Keywords:** Board Characteristics, Firm Performance, Nigerian Exchange Group, Agency Theory.

### INTRODUCTION

Never before in the history of the world financial markets has there been so much interest in corporate governance. Beginning from the highly publicised collapse of Enron and WorldCom in the United States in the early 2000's, which coincided with the financial crisis that rocked the Nigerian financial sector in late 2000's, the issue of corporate governance has remained in the front-burner of different regulatory reforms (Benvolio & Ironkwe, 2022). Many scholars contend that weak corporate governance is one of the factors that contributed to the unexpected collapse of most highly rated companies around the world (Sanni, Enebi, & Kanwai, 2020). Studies from the United Nations

Industrial Development Organization's Investment and Technology Promotion Office in Nigeria show that only 20% of SMEs manage to survive in the Nigerian business environment, and this includes both financial and non-financial firms. The insurance industry forms an integral part of a country's financial sector and its benefits cannot be over-emphasized. The insurance firms play pivotal role in the growth of the financial sector as a whole, which ultimately contributes to the success of the economy (Dube, 2019). If the performance of this crucial sector is not sustainable, the consequences on the economy would be devastating. Insurance companies are important for both businesses and individuals as they indemnify losses and put them in the same positions as they were before the occurrence of the loss. In addition, insurers provide economic and social benefits in society such as mitigating the impact of losses, reduction in fear and uncertainty as well as employment creation. (di Biase & Onorato, 2021)

Board structure of an organization on the other hand is the Organization's core layer which is critical to the corporate survival and or otherwise of an organization. It is often referred to as board of directors (Al-Dahiyat et al., 2020). Board characteristics refer to features that can be used to measure the effectiveness and efficiency of corporate boards that are tasked with overall management of the firm. It is important to ensure good management system which is essential for good financial performance and have been widely recognized as an important corporate governance mechanism for aligning the interests of managers and all stakeholders to a firm. Effective board characteristics enhance the likelihood that owners of capital would be able to monitor the activities of the managers either directly through voting on crucial matters or indirectly. The size and the composition of the board play a pivotal role towards the achievement of the mandate of the board. In order to achieve this, emphasis must be placed on the existence of a competent board that contributes to the sustainability of the firm. Therefore, it is crucial to estimate the impact of board characteristics on financial performance.

Board size is seen as important factor that influences the monitoring and decision-making process thereby enhancing financial performance (Adekunle Maurice, 2014). It is also viewed as a proxy to measure a firm financial performance. The ability of the board to effectively monitor the top management and to mitigate the agency problems is greatly dependent on the board independence as the outside directors have absolutely no stake in the firm (Kalyanaraman & Altuwaijri, 2016). Ineffective corporate boards pose challenges to the performance of insurance firms.

Managing diversity is a big challenge for organizations, especially managing board gender diversity in organization. The worldwide diffusion of codes of good governance has raised awareness on the structure of firm's board of directors in order to protect shareholder's rights. Both endogenous factors such as increased internal efficiency of the firm and exogenous factors such as legitimization are two main theoretical explanations for diversity. This consequently leads to a key issue whether the diversity, especially in relation to gender, may stimulate the performance of the firm. The link between composition of the boards and firm performance has attracted massive research attention around the globe. The Nigerian case is deemed more crucial considering that developing nations are characterised by weak institutions. As such, studying the effects of corporate governance, which the board of directors are the cornerstones, on different organisational outcomes in Nigeria is expected to be highly relevant to a wide range of stakeholders, especially now that different foreign investors are beginning to pick interest in investing in Nigerian companies.

### **Statement of the Problem**

Despite the theoretical projections that the composition and characteristics of the board of directors play vital roles in determining firm performance, the empirical outcomes to that effect have been largely contradictory in literature. For example, while the recent studies of Usman et al. (2020) and

Benvolio and Ironkwe (2022) found that board size has negative and significant impact on firm performance, Mohammed and Kurawa (2021) and Sanni et al. (2020) found board size positive and statistically non-significant in influencing firm performance in Nigeria. Similarly, while Ilaboya and Ashakofe (2021) found a negative and insignificant relationship between board nationality diversity and firm performance; Ogboi and Anilobo, (2018) found it negative and statistically significant, both sampling the Nigerian banks.

Researchers, like Pucheta-Martínez and Gallego-Álvarez (2019), argue that the reasons for the lack of convergence in prior studies are methodological, such as due to heterogeneities among samples, measurements and country specifics. On that, it can be observed that majority of the recent Nigerian studies on the impact of board characteristics (see for example; Benvolio & Ironkwe, 2022; Onyekwerea & Babangida, 2022; Ilaboya & Ashakofe, 2021; Ogboi & Anilobo, 2018), mainly focus on the banking sub-sector, leaving out the Insurance sub-sector which constitutes close to 50% of the companies listed in the financial sector of the Nigerian Exchange Group (NGX). It is worth noting that since Nigeria's adoption of IFRS in 2012, the Insurance sub-sector has witnessed more delisting (including mergers and acquisitions) from the NGX (8) than the banking sub-sector (3), some of which were due to poor performances and regulatory infringements (see Appendix one).

Further survey of extant studies, especially those by Nigerian authors, shows the dominant use of financial-based measures of firm performance (majorly ROA and ROE), in relation to board of directors' characteristics. Although both ROA and ROE are germane performance indicators, recent studies (Ng, Lau, Tee & Lai, 2021) have argued that "ROE do not provide a detailed view of the firm performance" (p.2). In respect to that, recent studies (see for example Onyekwerea & Babangida, 2022, p.50; Nepal & Deb, 2021, p.2) recommend that the impact of board of directors should be evaluated beyond just financial performance to include other market-based performance measures like firm market value (such as Tobin's q, earnings per share, etc.), in a comparative analysis. The recently published work of Benvolio and Ironkwe (2022) aligned with the above recommendation by employing the market-based measure of performance but did not match it with a financial ratio measure in a comparative form, which is considered a gap in literature.

Consequently, there is need to understand how different board of directors' characteristics influence both financial and market-based performance measures in the Nigerian Insurance sub-sector, which is expected to be of interest to the stakeholders towards strengthening the firm's internal corporate governance practices. The recent study of Mohammed and Kurawa (2021) sampled the Nigerian Insurance companies but only employed the market-based measures of firm performance. To the best of the researcher's knowledge, not much is known about how different board attributes affect both financial and market performance of the Nigerian Insurance companies. In a bid to close this observed gap in literature, this study distinguishes itself by comparing the impact of selected board of directors' characteristics on two different categories of firm performance measures (Tobin's q and ROA) of listed Nigerian Insurance companies.

The main objective of this study is to examine the effect of board characteristics on firm performance of quoted insurance firms in Nigeria. However, the specific objectives are to; (i) Evaluate the effect of board size on the performance of quoted insurance firms in Nigeria; (ii) Determine the effect of board independence on the performance of quoted insurance firms in Nigeria; (iii) Identify the effect of board gender diversity on the performance of quoted insurance firms in Nigeria; and (iv) Ascertain the effect of board nationality diversity on the performance of quoted insurance firms in Nigeria.

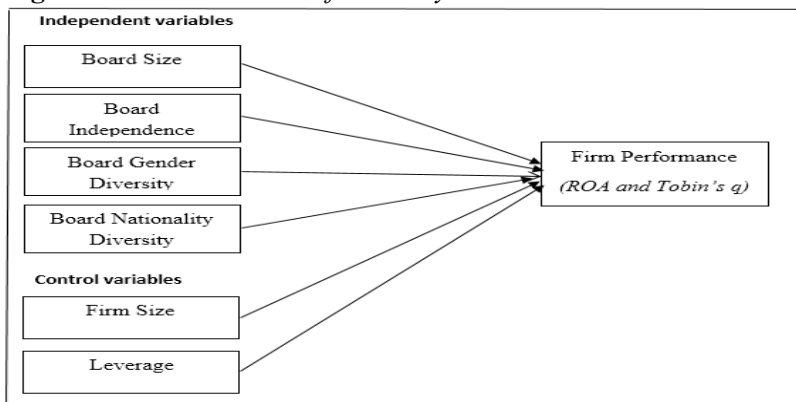
### **Research Hypotheses**

In line with the above objectives of the study, the following hypotheses are formulated in null form;

- H0<sub>1</sub>:** Board size has no significant effect on the performance of quoted insurance firms in Nigeria.  
**H0<sub>2</sub>:** Board independence has no significant effect on the performance of quoted insurance firms in Nigeria.  
**H0<sub>3</sub>:** Board gender diversity has no significant effect on the performance of quoted insurance firms in Nigeria.  
**H0<sub>4</sub>:** Board nationality diversity has no significant effect on the performance of quoted insurance firms in Nigeria.

### Conceptual Framework

**Figure 1:** *The Framework of the study*



Source: Modified from Alfuma et al (2020)

### Board Characteristics

Hafez (2017) defined boards as the internal governing mechanism that shapes firm governance, given their direct access to the two other aspects of the corporate governance triangle which are managers and shareholders. In addition, Parupalli et al, (2017) showed that the composition of board structure is an important component due to the presence of non-executive directors which represents a method of monitoring the actions of the executive directors and of ensuring that the executive directors pursue the firm's policies that are consistent with shareholders' interests. In effect, the board of directors is now seen as a target of blame for corporate misdeeds and also as a source capable of improving corporate governance. Much of the capacity in solving the excess power within firms has been assigned to the board of directors with a specific need for non-executive directors to help increase executive accountability.

Board characteristics refer to features that can be used to measure the effectiveness and efficiency of corporate boards that are tasked with overall management of the firm. It is important to ensure good management system which is essential for good financial performance and have been widely recognized as an important corporate governance mechanism for aligning the interests of managers and all stakeholders to a firm. Effective board characteristics enhance the likelihood that owners of capital would be able to monitor the activities of the managers either directly through voting on crucial matters or indirectly through the board of directors; which invariably would protect shareholders' investment (Yussoff et al, 2018). In this study, the characteristics of board of directors that were studied include board size, independence, gender diversity, and nationality diversity. Brief explanation about board characteristics is given below in order to improve understanding of the variables of interest to this study.

### **Board Size**

According to Onyali and Okerekeoti (2018), the board size represents the total head counts of directors seating on the corporate board of an organization. This definition above highlights the totality narrative being absolute number of persons appointed to serve on the board of a company. It refers to the complete composition of directors either executive, non-executive, independent or either male or female. Kripa and Dorina (2016) further defined board size from the effectiveness perspective and not only from the head counts. He defined board size as the number of people that make up corporate board and that determine how effective it discharges its fiduciary responsibilities. For the purpose of this study, board size can be defined as the total number of directors on the board of each sampled firm which is inclusive of the Chairman, the CEO or managing director, executive directors and non-executive directors (outside directors) in a given financial year.

### **Board Independence**

Birjandi (2015) agree that board independence is calculated as a proportion of outside directors to entire directors in the board. Sarra and Bannouri (2015) believe that boards with higher proportion promote efficient monitoring in the firm's management. Also, firms with higher ratio of non-executive board members have power to ensure compliance with the rules of legislative authorities and permits disclosure of financial position of the firm (Nancy et al, 2015). The management of firm requires board with strategic vision, for effective monitoring of their operation. Many scholars have emphasized on the importance of board independence in an organization (Eklund et al, 2009). For example, Nguyen and Nielsen (2010) investigate the contributions of independent directors to shareholder value and stressed that the degree of independence and board structure determine the marginal value of independent directors. They also posit that the level of independence of the board of directors determine how effective the board would be in exercising their monitoring functions on behalf of the shareholders. For the purpose of this study, board independence can be defined as the proportion of non-executive (outside) directors, that are not actively involved in the day-to-day running of the organisation, among the board of directors of a given firm in a given financial year. As such, the board is said to be highly independent if there are more independent non-executive directors that are not associated with the top executives of the firm.

### **Board Gender Diversity**

Gender diversity definitions stem from the presence of women on board to the visible density or percentage representation of women on the board of a corporate organization. Mandala et al. (2017) advocate that gender defines the femininity or masculinity of a person. However, most literature on gender diversity relates the concept to presence, representation and percentage of women on boards of corporations. Mandala et al, (2017), however, brought the equality consideration in the gender diversity narrative. Board gender diversity is the consideration of women and men as equal resources and the equality of both genders. Gender diversity in the workplace connotes the equal treatment and acceptance of both male and female employees in all organization's levels (Ninla, 2019). Board gender diversity is an important aspect of corporate governance and represents the presence of female directors on the board of directors of corporations (Carter et al, 2003). For the purpose of this study, board gender diversity is defined as the proportion of female representation in the board of the sampled Insurance companies in a given financial year. It is believed that women directors are more risk averse and consider a spectrum of stakeholders before making a decision (Onyekwerea & Babangida, 2022).

### **Board Nationality Diversity**

Board nationality is the existence of members of board from various nations in a corporate board. This is the ratio of foreign board members to total board size. It can also be seen as the proportion of foreign board members to the overall size of the board in an organization. The potential advantages of foreign board membership have received serious attention in corporate governance studies globally, (Corsi & Sant, 2015). Due to globalization, boundaries of business are increasing. Foreign investors are investing at a rapid pace for having shares in different industries across the globe but unfortunately current available literature regarding nationality diversity and firm performance is not enough in prevailing market conditions (Ogiriki, et al, 2018). Nationality diversity may increase the likelihood of cross-cultural communication problem and interpersonal conflicts (Suleiman, 2014). On the other hand, the presence of foreign nationals on the team is expected to confer competitive advantage on the firm in form of international networks, commitment to shareholder rights, and managerial entrenchment avoidance (Albaqali and Kukreja). For the purpose of this study, board nationality diversity is defined as the inclusion, usually by appointment, of foreign nationals among the board of directors of a given company. It is measured as the proportion of foreign directors among the board in a given financial year.

### **Firm Performance**

Firm performance is a broad and subjective terms used in describing how well a firm can deploy its wide range of assets in generating profit or revenue. A firm can be appraised in terms of both financial (accounting measures) and market performance. Vicent (2020) see financial performance in broader sense as the degree to which financial objectives is to be achieved. It measures results of firm's profitability and operations in monetary term, and overall financial health over a period of time. Hay (2019) defined financial performance as a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues. This term is also used as a general measure of firm's financial health over a given period of time, and can be used for comparison across industries. Obonyo (2017) viewed financial performance as an evaluation of profitability and financial strength of any business concern. Financial performance is measuring the results of firm's policies and operations in monetary terms, these results are reflected in the firm's return on investment, assets, (Okaro, 2015). Financial performance refers to the measurement of the company's policies, activities and operational results in financial terms. These results are reflected in the firms return on investment, assets, assets, capital employed and profitability (Osiregbmhe, 2017).

For the purpose of this study, firm performance can be generally defined as a measure of the extent to which a firm uses its assets to run the business activities to earn revenues and to maintain a competitive market value. Going by this definition, a firm's performance can be appraised using either accounting-based measures (such as financial ratios) or market-based measures (such as share price, EPS, Tobin's q, etc.). In line with Fariha, et al, (2022), this study employs both the accounting measure of performance (using return on assets) and the market-based measure of firm performance (using Tobin's q) in order to determine which is more affected by the different compositions of the board in the Insurance sub-sector.

### **Theoretical Review**

#### **Agency Theory**

Jensen and Meckling (1976) propounded the theory which was used to explain the assumption that there is a separation between the management of an Organization and its ownership. The theory sees the owners of a firm as its principals and the management as its agent. Jensen and Meckling (1976) define the agency relationship in terms of "a contract under which one or more persons the

principal(s) engage another person (the agent) to perform some service on their behalf which involves delegating some decision-making authority to the agent". Agency theory supports the delegation and the concentration of control in the board of directors and use of compensation incentives. Conflict of interest is bound to exist where the agents act to maximize their own interests than that of principal or shareholders thereby creating agency problem. The agency theory assumes that both the principal and the agent are motivated by self-interest. The narrow behavioural assumption of self-interest, as the focus of the agency theory, is its greatest weakness. The fact that agency theory focuses only on self-interested and opportunistic human behaviour means that the theory ignores a wider range of human motives.

This study is anchored on the agency theory. This theory is relevant to this study because the monitoring and supervisory roles of the board of directors, in the first place, is occasioned by the separation of ownership and control that characterize modern corporations (that is, the agency relationship). In such principal/agent relationship, the management of the company (as agents) oversees the affairs of the company on behalf of the shareholders (as the principals). Thus, without with strong and effective corporate governance, there are chances that the agent would act to maximize their own interest at the expense of the principals – which creates agency problem. As such, all the board of director variables selected for the study and their projected associations with firm performance can be explained by the agency theory. This is so because with strong board oversights, through good compositions, the interest of the shareholders (that is, wealth maximization or profit making) can be prioritised over managerial opportunism.

### **Empirical Review**

Several studies have been conducted on board characteristics and firm performance both in developed and developing countries. However, a large chunk of the prior related studies, particularly those by Nigerian authors, are filled with conflicting outcomes. For example, the recent study by Sanni, (2020) examined the impact of board of directors attributes and risk management on the performance of listed Insurance companies in Nigeria between 2012 and 2017 (6 financial years). They sampled a total of twenty-six (26) Insurance firms out of a population of thirty (30). They employed the panel GLS regression method and measured financial performance using a single proxy of return on assets (ROA). The result showed that board size and board independence have positive impacts on ROA, but only board independence is statistically (howbeit, weakly) significant at 10% levels. They recommend that Insurance firms should “offer adequate diversification of insurance policy portfolio to have better premium earning that can compensate other loss when it’s occurred” (p.76). One major defect of their study is that their recommendations were not based on the findings on the board characteristics they selected.

Another recent study by Mohammed and Kurawa (2021) also investigated how board attributes influence the value of listed insurance companies in Nigeria. They relied on a secondary data of fifteen (15) insurance firms (out of twenty-seven) from 2009-2018 (10 financial years). Distinctive from the study of Sanni. (2020), they made use of dual market performance measures of market price per share and Tobin’s Q. Using the panel regression technique, their result showed that while board size has an inverse significant relationship with firm value, board gender diversity has non-significant negative impact on firm value. They recommend that “investors should pay more attention to companies with high number of directors, as provided in the NAICOM code of corporate governance” (p.7). There is an observable conflict between their result and their recommendation because the significant negative impact of board size means that the lower the board, the higher the firm value proxies, while their recommendation advocated for higher board sizes. Their result also negates that of Sanni et al. (2020) which found that higher board sizes increase performance, and

both sampled the Insurance companies apiece. The conflicting evidence buttresses the need for further studies.

Further, Owolabi et al. (2021) also studies the impact of board diversity on the performance of ten (10) quoted manufacturing companies in Nigeria (2010-2019). They measured performance using the raw value of profit after tax (PAT) and included firm size as control variable. They used the panel regression methods and reported in their abstract that “board independence, board gender diversity, and board size have positive impacts on the after-tax profits of selected listed companies in Nigeria, but with little impact” (p.46). While their recommendation of the need for improvements in the level of diversity among the boards is considered in line with the result they reported, a look at the Table of their regression result suggests otherwise. This is so because, they ran and reported three regression models of pooled OLS, fixed and random effect models but the outcome of their Hausman test (with p-value of  $0.000 < 0.05$ ) suggests that the fixed effect model is the most preferred model. And going by the outcome of their fixed effect model, their actual result is that no significant relationship exists between the three board characteristics (size, independence and gender diversity) and firm performance (PAT), as only firm size was statistically significant at the 10% level. The reason for the non-significance of those variables could be as a result of the usage of PAT in raw form without log. Another reason for their poor result was the usage of only a sample size of 10 companies which amounted to just 100 firm-year observations.

A similar study by Usman et al. (2020) also examined the impact of board characteristics on the performance of 122 Nigerian listed non-financial companies for just two financial years of 2014 and 2015. They employed dual measures of firm performance with the usage of ROA and ROE in a dual model approach, while also using just two board attributes (size and independence) as independent variables. Using the panel regression method, they found that board independence has a positive and non-significant relationship with both ROA and ROE. On the other hand, board size has negative relationship with both ROA and ROE, but was only significant using the ROE measure and non-significant using the ROA as measure of performance. They recommend the need for more independent board members. It is worthy of note that no linear relationship was established in their first model which used the ROA proxy for performance and the reason for such poor result could be because they did not include any control variable in their study, like firm size, age and /or other firm-specific attributes like leverage.

A newer study by Benvolio and Ironkwe (2022) equally examined the impact of board compositions on firm performance but focused on the banking sub-sector. They claimed to have sampled a total of fourteen (14) quoted commercial banks in Nigeria for eleven (11) financial years of 2011 to 2021. They measure performance using market value of shares and used only two board composition (board size and board independence) variables as independent variables. Relying on the outcome of their fixed effect result, it shows that board size has a significant negative impact on firm value while board independence is positive and non-significant. They recommend a strong compliance with laid-down corporate governance principles of a higher proportion of independent directors. There are numerous ways to critique their study. Firstly, the number of listed commercial banks as at 2021 is thirteen (13) and not fourteen (14), as banks like Polaris is not listed on the Nigerian Exchange Group (NGX). Secondly, despite stating a wrong target population, one wonders where they got the data for 2021 because the banks have 90 days after year-end to release their audited reports meaning that the full 2021 financial reports of the Nigerian commercial banks are expected to be available from March 30<sup>th</sup> 2022. Thirdly, a look at their regression results showed they actually regressed 15 cross-sections for 10 periods (meaning 15 banks for 10 years) which is at variance with the wrong population and impossible time-frame (14 banks for 11 years) they claim to have studied.



Onyekwerea and Babangida (2022) also examined the impact of board diversity on firm performance of twelve (12) banks for five years (2015-2019). The selected three board composition variables of size, independence and gender diversity and also used two control variables of firm size and age. They adopted two proxies for firm performance; ROA and ROE. They employed the panel regression technique and found that board gender diversity has a significant positive impact both the two performance proxies, while board independence has a significant negative impact on both ROA and ROE. They recommend the need to increase the number of female directors and independent directors on the boards of banking institutions. Their recommendation concerning increasing the number of independent directors on the board is against the run of their results which shows that board independence reduced both ROA and ROE measures of performance in the context of their study which is at variance with theory.

Another study by Alfuma et al (2020) examined the impact of board cognitive diversity on firm performance. They focused on the listed consumer goods companies listed on the NGX from 2013-2018. They measured board cognitive diversity by educational level diversity, education background diversity, and professional member diversity; while performance was measured via financial performance (ROA) and market performance (Tobin's Q). This study considers board educational background to be related to board nationality diversity because foreign board members surely have different educational background to their Nigerian counterparts. The authors employed the panel regression technique and found that educational background diversity of the board has negative and significant impact on the market performance (Tobin's q) but has no significant impact on financial performance (ROA). They also found that board size (negative) and firm size (positive), which they employed as control variables, have no meaningful impacts on the two firm performance measures. The study recommends the inclusion of board members with diverse educational background in order to improve board effectiveness. This researcher has no critique to their result save for the usage of board size as a control variable instead on other firm-specific attributes.

Simionescu et al. (2021) investigate the influence of the board gender diversity on firms' accounting and market-based performance using a sample of Standard & Poor's 500 companies belonging to the information technology sector over 12 years. Using the pooled ordinary least squares (OLS) method, the outcomes provide evidence for a positive influence of women on corporate boards on both measures of company performance, except for the percentage of female executives in the case of return on assets (ROA). After estimating the fixed effects and random-effects through panel data, the findings show no statistically significant association among board gender diversity and ROA but a positive influence of the number and percentage of women on board on price-to-earnings ratio. Therefore, the empirical analyses do not lead to enough robust results to affirm that the presence of women on the board can definitely lead to better performance.

A study by Ilaboya and Ashakofe (2021) investigated the relationship between board diversity and firm performance in Nigeria. They sampled a total of 15 banks from 2010-2015 and utilised secondary data. They measure performance using ROA and used board size and firm size as control variables. Using both univariate and multivariate analysis techniques, they found a negative and non-significant relationship between board nationality diversity and firm performance. Their result also showed that gender diversity has inverse negative impact on firm performance meaning that higher women in the board reduces performance; while firm size is positive and non-significant. However, their recommendation for more women inclusion in the board tend to conflict with their result that women inclusion impacts negatively on performance.

Adigbole et al. (2019) examined the effect of board characteristics of financial performance of quoted Information Communication and Technology (ICT) companies in Nigeria for a period of five years from 2013 to 2017. Using return on asset (ROA) as measure of financial performance,

three board characteristics (board size, independence and gender diversity) were identified as possibly having effects on financial performance. Correlation and multiple least squares (OLS) regression were used to estimate the relationship between board characteristics and financial performance. Findings revealed that only board independence has significant effect on financial performance. The study recommends among other things that companies' board should be majorly dominated by independent directors and board size should be in line with corporate size and activities. This study's focus on the ICT sector means that it may likely not hold in the context of the Insurance sub-sector which is the focus of this study.

Ogboi et al. (2018) examined how corporate board diversity affects the performance of 14 listed DMBs in Nigeria for five years (2011-2015). They measure performance using a dual measure of accounting-based and market-based performance proxies (ROA and Tobin's q) and also controlled for leverage and firm age. They employed the fixed effect panel regression method and found that gender diversity and board composition (i.e. board independence) was positively related to financial performance (ROA), while ethnic diversity and foreign directorship have no significant on financial performance. Their results also revealed that ethnic diversity is positively related to market performance (Tobin's q), while board composition (i.e. board independence) and foreign directorship have negative influence on market performance. They also found that leverage is negative and non-significantly related to ROA, but significant on Tobin's q. Their recommendations were in two folds; promoting greater inclusion of female directors and discouraging the engagement of foreign directors. This study considers the research of just five years using 14 companies insufficient to recommend against the hiring of foreign nationals as directors in Nigerian listed companies

Okaro (2015) investigates the link between board independence and bank profitability in Nigeria. It adopts the size of bank board and directors' stake as proxies for corporate governance, with return on assets and return on assets as representations for financial performance. The research incorporates firm size as a controlled variable. The estimation technique of the Generalized Method of Moments was employed. Evidence from the research reveals that board size, directors' assets, and firm size substantially affect Nigerian banks' financial performance. Therefore, the study asserts that governance in business entities strongly affects their financial performance and recommends maintaining optimum board size to minimize boardroom conflicts. The study recommends that insurance companies should introduce mechanisms that reduce operational costs such as automated systems.

### **Gap in Literature**

In the light of the empirical review above, the following observations and gaps have been identified to be filled by this present study. Firstly, majority of the related researches by Nigerian authors on the relationship between board characteristics and firm performance have largely focused on manufacturing companies and the banking sub-sector (see for example: Alfuma et al., 2020; Usman et al., 2020; Benvolio & Ironkwe, 2022; Owolabi et al., 2021; Onyekwerea & Babangida, 2022; Ilaboya & Ashakofe, 2021; Ogboi & Anilolobo., 2018, among others), leaving out the Insurance sub-sector which constitutes a huge percentage of the listed firms in the financial service sector. The few studies among the log that sampled the Insurance firms (that is, Sanni, 2020); Mohammed & Kurawa, 2021) showed conflicting evidences amid methodological deficiencies and were conducted with old information considering the current year. For example, while Sanni, (2020) found that high board size increases financial performance, Mohammed and Kurawa (2021) found that high board size decreases market performance. Also, none of the prior studies focusing on the Insurance sub-sector considered the variable of board nationality diversity. Evidences from our preliminary data sourcing showed that majority of the Insurance companies have foreign nationals as part of the board of

directors. However, not much is known about their impact on both the financial and market performances of the Insurance companies. Thus, this study tends to fill these gaps in literature by investigating if there are relationships between the selected board characteristics (board size, board independence, board gender diversity, board nationality diversity) and the performance of quoted insurance companies in Nigeria using dual performance indicators of ROA (accounting-based performance proxy) and Tobin's q (market-based performance proxy).

## **METHODOLOGY**

The study adopted the correlation research design. The design is informed by the research paradigm which is the positivism approach. The target population of the study comprises the entire Insurance companies listed on the Nigeria Exchange Group (NGX). As at year ended 2020, there are a total of twenty-six (26) Insurance firms listed on the top-tier of the NGX (see Appendix two). Considering that the target population is not large, the study employs the census sampling technique since sampling the entire population improves data robustness and would be more useful for policy implication and generalisation purposes. However, four (4) of the companies (Standard Alliance Insurance plc, Staco Insurance plc, UNIC Diversified Holdings Plc and International Energy Insurance Plc) were inevitably excluded due to incomplete data for the nine-year period covered by the study. Thus, the final sample size of the study became twenty-two (22) Insurance companies quoted in NGX from 2012-2020 which amounted to 198 firm-year observations.

The financial data used for the study are secondary in nature and were hand-extracted from the audited annual reports of the sampled firms as deposited in the libraries of the NGX. Panel regression analysis was employed based on the fact that the study involves the use of both time series and cross-sectional data. The independent variables considered are Board size, board independence, board gender diversity and board nationality diversity. While the dependent variables are return on assets and Tobin's q. In line with prior studies (Owolabi et al., 2021; Onyekwerea & Babangida, 2022), two firm-specific attributes (firm size and leverage) were included as control variables as literature suggests that they both influence different organisational outcomes, especially firm performance.

The model is specified below as adapted from Alfuma et al (2020):

### **Model 1:**

$$ROA = \beta_0 + \beta_1 BDSZ_{i,t} + \beta_2 BDIN_{i,t} + \beta_3 BDGD_{i,t} + \beta_4 BDND_{i,t} + \beta_5 SIZE_{i,t} + \beta_6 LEV_{i,t} + \epsilon_{i,t} \dots (1)$$

### **Model 2:**

$$TOBINSQ = \beta_0 + \beta_1 BDSZ_{i,t} + \beta_2 BDIN_{i,t} + \beta_3 BDGD_{i,t} + \beta_4 BDND_{i,t} + \beta_5 SIZE_{i,t} + \beta_6 LEV_{i,t} + \epsilon_{i,t} \dots (2)$$

Where:

$\beta_0$  = represents the constant

$\beta_1, \beta_2 \dots$  and  $\beta_6$  = represents the parameters to be estimated

ROA = Return on assets (Financial performance proxy)

TOBINSQ = Firm value (Market performance proxy)

BDSZ = Board size

BDIN = Board independence

BDGD = Board gender diversity

BDND = Board nationality diversity

=Error term

t= time  
 i=individual firms

**Table 1: Variable Measurement and Description**

Variable	Description/Measure	Variable Type	Source	Apriori Expectation
ROA	Profit After Tax divided by Total Assets.	Dependent	Usman et al. (2020);Sanni et al. (2020)	-nil-
TOBINS Q	$\frac{\text{Market value} + \text{Total liabilities}}{\text{Total Assets}}$	Dependent	Alfuma et al (2020)	-nil-
BDSZ	Tota	Independent	Ilaboya and Ashakofe (2021)	Positive
BDIN	Proportion of non-executive directors to total board size.	Independent	Onyekwerea and Babangida (2022)	Positive
BDGD	Proportion of female board members on the board.	Independent	Albaqali and Kukreja (2020)	Negative
BDND	Proportion of foreign nationals on the board.	Independent	Onyekwerea and Babangida (2022)	Positive
SIZE	Natural lo of total assets	Control	Owolabi et al. (2021)	Positive
LEV	Total debt divided by total assets	Control	Ogboi et al. (2018)	Negative

Source: Researchers compilation (2021)

## Data Analysis and Results

In this section, data collected in the course of the study were presented and discussed. The hypothesis formulated for the study was also tested based on the regression results. The analysis was carried out using descriptive statistics, correlation matrix and some diagnostic tests.

**Table 2 Summary of Descriptive Statistics**

	ROA	TOBINSQ	BDSZ	BDIN	BDGD	BDND	SIZE	LEV
Mean	0.015787	0.971436	9.292929	0.599380	0.175277	0.094010	16.66085	0.669452
Maximum	0.432295	5.791371	19.00000	0.866667	0.666667	0.750000	19.30898	5.377735
Minimum	-0.69171	0.260705	4.000000	0.250000	0.000000	0.000000	14.32994	0.116094
Std. Dev.	0.103776	0.836416	2.653424	0.124897	0.133053	0.159585	0.917861	0.758341
Skewness	-2.95364	4.353454	0.741520	-0.60106	0.741206	2.304455	-0.03545	4.499412
Kurtosis	20.94069	22.47538	3.630542	3.190321	3.318266	7.943207	3.409606	24.56597
Jarque-Bera	2943.305	3754.581	21.42517	12.22086	18.96543	376.8381	1.425636	4505.078
Probability	0.000000	0.000000	0.000022	0.002220	0.000076	0.000000	0.490261	0.000000
Observations	198	198	198	198	198	198	198	198

Source: Output from EViews 10

Table 2: provides a summary of the descriptive statistics of the dependent and independent variables for the sampled quoted insurance firms. As observed, the ROA has a mean value of 0.0158 which represents a fairly good overall performance of the sampled firms in converting their assets into profit. It further implies for every 1 of assets owned by the sampled companies, they earn about 1.6k in profit on the average. The minimum and maximum values of -0.6917 and 0.432 are indications that while some of the sampled companies performing optimally, one of the companies among the sample incurred loss of about 69 for every 1 of their assets. However, the standard deviation of 0.104 is far from mean and shows show high variability across insurance firms. Similarly, the variable of Tobin's q has a mean value of 0.971 which can be approximated to the

value of 1.0 which means that, on the average, the market value of the sampled insurance firms reflected solely the recorded assets of the companies taken together. Also, the maximum value of 5.79 is an indication that the market value of one of the sampled companies is greater than the value of the company's recorded assets.

On the board of directors' characteristics, the variable of BDSZ indicates that the average board size of the sampled companies is 9 members, while one of the sampled companies have up to 19-member board and another has only 4 members constituting the board of the company. Similarly, the mean value of BDIN is an indication that the average proportion of non-executive directors in the board of the sampled firms is 60%, while some of the companies have to 87% of the board members as outside directors to the business. The least proportion of non-executive directors among the sample is 25% implying that none of the sampled firms have less than 25% of outside directors.

On the variable of board gender diversity (BDGD), the result showed that the average percentage of female board members among the sample is 17.5%. The minimum and maximum values suggest that one of the sampled companies have up to 67% of female representation in their board while some do not any female among the board of directors. Similarly, the mean value of BDND shows that the average proportion of foreign nationals among the board of the entire sampled companies is about 9.4%. The minimum and maximum values suggest the one of the sampled companies, within the periods studied (i.e. Prestige assurance in 2017), have up to 75% of foreign nationals among their board of directors while some others have no foreign board members within the 9-year period studied.

The control variable of firm size showed a mean value of 16.66 which represents the average logarithm of the total assets of the sample. The variable of LEV showed a mean value of 0.669 is less than one and suggests that the sampled insurance, on the average, have more assets than debt. The probability values of the Jargue-Bera statistics are all significant, save for that of SIZE, which is an indication that some variables are not normally distributed.

### Correlation Matrix

Table 3 and 4 below presents the results of the correlation matrix (representing models 1 and 2) in order to observe the associations among the variables and also check for signs of multicollinearity in the series.

**Table 3** *Correlation matrix (Model One)*

Correlation Probability	ROA	BDSZ	BDIN	BDGD	BDND	SIZE	LEV
ROA	1.000000 -----						
BDSZ	0.093453 0.1903	1.000000 -----					
BDIN	0.136437 0.055*	0.231908 0.001***	1.000000 -----				
BDGD	0.112142 0.1157	-0.093602 0.1896	-0.034939 0.6251	1.000000 -----			
BDND	0.075168 0.2926	0.168095 0.017**	0.287140 0.000***	-0.124953 0.079*	1.000000 -----		

SIZE	0.385166	0.026006	0.170553	0.059066	0.278616	1.000000	
	0.000***	0.7161	0.016**	0.4085	0.000***	-----	
LEV	-0.585633	-0.204047	-0.093672	-0.178805	-0.086397	-0.339899	1.000000
	0.000***	0.003***	0.1893	0.012**	0.2262	0.000***	-----

Source: EViews 10 NB: Asterisks denote statistical significance at the \*\*\*1%, \*\*5% & \*10% levels respectively.

From Table 3, the only the variables of board independence, firm and leverage variables have significant association with ROA. This implies that board independence and firm size move in the same direction with ROA, while leverage moves in opposite direction with the ROA. The highest absolute correlation coefficient is 0.586 and if far lower than the benchmark of 0.9 which would have been a sign of multicollinearity issue in line with Hair et al. (2014).

**Table 4** Correlation matrix (Model Two)

Correlation Probability	TOBINSQ	BDSZ	BDIN	BDGD	BDND	SIZE	LEV
TOBINSQ	1.000000						
	-----						
BDSZ	-0.210475	1.000000					
	0.003***	-----					
BDIN	0.149544	0.231908	1.000000				
	0.035**	0.001***	-----				
BDGD	-0.126169	-0.093602	-0.034939	1.000000			
	0.076*	0.1896	0.6251	-----			
BDND	-0.158579	0.168095	0.287140	-0.124953	1.000000		
	0.025**	0.017**	0.000***	0.079*	-----		
SIZE	0.471310	0.026006	0.170553	0.059066	0.278616	1.000000	
	0.000***	0.7161	0.016**	0.4085	0.000***	-----	
LEV	-0.867050	-0.204047	-0.093672	-0.178805	-0.086397	-0.339899	1.000000
	0.000***	0.003***	0.1893	0.011**	0.2262	0.000***	-----

Source: EViews 10 NB: Asterisks denote statistical significance at the \*\*\*1%, \*\*5% & \*10% levels respectively.

From Table 4, all the explanatory variables have significant associations with the Tobin's q measure of performance. As such, board independence and firm size move in same direction with the Tobin's q, while board size, leverage, gender and foreign director diversity move in opposite direction with Tobin's q. There is also no sign of multicollinearity issues among the variables since none of correlation coefficients are up to 0.9 based on Hair et al. (2014).

### Diagnostic Tests

**Table 5** Variance Inflation Factors (Models 1 and 2)

Model 1	Coefficient	Centered VIF	Model 2	Coefficient	Centered VIF
C	0.015461	NA	C	0.062142	NA
BDSZ	5.56E-06	1.134058	BDSZ	2.24E-05	1.134058
BDIN	0.002535	1.145300	BDIN	0.010191	1.145300
BDGD	0.002087	1.069781	BDGD	0.008388	1.069781
BDND	0.001621	1.195448	BDND	0.006515	1.195448
SIZE	5.08E-05	1.240139	SIZE	0.000204	1.240139
LEV	7.38E-05	1.228252	LEV	0.000296	1.228252

Source: EViews 10

From Table 5, the Variance Inflation Factors (VIF) tests for the two models were performed to further check for multicollinearity issues. As observed, the Centered VIF values of each of the variables are close to the value of '1' and far below the benchmark value of 10. This further confirms the absence of multicollinearity among the explanatory variables.

**Table 6** Results of the Heteroskedasticity, Serial Correlation and Ramsey Tests

	Heteroskedasticity Test:		Serial Correlation LM Test:		Ramsey RESET Test	
<b>Model 1</b>	F-statistic	1.8182	F-statistic	3.9986	t-statistic	0.0656
	Prob. F(4,193)	0.1269	Prob. F(2,189)	0.0199	Prob. F(1, 192)	0.9478
<b>Model 2</b>	F-statistic	1.7214	F-statistic	102.68	t-statistic	1.5418
	Prob. F(4,310)	0.0545	Prob. F(2,189)	0.0000	Prob. F(1, 192)	0.1248

Source: EViews 10

As observed from Table 6, the tests for heteroscedasticity or the constant variance assumption of the Ordinary Least Square estimator shows that the residuals of models one and two are homoskedastic because their p-value of 0.1269 and 0.0545 respectively are both greater than 5% ( $> 0.05$ ). Thus, the null hypotheses that the residuals are homoskedastic can be accepted. On the Breusch-Godfrey Lagrange Multiplier (LM) test for higher order autocorrelation in column two, the hypothesis of zero autocorrelation in the residuals cannot be rejected in both models as their p-values are both less than 5% which indicate some level of autocorrelations among the series. However, the presence of serial correlation does not affect the unbiasedness or consistency of OLS estimators. And lastly on the Ramsey reset tests of model specification which check for possible errors in the functional model misspecifications, both p-values of 0.94 and 0.12 are greater than 5% meaning that the tests could not sustain the null hypothesis of wrongly specified models.

### Multivariate Analysis

This sub-section presents the outcome of the panel regression models specified in the previous section. Based on the standard panel data procedure, the Hausman specification test was conducted in order to select the most appropriate model between the fixed and random effects techniques. The summarised result is shown in Table 7:

**Table 7. Result of the Hausman Tests**

Test Summary ( <i>Model 1</i> )	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	8.895672	6	0.1795
Test Summary ( <i>Model 2</i> )	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	21.431164	6	0.0515

Source: EViews 10

From Table 7, the null hypothesis that the random effect estimation is more consistent cannot be rejected since both p-values are greater than 5%. This confirms the appropriateness of the random effect estimation technique in drawing conclusions on the studied hypotheses.

**Table 8. Result of the Random Effect Regressions (Models 1 and 2)**

Dependent Variable: ROA				Dependent Variable: TOBINSQ			
Variable	Coefficient	t-Statistic	Prob.	Variable	Coefficient	t-Statistic	Prob.
C	-0.31892	-2.06716	0.0401	C	2.454681	11.73863	0.000
BDSZ	0.000676	0.260674	0.7946	BDSZ	-0.00706	-1.91161	0.057*
BDIN	0.053398	0.95936	0.3386	BDIN	0.167129	1.743519	0.083*
BDGD	-0.01995	-0.39462	0.6936	BDGD	0.36522	3.638698	0.00***
BDND	-0.02351	-0.45298	0.6511	BDND	-0.17258	-0.63902	0.5237
SIZE	0.020893	2.3418	0.020**	SIZE	0.123117	7.345509	0.00***
LEV	-0.06869	-6.41881	0.00***	LEV	-0.82866	-14.1024	0.00***
<i>R-squared</i>	0.256981			<i>R-squared</i>	0.885942		
<i>Adjusted R<sup>2</sup></i>	0.23364			<i>Adjusted R<sup>2</sup></i>	0.882359		
<i>S.E. of regression</i>	0.078615			<i>S.E. of regression</i>	0.125991		
<i>F-statistic</i>	11.00988			<i>F-statistic</i>	247.2632		
<i>D-Watson stat</i>	1.766888			<i>D-Watson stat</i>	1.718762		
<i>Prob(F-statistic)</i>	0.00001***			<i>Prob(F-statistic)</i>	0.00001***		

**Source: EViews 10** NB: \*\*\*, \*\*, and \* denotes significant at 1%, 5% and 10% levels respectively

As shown in Table 8, model 2 has a higher predictive power (88.6%) than model 1 (25.7%). However, the overall p-value of both are jointly significant indicating a linear relationship. Taken together, only about 12% and 77% of the variables in Tobin's q and ROA respectively were not explained by the explanatory variables. Going by the individual contributions of the regressors, it can be observed that none of the independent variables are statistically significant in model one, save for the two control variables of SIZE and LEV. In model two however, all the explanatory variables, except BDND, were statically significant – and that also includes the two control variables which retained the same coefficient sign in the two separate models.

### Test of Hypotheses

The four (4) null hypotheses formulated in the course of this study were tested in this sub-section. The study used the probability values (*p*-values) as the benchmark and adopted the three typical values of test of significance, which are 1% (0.01), 5% (0.05) and 10% (0.1). The decision rule is to



accept  $H_0$  (null hypotheses) when the probability value exceeds the three typical significance test values of 0.01, 0.05 and 0.1 under the 2-tailed test, but if the probability value is less than all the three, we can reject  $H_0$ . Thus, relying on the outcomes of the random effect models as presented in Table 8, the summary of the hypotheses tests is presented in Table 9 below:

**Table 9. Summary of Hypotheses Test (Models 1 and 2)**

Hypotheses	Model 1 (ROA)	Decision	Model 2 (Tobin's Q)	Decision
<b>H<sub>0</sub> 1</b> No significant effect of board size on firm performance.	Positive, non-significant	Accept null	Negative, significant**	Reject null
<b>H<sub>0</sub> 2</b> No significant effect of board independence on firm performance.	Positive, non-significant	Accept null	Positive, significant**	Reject null
<b>H<sub>0</sub> 3</b> No significant effect of board gender diversity on firm performance.	Negative, Non-significant	Accept null	Positive, significant**	Reject null
<b>H<sub>0</sub> 4</b> No significant effect of board nationality diversity on firm performance.	Negative, Non-significant	Accept null	Negative, Non-significant	Accept null

Source: Researcher's compilation Where: \*\* = Significant relationships

The summary of hypotheses test in Table 9 shows that all the four null hypotheses cannot be rejected in model one (run using ROA as dependent), while three out of the four null hypotheses were established as statistically significant in model two (run using Tobin's q as dependent).

### Discussion of Findings

On the impact of board size on firm performance, the result of model one showed non-significant positive coefficient, while that of model two showed negative and significant (howbeit, at 10% level). Thus, hypothesis one is accepted in model one and rejected in model two. The positive coefficient obtained in model one tallies with our a priori expectation and supports the Resource Dependency Theory. However, the non-significant result, owing to the high p-value, is similar to the result of Owolabi et al. (2021) who equally found no significant impact of board size on PAT. On the other hand, the significant negative impact of board size on Tobin's q, as obtained in model two, supports the proponents of agency theory that argue that smaller board are more effective. The implication of the result is that higher board size reduces firm value, and vice versa. The result agrees with those of Usman et al. (2020); Benvolio and Ironkwe (2022). It also tallies with the result of Mohammed and Kurawa (2021) who equally sampled the Insurance sub-sector and equally measured performance using Tobin's q.

On the variable of board independence, the result of both models showed the expected positive coefficients but only that of model two passed the significance test at 10% levels. This implies that higher proportion of non-executive directors is associated with higher Tobin's q, and implicationally, high firm value and market performance. The result is in tandem with that of Sanni et al. (2020) which also found a positive and weakly-significant effect of board independence on the performance of Nigerian Insurance companies. It also supports Onyekwerea and Babangida (2022) which sampled the Nigerian banks. On the other hand, board independence asserts no significant impact on firm performance, using ROA as proxy. The non-significant result is similar to the result of Usman et al. (2020); Benvolio and Ironkwe (2022) but negates those of Adigbole et al. (2019) which also used same ROA as performance measure. The possible reason for this disparity could be attributed to sector-based heterogeneities since Adigbole et al. (2019) sampled the ICT sector which operates on a different regulatory environment compared to the Insurance sub-sector.

The result pertaining to the third hypothesis showed that the variable of board gender diversity retained the apriori expected negative coefficient sign in model one, although not

statistically significant, but showed a positive and significant sign in model two. The implication of this result is that Insurance companies with more females in their board are associated with higher firm value and/or market performance (Tobins q), but greater women presence (gender diversity) in the board does not affect financial performance in terms of ROA in the context of the Nigerian Insurance sub-sector. The non-significant negative effect of gender diversity on financial performance is similar to the result of Owolabi et al. (2021) which found same non-significant result using a sample of Nigerian manufacturing firms. It, however, negates those of Ilaboya and Ashakofe (2021) which found it negatively significant, but focused on DMBs. On the other hand, the outcome of gender diversity variable in model two supports the findings of Ogboi et al. (2018); Onyekwerea and Babangida (2022) which found that board gender diversity has significant positive impact on the performance of Nigerian banks.

The result of the four hypothesis was the same in both models one and two as both failed the significance test due to high p-values – leading to the acceptance of Ho<sub>4</sub>. The implication of this result is that the presence of foreigners among the board of the insurance companies has no meaningful impact on both the financial and market performances indicators of the firms. As such, foreign board directorship does not affect financial and market performances in terms of ROA and Tobin's q respectively. The result is similar to that of Alfuma et al (2020) which found that board nationality diversity has no significant impact on financial performance (ROA). It is also in tandem with the result of Ogboi et al. (2018) which showed that foreign directorship has no significant on financial performance (ROA) and has negative influence on market performance (Tobin's q). The obtained negative impact of board foreign directorship on performance, although not statistically significant, is at variance with our apriori expectation of a positive effect. The departure of the result from our expectation could be attributed to the observed low presence of foreign directors among the sample. Out of the 198 firm-year (balanced) observations, 112 were computed with zero figures (see raw data in appendix) as majority of the sampled companies has no single foreign director in dominate proportion of the periods studied. And lastly on the control variables of size and leverage, the result tallied with our expectation of a positive and negative relationships respectively. This implies that large Insurance firms are associated with higher performance, while highly leveraged insurance firms are associated with lower performance. Owolabi et al. (2021) and Ogboi et al. (2018) found same result.

### **Conclusion and Recommendations**

Based on the result of the data analysis and discussion, the study can conclude that the impact of board characteristics on the performance of listed insurance companies in Nigerian is more pronounced on market performance, than on financial performance. Thus, going by the outcome of the models, the study concludes that board size, board independence and board gender diversity are strong determinants of market-based performance of the Nigerian listed insurance companies, but not on financial performance by way of return on assets. Also, the variable of board nationality diversity was found non-significant in both models and can be considered as not of crucial importance in the context of this study. It can also be concluded that the size of a company and the level of debt to asset ratio are strong firm-specific attributes that impacts on both financial and market performance.

In line with the findings of this study, the study recommends that insurance firms in Nigeria should reduce the number on their boards for effective performance. It is further recommended that insurance firms should focus more on balancing board gender diversity characteristics as they contribute more to market performances, especially with respect to risk analysis (underwriting) as a basis for pricing and premium determination to avoid the common practice of price undercutting that

is prevalent in the markets, as this will translate to better quality service, reputation, enhanced business and better underwriting performance. More so, considering that board independence was found to increase market performance, the insurance firms are encouraged to appoint more independent directors who are not directly involved in the running of the business in order to boost their chances of attracting valuable policyholders from diverse group of stakeholders. The presence of more outside directors is also expected to increase the effectiveness of the monitoring of the executives towards strengthening the corporate governance of the listed insurance firms, as well as diverse strategic policy formulation towards maximising the shareholders' interests.

On the other hand, considering obtained the non-significance of board nationality variable in both models, the insurance firms should be cautious on the appointment of foreign directors and should only engage or retain those whose contributions are observable and germane towards achieving organisational goals. Finally, for further studies, considering the selected board characteristics appears not to exert any meaningful impact on the financial performance proxy, there is need for future researchers to examine the unobservable characteristics and cognitive attributes of the board of directors to see how they contribute to the variances in financial performance measures and indicators. That forms an avenue for further studies.

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