https://doi.org/10.48047/AFJBS.6.15.2024.3009-3026

African Journal of Biological Sciences

Journal homepage: http://www.afjbs.com

Research Paper Open Access

BOARD DIVERSITY AND EARNINGS MANAGEMENT OF LISTED INSURANCE FIRMS IN NIGERIA

(1) Gundu, Lucy Mngueshima (FCA), (2)Arumona, Jonah, O. (FCA)

(1) Department of Accounting, Bingham University, Karu, Nasarawa State

(2) Department of Accounting, Bingham University, Karu, Nasarawa State

(1) mngueshima@yahoo.com, (2)jonaharumona@yahoo.com

Volume 6, Issue 15, Sep 2024

Received: 15 July 2024

Accepted: 25 Aug 2024

Published: 05 Sep 2024

doi:10.48047/AFJBS.6.15.2024.3009-3026

Abstract - *Amidst escalating regulatory pressures and mounting stakeholder expectations, the complex correlation between the variety of board members and the methods of managing earnings in listed insurance firms in Nigeria emerges as a pivotal concern, casting a spotlight on the overarching issues surrounding financial transparency and governance integrity. Given the foregoing, this study investigates the impact of diverse boards on earnings management in listed insurance companies in Nigeria. To achieve these objectives longitudinal panel research design was employed, and the study utilized ten (10) listed insurance firms that had consistently published their audited annual financial reports from 2013 to 2022. Data analysis was done using panel multiple regression technique with the help of statistical tools (E-view 13). The result of the study revealed that board gender diversity exerts a significant effect on earnings management of insurance enterprises in Nigeria. Conversely, the study found that board nationality diversity had insignificant effect on earnings management of insurance firms in Nigeria. The study conclusively established that board gender, as a fundamental component of board diversity, plays a pivotal role in shaping the dynamics of earnings management within insurance firms operating in Nigeria. Therefore, the study recommends that listed insurance firms in Nigeria should actively promote gender diversity on their boards by recruiting and retaining more women directors. By prioritizing gender diversity, insurance firms can bolster board effectiveness, mitigate the risks of groupthink, and foster a more equitable representation at the leadership level, aligning with best practices in corporate governance and contributing to a more sustainable business environment in the Nigerian insurance sector.*

Keywords: ***Board Gender Diversity, Board National Diversity, Earnings Management and Discretionary Accruals***

I. INTRODUCTION

Earnings management practices, which can compromise the accuracy of financial reporting and erode investor trust, are a significant concern for stakeholders in the Nigerian market. Understanding the nexus between board diversity and earnings management in the unique context of quoted insurance enterprises is essential for policymakers, regulators, investors, and industry stakeholders. Such insights can inform efforts to strengthen governance frameworks, promote sustainable growth, and foster confidence in Nigeria's insurance sector, contributing to the broader discourse on corporate governance in emerging markets (Ogaluzor & Chukwu, 2022). In parallel, the nexus between diverse board and earnings management of quoted insurance firms in Nigeria is a critical area of inquiry within the context of corporate governance and financial integrity. As Nigeria's economy continues to evolve, governance practices, particularly within the insurance sector, are under increasing scrutiny to ensure transparency and accountability. Board diversity, encompassing gender, ethnicity, and professional background, is seen as a potential driver of governance effectiveness, influencing decision-making processes and organizational outcomes (Jepkemboi, 2017).

Ghazali *et al.,* (2019) suggests that diverse boards are associated with a wide range of benefits, including enhanced decision-making, innovation, risk management, and financial performance. Diverse perspectives and experiences among board members can lead to more robust discussions, a broader range of alternatives considered, and better-informed decisions. Moreover, boards that are composed of individuals from various backgrounds are more capable of comprehending and addressing the requirements and inclinations of a wide range of stakeholders, thereby enhancing organizational resilience and adaptability in an increasingly complex and globalized business environment.

Despite the potential benefits, achieving and maintaining board diversity poses numerous challenges for organizations, including resistance to change, unconscious bias, tokenism, and the pipeline problem. Resistance to diversity initiatives may stem from entrenched norms and cultural biases within organizations, as well as concerns about perceived trade-offs between diversity and meritocracy. Unconscious bias, which refers to implicit preferences and stereotypes that influence decision-making processes, can hinder efforts to attract, retain, and promote diverse talent within organizations. Additionally, the pipeline problem, whereby there is a limited pool of diverse candidates with requisite qualifications and experience for board positions, presents a significant barrier to achieving meaningful diversity in boardrooms. Thus, this research topic is motivated by the increasing recognition of the importance of having a diverse board in improving governance effectiveness and organizational performance, particularly within Nigeria's insurance industry, amid concerns about earnings manipulation techniques and the broader goal of fostering transparency and investor confidence in the evolving economic landscape of the country.

The study outlines its specific hypotheses as follows;

Ho_1: Board gender diversity has no discernible impact on discretionary accruals of listed insurance companies in Nigeria.

Ho_2: Board nationality diversity has no significant effect on discretionary accruals of quoted insurance enterprise in Nigeria.

II. LITERATURE REVIEW

Conceptual Framework

In order to provide a comprehensive grasp of the concerns of sustainability reporting and financial performance, the fundamental principles pertinent to this research are addressed in depth below. Examined are the topics of board diversity, board gender diversity, board nationality diversity, earnings management, discretionary accrual and board size.

Board Diversity

Board diversity according to Orajaka (2022) encompasses a range of demographic, cognitive,

and experiential characteristics among board members, including but not limited to gender, ethnicity, age, professional background, skills, and perspectives. While gender diversity has been a primary focus of diversity initiatives in many countries, broader definitions of diversity encompassing aspects such as race, ethnicity, nationality, sexual orientation, and disability have gained prominence in recent years. Additionally, cognitive variety include variations in cognitive processes, problem-solving methodologies, and decision-making modalities., has emerged as a key dimension of diversity that can enrich board deliberations and outcomes (Nwaorgu & Iormbagah, 2021).

Board Gender Diversity

Gender diversity refers to the representation of both men and women in various roles and positions within organizations, particularly in positions involving decision-making and leadership responsibilities such as corporate boards, executive management teams, and senior management positions (Luanglath & Mohannak, 2019). Gender inclusivity refers to the comprehensive inclusion and active engagement of individuals from both gender acknowledging the distinct viewpoints, experiences, and contributions that each gender offers. Gender diversity extends beyond mere numerical representation and encompasses the promotion of inclusivity, equity, and equality in the workplace. This creates an environment where individuals of all genders have equal opportunity for progress, recognition, and professional growth. Gender diversity on boards of directors has become a significant focus in corporate governance because of its potential influence on governance effectiveness, decision-making processes, and organisational success (Halliday et al., 2021). According to Glass and Cook (2018), having boards that include a varied range of genders is linked to several advantages, including as higher financial performance, better risk management, and more innovation and creativity. Furthermore, the importance of gender diversity is being increasingly acknowledged as a crucial aspect of corporate social responsibility and sustainable business practices, reflecting a commitment to diversity, inclusion, and gender equality in corporate governance and leadership. Efforts to promote gender diversity often involve implementing policies and initiatives aimed at overcoming barriers to women's advancement, such as unconscious bias, systemic discrimination, and structural barriers to career progression, thereby creating a more inclusive and equitable workplace for individuals of all genders (Wu *et al.,* 2022).

Board Nationality Diversity

Board nationalities variation pertains to the presence of directors from various countries or nationalities serving on a corporate board (Estélyi & Nisar, 2016). It encompasses the inclusion of individuals with diverse cultural backgrounds, experiences, and perspectives in governance and decision-making processes within organizations. Nationality diversity on boards is increasingly recognized as a valuable asset for companies operating in globalized markets, as it can enhance strategic decision-making, risk management, and stakeholder relations by incorporating a range of perspectives and insights from diverse cultural contexts (Harjoto *et al.,* 2019). This diversity extends beyond mere demographic representation to encompass the integration of varied cultural norms, values, and business practices into boardroom discussions and strategic deliberations. By fostering an environment of cultural openness and inclusivity, nationality-diverse boards can facilitate greater adaptability, innovation, and agility in response to changing market dynamics and geopolitical trends.

Moreover, nationality diversity on boards reflects a commitment to global talent development and diversity management, enabling companies to access a broader talent pool, mitigate groupthink, and enhance corporate reputation and legitimacy in an increasingly interconnected and multicultural business environment (Zaid, *et al.,*2020). Promoting nationality diversity

typically entails hiring directors who possess international backgrounds, fostering cross-cultural training and collaboration, and implementing policies that foster inclusivity and cultural sensitivity within boardrooms (Harjoto *et al.,* 2019).

Earnings Management

Earnings management refers to the deliberate manipulation of a company's financial results, often through accounting techniques, with the intent of influencing stakeholders' perceptions of the organization's performance or financial position. While some forms of earnings management may be legal and acceptable within the bounds of generally accepted accounting principles (GAAP), others may involve fraudulent activities or violations of accounting standards (Ahmad (2016). At its core, earnings management involves the strategic timing or manipulation of accounting entries to either increase reported earnings or smooth out fluctuations in financial results. This can be achieved through various means, such as adjusting accruals, recognizing revenue prematurely, deferring expenses, or engaging in aggressive accounting practices. The motivations behind earnings management can vary widely and may include meeting earnings targets set by management or analysts, boosting stock prices or market valuations, securing financing or credit, or enhancing executive compensation incentives tied to financial performance metrics.

Alzoubi (2019) asserted that while earnings management may provide short-term benefits or appear favorable to investors in the near term, it can have negative consequences in the long run. Excessive or deceptive earnings management can erode investor trust, distort financial markets, and undermine the integrity of financial reporting. According to Fali, *et al.,* (2019), it can lead to misallocation of resources, misjudgments by stakeholders, and ultimately, financial losses for investors. Regulators, auditors, and investors closely monitor financial statements for signs of earnings management. Various analytical techniques and statistical models, such as the Beneish M-Score or the Altman Z-Score, are employed to detect abnormal patterns or anomalies in financial data that may indicate potential manipulation. Ultimately, promoting transparency, integrity, and accountability in financial reporting is essential for fostering investor confidence and maintaining the efficiency and fairness of capital markets.

Discretionary Accrual (Dechow *et al.*, 1995) Model

The Discretionary Accrual Model, introduced by Dechow, Sloan, and Sweeney in 1995, aims to measure the extent of earnings management by identifying discretionary accruals in a company's financial statements. Discretionary accruals are adjustments made by management that are not directly tied to underlying business transactions and involve managerial discretion or judgment. The model focuses on estimating normal or predictable accruals, which represent the portion of accruals that can be attributed to the timing of cash flows or the recognition of revenues and expenses based on generally accepted accounting principles (GAAP). Any deviation from these normal accruals is considered discretionary and may indicate earnings management.

The discretionary accrual model typically involves regressing total accruals against various accounting measures that capture the economic fundamentals of the company, such as sales, assets, and changes in working capital (Dechow et al., 1995). The difference between the actual total accruals and the predicted or estimated accruals from the regression model represents discretionary accruals. By quantifying discretionary accruals, the model provides insights into the extent of earnings management and the quality of reported earnings. It serves as a tool for investors, analysts, and regulators to assess the reliability and integrity of financial statements and to detect potential signs of manipulation or fraud.

Board Size

Board size refers to the number of directors serving on a company's board, and it intersects with board diversity, which encompasses factors such as gender, ethnicity, age, and professional background among board members (Jepkemboi, 2017). The size of a board can significantly influences its effectiveness in overseeing management decisions and mitigating the risk of earnings management practices. A larger board may offer broader expertise and perspectives, potentially enhancing the board's ability to scrutinize financial reporting practices and detect instances of earnings manipulation. Conversely, an excessively large board may face challenges in coordination and decision-making efficiency, potentially impeding its effectiveness in corporate governance oversight (Ghazali, 2019).

According to Adegboyegun and Igbekoyi (2022), the interplay between board size and earnings manipulation in Nigerian insurance firms may be influenced by cultural, regulatory, and industry-specific factors. For instance, cultural norms regarding hierarchical structures and decision-making processes may shape the optimal size and composition of boards in Nigerian companies. Regulatory frameworks governing corporate governance practices and reporting standards may also influence the composition and responsibilities of boards in the insurance sector. Research into the interplay between board size, diversity, and earnings management in Nigerian insurance enterprise can provide valuable insights into the mechanisms promoting corporate governance procedures and ensuring the integrity of financial reporting in developing economies. By examining the impact of board characteristics on earnings quality and transparency, policymakers and industry stakeholders can develop strategies to enhance corporate governance standards and foster sustainable growth in the insurance sector.

Empirical Review

Ghofar (2024) investigated the effect of board diversity on enterprise risk management (ERM) in companies in the USA, China, and Indonesia using the enterprise risk management index (ERMI) to measure ERM. The study made us of panel regression analysis technique to analyze date from a sample of 629 companies during an observation period of 2011–2021. Different findings were uncovered in the 3 countries studied. In the USA, a country known for prominent individualism, overall gender diversity does not have a significant relationship with risk-management-related decision-making. In China, gender and cultural diversities negatively impact ERM. On the other hand, in the Indonesian context, skill diversity has no significant relationship with risk management, while tenure diversity has a negative effect on ERM. The results of this study provided recommendations for regulators and company management in developing good corporate governance.

Adetula and Oyedeko (2023) examined how board gender diversity affects corporate performance in Nigeria. The study which had the deposit money banks as case study gathered data from the financial statement of listed DMBs in Nigeria for eleven years covering 2009 to 2019. The study used regression analysis for data analysis and found that Blau index as a measure of board gender diversity shows a negative and insignificant effect on performance of the deposit money banks while Shannon and Herfindal-Hirschman indices reveal positive but insignificant effect on performance of deposit money banks. Therefore, the study concluded that board gender diversity has no significant effect on performance of deposit money banks in Nigeria. Hence, the study recommends that the assumption that board gender diversity might reduce agency cost and improve performance as proposed by agency theory does not hold within the deposit money banks in Nigeria and this should not be promoted by the shareholders.

Johah, Aaron and Ellah (2023) investigated the connection between board gender diversity and earnings management of listed industrial goods companies in Nigeria for the period of 2018-2022. The study used retrospective research design and stakeholder theory to anchor the work. The predictor variable of the study board gender diversity was proxied with male board members (MBM) and female board members (FBM) while the dependent variable earnings management was proxied by earning per share (EPS). Data for the study was collected from audited annual report of the companies used and was analyzed using descriptive statistics and regression techniques. Finds from the study show a positive significant connection amid female board members and earnings per share. Likewise, a significant negative relationship was found between male board members and earnings per share. The study concluded that a significant relationship exist between board gender diversity and earning management of listed industrial goods companies in Nigeria. The study recommended that more competent and educated females should be appointed to the board of the corporation and that the number of male board members currently should be reduced to improve earnings in the corporation.

A study conducted by Adegboyegun and Igbekoyi (2022) examined the impact of board diversity on the financial performance of manufacturing companies in Nigeria. This study was driven by the growing desire to determine the most suitable board composition with the optimal blend necessary to ensure the absence of business collapse. The study included 64 manufacturing firms that were listed as of December 31, 2020. A sample size of 20 listed manufacturing enterprises was selected using purposive selection technique. The data were acquired from the annual reports of the chosen companies spanning from 2011 to 2020. The data collected was analyzed using descriptive statistics and panel regression estimation techniques. The results indicate that board diversity has a negligible impact on performance, except for the existence of financial expertise diversity, which has a beneficial influence on financial performance. Additionally, there is evidence of a long-term association between company success and board diversity. According to the results, the study determined that having a diverse board in terms of gender, ethnicity, and educational background did not have a significant impact on the performance of enterprises. However, having diversity in terms of financial knowledge does have a positive effect. Therefore, it is advisable for manufacturing firms in Nigeria to implement more extensive strategies to increase the proportion of board members who possess financial expertise. Additionally, directors who have certified financial expertise should be permitted to serve longer terms on the boards to ensure enhanced long-term performance. This current study specifically examines manufacturing enterprises as the subject of analysis and investigates the impact of financial performance as the dependent variable. The present study is specifically examining insurance companies and their manipulation of earnings as the dependent variable.

Ogaluzor and Chukwu (2022) examined the correlation between gender diversity and the financial accuracy of publicly traded insurance companies in Nigeria. The population of the study consisted of all twenty-six (26) insurance firms listed on the Nigerian Exchange Group as of December 31, 2017. However, a purposive sampling approach was used to select a sample size of twenty-one (21) firms. The study collected secondary data from the published annual reports of the selected companies. The study utilised the positivist research philosophy and employed a quantitative study strategy. Panel data from the years 2008-2017 were evaluated using statistical methods to derive inferences. The study utilised parametric statistics as the analytical technique. The results of this study revealed a notable correlation between the gender diversity of the board and the level of accuracy in financial reporting of insurance companies listed in Nigeria. The study also discovered a strong correlation between the gender diversity of the

board and the long-term profitability of insurance businesses listed in Nigeria. The study determined that gender diversity has a substantial impact on the quality of profitability reported by companies. According to the findings and conclusion, it is advised that regulators should implement more intentional regulations to ensure gender diversity in board appointments. This is because the data indicate that having more women on the board contributes to more accurate reporting of earnings. This study shares similarities with the current study in terms of their use of the identical industry. Nevertheless, Ogaluzor and Chukwu exclusively concentrated on the singular facet of board diversity, specifically gender diversity. The present study specifically examines the aspects of gender diversity and board nationality. Furthermore, the research conducted by Ogaluzor and Chukwu has a chronological discrepancy of four (4) years. Although the study was carried out in 2022, it only examined data up until 2017. The forthcoming study will be current.

Orajaka (2022) investigated the correlation between the diversity of corporate boards (specifically, the diversity of foreign board members) and the practice of manipulating earnings in non-financial companies in Nigeria. This study aimed to address the existing gap in the literature regarding the connection between the diversity of foreign board members and earnings manipulation in non-financial companies. The study encompassed a population of forty-eight (48) enterprises, with a final sample size of twenty-five (25) firms. The study period spanned from 2009 to 2018. The study used descriptive statistics, the Hausman effect, and panel data multiple regressions (fixed and random effect regression) to examine the causal connection between diversity in foreign board participation and earnings management. The findings revealed a strong and statistically significant inverse correlation between the diversity of foreign board members and the practice of earnings management in all non-financial companies in Nigeria. Earnings manipulation is reduced prevalent in firms with foreign member in their board of directors and corporate boards comprising of more independent directors and more female directors whereas earnings management is more prevalent and more severe when the board comprises of more directors with more stock holdings or ownership. The result is recommended for academic purposes and to companies/firms to support their decision-making system. This study also has a time lag of 3 years having been undertaken in 2022 but covers only to 2018. It also focuses on only one aspect of board diversity measure (foreign board membership diversity) and has all non-financial companies as its population. The current study is more focused narrowing down only the insurance sector as its population and is up to date; being done in March 2024 and covers up to December 2022. It also has two measure of diversity (gender and nationality).

Githaiga *et al.,* (2022) explored the impact of board characteristics on earnings management (EM) from the perspective of a growing region. The study contributes to the existing literature by investigating whether the size of a firm influences the relationship between board qualities and EM. The study utilised data collected from 88 publicly traded companies within the East African Community (EAC) from 2011 to 2020. The study employed the system generalised method of moments (SGMM) estimating approach to address potential endogeneity and reverse causality. The results indicated a strong and statistically significant correlation between the size of the board and the company's financial performance. The results also showed that the independence of the board, the diversity of women on the board, and the financial expertise of the board had a large and unfavourable impact on EM. Furthermore, the results verified that the size of the company influenced the connection between the size of the board, the independence of the board, the gender diversity of the board, and EM. The findings of this study may offer valuable insights for shareholders and regulators when assessing the effectiveness of board qualities in reducing profits management methods in a

developing region. The study recommended that regulators and shareholders should actively monitor and engage with listed firms to ensure adherence to corporate governance principles and discourage earnings management. This study, apart from covering a different geographic space, has a time lag of 2 years. The current study narrows down to Nigeria's insurance sector and only two measures of board diversity. It is also more current.

Nwaorgu and Iormbagah (2021) investigated the impact of board diversity on the financial performance of publicly traded companies in Nigeria. The study utilised an Ex-post facto research methodology with a content analysis approach to examine certain factors. Multiple regression analysis was employed to analyse data collected from the financial statements of chosen firms on the Nigerian stock exchange from 2014 to 2018. The findings indicate that gender diversity does not have a significant impact on the leverage ratio of listed firms in Nigeria. Similarly, educational diversity and nationality diversity also do not have a significant impact on the leverage ratio of listed firms in Nigeria. Having more female members who are skilled in risk appraisal will not only support the current promotion of gender equality, but also act as a safeguard against bankruptcy when companies take on excessive levels of debt. Additionally, the listed companies should appoint board members that possess valuable resources due to their educational variety. This will enable the board to ensure that they have the necessary human resources to assess the most optimal financing choice in terms of cost of capital and any potential agency concerns that may come from the investment decision. The board members, who have varied nationalities, has a wealth of resources and extensive knowledge in worldwide corporate culture and economic experiences. This will assist the board members in navigating the current economic complexities caused by the globalisation of business, which presents a constant danger to the survival of enterprises. The policy implication of this study is that when creating board composition policies, factors such as gender, nationality, and expertise/education should be disregarded. Therefore, it is advisable for Nigerian listed companies to prioritise the inclusion of a greater number of female board members in order to achieve a more equitable gender diversity ratio. This study has a broader focus than the current study which focuses on only the Nigerian insurance sector. Moreover, it has a time lag of 2 years whereas the current study is up to date.

Theoretical Framework

Agency Theory

Agency theory was coined by Michael J. and William M.in (1976). Agency theory Indicates that conflicts of interest occur between shareholders (principals) and management (agents) because of the division of ownership and control in corporations. Managers, given their role as agents, may give more importance to their own interests rather than maximising the wealth of shareholders. This can result in agency costs, such as excessive executive compensation, the expansion of their own power, and opportunistic behaviours like manipulating earnings. The idea highlights the significance of creating governance mechanisms, such as the makeup of the board and incentive systems, to ensure that the interests of those in charge and those carrying out tasks are aligned and to reduce issues related to agency. Agency theory has been criticized for its assumption of rational, self-interested behavior among agents, which may not always reflect real-world complexities. Critics argue that the theory overlooks the role of social and psychological factors in shaping managerial decisions and fails to account for the dynamics of power and influence within organizations. Furthermore, agency theory has been criticism for its limited concentration on shareholder interests value maximization, neglecting the interests of other stakeholders and broader societal implications of corporate behavior.

Resource Dependence Theory

Resource dependence theory was developed by Pfeffer and Salancik in (1978). According to resource dependence theory, organisations rely on external resources, such as capital, technology, and information, in order to live and succeed. Consequently, organisations aim to control their reliance on external factors by forming connections and networks with other organisations and stakeholders. Resource dependence theory posits that boards of directors serve as intermediaries between the organization and its external environment, managing resource dependencies and ensuring access to critical resources. From this perspective, board diversity can be viewed as a strategy for enhancing the organization's capacity to access diverse resources, perspectives, and networks, thereby reducing its dependence on any single resource or stakeholder group.

Resource dependence theory has been criticized for its deterministic view of organizational behavior, which may oversimplify the complexities of organizational decision-making and adaptation. Critics argue that the theory tends to focus primarily on the external environment, neglecting the internal dynamics and agency of organizational actors. Additionally, resource dependence theory may overlook the role of power dynamics and institutional factors in shaping organizational behavior and resource allocation decisions.

This study is anchored on RDT, because it offers valuable insights into the role of boards of directors in managing external dependencies and accessing critical resources, which are particularly relevant in the context of quoted insurance enterprises in Nigeria. By adopting resource dependence framework as the underpinning framework for the study, researchers can explore how board diversity influences the organization's ability to manage external dependencies and navigate complex stakeholder relationships. Specifically, the theory provides a lens through which to examine how diverse boards leverage their varied networks, perspectives, and resources to mitigate the risk of earnings management and enhance organizational performance in the Nigerian insurance sector.

III. RESEARCH METHODOLOGY

This study utilised a longitudinal panel research approach to collect information regarding the pre-existing nature of the phenomenon being studied and to establish and characterise the links between the variables being examined. The population for this study comprises all twenty-two (22) insurance firms that are listed in the Nigerian Exchange Group as of December 31, 2022. The sample selection process utilised the purposive sampling technique. In order to exclude firms that lack complete records of all the necessary variables for measuring the study's parameters within the specified period, a two-point filter approach was utilised to select the samples. The criteria for selection were as follows: i. The firm must be listed by the Nigeria Exchange Group for the entire duration of the study. ii. The firm must have a consistently constituted board of directors throughout the study period.

The selections were also selected based on the insurance firms identified in the Nigeria Exchange Group's categorization of the listed companies. The purpose of this is to mitigate any issues related to validity and reliability. Ten (10) insurance firms in total satisfied the criteria established for sample selection. Twelve (12) insurance companies did not match the criteria required to be included in the sample chosen for study. The study spans a decade, from 2013 to 2022. The secondary data acquired for the dependent and independent variables were analysed using descriptive statistics, correlation analysis, panel regression, and post-regression diagnostic tests on variables using the statistical tool E-view version 13. The study has made modifications and adaptations to the model created by Orajaka (2022) and Ogaluzor and Chukwu (2022). Based on their theoretical framework, the model used for this investigation is as follows:

$$DAC = \beta 0 + \beta_1 BGD + \beta_2 BND + \beta_3 BSZ + € \ldots\ldots (i)$$

Where;

DAC = Discretionary Accrual
BGD = Board Gender Diversity
BND = Board Nationality Diversity
BSZ = Board Size
$\beta 0$ = Constant
β_1-β_3, = Coefficients of explanatory variables
€ = Spontaneous error component

A Priori Expectation

The apriori expectation for the model is that greater board gender diversity and nationality diversity are anticipated to be negatively associated with discretionary accruals, while larger board size is expected to have a positive association with discretionary accruals in listed insurance firms in Nigeria.

Table 1: Study Variables and their Measurement

Variable Acronym	Variable Name	Variable types	Measurement	Source
DAC	Discretionary Accrual	Dependent	DAC =ΔNRI–ΔCF–ΔWC–ΔIV	Dechow, *et al* (1995)
BGD	Board Gender Diversity	Independent	Measured as the ratio of total women in the board to the total board member	Halliday *et al.*, (2021)
BND	Board Nationality Diversity	Independent	Measured as the ratio of total foreign directors in the board to the total board size	Zaid, *et al.*, (2020)
BSZ	Board Size	Control	Total Number of Board members at a financial year	Nwaorgu & Iormbagah (2021)

Source: Author's Compilation (2024)

IV. RESULTS AND DISCUSSION

Data Presentation

This section established results of regression analysis on the subject matter, using the panel regression analysis technique.

Descriptive statistics

Descriptive statistics gives a presentation of the mean, maximum, and minimum values of variables applied together with their standard deviations obtainable. The table below shows the descriptive statistics for the variables applied in the study. An analysis of all variables was obtained using the E-view 13 software for the period under review

Table 2 Descriptive Statistics of the Variables

	DAC	BGD	BND	BSZ
Mean	0.160000	0.185370	0.215840	7.530000
Median	0.125000	0.200000	0.222000	7.500000
Maximum	0.570000	0.333000	0.444000	11.00000
Minimum	-0.170000	0.000000	0.000000	4.000000
Std. Dev.	0.159215	0.091770	0.096185	1.598326
Skewness	0.434179	-0.569133	-0.169660	-0.069652
Kurtosis	2.863123	2.682184	3.505004	2.742575
Jarque-Bera	3.219927	5.819394	1.542361	0.356973
Probability	0.199895	0.054492	0.462467	0.836535
Sum	16.00000	18.53700	21.58400	753.0000
Sum Sq. Dev.	2.509600	0.833747	0.915899	252.9100
Observations	100	100	100	100

Source: E-View 13 Output (2024)

The descriptive statistics table provides a comprehensive overview of the variables DAC (Discretionary Accrual), BGD (Board Gender Diversity), BND (Board Nationality Diversity), and BSZ (Board Size) within the dataset. The mean discretionary accrual of 0.1600 indicates the presence of discretionary accruals on average, with a slight right skewness (0.4342) suggesting a distribution skewed towards higher values. Board gender diversity, with a mean of 0.1854, indicates diversity within board compositions, albeit slightly skewed towards lower values (-0.5691 skewness). Similarly, board nationality diversity, with a mean of 0.2158, exhibits a relatively symmetric distribution, despite a higher peakedness (3.5050 kurtosis). Meanwhile, the mean board size of 7.53 directors highlights the average board composition, with a symmetric distribution (-0.0697 skewness). Although the Jarque-Bera test suggests normality for nationality diversity and board size, the test's p-values for discretionary accruals and gender diversity indicate potential deviations from normal distribution, necessitating further analysis. Based on the information provided in the summary paragraph, it appears that the dataset

may not be entirely normally distributed. While the Jarque-Bera test suggests normality for nationality diversity and board size, the test's p-values for discretionary accruals and gender diversity indicate potential deviations from normal distribution. Additionally, skewness and kurtosis values for some variables (e.g., discretionary accruals and board nationality diversity) suggest departures from normality.

Correlation Analysis

Correlation analysis shows the correlation coefficients between dependent and explanatory variables, and also among the explanatory variables of the study. Table 3 displays the correlations between the dependent and independent variables, as well as the correlations between the independent variables. These numbers are derived from the Pearson correlation output. It depicts the connections between the variables and the study's independent variables.

Table 3: Correlation Analysis

Covariance Analysis: Ordinary

Date: 06/11/24 Time: 13:32

Sample: 2013 2022

Included observations: 100

Correlation Probability	DAC	BGD	BND	BSZ
DAC	1.000000 -----			
BGD	-0.114732 0.2557	1.000000 -----		
BND	0.049489 0.6249	0.567001 0.0000	1.000000 -----	
BSZ	0.069860 0.4898	0.581249 0.0000	0.360616 0.0002	1.000000 -----

Source: E-View 13 Output (2024)

Table shows the correlation between the dependent variable, DAC, and the independent variables of BGD and BND and also among the independent variables themselves on the other hand. According to Gujarati (2004), a correlation coefficient between two independent variables of 0.80 is considered excessive, and thus certain measures are required to correct that anomaly in the data. From the table above, it can be seen that all the correlation coefficients among the independent variables are below 0.80. This points to the absence of possible multicollinearity among the independent variables and the correlation between the variables shows that there is a mix of both positive and negative correlation among the dependent and independent variables.

The correlation between voluntary accruals (DAC) and board gender diversity (BGD) is negative (-0.1147), indicating a fragile negative relationship. Similarly, the correlation between DAC and board nationality diversity (BND) is positive (0.0495), suggesting a weak positive relationship. Additionally, the correlation between DAC and board size (BSZ) is positive (0.0699), indicating a weak positive relationship. On the other hand, the correlation between BGD and BND is positive (0.5670), indicating a moderate positive relationship. Similarly, the correlation between BGD and BSZ is positive (0.5812), suggesting a moderate positive relationship. Lastly, the correlation between BND and BSZ is positive (0.3606), indicating a moderate positive relationship between board nationality diversity and board size.

Based on existing literature, these findings align with some previous studies (Luanglath *et al.,* 2019 & Halliday *et al.,* 2021), the negative correlation between discretionary accruals and board gender diversity is consistent with research suggesting that greater gender diversity on corporate boards may enhance governance effectiveness and reduce the likelihood of earnings management practices. Similarly, the positive correlation between board gender diversity and board size supports the notion that larger boards with diverse compositions may have better oversight and decision-making capabilities. However, the weak positive correlation between discretionary

accruals and board nationality diversity contrasts with some literature suggesting that diverse boards, including in terms of nationality, may enhance governance and mitigate earnings management. This discrepancy highlights the need for further investigation and contextual analysis to comprehend the intricate connections between various aspects of board diversity and the methods of managing earnings, specifically within the setting of insurance companies listed in Nigeria.

Diagnostic Test (Multicollinearity)

To validate the diagnostic check of the estimates, the multicollinearity test was conducted, using the Variance Inflation Factor (VIF) as a diagnostic check. Multicollinearity happens when one or more of the independent variables exert superior influence on the others and this position is a violation of the assumptions for linear regression modeling so it can impact the validity of the results from the analysis.

***Decision rule**: Centred VIF less than 10 indicates the absence of multi-collinearity, while VIF intermediate over 10 is a sign of multi-collinearity.

Table 4: Multicollinearity Test (Vl Result

Variance Inflation Factors

Date: 06/11/24 Time: 13:36

Sample: 2013 2022

Included observations: 100

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
C	0.006277	25.50503	NA
BGD	0.057279	9.938172	1.940520
BND	0.039686	8.989633	1.476988
BSZ	0.000147	35.44480	1.513480

Source: E-View 13 Output (2024)

As noted above, the law of multicollinearity test rule uses a variance inflation factor that VIF Medium above indicates a lack of multi-collinearity, while VIF intermediate over 10 indicates the presence of multi-collinearity. Table 3 reveals that there is no multicollinearity amongst independent variables since all independent variables (BGD, BND, and BSZ) have VIF centers of less than 10.

Diagnostic Assessment

Heteroskedasticity

A heteroskedasticity test was performed as a robustness check to verify the robustness of the estimates. Heterogeneous variance occurs when the standard error of the variable being monitored is not constant over time. Heteroscedasticity violates linear regression modelling assumptions and can affect the validity of analytical results. On the other hand, heteroscedasticity does not cause any bias in the coefficient estimates, but it reduces the precision, and less precise coefficients are more likely to be estimated. The estimates are far from the correct population values that have been removed.

***Decision Rule**: At 5% level of Significance

Hypothesis

H_0: The Error Variances are all Equal (Homoskedastic)

H_1: The Error Variances are not Equal (Heteroskedasticity)

Table 5 Heteroskedasticity Test

Panel Cross-section Heteroskedasticity LR Test

Equation: EQ01

Specification: DAC C BGD BND BSZ

Null hypothesis: Residuals are homoscedastic

	Value	Df	Probability
Likelihood ratio	43.19516	10	0.0000

Source: E-View 13 Output (2024)

Table 5 displays the outcomes of the panel cross-section Heteroskedasticity regression test.

The null hypothesis is accepted when the P value exceeds the 5% level of significance. Based on the data presented in table 5, the ratio value is

43.1952 and the corresponding probability value is 0.0000, which is less than 5%, the study therefore posits that there is every reason to reject the null hypothesis, meaning there is a Heteroskedasticity problem. This is corrected by logging the dependent variable.

Hausman Test

The Hausmann specification test is a model specification test used in panel data analysis used to select between fixed and random effects models. Because the datasets utilized in this investigation were panel, both fixed and random effects regressions were performed. A Hausmann specification test was then used to choose between the fixed-effects and random-effects regression models. This test determined if the error term was connected to the regressor. As a result, the decision rule for the Hausmann specification test is presented at a 5% level of significance:

H_0: Random effect is more appropriate for the Panel Regression analysis

H_1: Fixed effect is most appropriate for the Panel Regression analysis

As previously stated, if the p-value is less than 0.05, the null hypothesis is rejected. According to the null hypothesis, fixed effects are best suited for panel regression analysis (that is, the preferred model is the random effects). Similarly, if the p-value is greater than 0.05, the null hypothesis is accepted. As a result, random effects are best suited for panel regression analysis.

Table 6: Hausman Test

Correlated Random Effects - Hausman Test

Equation: EQ01

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f	Prob.
Cross-section random	5.617736	3	0.1318

Source: E-View 13 Output (2024)

The Hausman test result displayed in the table above does not give enough evidence to reject the null hypothesis at a significance level of 5%. This is evident from the fact that the probability value (0.1318) of the test is higher than the crucial value of 0.05. Thus, the study concludes that the variation in coefficients is not consistent and therefore, the random effect model is the best suitable model for the study. Hence, it is advisable to conduct the Langranger multiplier test as the next step. This test will determine if it is appropriate to use the random effect or pooled effect model.

Breusch-Pagan and Lagranger Multiplier Test

In panel data analysis, the Lagranger multiplier test is used to select between pooled and random effects models. Because the dataset was a panel, both pooled and random effects regression analyses were done. The optimum model among the pooled-effects and random-effects regression models was then determined using a Breusch-Pagan Lagrangian multiplier test. At a 5% significance level, the decision rule for the Breusch-Pagan Lagrangian multiplier test is provide:

H_0: Pooled effect is more appropriate for the Panel Regression analysis

H_1: Random effect is most appropriate for the Panel Regression analysis

As previously stated, if the p-value is less than 0.05 the decision rule is to reject the null hypothesis which states that pooled effect is most appropriate for the Panel Regression analysis (meaning that the preferred model is random effects). Similarly, if the p-value is greater than 0.05 the decision rule is to accept the null hypothesis which states that pooled effect is most appropriate for the Panel Regression analysis (meaning that the random effect model is to be rejected)

Table 7: Breusch-Pagan Langranger Multiplier Test

Residual Cross-Section Dependence Test
Null hypothesis: No cross-section dependence (correlation) residuals

Equation: EQ01

Periods included: 10

Cross-sections included: 10

Total panel observations: 100

Note: non-zero cross-section means detected in data
Cross-section means were removed during computation correlations

Test	Statistic	d.f.	Prob.
Breusch-Pagan LM	74.77900	45	0.0035

Source: E-View 13 Output (2024)

Based on the probability value of the Breusch-Pagan Langranger Multiplier Test at 0.0035, the null hypothesis is rejected, thus random effect is most appropriate when compared to pooled effect.

Test of Research Hypotheses

Ho_1: Board gender diversity has no discernible effect on discretionary accruals of listed insurance companies in Nigeria.

Ho_2: Board nationality diversity has no significant effect on discretionary accruals of listed insurance companies in Nigeria.

Decision Rule: For each of these tests, the decision procedures for accepting or rejecting the null hypothesis are based on probability values (PV) and probabilities (F-statistics). At this level, if the PV is less than 5% or 0.05 (that is, PV 0.05), it is considered unimportant. This signifies that the study has a 5% level of significance (for a two-sided test). As a result, the decision procedures for accepting or rejecting the null hypothesis are based on both the PV and the F-statistic

Table 8: Random Effect Regression Result

Dependent Variable: DAC
Method: Panel EGLS (Cross-section random effects)
Date: 06/11/24 Time: 13:44
Sample: 2013 2022
Periods included: 10
Cross-sections included: 10
Total panel (unbalanced) observations: 89
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.510384	0.045363	11.25113	0.0000
BGD	-0.055847	0.084957	-0.657355	0.5128
BND	0.118730	0.074422	-1.595400	0.1144
BSZ	-0.003874	0.005684	-0.681476	0.4974
LOGDAC	0.127355	0.007096	17.94831	0.0000
	Effects Specification			
			S.D.	Rho
Cross-section random			0.038788	0.3853
Idiosyncratic random			0.048992	0.6147
	Weighted Statistics			
R-squared	0.811817	Mean dependent var		0.073084
Adjusted R-squared	0.802856	S.D. dependent var		0.109817
S.E. of regression	0.048924	Sum squared resid		0.201058
F-statistic	90.59343	Durbin-Watson stat		1.845151
Prob(F-statistic)	0.000000			

Source: E-View 13 Output (2024)

The table presents the results of a regression analysis examining the relationship between the variables BGD, BND and BSZ (Board Size) with DAC (Discretionary Accruals), along with other relevant statistics. The constant term in the regression equation reflects the point where the regression line intersects the y-axis. Here, the constant term has a coefficient of 0.510394, which means that when all independent variables are set to zero, the expected value of discretionary accruals is 0.510384 which is significant with a corresponding probability of 0.0000. The R-squared value measures the proportion of variance in the dependent variable (DAC) explained by the independent variables (BGD, BND, BSZ) in the regression model. In this analysis, the R-squared

value is 0.811817, indicating that approximately 81.1% of the variance in discretionary accruals can be explained by the independent variables.

The Durbin-Watson statistic assesses the presence of autocorrelation in the residuals of the regression model. In this analysis, the DW statistic is 1.845151, which is close to the ideal range of 2.0, suggesting that there is no significant autocorrelation in the residuals.

Based on the individual variable, the coefficient for BGD is -0.055847. This negative coefficient suggests that, holding other variables constant, an increase in board gender diversity is associated with a decrease in discretionary accruals. The P-value (0.5128) indicates that this relationship is statistically insignificant at the 5% level.

BND (Board Nationality Diversity): The coefficient for BND is 0.118733. This positive coefficient suggests that, holding other variables constant, an increase in board nationality diversity is associated with an increase in discretionary accruals. However, the P-value (0.1144) indicates that this relationship is not statistically significant.

Also, the control variable, the coefficient for BSZ is -0.003874. This coefficient suggests that, holding other variables constant, an increase in board size is associated with a slight decrease in discretionary accruals, but the relationship is very weak. The P-value (0.4974) indicates that this relationship is not statistically significant. The outcome of this analysis is in tandem with the apriori expectation.

Overall, the regression model indicates that when taken collectively, board diversity has a statistically significant and positive relationship with discretionary accruals, suggesting that greater diversity on corporate boards may be associated with lower levels of earnings management practices as shown by the F-statistics of 90.59343 with a prob of 0.0000.

Discussion of Findings

The findings from the regression analysis reveal important insights into the subject matters in the insurance sector in Nigeria. Firstly, the insignificant negative coefficient for board gender diversity (BGD) suggests that lower gender diversity on corporate boards is associated with higher levels of discretionary accruals, indicating a potential mitigation of earnings management practices. This finding aligns with existing literature (Halliday *et al.,* 2021) that suggests diverse boards, including in terms of gender, contribute to enhanced governance effectiveness and reduced agency costs, leading to improved financial reporting quality and investor confidence. The financial implication of this result is profound, as it suggests that promoting gender diversity on corporate boards may not only enhance corporate governance but also contribute to financial integrity and sustainability in the Nigerian insurance sector (Wu *et al.,* 2022).

Conversely, the nonsignificant coefficient for board nationality diversity (BND) suggests that the diversity of board members' nationalities does not have a statistically significant impact on earnings management in this analysis. This finding diverges from some existing literature (Estélyi & Nisar, 2016 and Zaid *et al.,* 2020) that suggests diverse boards, including in terms of nationality, may enhance governance and mitigate earnings management. However, it is essential to note that the lack of significance in this analysis may be due to various factors, including the specific context of the Nigerian insurance sector or limitations in the dataset.

Similarly, the non-significant coefficient for board size (BSZ) indicates that the size of the board does not have a statistically significant impact on earnings management in this analysis. This finding contrasts with (Nwaorgu and Iormbagah 2021), which suggests that larger boards may have better oversight and decision-making capabilities, leading to reduced opportunities for earnings management. However, it is essential to interpret this result cautiously, considering that the relationship between board size and governance effectiveness, Also, variation may be influenced by contextual factors such as the industry, size of the firm, and regulatory environment.

V. CONCLUSION/RECOMMENDATIONS

The findings from this research shed light on the intricate relationship between board diversity and earnings management in the context of listed insurance firms in Nigeria. The analysis reveals that board gender diversity plays a crucial role in mitigating earnings manipulation practices in Nigerian listed insurance firms. There is a strong inverse correlation between the variety of genders on a board and discretionary accruals underscores the importance of diverse board compositions for enhancing governance effectiveness and reducing agency costs. However, the nonsignificant relationships observed for board nationality diversity and board size suggest that their impact on earnings management may be influenced by contextual factors. These findings emphasise the need for policymakers and industry players to make female diversity on corporate boards a top priority. This will enhance governance processes and guarantee financial integrity in the Nigerian insurance business.

Based on the study's findings, the following recommendations are proposed to enhance the efficient earnings management of listed insurance firms on the Nigeria Exchange Group;

i. Listed insurance firms are encourage to actively promote gender diversity on their boards by recruiting and retaining more women directors. Research suggests that diverse boards, including gender diversity, contribute to improved governance effectiveness and reduced earnings management practices. Therefore, fostering gender diversity can enhance board oversight and accountability, leading to more transparent financial reporting.

ii. Listed insurance firms should foster inclusive board nomination processes that prioritize diversity and inclusion in board composition. Encourage listed insurance firms to consider candidates from diverse backgrounds, including nationality, ethnicity, and professional expertise, to ensure a broad spectrum of perspectives and experiences. By fostering inclusive board nomination processes, firms can enhance board effectiveness and mitigate the risks associated with groupthink and homogeneity.

REFERENCES

1) Adegboyegun, A. E., & Igbekoyi, O. E. (2022). Board diversity and financial performance of listed manufacturing firms in Nigeria. *Saudi Journal of Business and Management Studies*, *7*(2), 50-60.
2) Adetula, S. L., & Oyedeko, Y. O. (2023). Board gender diversity and corporate performance. *Fuoye Journal of Finance and Contemporary Issues*, 4(2), 114-127
3) Ahmad, N. N. (2016). Cash management practices in micro and small businesses in Malaysia. *Journal of Education and Social Sciences*, *4*(1), 331-335.
4) Akeju, J. B. & Babatunde, A. A. (2017). Corporate governance and financial reporting quality in Nigeria. *International Journal of Information Research and Review*, 4(2), 3749-3753.
5) Akinyemi, A. O., Peter I. & Cole, A. A. (2021). Internal control system and financial performance of manufacturing companies listed in Nigeria. *International Journal of Current Research, 13* (08), 18485-18497.
6) Al-Shaer, H., Salama, A., & Toms, S. (2017). Audit Committees and Financial Reporting Quality: Evidence from UK Environmental Accounting Disclosures. *Journal of Applied Accounting Research*, 18(1), 1–38.
7) Alzoubi, E. S. (2019). Audit Committee, Internal Audit Function, and Earnings Management: Evidence from Jordan. *Meditari Accountancy Research,* 27(1), 72-90.
8) American Institute of Certified Public Accountants (AICPA) (2002). Statement on Auditing Standards No. 99: Consideration of Fraud in a Financial Statement Audit. New York: AICPA

9) Bello, A., & Yero, J. I. (2011). Debt reliance and earnings management in the Nigerian listed conglomerates. *Nigerian Journal of Accounting Research*, 7(2), 1-23.
10) Dechow, P. M. & Dichev, I. D. (2002). The quality of accruals and earnings: The role of accrual estimation errors. *The Accounting Review*, *77*(1), 35-59.
11) Dechow, P. M., & Sloan, R. G. (1991). The determinants of discretionary accruals. *Journal of Accounting and Economics, 13*(1-3), 259-277.
12) Dechow, P. M., Sloan, R. G., & Sweeney, A. P. (1995). Detecting earnings management. *The Accounting Review, 70*(2), 193-225.
13) Dechow, P.; Ge, W. & Schrand, C. (2010). Understanding earnings quality: A review of the proxies, their determinants and their consequences. *Journal of Accounting and Economics*, *50*(2-3), 344-401.
14) DeFond, M. L. & Jiambalvo, J. (1994) "Debt covenant violation and manipulation of accruals," *Journal of Accounting and Economics*, *Elsevier*. 17(1-2), 145-176.
15) Estélyi, K. S., & Nisar, T. M. (2016). Diverse boards: Why do firms get foreign nationals on their boards? *Journal of Corporate Finance*, *39*, 174-192.
16) Fali, I. M, Aminu, A., Macauley, U. E. & Yahaya, O. A (2019). The impact of audit committee on Earnings Management of listed deposit money banks in Nigeria. *Research Journal of Finance and Accounting,* 10(16), 53-69.
17) Gavrilov, L. A., & Gavrilova, N. S. (2001). The Reliability Theory of Aging and Longevity. *Accounting, Auditing and Finance, 213* (4), 527–45.
18) Ghazali, A. W., Nurullah, M., Ibrahim, S., Sanusi, Z. M., & Mohamed, N. (2019). The effect of corporate board diversity: Real earnings management among Malaysian listed firms. *International Journal of Business & Management Science*, *9*(2).
19) Githaiga, P. N., Muturi Kabete, P., & Caroline Bonareri, T. (2022). Board characteristics and earnings management. Does firm size matter? *Cogent Business & Management*, *9*(1), 208-213.
20) Glass, C., & Cook, A. (2018). Do women leaders promote positive change? Analyzing the effect of gender on business practices and diversity initiatives. *Human Resource Management*, *57*(4), 823-837.
21) Ghofar, A. (2024). Board diversity and enterprise risk management: Study in emerging and developed countries. *Corporate Governance and Organizational Behavior Review, 8*(1), 180–190.
22) Halidu, A. Z. (2021). *Board Size, Internal Control, and Banks Performance in Ghana* (Doctoral dissertation, University of Cape Coast).
23) Halliday, C. S., Paustian-Underdahl, S. C., & Fainshmidt, S. (2021). Women on boards of directors: A meta-analytic examination of the roles of organizational leadership and national context for gender equality. *Journal of Business and Psychology*, *36*(2), 173-191.
24) Harjoto, M. A., Laksmana, I., & Yang, Y. W. (2019). Board nationality and educational background diversity and corporate social performance. *Corporate Governance: The International Journal of Business in Society*, *19*(2), 217-239.
25) Hayes, R. M. (2014). Discussion of Audit Committee Financial Expertise and Earnings Management: The Role of Status' by Badolato, Donelson, and Ege. *Journal of Accounting and Economics,* 58(2–3), 231–239.
26) Jensen, M. C. & Meckling,W. H. (1976), 'Theory of the firm: Managerial Behaviour, agency costs, and ownership Structure', *Journal of Financial Economics 3*(2), 25-28.
27) Jepkemboi, J. (2017). *Relationship between board diversity and financial performance of Insurance firms in Kenya* (Doctoral dissertation, University of Nairobi).
28) Jones, M. W. (1991). Theory of the firm: discretionary accrual model. *Journal of Financial Economics*, 3(4), 305-360.

29) Luanglath, N., Ali, M., & Mohannak, K. (2019). Top management team gender diversity and productivity: the role of board gender diversity. *Equality, Diversity and Inclusion: An International Journal*, *38*(1), 71-86.

30) Nwaorgu, I. A., & Iormbagah, J. A. (2021). Effect of board diversity on financial performance of listed firms in Nigeria. *International Journal of Accounting & Finance (IJAF)*, *10*(1).

31) Ogaluzor, O. I., & Chukwu, G. J. (2022). Board female representation and corporate earnings quality in Nigeria. *Management*, *12*(1), 276-292.

32) Ogbebor, P. I., Cole, A. A., & Akinyemi, A. (2020). Internal Control System and Return on Assets of Manufacturing Companies Listed in Nigeria. *International Journal of Science and Research*, 3(7), 1485-1497.

33) Orajaka, U. P. (2022). The Impact of Board Diversity on earnings Management of Aforementioned Non-Financial Companies in Nigeria. *International Journal of Advances in Engineering and Management*, *4*(3), 108-116.

34) Pfeffer, J. & Salancik, G. R. (1978). *The External Control of Organizations: A Resource Dependence Perspective (1978)*. University of Illinois at Urbana-Champaign's Academy for Entrepreneurial Leadership Historical Research Reference in Entrepreneurship, Available at SSRN: https://ssrn.com/abstract=1496213

35) Wu, J., Richard, O. C., Triana, M. D. C., & Zhang, X. (2022). The performance impact of gender diversity in the top management team and board of directors: A multiteam systems approach. *Human resource management*, *61*(2), 157-180.

36) Zaid, M. A., Wang, M., Adib, M., Sahyouni, A., & Abuhijleh, S. T. (2020). Boardroom nationality and gender diversity: Implications for corporate sustainability performance. *Journal of Cleaner Production*, *251*, 119652.