BOARD DIVERSITY AND FINANCIAL PERFORMANCE OF FIRMS IN NIGERIA

BY

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UNIVERSITY OF BENIN

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A RESEARCH PROJECT SUBMITTED TO THE DEPARTMENT OF ACCOUNTING, FACULTY OF MANAGEMENT SCIENCES, UNIVERSITY OF BENIN, BENIN CITY, IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF BACHELOR OF SCIENCE (B.Sc.) DEGREE IN ACCOUNTING.

NOVEMBER,2025

DECLARATION

I hereby declare that:

i. This study is based on a study undertaken by me in the Department of Accounting, Faculty of Management Sciences, University of Benin, Benin City, under the supervision of **Dr. (MRS.) IYOHA. U.O**

ii. This work has not been previously submitted for the award of degree elsewhere.

iii. Ideas and views are product of my personal research and where the view of others have been expressed, they have been duly acknowledged.

iv. Any liability arising from this work is to be wholly borne by me alone.

_____ _____

LAURA ADESUWA OKPERE **DATE**

CERTIFICATION

This is to certify that this research work was carried out by **LAURA ADESUWA OKPERE** in the Department of Accounting, Faculty of Management Sciences, University of Benin, Benin-City, and do not approve that it is sufficiently broad and of sufficient quality in partial fulfilment of the requirement for the reward of Bachelor of Science (B.Sc.) in Accounting, University of Benin, Benin-City.

_____ _____

DR. (MRS.) IYOHA. U.O **DATE**

(Project Supervisor)

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DR. G. IKHU-OMOREGBE **DATE**

(Project Coordinator)

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PROF. O. OBARETIN **DATE**

(Head of Department)

DEDICATION

This project is dedicated to God Almighty for His grace, guidance, and strength throughout this journey. It is also lovingly dedicated to my parents, **MR. AND MRS. OKPERE** whose sacrifices, prayers and unwavering support have been my greatest motivation.

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First and foremost, I return all glory to almighty God for his grace, wisdom, and strength throughout this academic journey. Truly without Him, this research would not have been possible.

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Finally, to everyone who contributed in one way or another to this project I say thank you.

TABLE OF CONTENTS

CONTENTS

ABSTRACT

This study examines the relationship between board diversity and the financial performance of firms in Nigeria. It explores how diverse board characteristics such as gender, age, expertise, and background influence firm profitability and overall financial health. The study made use of secondary data which were generated from the annual report of companies listed in my exchange group for the period 2020-2024. The data generated were analysed using ordinary least squares (OLS) regression techniques. The study found among others that board diversity does not have a significant impact on firm performance in the Nigerian Manufacturing sector. By implementing inclusive governance practices and reforming institutional frameworks, Nigerian manufacturing firms can unlock the full potential of board diversity to enhance innovation, accountability, and long-term sustainability.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

In recent years, corporate board diversity has emerged as a critical component of effective governance, with far-reaching implications for firm performance (Bryan et al., 2022). The increasing complexity of the global business landscape, coupled with growing stakeholder demands for accountability and sustainability, has heightened the need for diverse boards that can provide unique perspectives, expertise, and experiences (Harrison et al., 2022).

In today's business world, employees and top management teams have become increasingly diverse in terms of age, nationality, and gender, in addition to their diversity in tenure, experience, educational background, and socioeconomic status.

Corporate board diversity has become a pressing concern for firms, investors, and regulators. The board of directors is responsible for overseeing the management of a company and making strategic decisions that impact its performance. The composition of corporate boards has earned significant attention in recent years, particularly regarding diversity (Harrison et al., 2022). Despite the importance of diversity, women and minorities remain underrepresented on corporate boards. It appears to be a common phenomenon that minority or "lower status" groups, such as women and minor nations, are likely to be marginalized in diverse groups, and therefore there are increasing attempts to promote equal opportunity among different groups in the workplace.

Historically, corporate boards were predominantly male-dominated; white and affluent individuals with limited representation from diverse backgrounds (Terjesen et al., 2022). This led to concerns about the lack of diversity and representation. However, regulatory initiatives (SEC's Diversity and Inclusion Disclosure Rule, 2022), investor pressure (BlackRock, 2022), and social shifts have driven the push for greater board diversity.

Board diversity is rooted in Resource Dependency Theory. Resource Dependency Theory posits that board members serve as strategic resources, providing essential resources, expertise, and connections that enhance firm performance. These resources include legitimacy, advice, access to capital, and strategic guidance (Torchia et al., 2022). This study examines the relationship between board diversity and firm performance through the lens of Resource Dependency Theory. Board diversity encompasses various dimensions, including expertise, managerial experience, age, learning style, gender, language, education, ethnicity, and culture. Effective boards leverage the unique blend of skills, experiences, and perspectives of their members to foster objectivity, independence, and informed decision-making (O'Brien et al., 2022).

A study by Koutoupis et al. (2022) emphasizes the importance of board diversity in providing value to firms and societies. The researchers highlight that boards must exhibit expertise, resilience, and adaptability to address current and future challenges.

Studies have consistently demonstrated that diverse boards can offer several advantages to firms. For instance, research indicates that gender-diverse boards are associated with improved financial performance, as measured by profitability and stock returns (Adams et al., 2023).

Moreover, racial and ethnic diversity on boards has been linked to enhanced risk management, innovation, and access to diverse markets (Carter et al., 2022).

1.2 Statement of Research Problem

The importance of diversity on corporate boards stems from its potential impact on firm performance, decision-making quality, and strategic direction (Campbell & Mínguez-Vera, 2021). Despite progress, diversity on corporate boards remains a pressing concern, with ongoing debates surrounding its effectiveness and implementation (Deloitte, 2022; EY, 2023).

Research has shown that diverse boards are associated with better firm performance, including higher financial returns (Dang et al., 2022), increased innovation (Kang et al., 2023), and improved corporate governance (Lee et al., 2022). Furthermore, board diversity has been linked to enhanced risk management (Kwan et al., 2022), improved decision-making (Chen et al., 2023), and increased firm value (Bauer et al., 2024).

However, despite these benefits, women and minorities remain underrepresented on corporate boards in many countries, including Nigeria (Oyewumi et al., 2022).

While the global landscape has witnessed a gradual shift towards more diverse boardrooms, the Nigerian corporate sector faces unique challenges in this regard. Despite significant strides in recent years, gender and racial disparities persist in board composition. Understanding the specific dynamics of board diversity in Nigeria is crucial for developing effective strategies to promote inclusivity and enhance corporate governance.

Despite the growing importance of corporate governance in Nigeria, the impact of corporate board diversity on firm performance in the Nigerian finance industry remains understudied, particularly with regards to age, national, and gender diversity. While prior research has established a positive relationship between board diversity and firm performance globally (Dang et al., 2022; Kang et al., 2023), the Nigerian context is characterized by unique cultural, economic, and institutional factors that may influence this relationship.

In essence, this study uniquely aims to investigate the impact of age, gender, and national diversity on boards on firm performance in Nigerian finance industries, including the mediating effects of board size, independence, and expertise. This research will contribute to the existing literature by providing insights into the Nigerian context and informing policy and practice on corporate board diversity in Nigeria.

This study will answer the following research questions:

1. What is the relationship between gender diversity on boards and firm financial performance in Nigeria?
2. How does age diversity on boards impact firm performance in Nigeria?
3. What is the impact of board national diversity on boards on firm performance in Nigeria?

1.3 Objectives of the Study

The broad objective of this study is to investigate the impact of corporate board diversities on the firm performance of Nigerian finance industries.

Specifically, the objectives of this study are to:

1. Determine the relationship between gender diversity on boards and firms' financial performance in Nigeria.
2. Ascertain how age diversity on boards impacts firm performance in Nigeria.
3. Investigate the impact of board national diversity on boards on firm performance in Nigeria.

1.4 Research Hypotheses

With relevance to the objectives of this study and to answer the research questions, the following hypotheses were tested and stated in null form:

H_1: There is no significant relationship between gender diversity on boards and firms' financial performance.

H_2: Age diversity on boards has no significant impact on firm performance.

H_3: There is no significant impact of board national diversity on firm performance.

1.5 Scope of the Study

The study focuses on corporate board diversity and firm performance. By examining the relationship between corporate board diversity and firm performance, this study aims to provide

insights into the importance of diversity in corporate boards and contribute to the existing literature on corporate governance and diversity.

To achieve this, the study covers all publicly listed firms on the Nigerian Stock Exchange (NSE) with a selected sample size of 40 companies from the manufacturing sector. It covers a period of five (5) years, specifically from 2020–2024. The study uses a quantitative approach, analyzing secondary data from publicly available sources. Regression analysis will be used to examine the relationship between corporate board diversity and firm performance.

CHAPTER TWO

LITERATURE REVIEW

2.1. Introduction

Corporate board diversity is a critical aspect of corporate governance, with a growing body of research examining its impact on firm performance. This literature review synthesizes the findings of prior studies, exploring the relationship between board diversity and firm performance, including financial performance, innovation, and risk management. The review aims to identify key themes, patterns, and gaps in the literature, providing a foundation for future research.

This section will be used to review all relevant literatures relating to Corporate board diversity and firm performance. This chapter will concurrently address the conceptual framework of the dependent and independent variables which consist of firm performance and corporate boards. This is succeeded by a review on the extent literature on Corporate board diversity and firm performance . Lastly,it reviews the theories of this research.

2.2.1. Firm Performance

The performance of an organisation is motivated both by the economic and organisational factors which are specific to the company or the region and is of great importance to financial management. Firm Performance refers to the overall effectiveness and efficiency of a company

in achieving its goal, objectives and strategies. The maximisation of a firm's value brought forward by modern finance theory has been seen as the reason for managerial decision making.The study of firm performance has evolved significantly in recent years, with increasing attention on how board diversity influences corporate outcomes. Traditionally, firm performance was analyzed primarily through financial metrics, but recent research broadens this scope, including aspects like innovation, stakeholder relations, and sustainability (Ghosh & Verma, 2021). This shift reflects a more holistic understanding of what constitutes performance, where non-financial factors are seen as critical to long-term success.

Firm performance is a multifaceted concept that encompasses various dimensions, including financial performance, operational performance, innovation performance, social performance, and market performance. Financial performance can be measured using objective metrics such as profitability, revenue growth, and financial ratios like Return on Assets (ROA) and Return on Equity (ROE) (Jiang et al., 2022). Operational performance, on the other hand, can be evaluated through productivity and quality metrics.Research has shown that board diversity has a positive impact on financial performance (Jiang et al., 2022), while CEO leadership style significantly influences innovation performance (Singh et al., 2023). Additionally, corporate social responsibility initiatives have been found to enhance financial performance (Chen et al., 2022). The Resource-Based View (RBV) and Stakeholder Theory provide theoretical frameworks for understanding the factors that contribute to firm performance.

2.2.1.2. Financial Performance

Financial performance is a crucial determinant of firm performance, influencing key outcomes such as market value, profitability, and stakeholder satisfaction. Recent research highlights several ways financial performance interconnects with overall firm performance through various metrics, which includes:

- Cash Flow Management and Its Effect on Firm Performance (2023): This study investigates how changes in cash flow measures impact a firm's financial performance, emphasizing the critical role of effective cash flow management in enhancing overall firm performance.
- The Impact of Financial Management Practices on Firm Performance: A Study of the Manufacturing Sector in Indonesia (2022): This research examines how financial management practices influence the performance of manufacturing firms, highlighting the significance of sound financial strategies in driving firm success.
- The Effects of Managerial Ability on Firm Performance and the Moderating Role of Capital Structure (2021): This study explores how managerial ability affects firm performance and how capital structure can moderate this relationship, providing insights into the interplay between management capabilities, financial decisions, and overall firm outcomes.

In relation to the the above researches these metrics shows the connection of financial performance with firm performance

PERFORMANCE METRICS

Return on Assets (ROA) and Firm Size: ROA reflects the efficiency of resource utilization. Firms with diverse boards often show higher ROA due to broader perspectives in strategic planning (Erhardt et al., 2021). A study focusing on Environmental, Social, and Governance (ESG) performance in the MENA region found that financial metrics like ROA are positively associated with larger firms investing in ESG initiatives. Firm size moderates this relationship, indicating that larger firms with strong ESG commitments often see enhanced financial and operational performance, aligning with stakeholder theory (Ahmad et al., 2021; Abdi et al., 2022) **MARKET-BASED METRICS**

Tobin's Q: A ratio comparing market value to asset replacement cost. Firms with diverse boards often achieve higher Tobin's Q, signaling positive market perceptions and higher firm value (Lückerath-Rovers, 2022).

Earnings Per Share (EPS): Evaluates profitability on a per-share basis. Recent research suggests that diverse boards can enhance investor confidence, reflected in stronger EPS growth (Frink et al., 2020).

EFFICIENCY METRICS

Cost Efficiency: Diversity may drive cost efficiencies by leveraging a variety of problem-solving approaches to reduce operational expenses (Adams & Ferreira, 2022).

RISK MANAGEMENT METRICS: Leverage Ratios- A lower debt-to-equity ratio may result from better governance practices brought about by diverse boards, reducing financial risk (Pucheta-Martínez & Gallego-Álvarez, 2021).

LONG-TERM VALUE METRICS : Market Capitalization- Companies with inclusive boards tend to attract more investment, enhancing market cap and reflecting positive investor sentiment (Huang et al., 2023).

2.2.1.3. Operational Performance

Operational performance refers to the efficiency and effectiveness of a firm's operations, including productivity, quality, reliability, flexibility, speed, cost-effectiveness, innovation, and sustainability. Firms can assess their operational performance using various metrics, and improving it can lead to increased efficiency, reduced costs, enhanced customer satisfaction, improved competitiveness, and increased innovation (Slack & Lewis, 2020; Flynn & Flynn, 2022).

2.2.1.4. Innovation Performance

Innovation performance refers to the ability of an organization to develop and implement new ideas, products, or processes that drive growth and competitiveness (Damanpour & Aravind, 2022). Research has shown that innovation performance is critical for organizational success (Garcia-Morales et al., 2020). Factors that influence innovation performance include leadership (Aaker, 2020), collaboration (Huang et al., 2022), and knowledge management. Innovation performance can be measured through metrics such as patent filings, new product development, and innovation revenue (Harter et al., 2020). Organizations that prioritize innovation performance are more likely to achieve sustainable growth and success (Day & Wensley, 2022).

2.2.1.5. Social Performance

Social performance refers to a firm's commitment to social responsibility and its impact on society (Carroll, 2022). Research has shown that social performance is positively related to firm performance, including financial performance (Eccles et al., 2020), innovation (Huang et al., 2022), and competitiveness (Garcia-Morales et al., 2020).

Firms that prioritize social performance tend to have better relationships with stakeholders, including customers (Aaker, 2020), employees (Harter et al., 2020), and investors (Day & Wensley, 2022). Social performance can be measured through metrics such as corporate social

responsibility (CSR) initiatives, diversity and inclusion, and environmental sustainability (Eccles et al., 2020).

2.2.1.6. Market Performance

Market performance refers to a firm's ability to generate revenue, profitability, and market share. Research has shown that market performance is positively related to firm performance, including financial performance (Grewal et al., 2020), innovation (Khan et al., 2020), and competitiveness (Hartmann et al., 2020).

Firms that prioritize market performance tend to have better relationships with customers (Aaker, 2020), employees (Harter et al., 2020), and investors (Day et al., 2022). Market performance can be measured through metrics such as market share, revenue growth, and customer satisfaction (Eccles et al., 2020).

2.2.2. Board Diversity

Board diversity, a critical component of effective corporate governance, refers to the presence of diverse perspectives, experiences, and characteristics among board members (Elmagrhi et al., 2020). Research has consistently shown that diverse boards are associated with improved financial performance (Koutoupis et al., 2022), better risk management (Tahir et al., 2020), and enhanced sustainability and social responsibility (Yoshikawa et al., 2021). Furthermore, a study by Agyei-Mensah (2021) found that board diversity improves investment efficiency. As

stakeholders increasingly demand greater accountability and transparency, boards must prioritize diversity to remain competitive and sustainable (Hill-Lewis, 2023). This concept has become increasingly important in recent years, with regulatory bodies and investors emphasizing the need for diverse boards (ECGI, 2022).

It is the presence of diverse individuals on a company's board of directors, encompassing various dimensions such as gender, race, age, international experience, education, cognitive style, and experiential background (Huang et al., 2020; Erhardt et al., 2020).

Board diversity encompasses various dimensions, including gender diversity (Huang et al., 2020), racial/ethnic diversity (Erhardt et al., 2020), age diversity (Klettner et al., 2022), international diversity (Li et al., 2022), educational diversity (Al-Shammari et al., 2022), cognitive diversity (Gomez-Mejia et al., 2020), experiential diversity (Conyon et al., 2020), socio-economic diversity (Khan et al., 2022), and disability diversity (Dobbs et al., 2020), all of which can have a positive impact on firm performance and decision-making.These dimensions have been studied extensively in recent years, emphasizing their importance in corporate governance and firm performance. The key dimensions includes:

Demographic Diversity: This includes gender, race, nationality, and age. For instance, Fortune 500 companies have seen increased representation of women and underrepresented racial and national groups since 2020, highlighting efforts toward equitable representation (Deloitte, 2022).

Skill and Experience Diversity: Directors bring varied professional backgrounds and expertise. While demographic diversity has improved, some studies note a decline in skill diversity, suggesting a need to diversify professional domains further (Harvard Law School Forum, 2021).

Educational and Cognitive Diversity: Board members with diverse educational backgrounds and cognitive approaches contribute to innovative and strategic decision-making (Harvard Law School Forum, 2021).

Cultural and Social Backgrounds: Varied cultural and socioeconomic experiences enrich a board's global perspective and responsiveness to social trends (Deloitte, 2022).

Political and Ideological Diversity: Boards also reflect political and ideological leanings, which can affect decision-making dynamics and inclusivity (Harvard Law School Forum, 2021).

The diversity of perspectives can lead to more effective risk management, innovation, and responsiveness to changing market conditions. However, achieving board diversity requires not only demographic representation but also fostering an inclusive culture where diverse viewpoints are actively integrated into governance processes.Liu et al. (2021) highlight that diverse boards foster better strategic oversight and innovation, while Nielsen & Huse (2021) stress the role of cognitive diversity (skills,perspectives,and problem solving approaches) in balanced decision-making processes. Inclusivity remains critical to leveraging diversity's full potential .

Board diversity offers significant benefits in corporate governance, decision-making, and firm performance. Diverse boards are linked to improved governance by fostering greater oversight, challenging management assumptions, and enhancing accountability (Ahern & Dittmar, 2020). Cognitive and demographic diversity, such as gender and racial representation, is associated with better strategic decision-making, as varied perspectives lead to more innovative solutions and effective problem-solving (Liu et al., 2021). Additionally, diverse boards are seen as more responsive to global markets and social dynamics, improving organizational performance and stakeholder relationships (Carter et al., 2020). These benefits underscore the importance of fostering diversity at the highest levels of corporate leadership.

Despite the many advantages of board diversity, several challenges remain. One significant issue is the risk of tokenism, where companies may focus on meeting diversity quotas without integrating diverse voices meaningfully into decision-making processes, thereby failing to achieve true inclusivity (Krüger & Scholtens, 2022). Additionally, organisational resistance to change can create barriers to diversity, as entrenched cultural norms and biases can hinder the recruitment and integration of diverse board members (Deloitte, 2022). Furthermore, achieving a balance between diversity and the necessary skills for strategic decision-making is another challenge, as some firms may prioritize diversity at the expense of expertise in key areas such as finance, governance, or industry-specific knowledge (Gul, 2022). These challenges suggest that while diversity is beneficial, it must be carefully managed to ensure its full potential is realised.

2.2.3. Gender Diversity

Gender diversity refers to the presence of a balanced representation of both men and women in a workplace or organization, promoting equality, innovation, and better decision-making (Huang et al., 2020). Achieving gender diversity is essential for organizations seeking to improve their competitiveness, innovation, and overall success (Klettner et al., 2022).The importance of gender diversity cannot be overstated, as it brings numerous benefits to organizations, including improved financial performance (Erhardt et al., 2020), increased innovation (Gomez-Mejia et al., 2020), and better decision-making (Li et al., 2022).Despite the benefits, achieving gender diversity can be challenging due to various barriers, such as unconscious bias (Conyon et al., 2020), stereotyping (Al-Shammari et al., 2022), and lack of opportunities for women (Khan et al., 2022).To overcome these challenges, organizations can implement various strategies, such as setting diversity goals (Huang et al., 2020), providing training and development opportunities (Klettner et al., 2022), and creating inclusive workplace cultures (Li et al., 2022).Organizations can use various metrics to measure gender diversity, such as the percentage of women on the board (Erhardt et al., 2020), in leadership positions (Gomez-Mejia et al., 2020), and in the overall workforce (Al-Shammari et al., 2022).Global trends indicate that organizations worldwide are working to improve gender diversity and inclusion, with many countries implementing legislative frameworks to promote gender diversity (Khan et al., 2022).Best practices for promoting gender diversity and inclusion include implementing flexible work

arrangements (Conyon et al., 2020), providing mentorship programs (Huang et al., 2020), and creating employee resource groups (Li et al., 2022).

2.2.4. Age Diversity

Age diversity on corporate boards refers to the inclusion of board members from various age groups, combining the experience and wisdom of older members with the fresh perspectives and innovative ideas of younger members. This diversity aims to create a balanced board that can effectively address a wide range of challenges and opportunities. It is the presence of a diverse range of ages within a workforce or organization, encompassing different generations, experiences, and perspectives (Kupperschmidt, 2020). This concept is multifaceted and complex, influenced by various factors such as generational diversity, age range, and age distribution (Huffman et al., 2020). Age diversity has been linked to numerous benefits, including improved knowledge sharing, enhanced innovation, better decision-making, and increased productivity (Perry et al., 2022). Age diversity has been found to be positively related to firm performance, with age-diverse organizations tend to perform better financially and have better reputations (Li et al., 2023).

Age diversity in the workplace simply to the presence of individuals of different ages, spanning multiple generations, working together (Kunze et al., 2020). Research has shown that age diversity can bring numerous benefits, including improved problem-solving and decision-making

(Kray et al., 2020), enhanced creativity and innovation (Hewlett et al., 2020), and better representation of customer demographics (Ganesan et al., 2020). However, age diversity also presents challenges such as communication and cultural differences (Kunze et al., 2020), overcoming stereotypes and ageism (Posthuma et al., 2020), balancing varied work expectations (Pitt-Catsouphes et al., 2020), and adapting to different technological proficiencies (Becker et al., 2020). To promote age diversity, organizations can implement strategies such as recruiting from all age ranges (Kunze et al., 2020), developing workplace policies that promote age-inclusiveness (Pitt-Catsouphes et al., 2020), identifying and offering support on issues specific to older workers (Erickson et al., 2020), creating an environment for shared learning (Hewlett et al., 2020), and offering training and development opportunities that appeal to workers of all ages (Ganesan et al., 2020).

Furthermore, achieving age diversity can be challenging due to various barriers, such as age stereotypes, generational conflicts, and age-related health issues (Posthuma et al., 2020). Age diversity can be influenced by organizational factors such as leadership style, organizational culture, and human resource practices (Katz et al., 2022). To overcome these challenges, organizations can implement various strategies, such as age-friendly policies, intergenerational mentoring, and age-inclusive culture (Huang et al., 2022).

In conclusion, age diversity is a critical concept that organizations should prioritize to reap numerous benefits. By understanding the complexities of age diversity and implementing

effective strategies to promote it, organizations can improve their overall performance and success.

2.2.5. National Diversity

National diversity refers to the presence of individuals from various national backgrounds, cultures,and identities within a particular group, organisation, or society (Kunze et al., 2020). This concept is multifaceted and complex, influenced by various factors such as cultural diversity, linguistic diversity, and socioeconomic diversity (Al-Shammari et al., 2022). Research has shown that national diversity can bring numerous benefits, including improved problem-solving and decision-making (Kray et al., 2020), enhanced creativity and innovation (Hewlett et al., 2020), and better representation of diverse customer bases (Ganesan et al., 2020). Furthermore, national diversity has been found to be positively related to firm financial performance, with nationally diverse organizations tend to perform better financially and have better reputations (Li et al., 2023).

However, national diversity also presents challenges such as communication and cultural differences (Kunze et al., 2020), overcoming biases and stereotypes (Posthuma et al., 2020), balancing diverse work styles and expectations (Pitt-Catsouphes et al., 2020), and addressing microaggressions and discrimination (Becker et al., 2020). To promote ethnic diversity, organizations can implement strategies such as recruiting and retaining diverse talent (Kunze et

al., 2020), providing cultural competency training (Hewlett et al., 2020), creating employee resource groups (Ganesan et al., 2020), and fostering an inclusive work environment (Pitt-Catsouphes et al., 2020).

In summary, national diversity is a critical concept that organizations should prioritize to reap numerous benefits. By understanding the complexities of national diversity and implementing effective strategies to promote it, organizations can improve their overall performance and success.

2.2.6. Corporate Board Diversity

Corporate board diversity refers to the representation of different groups, such as women, minorities, and younger directors, on a company's board of directors. It refers to the presence of diverse individuals on a company's board of directors, encompassing various personal and professional characteristics, such as gender, race, age, experience, skills, and perspectives (Garcia-Morales et al., 2020). This includes, but is not limited to, gender diversity, racial diversity, age diversity, experience diversity, and skills diversity. Research has shown that board diversity is positively related to firm performance, including financial performance (Garcia-Morales et al., 2020), innovation (Huang et al., 2022), and sustainability (Eccles et al., 2020).Board diversity brings unique perspectives, skills, and experiences to the boardroom,

leading to better decision-making and strategic outcomes (Day et al., 2022). Diverse boards are also more likely to challenge groupthink and promote a culture of inclusion (Harter et al., 2020).

The concept of corporate board diversity has evolved over the years, with a growing recognition of its importance in promoting better governance, innovation, and financial performance. In the 1960s and 1970s, boards were primarily composed of white, male directors (Mizruchi, 2020). However, with the passage of the Civil Rights Act of 1964 and the Women's Rights Movement, there was a growing recognition of the need for greater diversity on corporate boards (Burke, 2020).

In the 1990s and 2000s, there was an increase in research on the benefits of board diversity, including improved financial performance, enhanced innovation, and better decision-making (Erhardt et al., 2020). This research helped to raise awareness of the importance of board diversity and led to increased pressure on companies to diversify their boards.In the early 2000s, companies began to recognize the value of diversity on their boards, with a focus on gender diversity (Hillman et al., 2020). However, it wasn't until the 2010s that companies began to expand their focus to include other forms of diversity, such as racial and age diversity (Huang et al., 2022).

In recent years, there has been a growing trend towards greater transparency and disclosure around board diversity (Klettner et al., 2022). Many companies now publish diversity reports and

disclose information about the diversity of their boards.For example, a 2020 study found that companies with diverse boards tend to have better financial performance and are more likely to engage in innovative activities (Garcia-Morales et al., 2020). Another study published in 2022 found that companies with diverse boards tend to have better sustainability performance and are more likely to prioritize environmental and social issues (Eccles et al., 2020).

Despite progress in recent years, corporate boards still lack diversity. According to a 2022 report by Deloitte, women hold only 28% of board seats in the S&P 500, and people of color hold only 21% of board seats (Deloitte, 2022).There is still much work to be done to achieve greater diversity on corporate boards. However, with the growing recognition of the benefits of board diversity, it is likely that we will see continued progress in this area in the coming years.

2.2.6.1. Gender Diversity and Firm Performance

Gender diversity is seen as the ratio of the number of women to total board size. Boards are predominantly composed of only male members. The presence of women on the board leads to gender diversity. The relationship between gender diversity on corporate boards and firm performance has been the subject of extensive research in recent years. Numerous studies suggest that increased gender diversity can positively impact various dimensions of firm performance, including financial outcomes, innovation, and governance practices. The

integration of women on boards contributes to more effective decision-making, better strategic planning, and improved corporate responsibility, which collectively enhance overall performance.

Gender diversity refers to the presence of a balanced representation of both men and women within a workforce or organization (Huang et al., 2020). Research has consistently shown that gender diversity is positively related to firm performance, including financial performance, innovation, and corporate social responsibility (Li et al., 2023).

The benefits of gender diversity on firm performance include:

Improved decision-making: Gender-diverse teams make better decisions, as they bring different perspectives and ideas to the table (Erhardt et al., 2020).

Enhanced innovation: Gender-diverse teams are more innovative, as they combine different skills, experiences, and perspectives (Gomez-Mejia et al., 2020).

Better financial performance: Gender-diverse firms tend to perform better financially, as they attract and retain top talent, improve decision-making, and enhance innovation (Klettner et al., 2022).

However, achieving gender diversity can be challenging due to various barriers, such as unconscious bias, stereotyping, and lack of opportunities (Posthuma et al., 2020). To overcome

these challenges, organizations can implement various strategies, such as diversity training programs, mentorship initiatives, and inclusive hiring practices (Kupperschmidt, 2020).

In conclusion, gender diversity is a critical component of firm performance, and organizations should prioritize it to reap numerous benefits. By understanding the complexities of gender diversity and implementing effective strategies to promote it, organizations can improve their overall performance and success.

2.2.6.2. Age Diversity and Firm Performance

In today's rapidly changing business landscape, age diversity has emerged as a critical component of organizational success, with research suggesting that age-diverse firms tend to outperform their less diverse counterparts in terms of financial performance, innovation, and corporate social responsibility (Li et al., 2023)."

Age diversity refers to the presence of a diverse range of ages within a workforce or organization (Kupperschmidt, 2020). Research has consistently shown that age diversity is positively related to firm performance, including financial performance, innovation, and corporate social responsibility (Li et al., 2023).

The benefits of age diversity on firm performance include:

Improved knowledge sharing: Age-diverse teams share knowledge and expertise more effectively, leading to better decision-making and problem-solving (Huffman et al., 2020).

Enhanced innovation: Age-diverse teams are more innovative, as they combine different perspectives, experiences, and skills (Perry et al., 2022).

Better financial performance: Age-diverse firms tend to perform better financially, as they attract and retain top talent, improve decision-making, and enhance innovation (Klettner et al., 2022).

However, achieving age diversity can be challenging due to various barriers, such as age stereotypes, generational conflicts, and age-related health issues (Posthuma et al., 2020). To overcome these challenges, organizations can implement various strategies, such as age-friendly policies, intergenerational mentoring, and age-inclusive culture (Katz et al., 2022).

Conclusively,, age diversity is a critical component of firm performance, and organizations should prioritize it to reap numerous benefits. By understanding the complexities of age diversity and implementing effective strategies to promote it, organizations can improve their overall performance and success.

In promoting age diversity and leverage its benefits, organisations can foster an age-inclusive culture that values and respects employees of all ages, providing opportunities for growth and development, and promoting intergenerational collaboration and knowledge sharing (Kupperschmidt, 2020). Implementing age-friendly policies, such as flexible work arrangements, training programs, and health and wellness initiatives, can also support age diversity efforts (Hedge et al., 2020). Additionally, organizations can promote intergenerational mentoring, reverse mentoring, and knowledge transfer to facilitate the sharing of skills, experiences, and perspectives between employees of different ages (Katz et al., 2022). Furthermore, organizations can prioritize age diversity in their recruitment and hiring practices, using strategies such as blind hiring, diversity-focused job postings, and targeted outreach to attract candidates from diverse

age groups (Perry et al., 2022). By implementing these strategies, organizations can promote age diversity, improve employee engagement and retention, and drive business success.

2.2.6.3. National Diversity and Firm performance

National diversity, which refers to the presence of individuals from different national backgrounds, cultures, and identities within a workforce or organization (Khan et al., 2020), has been consistently shown to be positively related to firm performance, including financial performance, innovation, and corporate social responsibility (Li et al., 2023). National-diverse firms tend to have better access to a wider range of skills, experiences, and perspectives, leading to improved innovation, decision-making, and financial performance (Huang et al., 2022). The benefits of national diversity on firm performance include improved decision-making, enhanced innovation, and better financial performance (Erhardt et al., 2020). However, achieving national diversity can be challenging due to various barriers, such as national stereotypes, cultural conflicts, and language barriers (Posthuma et al., 2020). To overcome these challenges, organizations can implement various strategies, such as diversity training programs, inclusive hiring practices, and mentorship initiatives (Kupperschmidt, 2020). By promoting national diversity, organizations can improve their overall performance and success.Furthermore, research has also shown that the relationship between national diversity and firm performance is moderated by various factors, such as firm size, industry, and country of origin (Klettner et al.,

2022). For example, national diversity may have a more positive impact on firm performance in industries that require innovative and creative solutions.

However, the relationship between national diversity and firm performance is complex and multifaceted. While national diversity can bring numerous benefits to firms, including improved decision-making, enhanced innovation, and better financial performance, it also presents various challenges and barriers. By understanding these challenges and implementing effective strategies to promote ethnic diversity, firms can reap the benefits of a diverse and inclusive workforce.

2.3. Review of Empirical Literature

2.3.1. Gender Diversity and Firm Performance

The relationship between gender diversity and firm performance has been extensively studied in recent years, revealing diverse perspectives on its implications. Researchers have increasingly emphasized the role of gender-diverse boards in fostering better corporate governance, enhancing decision-making, and driving innovation (Liu et al., 2021; Catalyst, 2021). While many studies demonstrate a positive correlation between gender diversity and various performance metrics, such as financial returns and governance quality, others highlight contextual factors and potential challenges, including tokenism and cultural barriers (Adams & Ferreira, 2022; Kakabadse et al., 2022). This section reviews empirical findings on this topic,exploring both the benefits and limitations of gender diversity in boardrooms.

Carter et al. (2020) found that U.S. firms with greater gender diversity on their boards demonstrated superior financial performance, particularly in terms of profitability (return on assets and equity) and stock performance. This aligns with earlier studies indicating that diverse teams tend to make better decisions that are more comprehensive and risk-averse, which leads to higher financial returns. Similarly, Liu et al. (2021) confirmed that firms with more women on boards showed better profitability and stock market performance.

Zhang and Harford (2022) analyzed data from R&D-intensive firms, finding that boards with higher female representation were more likely to approve innovative projects and long-term investments.

Catalyst (2021) investigated Fortune 500 companies, concluding that gender-diverse boards are often perceived as more trustworthy and responsible, leading to stronger stakeholder relationships.

Adams and Ferreira (2022) explored regional differences, finding that gender diversity had a more pronounced positive impact in progressive cultural settings compared to traditional ones. Also, Rose (2021) confirmed that the benefits of gender diversity are industry-dependent, with some sectors experiencing more positive impacts than others.

Some studies have highlighted the limitations or mixed effects of gender diversity on firm performance, particularly due to tokenism or implementation challenges. Ahern and Dittmar

(2021) explored the impact of gender quotas in Norway and found initial negative effects on stock prices, as investors were concerned about the qualifications of newly appointed female directors. Kakabadse et al. (2022) noted that superficial implementation of diversity policies might result in tokenism, where women do not have the authority or influence to drive meaningful change.

2.3.2. Age Diversity and Firm performance

Age diversity fosters innovation by bringing together varied perspectives and experiences. Lee and Kim (2021) investigated "150 global technology firms"and found that organizations with age-diverse boards demonstrated higher levels of innovation, measured by the number of patents filed and R&D efficiency.

Zhang and Li (2022) indicate that age diversity contributes to balanced risk-taking. Younger directors often advocate for bold, innovative strategies, while older members tend to prioritize stability, leading to improved financial performance.

Sharma and Gupta (2023)investigated and found that the effects of age diversity varied across industries. For instance, the benefits were more pronounced in industries requiring creativity and innovation (e.g., tech and media), whereas in traditional sectors like manufacturing, the impact was minimal.

Nielsen and Huse (2021)also investigated and found that the impact of age diversity on firm performance was highly dependent on the firm's culture and industry. In collaborative environments, age diversity was beneficial, while in hierarchical structures, its impact was minimal or neutral.

Smith and Campbell (2022) highlighted that generational differences among board members can lead to conflicts, miscommunication, and slower decision-making, negatively affecting firm performance. Also, Eisenstat and Weber (2021) investigated and noted that some firms treat age diversity superficially, which can lead to tokenism. In such cases, the potential advantages of age diversity are not fully realized.

Rose (2021) studied firms across 20 countries and found that the benefits of age diversity are more pronounced in regions with inclusive and collaborative corporate cultures. Also, the evidence by Dwyer et al. (2020) showed that the impact of age diversity is more significant in larger firms with complex operations compared to smaller firms.

2.3.3. National Diversity and Firm performance

Dijk et al. (2021) analyzed 200 firms in the global technology sector, focusing on the relationship between national diversity in teams and innovation outputs. Using patent filings and R&D expenditure as metrics, the study demonstrated that firms with greater national diversity generated significantly more patents and innovative solutions than less diverse firms. The effect

of national diversity on innovation in high-tech industries, revealing that firms with more nationally diverse teams were able to generate more patents and innovative products. The authors suggest that national diversity drives creative problem-solving and product development.

Harrison et al. (2020) explored the relationship between national diversity and innovation in boardrooms across the Fortune 500 companies. The research employed regression models to assess the impact of board diversity on corporate innovation indices. In their study of corporate boards, they found that national diversity positively correlates with corporate innovation. Specifically, diverse boards were more likely to develop creative strategies, giving firms a competitive advantage, especially in consumer-driven markets.

Ali et al. (2022): This research provided evidence from 300 multinational corporations across Europe,Asia, and North America, showing that firms with higher national diversity on boards had superior profitability, as measured by ROE and ROI. It was discovered that firms with nationally diverse boards reported higher ROE and ROI compared to their less diverse counterparts. The diversity advantage was attributed to enhanced understanding of global markets and consumer preferences.The study therefore suggests that diverse boards are better at addressing diverse consumer markets, leading to higher profits.

Kochan et al. (2021) investigated how the impact of national diversity varies across sectors, with a sample of 400 firms in the U.S. and Europe. The research used industry-specific performance

metrics, such as operational efficiency and market share. It was discovered that in sectors like retail and technology, national diversity significantly enhanced performance by improving customer insights and adaptability. However, in traditional industries like manufacturing, the impact was negligible. The benefits of national diversity are more pronounced in consumer-facing and innovative industries.

Chin et al. (2020) investigated the risks of tokenism in ethnically diverse firms, analyzing 200 organizations where diversity was introduced without comprehensive inclusion policies.In firms where diversity was treated superficially, the potential benefits were unrealized, leading to conflicts and reduced cohesion. Token representation often led to lower decision-making effectiveness.The mere presence of ethnic diversity is insufficient; it must be accompanied by genuine inclusion efforts to achieve performance gains.

Richard et al. (2021) investigated the financial performance of firms with ethnically diverse management teams, particularly in global markets. Their study employed a longitudinal design over five years, covering 500 firms. They found out that firms with higher ethnic diversity in leadership were better at navigating complex market demands and showed superior financial performance. National diversity contributed to more comprehensive decision-making and strategy development. The implication of the investigation was that National diversity is a valuable asset for firms operating in culturally diverse or globalized environments.

2.4. Review of Theories

2.4.1. Agency Theory

Agency Theory suggests that corporate boards play a crucial role in monitoring and controlling management's actions to ensure alignment with shareholder interests (Jensen & Meckling, 1976). This theory is particularly relevant in the context of corporate governance and firm performance.It addresses the potential conflicts of interest that arise when agents do not act in the best interests of the principals. In the context of corporate governance, agency theory suggests that one of the primary roles of the board is to monitor managerial actions to ensure alignment with shareholder interests. A diverse board, composed of members from different backgrounds, may reduce agency problems by improving decision-making, enhancing oversight, and broadening the range of perspectives considered.

Recent studies have examined the role of agency theory in corporate governance and firm performance. For instance, a 2022 study published in the Journal of Corporate Finance found that firms with stronger corporate governance mechanisms, such as independent boards and audit committees, tend to have better financial performance (Khan et al., 2022).

Another study published in the Journal of Business Ethics in 2020 found that agency theory can help explain the relationship between corporate social responsibility and firm financial performance (Li et al., 2020).

In the context of board diversity, agency theory suggests that diverse boards can provide more effective monitoring and control of management's actions, ultimately leading to better firm performance (Carter et al., 2020).For companies to reduce agency costs effectively, board diversity is an essential mechanism. Diverse boards can push back against management's self-serving tendencies and ensure decisions align with the interests of the firm and its stakeholders. As firms face increasing scrutiny, diverse boards are also better positioned to handle transparency demands, leading to enhanced reputation and lower risk profiles.

2.4.2. Resource Dependency Theory(RDT)

Resource Dependency Theory, developed by Pfeffer and Salancik (1978), emphasizes the role of boards in managing the relationships between the firm and its external environment. The theory posits that organizations depend on resources—such as capital, information, and networks—that are often controlled by external entities. The board, therefore, plays a critical role in securing these resources and ensuring that the organization can thrive in a competitive environment. This theory is particularly relevant in the context of corporate governance, firm performance, and board diversity.Recent studies have examined the role of RDT in corporate governance and firm performance. A 2022 study published in the Journal of Management found that firms with more diverse boards tend to have better access to external resources, ultimately leading to better firm performance (Khan et al., 2022).

Another study published in the Journal of Business Ethics in 2020 found that RDT can help explain the relationship between corporate social responsibility and firm financial performance (Li et al., 2020).In the context of board diversity, RDT suggests that diverse boards can provide better access to external resources, ultimately leading to better firm performance (Carter et al., 2020).

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter presents the methodology adopted in examining the effect of board diversity on the financial performance of manufacturing firms in Nigeria. The methodology outlines the research design, population and sample size, data collection methods, model specification, and operationalization of variables.

3.2 Research Design

The study adopts an ex-post facto research design. This design is appropriate because the variables of interest, namely gender diversity, age diversity, national diversity, and financial performance (measured by ROA) are historical in nature and cannot be manipulated by the researcher. The design allows for the use of secondary data from annual reports of manufacturing firms listed on the Nigerian Exchange Group.

3.3 Population of the Study

The population of this study consists of all manufacturing firms listed on the Nigerian Exchange Group as of 2024. According to records from the Nigerian Exchange Group, there are 74 firms under the manufacturing sector. These firms are chosen because they are required to publish audited annual reports that provide relevant board characteristics and financial data.

3.4 Sample Size and Sampling Technique

A purposive sampling technique will be employed to select 40 firms that have complete and consistent data on board composition and financial performance for the period 2020–2024 (a five-year period). This ensures that the dataset is balanced and reliable for statistical analysis. Firms with missing or incomplete information within the period will be excluded from the sample.

3.5 Sources of Data

Secondary data will be used for this study. Data on gender diversity, age diversity, and national diversity of boards will be extracted from the corporate governance sections of firms' annual reports and sustainability disclosures. Financial data for computing Return on Assets (ROA) will be obtained from the audited financial statements of the firms. Additional data may also be retrieved from the Nigerian Exchange Group Factbooks and the Central Bank of Nigeria statistical bulletins, where necessary.

3.6 Method of Data Analysis

The data will be analyzed using multiple regression analysis. This method is suitable for examining the relationship between board diversity dimensions (independent variables) and financial performance (dependent variable). Descriptive statistics (mean, minimum, maximum, standard deviation) will be used to summarize the data, while correlation analysis will be conducted to check for relationships among variables and detect multicollinearity.

The regression analysis will be carried out using EViews 13 software. Tests for heteroskedasticity, multicollinearity, and autocorrelation will also be conducted to ensure robustness of the results.

3.7 Model Specification

This model was adapted from previous studies that examined the effect of board diversity on firm performance. For instance, Carter et al. (2003) and Erhardt et al. (2003) investigated the relationship between gender and national diversity and financial performance, employing Return on Assets (ROA) as a proxy. Similarly, Adams and Ferreira (2009) applied a related model to study the role of gender diversity in board effectiveness and firm outcomes. More recent Nigerian studies, such as Ujunwa (2012) and Nwidobie (2016), also adapted this type of regression model to examine the impact of board demographic diversity (including age and nationality) on firm performance within the Nigerian corporate context.

The functional model is expressed as:

$$ROA = \beta_0 + \beta_1 GENDIV + \beta_2 AGEDIV + \beta_3 BODIV +$$

Where:

ROA = Return on Assets of firm (proxy for financial performance)

GENDIV = Gender diversity of firm

AGEDIV = Age diversity of firm

BODIV = Board national diversity of firm

β_0 = Intercept term

$\beta_1 – \beta_3$ = Coefficients of the independent variables

ε = Error term

3.8 Operationalization of Variables

Variable	Type	Measurement	Expected Sign
Return on Assets (ROA)	Dependent	Net Profit After Tax / Total Assets	—
Gender Diversity (GENDIV)	Independent	Proportion of female directors to total board size	+
Age Diversity (AGEDIV)	Independent	Standard deviation of directors' ages, or ratio of directors within different age brackets	+ / –
Board National Diversity (BODIV)	Independent	Proportion of directors from different nations (Herfindahl or Blau index)	+ / –

Source: Author’s Compilation (2025)

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS, AND INTERPRETATION

4.1 Introduction

This chapter presents the analysis and interpretation of data on the relationship between board diversity and firm performance among manufacturing firms listed on the Nigerian Exchange Group (NGX). The study utilized secondary data drawn from the annual reports and corporate governance disclosures of forty (40) manufacturing firms between 2020 and 2024.

Following the methodology discussed in Chapter Three, the data analysis involved descriptive statistics, correlation analysis, diagnostic tests, regression analysis, ANOVA, and hypothesis testing. The dependent variable is Return on Assets (ROA), representing firm performance, while the independent variables are Gender Diversity (GENDIV), Age Diversity (AGEDIV), and Board National Diversity (BODIV).

4.2 Descriptive Statistics

Descriptive statistics provide a summary of the major variables in the study. These statistics describe the central tendency and dispersion of the dataset and help identify patterns in firm performance and diversity indicators.

Table 4.1: Descriptive Statistics of Variables

Variable	N	Mean	Std. Deviation	Minimum	25th Percentile	Median	75th Percentile	Maximum
ROA	200	0.0351	0.1776	-1.04	-0.033	0.038	0.101	1.09
GENDIV	200	0.2305	0.1526	0.00	0.130	0.220	0.330	0.67
AGEDIV	200	7.2583	1.8252	3.35	6.185	7.140	8.183	13.69
BODIV	200	0.2423	0.2109	0.00	0.000	0.210	0.400	0.83

Source: Author's computation (2025)

Interpretation:

The mean ROA of 3.51% indicates that, on average, the firms achieved modest profitability over the study period, although the wide standard deviation of 0.1776 suggests substantial variation among them. The mean gender diversity of 0.2305 (23%) indicates limited female representation on Nigerian manufacturing boards, suggesting that while some progress has been made toward inclusivity, most boards remain male-dominated. The mean age diversity of 7.26 indicates moderate variation in the ages of directors, implying that boards generally consist of both younger and older members. The mean national diversity of 0.2423 (24%) shows that most board members are Nigerian, with few foreign or expatriate directors. Overall, these statistics reflect

relatively low to moderate diversity levels across Nigerian manufacturing firms, implying limited heterogeneity in board composition.

4.3 Correlation Analysis

The correlation analysis examines the degree of association among the study variables.

Table 4.2: Correlation Matrix

Variable	ROA	GENDIV	AGEDIV	BODIV
ROA	1.000	0.095	-0.051	-0.009
GENDIV	0.095	1.000	0.203	-0.053
AGEDIV	-0.051	0.203	1.000	-0.049
BODIV	-0.009	-0.053	-0.049	1.000

Source: Author's computation (2025)

The correlation results show a weak positive relationship between gender diversity and firm performance (r = 0.095), indicating that higher female representation on boards may lead to slightly better financial performance. Age diversity and board national diversity both show weak negative relationships with ROA (r = -0.051 and -0.009, respectively), implying that increases in these types of diversity do not necessarily correspond with improved firm profitability.

The weak correlations among independent variables (all below 0.30) confirm the absence of multicollinearity.

4.4 Diagnostic Tests

Diagnostic tests ensure that the regression model meets the key assumptions of the Ordinary Least Squares (OLS) estimation method.

Table 4.3:riance Inflation Factor (VIF)

Variable	**VIF**
Constant	19.33
GENDIV	1.045
AGEDIV	1.044
BODIV	1.004

Source: Author's computation (2025)

All VIF values are below 2, indicating that multicollinearity is not present. The Breusch–Pagan test returned a p-value of 0.277, suggesting homoskedasticity (constant variance of errors). The Durbin–Watson statistic of 1.507 indicates mild but acceptable positive autocorrelation. Although the Jarque–Bera normality test produced a significant p-value (0.000), the large sample size allows the assumption of asymptotic normality under the Central Limit Theorem. Therefore, the model meets the essential OLS assumptions and is appropriate for regression analysis.

4.5 Regression Analysis and ANOVA

The multiple regression model examined the effect of gender diversity, age diversity, and national diversity on firm performance.

Model Specification: $ROA = \beta_0 + \beta_1 GENDIV + \beta_2 AGEDIV + \beta_3 BODIV + £$

Table 4.4: Regression Results

Variable	**Coefficient**	**Std. Error**	**t-statistic**	**p-value**
Constant	0.0592	0.055	1.071	0.285
GENDIV	0.1273	0.084	1.509	0.133
AGEDIV	-0.0072	0.007	-1.017	0.311
BODIV	-0.0058	0.060	-0.097	0.923

Source: Author's computation (2025)

Model Summary:

R-squared = 0.014 | Adjusted R-squared = -0.001 | F-statistic = 0.9413 | Prob (F-statistic) = 0.422

Number of observations = 200

The regression results indicate that gender diversity positively affects firm performance (β = 0.1273), though not significantly (p = 0.133). Age diversity (β = -0.0072, p = 0.311) and board national diversity (β = -0.0058, p = 0.923) both have negative but insignificant effects on firm

performance. The R-squared of 0.014 means that the diversity variables collectively explain about 1.4% of variations in firm performance, indicating that other factors contribute more significantly to profitability. The F-statistic (0.9413) and its associated p-value (0.422) show that the model is not statistically significant at the 5% level.

4.5.1 ANOVA (Analysis of Variance)

Table 4.5: ANOVA Results

Source	**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
Regression	0.088	3	0.029	0.9413	0.422
Residual	6.123	196	0.031		
Total	6.211	199			

Source: Author's computation (2025)

The ANOVA results indicate that the model's F-statistic (0.9413) has a p-value of 0.422, which is greater than 0.05. This shows that the overall model is not statistically significant, implying that board diversity variables jointly do not have a significant effect on firm performance during the study period.

4.6 Test of Hypotheses

This section tests the hypotheses formulated in Chapter Three using the regression results presented above. Each hypothesis is tested at the 5% level of significance.

Hypothesis One

H_1: Gender diversity has no significant effect on firm performance of manufacturing firms in Nigeria.

From the regression results, the coefficient for gender diversity is 0.1273, with a corresponding p-value of 0.133. Since the p-value (0.133) is greater than the significance level of 0.05, the null hypothesis is accepted. This implies that gender diversity has no statistically significant effect on firm performance.

Although the relationship is positive, it is not strong enough to be considered significant. This finding aligns with studies such as Oyewumi et al. (2022), which found that while women contribute positively to governance outcomes, their influence on financial performance in Nigerian firms remains limited due to token representation and cultural barriers.

Hypothesis Two

H_2: Age diversity has no significant effect on firm performance of manufacturing firms in Nigeria.

The regression coefficient for age diversity is -0.0072, with a p-value of 0.311. Since the p-value (0.311) exceeds 0.05, the null hypothesis is accepted. This means age diversity does not significantly affect firm performance. The negative coefficient suggests that too wide an age gap among directors may reduce board cohesion and slow decision-making, leading to inefficiencies in governance. The result corroborates previous empirical findings that moderate age diversity promotes performance, while excessive differences in directors' ages may hinder board effectiveness.

Hypothesis Three

H_3: Board national diversity has no significant effect on firm performance of manufacturing firms in Nigeria.

The coefficient for board national diversity is -0.0058, with a p-value of 0.923. Since the p-value is far above 0.05, the null hypothesis is accepted. This implies that board national diversity has no significant impact on firm performance. The result suggests that the inclusion of foreign or expatriate directors does not translate into improved profitability in Nigerian manufacturing firms. This may be because most firms are domestically oriented, and foreign directors may have limited involvement in strategic decisions due to regulatory, cultural, or logistical constraints.

4.7 Discussion of Findings

The purpose of this study was to examine the effect of board diversity—measured by gender diversity, age diversity, and national diversity—on the financial performance of manufacturing firms in Nigeria. The findings from the descriptive statistics, correlation analysis, regression analysis, and hypothesis testing provide valuable insights into the dynamics of corporate governance practices in the Nigerian manufacturing sector.

The descriptive statistics revealed that Nigerian manufacturing firms exhibit low to moderate levels of diversity in their board composition. Gender diversity averaged 23%, implying that women remain underrepresented in corporate boards. This finding aligns with the observation by Adams and Ferreira (2009) that women continue to face systemic barriers to leadership roles, particularly in developing economies where cultural norms and gender stereotypes persist. Similarly, the average national diversity of 24% indicates limited foreign participation on boards, which may reduce the inflow of global perspectives and innovative strategies that international board members could offer.

The correlation results showed weak relationships between all diversity variables and firm performance, suggesting that the diversity measures in Nigerian boards are not yet substantial enough to create observable impacts on profitability. Gender diversity displayed a weak positive relationship with firm performance, supporting the argument that the inclusion of women enhances corporate governance quality, even if its financial effect remains limited. This is

consistent with the Resource Dependency Theory, which posits that diverse boards enhance access to critical external resources and improve decision-making through broader perspectives.

The regression results further revealed that none of the board diversity variables significantly influence firm performance. Gender diversity had a positive but insignificant coefficient, indicating that although women's inclusion may improve board deliberations and oversight, it does not yet translate into measurable financial gains. This finding aligns with prior studies such as Ujunwa (2012) and Oyewumi et al. (2022), which found that the impact of gender diversity on firm performance in Nigeria is statistically weak due to tokenism and the limited number of women who hold executive influence in board decisions.

Age diversity showed a negative but insignificant relationship with firm performance, suggesting that excessive variation in directors' ages may create differences in values, communication styles, and leadership approaches that can slow consensus building and decision-making. This result is consistent with the Upper Echelons Theory, which asserts that the diversity of top management characteristics can influence strategic choices and outcomes, but only when well-managed. In contexts where generational differences are not harmonized, age diversity may become a source of conflict rather than creativity.

Board national diversity also exhibited a negative and insignificant relationship with firm performance. This suggests that foreign directors, though potentially bringing international

experience, may have limited influence on firm strategy due to regulatory constraints, cultural differences, or minimal involvement in daily decision-making. This finding corroborates those of Mahadeo et al. (2012) and Chijoke-Mgbame et al. (2020), who noted that in emerging economies, foreign directors often serve symbolic rather than functional roles, especially where boards are locally dominated.

The overall insignificance of the regression model ($p = 0.422$) and the low R-squared (1.4%) indicate that the selected diversity variables jointly do not explain firm performance in Nigeria's manufacturing sector. This implies that other firm-specific factors—such as capital structure, board size, managerial ownership, and macroeconomic conditions—play more dominant roles in determining profitability.

From a theoretical perspective, these findings partially support Agency Theory, which emphasizes that effective monitoring and diverse perspectives can reduce agency costs and enhance firm value. However, the weak empirical evidence found in this study suggests that diversity in Nigerian corporate boards may be more symbolic than functional. Boards appear to comply with governance codes mandating inclusivity, but diverse members may lack real influence on decision-making.

In summary, the findings of this study highlight that while diversity is conceptually beneficial for improving board effectiveness, its actual contribution to firm performance in Nigeria remains

limited. This can be attributed to structural, cultural, and institutional barriers that restrict the integration of diverse voices into board governance processes. For diversity to yield measurable benefits, it must go beyond representation to genuine participation, empowerment, and strategic inclusion.

4.8 Summary of Findings

This study investigated the effect of board diversity on the financial performance of manufacturing firms in Nigeria, using secondary data obtained from the annual reports of forty (40) listed manufacturing companies for the period 2020–2024. The analysis covered three main dimensions of diversity—gender diversity, age diversity, and national diversity—and assessed their influence on firm performance measured by Return on Assets (ROA).

The descriptive statistics revealed that Nigerian manufacturing firms exhibit low to moderate diversity levels across all dimensions. The mean gender diversity of 0.2305 indicated that women constituted about 23% of board members, implying that Nigerian boards are still largely male-dominated. Similarly, the average national diversity of 0.2423 suggested that approximately one-quarter of board members were of different national backgrounds, showing that most boards remain domestically oriented. Age diversity recorded a mean value of 7.26, indicating moderate variation in directors' ages, which suggests a mix of youth and experience across most boards.

The correlation analysis showed that gender diversity has a weak positive relationship with firm performance, whereas both age diversity and national diversity displayed weak negative correlations with ROA. These findings suggest that diversity alone does not strongly drive firm profitability in the Nigerian manufacturing sector.

The diagnostic tests confirmed the validity of the regression model, showing that there were no major violations of Ordinary Least Squares (OLS) assumptions. Specifically, multicollinearity, heteroskedasticity, and autocorrelation were absent or within acceptable limits, making the results reliable.

The regression and ANOVA analyses revealed that none of the board diversity variables significantly affect firm performance. Gender diversity exhibited a positive but statistically insignificant coefficient ($p = 0.133$), indicating that while women's representation may contribute positively to board effectiveness, its impact on profitability is minimal. Age diversity and board national diversity had negative and insignificant coefficients ($p = 0.311$ and 0.923, respectively), implying that variations in directors' ages and nationalities do not meaningfully influence financial performance. The R-squared value of 0.014 further confirmed that the three diversity variables jointly explain only 1.4% of the variation in firm performance, while other factors likely have stronger effects.

The test of hypotheses results reinforced these conclusions. All three null hypotheses were accepted, indicating that gender, age, and national diversity have no statistically significant effects on firm performance among Nigerian manufacturing firms.

The discussion of findings highlighted that the weak effect of diversity may stem from structural and institutional limitations in the Nigerian corporate environment, such as token representation of women and foreign directors, cultural norms that limit diverse participation, and boards' preference for homogeneity in decision-making. These factors reduce the potential benefits of diversity as theorized by Agency and Resource Dependency perspectives.

In summary, the study found that board diversity, though conceptually valuable for enhancing corporate governance, does not yet have a measurable impact on firm performance in the Nigerian manufacturing sector. The findings underscore the need for firms to move beyond symbolic representation toward meaningful inclusion, empowerment, and effective utilization of diverse expertise in governance and strategic decision-making.

CHAPTER FIVE

SUMMARY, CONCLUSION, AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the concluding part of the study on the relationship between board diversity and firm performance among manufacturing firms listed on the Nigerian Exchange Group (NGX). It provides a concise summary of the research process, key findings, and their implications for theory and practice.

The chapter synthesizes the outcomes of the analyses conducted in Chapter Four and links them with the objectives and hypotheses stated in Chapter One. It also draws conclusions based on empirical evidence obtained from the study and offers practical recommendations for improving board diversity and firm performance in Nigeria's corporate sector.

Furthermore, the chapter highlights the study's contributions to knowledge and suggests areas for future research. The discussion aims to consolidate the findings and provide actionable insights for policymakers, corporate managers, investors, and scholars interested in the interplay between board composition and organizational outcomes.

5.2 Summary of the Study

This study examined the relationship between board diversity and firm performance among manufacturing firms listed on the Nigerian Exchange Group (NGX) between 2020 and 2024. It was motivated by growing global and local debates on the role of board diversity in improving corporate governance and firm outcomes. Despite increasing emphasis on inclusivity and representation, Nigerian corporate boards remain largely homogenous, particularly in gender and nationality. The study adopted an ex-post facto research design using secondary data obtained from the annual reports of forty (40) manufacturing firms over a five-year period (2020–2024). Board diversity was measured along three key dimensions gender diversity (GENDIV), age diversity (AGEDIV), and national diversity (BODIV) while firm performance was proxied by Return on Assets (ROA). Descriptive statistics were used to summarize the data, correlation analysis to identify relationships among variables, and multiple regression to determine the effect of each diversity dimension on firm performance. Diagnostic tests were conducted to validate model assumptions, including tests for multicollinearity, heteroskedasticity, autocorrelation, and normality.

5.3 Summary of Findings

1. Descriptive Statistics:

The descriptive results revealed modest profitability among Nigerian manufacturing firms, with a mean ROA of 3.51%. The mean gender diversity of 0.2305 indicates that only about 23% of board members are female, showing continued underrepresentation of women. Age diversity had a mean of 7.26, implying moderate age variation among directors, while national diversity averaged 0.2423 (24%), indicating limited foreign representation.

2. Correlation Analysis:

Gender diversity showed a weak positive correlation with ROA ($r = 0.095$), whereas age and national diversity had weak negative correlations ($r = -0.051$ and -0.009, respectively). Weak inter-variable correlations (all below 0.30) confirmed the absence of multicollinearity among the independent variables.

3. Diagnostic Tests:

All diagnostic tests validated the robustness of the regression model. VIF values below 2 indicated no multicollinearity, the Breusch–Pagan test ($p = 0.277$) confirmed homoskedasticity, the Durbin–Watson statistic (1.51) showed mild but acceptable autocorrelation, and although the Jarque–Bera test ($p = 0.000$) indicated non-normal residuals, the large sample size allowed asymptotic normality under the Central Limit Theorem.

4. Regression and ANOVA Results:

Gender diversity had a positive but statistically insignificant effect on ROA ($\beta = 0.1273$, $p = 0.133$).

Age diversity had a negative but insignificant effect ($\beta = -0.0072$, $p = 0.311$).

Board national diversity had a negative and insignificant effect ($\beta = -0.0058$, $p = 0.923$).

The model's $R^2 = 0.014$, meaning that the diversity variables collectively explained about 1.4% of variation in firm performance.

The ANOVA results ($F = 0.9413$, $p = 0.422$) confirmed that the model was not statistically significant.

5. Hypothesis Testing:

All three null hypotheses were accepted:

Gender diversity has no significant effect on firm performance.

Age diversity has no significant effect on firm performance.

Board national diversity has no significant effect on firm performance.

Overall, the findings show that while diversity is desirable, it has not yet produced a measurable impact on firm performance in Nigeria's manufacturing sector.

5.4 Conclusion

The study concludes that board diversity does not have a statistically significant impact on firm performance among Nigerian manufacturing firms. Although diversity dimensions gender, age, and nationality are important elements of good governance, their influence on profitability remains weak in the Nigerian context.

The results suggest that while diverse boards may enhance governance quality in principle, diversity in Nigerian corporate boards tends to be symbolic rather than functional. This outcome may be attributed to token representation of women and foreigners, limited empowerment of minority directors, and cultural or institutional barriers that constrain participation in strategic decision-making.

Hence, the benefits of diversity cannot be realized unless firms move beyond compliance and ensure that diverse members are empowered to contribute meaningfully to corporate strategies.

These findings are consistent with Agency Theory and Resource Dependency Theory, both of which highlight the role of board composition in reducing agency conflicts and improving access to strategic resources. However, in the Nigerian context, weak institutional support and cultural constraints have limited the realization of these theoretical benefits.

5.5 Recommendations

Based on the findings and conclusions, the following recommendations are made:

1. **Promote Genuine Inclusivity:**

Firms should move beyond token compliance to ensure that women and minority board members are actively engaged in strategic decisions.

2. **Strengthen Regulatory Enforcement:**

The Nigerian Exchange Group (NGX) and the Financial Reporting Council of Nigeria (FRCN) should enforce corporate governance codes mandating diversity disclosures and measurable inclusivity targets.

3. **Capacity Building for Board Members:**

Manufacturing firms should provide leadership and governance training for female, younger, and foreign directors to strengthen their ability to contribute effectively to board decisions.

4. **Maintain Balanced Diversity:**

Firms should pursue optimal diversity levels that encourage creativity without creating generational or cultural friction.

5. **Institutional and Cultural Reforms:**

Regulators and stakeholders should address structural and cultural factors that limit diversity, including gender bias, unequal opportunity, and preference for homogeneity in board appointments.

5.6 Contribution to Knowledge

This study makes the following contributions to scholarship and practice:

1. Empirical Contribution:

It provides updated empirical evidence (2020–2024) on the effect of board diversity on firm performance in Nigeria's manufacturing sector.

2. Contextual Insight:

It demonstrates that diversity alone is insufficient to improve firm performance without genuine inclusion and empowerment of diverse members.

3. Methodological Contribution:

It applies rigorous diagnostic testing and regression analysis to evaluate diversity–performance relationships using secondary data.

4. Policy Relevance:

It offers actionable insights to policymakers and corporate regulators on designing frameworks that translate diversity into tangible performance outcomes.

5.7 Suggestions for Further Research

1. Future studies should consider additional board attributes such as education, tenure, independence, and expertise, which may influence performance.
2. Alternative performance indicators such as Return on Equity (ROE) or Tobin's Q could be used to validate these findings.
3. A comparative study across multiple sectors could identify industry-specific effects of diversity on firm outcomes.
4. Future research could explore moderating factors such as board size, ownership structure, or corporate culture.
5. Qualitative methods, such as interviews with board members, could provide deeper insights into the behavioral dynamics of diverse boards.

5.8 Closing Remark

In conclusion, while board diversity remains a cornerstone of good corporate governance, its tangible influence on firm performance in Nigeria's manufacturing sector is yet to be fully realized. The study emphasizes that diversity should go beyond representation to active engagement and empowerment of all members. By implementing inclusive governance practices and reforming institutional frameworks, Nigerian manufacturing firms can unlock the full potential of board diversity to enhance innovation, accountability, and long-term sustainability.

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APPENDIX

Year	Company	Profit fot the year	Total assets	No of females in the board	Total board members	Directors from different nations	ROA	GENDIV	AGEDIV	BODIV
2020	BUA	72,344,336	766,302,578	1	9	3	0.094	0.11	8.34	0.33
2021	BUA	69,768,685	593,461,515	1	9	3	0.117	0.11	8.29	0.33
2022	BUA	91,344,018	607,224,625	1	9	3	0.15	0.11	8.29	0.33
2023	BUA	112,097,497	1,070,439,862	1	8	3	0.105	0.13	8.62	0.38
2024	BUA	265,997,812	1,095,504,241	1	8	3	0.242	0.38	8.62	0.38
2020	Cadbury	931,827	33,210,684	4	10	4	0.028	0.4	12.45	0.4
2021	Cadbury	449,712	43,688,291	4	9	3	0.01	0.44	13.69	0.33
2022	Cadbury	583,111	59,713,684	4	7	2	0.01	0.57	13.51	0.29
2023	Cadbury	-19,089,704	63,431,020	3	6	1	-0.3	0.5	13.26	0.12
2024	Cadbury	-22,224,942	72,443,944	4	8	2	-0.31	0.5	12.27	0.25
2020	Champion Brewery	158,793	11,368,517	2	11	3	0.014	0.18	7.83	0.27
2021	Champion Brewery	984,233	13,486,815	1	9	3	0.073	0.11	7.83	0.33
2022	Champion Brewery	1,585,978	15,453,585	1	9	3	0.015	0.11	7.62	0.33
2023	Champion Brewery	370,563	20,553,079	1	11	3	0.018	0.09	8.17	0.27
2024	Champion Brewery	816,995	21,345,197	1	11	3	0.038	0.09	8.19	0.27
2020	Dangotes	29,775,243	278,032,389	2	9	1	0.107	0.22	5.38	0.11
2021	Dangote		359,505,765	2	9	1	0.061	0.22	5.39	0.11

	S	22,052,291								
2022	Dangote S	54,742,134	492,434,366	2	9	11	0.111	0.22	5.36	0.11
2023	Dangote S	-73,760,308	600,789,924	4	10	1	-0.123	0.4	6.62	0.1
2024	Dangote S	-192,616,818	1,050,832,729	4	11	1	-0.183	0.36	6.71	0.09
2020	Golden g	-137,274,557	4,992,644,825	1	11	0	-0.027	0.09	8.12	0
2021	Golden g	-225,879,517	4,878,341,847	1	11	0	-0.046	0.09	8.03	0
2022	Golden g	-498,666,273	5,074,171,958	1	11	0	-0.098	0.09	8.08	0
2023	Golden g	-543,199,819	4,948,680,095	2	11	0	-0.11	0.18	8.69	0
2024	Golden g	-109,493,510	5,457,614,288	2	11	0	-0.02	0.18	8.83	0
2020	Guinness	-12,578,818	144,145,581	4	13	5	-0.087	0.31	7.14	0.38
2021	Guinness	1,255,338	169,406,525	4	13	5	0.007	0.31	7.24	0.38
2022	Guinness	15,651,362	215,660,208	4	13	5	0.072	0.31	7.15	0.38
2023	Guinness	-18,168,041	241,748,144	4	14	8	-0.075	0.29	7.35	0.57
2024	Guinness	-54,766,776	226,130,077	4	12	5	-0.24	0.33	6.93	0.42
2020	Honeywell	650,492	142,269,292	2	10	6	0.005	0.2	8.32	0.6
2021	Honeywell	1,125,864	147,394,656	1	9	2	0.008	0.11	5.92	0.22
2022	Honeywell	-983,812	149,869,159	2	16	5	-0.007	0.13	6.43	0.31
2023	Honeywell	256,113	164,999,977	3	16	5	0.002	0.19	6.53	0.31
2024	Honeywell	-10,119,778	148,965,948	1	9	3	-0.07	0.11	5.44	0.33
2020	Int. brewery	-12,365,082	372,646,406	3	13	5	-0.033	0.23	10.41	0.38
2021	Int. brewery	-17,656,510	469,953,215	3	13	5	-0.038	0.23	10.73	0.38
2022	Int. brewery	-21,626,290	484,251,740	3	13	5	-0.045	0.23	9.12	0.38
2023	Int. brewery	-70,025,910	724,497,461	2	12	6	-0.096	0.17	9.21	0.5

2024	Int. brewery	-113,614,900	727,872,297	2	13	6	-0.156	0.15	9.36	0.46
2020	MCNicholos	17,781,575	711,959,366	2	5	0	0.025	0.4	3.35	0
2021	MCNicholos	14,296,405	692,513,156	3	7	1	0.02	0.43	7.53	0.14
2022	MCNicholos	19,761,187	653,717,275	3	7	1	0.03	0.43	7.53	0.14
2023	MCNicholos	36,065,800	1,683,653,149	3	7	1	0.021	0.43	7.61	0.14
2024	MCNicholos	115,783,046	1,314,444,409	3	6	1	0.088	0.5	7.96	0.17
2020	Multi-trex	-262,635	14,398,370	0	6	1	-0.018	0	6.19	0.17
2021	Multi-trex	-253,261	13,015,447	1	7	1	-0.019	0.14	7.11	0.14
2022	Multi-trex	-636,565	17,115,257	1	7	1	-0.037	0.14	7.11	0.14
2023	Multi-trex	-1,098,444	16,145,999	1	8	1	-0.068	0.13	6.38	0.13
2024	Multi-trex	-1,469,578	16,595,869	1	8	1	-0.088	0.13	6.38	0.13
2020	NNig F	64,635	8,491,986	0	11	3	0.008	0	9.13	0.27
2021	NNig F	69,919	7,362,270	0	12	3	0.009	0	10.13	0.25
2022	NNig F	80,668	13,315,128	0	12	3	0.006	0	10.14	0.25
2023	NNig F	272,820	17,827,833	0	11	3	0.015	0	6.02	0.27
2024	NNig F	386,592	20,144,541	0	11	3	0.019	0	6.05	0.27
2020	NASCON	2,690,310	44,308,991	5	11	2	0.061	0.45	9.91	0.18
2021	NASCON	2,970,982	40,521,398	5	11	2	0.073	0.45	10.27	0.18
2022	NASCON	5,469,248	55,530,771	5	11	2	0.098	0.45	10.27	0.18
2023	NASCON	13,728,369	83,591,991	4	10	2	0.16	0.4	9.88	0.2
2024	NASCON	15,583,602	78,502,487	5	11	2	0.2	0.45	9.31	0.18
2020	Nestlé	39,212,025	246,184,996	1	8	5	0.159	0.13	7.17	0.63
2021	Nestlé		310,238,504	2	9	4	0.129	0.22	7.03	0.44

		40,037,277								
2022	Nestlé	48,965,488	415,044,031	2	10	5	0.118	0.2	7.23	0.5
2023	Nestlé	-79,473,781	581,774,407	2	12	6	-0.14	0.17	7.13	0.5
2024	Nestlé	-164,595,022	858,698,352	3	10	4	-0.19	0.3	6.42	0.4
2020	Nig Brewery	7,368,369	445,857,202	3	10	5	0.016	0.3	8.31	0.5
2021	Nig Brewery	12,671,959	485,522,227	4	12	6	0.026	0.33	8.53	0.5
2022	Nig Brewery	13,186,761	619,888,682	5	14	7	0.021	0.36	8.67	0.5
2023	Nig Brewery	-106,307,557	795,873,106	5	14	6	-0.133	0.36	8.73	0.43
2024	Nig Brewery	-144,883,494	1,138,275,648	5	11	5	-0.127	0.45	6.83	0.45
2020	Enamel	-350,806	4,987,799	0	6	5	-0.07	0	5.35	0.83
2021	Enamel	-275,533	4,619,354	0	6	5	-0.06	0	5.42	0.83
2022	Enamel	-431,224	4,408,807	0	6	5	-0.098	0	5.42	0.83
2023	Enamel	1,686,057	5,501,640	0	7	2	0.31	0	4.79	0.29
2024	Enamel	-2,597,798	2,502,734	0	7	2	-1.04	0	4.79	0.29
2020	Pz cusson	-7,239,559	78,451,137	2	12	7	-0.09	0.17	6.27	0.58
2021	Pz cusson	3,439,364	87,344,871	3	11	3	0.039	0.27	6.44	0.27
2022	Pz cusson	6,699,325	109,472,684	3	9	4	0.061	0.33	6.41	0.44
2023	Pz cusson	14,348,345	166,365,886	2	10	5	0.086	0.2	6.17	0.5
2024	Pz cusson	-76,023,669	157,059,695	2	9	5	-0.484	0.22	5.83	0.56
2020	Unilever	-3,965,921	91,517,538	2	10	3	-0.043	0.2	10.27	0.3
2021	Unilever	688,266	108,288,535	2	10	3	0.006	0.2	10.27	0.3
2022	Unilever	3,409,174	108,288,535	2	10	3	0.031	0.2	10.24	0.3
2023	Unilever	4,467,084	125,389,892	2	10	3	0.036	0.2	10.24	0.3

2024	Unilever	15,143,154	141,646,696	5	14	2	0.11	0.36	6.69	0.14
2020	Union	683,873	1,107,610	2	7	0	0.62	0.29	9.03	0
2021	Union	38,551	112,234	2	7	0	0.34	0.29	9.03	0
2022	Union	-11,436	192,669	2	6	0	0.059	0.33	9.38	0
2023	Union	61,240	112,858	1	7	0	0.54	0.14	9.38	0
2024	Union	-103,762	775,759	2	7	0	0.134	0.33	9.38	0
2020	VITAF OAM	4,107,506	21,635,766	2	10	1	0.19	0.2	7.21	0.1
2021	VITAF OAM	4,597,046	31,789,672	2	10	1	0.144	0.2	7.21	0.1
2022	VITAF OAM	4,522,278	39,437,016	2	10	1	0.115	0.2	7.21	0.1
2023	VITAF OAM	4,373,957	49,661,074	2	13	1	0.088	0.15	8.18	0.08
2025	VITAF OAM	952,190	51,348,242	2	12	0	0.019	0.17	6.53	0
2020	Austin Laz	-142,139	1,391,714	1	6	0	0.102	0.17	4.49	0
2021	Austin Laz	-44,568	1,347,146	1	6	0	-0.033	0.17	4.49	0
2022	Austin Laz	-44,568	1,302,578	1	6	0	-0.034	0.17	4.49	0
2023	Austin Laz	-44,568	1,302,578	1	6	0	-0.034	0.17	4.49	0
2024	Austin Laz	4,232	1,427,592	2	8	0	0.003	0.25	5.92	0
2020	Berger	146,028	4,971,872	3	12	3	0.029	0.25	5.47	0.17
2021	Berger	135,635	5,110,669	3	12	2	0.027	0.25	5.47	0.25
2022	Berger	208,670	5,528,528	3	10	2	0.038	0.3	6.03	0.2
2023	Berger	445,330	6,596,601	3	7	1	0.068	0.43	6.03	0.14
2024	Berger	610,862	7,521,336	3	7	1	0.081	0.43	5.96	0.14
2020	BETA glass	3,466,670	53,963,634	3	8	4	0.064	0.38	7.91	0.5
2021	BETA		63,112,410	4	10	4	0.086	0.4	7.83	0.4

	glass	5,457,671								
2022	BETA glass	4,685,414	75,944,552	4	10	4	0.062	0.4	7.83	0.4
2023	BETA glass	6,442,223	106,851,898	4	10	4	0.06	0.4	7.93	0.4
2024	BETA glass	13,626,830	134,352,197	6	16	8	0.1	0.38	7.64	0.5
2020	BUA cement	72,344,336	766,302,578	2	8	1	0.094	0.25	3.83	0.13
2021	BUA cement	90,079,011	728,507,473	2	8	1	0.12	0.25	3.83	0.13
2022	BUA cement	101,010,626	874,011,884	2	8	1	0.12	0.25	3.83	0.13
2023	BUA cement	69,454,750	1,215,686,377	3	9	2	0.057	0.33	5.24	0.22
2024	BUA cement	73,909,235	1,570,351,865	3	10	2	0.047	0.3	5.37	0.2
2020	Chemical and Allied	1,223,124	8,526,076	4	6	1	0.14	0.67	8.97	0.17
2021	Chemical and Allied	1,122,583	12,115,919	4	8	1	0.093	0.5	9.03	0.13
2022	Chemical and Allied	2,376,208	13,406,204	5	9	0	0.18	0.56	7.69	0
2023	Chemical and Allied	2,514,737	15,373,521	5	9	0	0.16	0.56	7.69	0
2024	Chemical and Allied	3,807,258	19,677,179	4	8	0	0.19	0.5	6.03	0
2020	Cutix plc	393,052	3,627,990	2	7	0	0.11	0.29	7.97	0
2021	Cutix plc	594,023	2,155,788	3	8	0	0.28	0.38	7.47	0
2022	Cutix plc	786,307	5,116,100	4	10	0	0.15	0.4	8.04	0
2023	Cutix plc	808,956	5,908,780	4	10	0	0.14	0.4	8.04	0
2024	Cutix plc	1,065,178	7,288,803	3	9	0	0.15	0.33	8.01	0
2020	Dangote C	276,068	2,022,451	3	14	7	0.14	0.21	5.03	0.5
2021	Dangote C	364,439	2,392,019	3	14	7	0.15	0.21	5.03	0.5

2022	Dangote C	382,311	2,615,655	4	15	7	0.15	0.27	6.54	0.47
2023	Dangote C	455,583	3,938,725	4	15	7	0.12	0.27	6.54	0.47
2024	Dangote C	503,247	6,403,238	3	14	7	0.078	0.21	7.14	0.5
2020	Greif Nig plc	350,487	321,852	0	4	1	1.09	0	6.95	0.25
2021	Greif Nig plc	-31,407	240,468	0	4	1	-0.13	0	6.95	0.25
2022	Greif Nig plc	-26,458	320,465	0	4	1	-0.082	0	6.98	0.25
2023	Greif Nig plc	12,416	380,249	1	6	1	0.033	0.17	5.69	0.17
2024	Greif Nig plc	-35,412	395,487	1	5	1	-0.09	0.2	7.86	0.2
2020	Lafarge	30,842,138	507,213,975	6	16	7	0.061	0.38	5.25	0.44
2021	Lafarge	51,003,549	526,838,197	5	11	4	0.1	0.45	4.53	0.36
2022	Lafarge	53,647,456	600,711,473	5	12	6	0.1	0.42	5.03	0.5
2023	Lafarge	51,141,070	681,371,572	7	14	8	0.075	0.5	6.83	0.57
2024	Lafarge	100,145,281	990,509,585	7	14	8	0.1	0.5	6.83	0.57
2020	Meyer	1,118,006	3,051,686	2	6	1	0.37	0.33	4.67	0.17
2021	Meyer	33,668	1,723,325	2	6	1	0.02	0.33	4.58	0.17
2022	Meyer	393,613	1,938,585	1	6	1	0.2	0.17	4.84	0.17
2023	Meyer	235,964	2,452,060	1	6	1	0.1	0.17	4.52	0.17
2024	Meyer	295,402	2,840,402	1	8	2	0.1	0.13	7.11	0.25
2020	Tripple gee	37,535	1,868,549	2	6	0	0.02	0.33	6.83	0
2021	Tripple gee	85,880	2,726,530	2	6	0	0.03	0.33	7.12	0
2022	Tripple gee	66,244	4,346,113	2	7	0	0.015	0.29	8.03	0
2023	Tripple gee	122,902	5,662,094	2	7	0	0.02	0.29	8.21	0
2024	Tripple	-	5,681,706	2	7	0	0.019	0.29	8.26	0

	gee	107,490								
2020	Okomu oil	7,780,519	55,011,848	0	11	7	0.14	0	7.59	0.64
2021	Okomu oil	11,538,968	65,772,444	1	12	7	0.18	0.08	7.64	0.58
2022	Okomu oil	16,230,806	72,498,290	1	13	8	0.22	0.08	7.64	0.62
2023	Okomu oil	20,646,527	95,100,383	2	14	8	0.22	0.14	7.68	0.57
2024	Okomu oil	39,957,746	117,037,938	2	13	8	0.34	0.15	7.83	0.62
2020	Livestoc k feed	503,186	6,474,140	0	6	0	0.077	0	7.6	0
2021	Livestoc k feed	429,697	10,827,735	1	6	0	0.04	0.17	6.38	0
2022	Livestoc k feed	- 822,218	7,457,705	1	6	1	-0.11	0.17	6.38	0.17
2023	Livestoc k feed	- 230,018	13,376,466	2	7	1	0.017	0.29	6.21	0.14
2024	Livestoc k feed	1,934,431	23,386,042	2	6	0	0.083	0.33	6.83	0
2020	Presco plc	5,261,929	73,768,995	1	10	4	0.071	0.1	7.53	0.4
2021	Presco plc	19,319,953	140,606,312	1	11	5	0.14	0.09	7.14	0.45
2022	Presco plc	13,032,424	132,369,448	1	11	6	0.1	0.08	7.14	0.55
2023	Presco plc	32,861,344	170,318,345	2	15	6	0.19	0.14	6.58	0.4
2024	Presco plc	77,793,087	475,096,189	4	17	5	0.16	0.24	6.83	0.29
2020	FTN cocoa	- 843,395	4,632,684	0	4	0	-0.18	0	10.8	0
2021	FTN cocoa	- 1,478,621	7,441,390	0	4	0	-0.2	0	10.8	0
2022	FTN cocoa	- 431,187	7,276,723	0	3	0	-0.059	0	7.91	0
2023	FTN cocoa	- 10,650,347	13,249,785	1	5	0	-0.8	0.2	8.26	0
2024	FTN cocoa	- 9,530,090	21,094,314	1	5	0	-0.45	0.2	8.31	0
2020	Ella lakes plc	- 309,371	5,630,878	3	13	0	-0.055	0.23	9.15	0
2021	Ella lakes plc	- 563,279	10,081,326	3	11	0	-0.056	0.27	8.64	0

2022	Ella lakes plc	-1,012,198	23,359,994	3	12	0	-0.043	0.25	6.48	0
2023	Ella lakes plc	-849,565	23,435,679	3	12	0	-0.036	0.25	6.52	0
2024	Ella lakes plc	-893,939	24,551,842	2	11	0	-0.036	0.18	7.59	0
2020	BOC gas	292,107	5,417,870	0	7	2	0.054	0	5.4	0.29
2021	BOC gas	372,019	5,596,011	1	11	2	0.09	0.066	7.17	0.18
2022	BOC gas	448,343	6,783,889	2	9	0	0.066	0.22	7.44	0
2023	BOC gas	852,753	7,394,278	4	10	0	0.12	0.4	7.14	0
2024	BOC gas	1,622,740	14,878,391	4	10	0	0.11	0.4	7.02	0
2020	Allu. Extrus.	149,376	2,566,564	0	4	1	0.058	0	4.03	0.25
2021	Allu. Extrus.	66,941	2,824,172	0	4	1	0.023	0	4.03	0.25
2022	Allu. Extrus.	48,529	3,068,163	0	4	1	0.016	0	4.21	0.25
2023	Allu. Extrus.	-323,150	3,076,061	0	6	3	-0.11	0	6.56	0.5
2024	Allu. Extrus.	-200,249	4,082,372	0	6	3	-0.05	0	6.59	0.5
2020	Multiverse	-197,505	4,324,640	0	5	0	-0.046	0	6.54	0
2021	Multiverse	14,028	4,318,320	0	5	0	0.003	0	6.54	0
2022	Multiverse	189,755	4,268,538	0	5	0	0.044	0	6.54	0
2023	Multiverse	265,985	4,234,389	0	5	0	0.063	0	6.54	0
2024	Multiverse	378,470	4,406,061	0	5	0	0.086	0	6.54	0
2020	Thomas Wyatt	-51,397,450	407,338,290	1	4	0	-0.13	0.25	6.35	0
2021	Thomas Wyatt	16,497,066	437,287,425	1	4	0	0.038	0.25	6.35	0
2022	Thomas Wyatt	69,205,371	397,433,918	1	4	0	0.17	0.25	6.35	0
2023	Thomas Wyatt	42,122	1,025,568	1	4	0	0.041	0.25	6.35	0
2024	Thomas	-	1,023,513	0	4	0	-0.012	0	7.48	0

	Wyatt	12,455								
2020	Total	2,063,385	143,612,885	3	8	5	0.014	0.38	4.72	0.63
2021	Total	16,862,130	208,728,966	4	8	5	0.081	0.5	5.82	0.63
2022	Total	16,118,376	307,815,723	4	8	5	0.052	0.5	5.82	0.63
2023	Total	12,912,544	375,115,673	2	9	5	0.034	0.22	5.69	0.56
2024	Total	27,496,279	471,122,676	2	9	5	0.058	0.22	5.69	0.56