UNIVERSITY OF EDUCATION, WINNEBA

BOARD GENDER DIVERSITY, RISK-TAKING BEHAVIOUR AND PROFITABILITY OF GHANAIAN BANKING SECTOR: A MODERATING ROLE OF BANK OWNERSHIP

PHEBE BOATWEY KUMATSE

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DECLARATION

Student's Declaration

I, Phebe Boatwey Kumatse, declare that this thesis, except quotations and references contained in published works which have all been identified and duly acknowledged, is entirely my own original work, and it has not been submitted, either in part or whole, for another degree elsewhere.

Signature:…….

Date:…….

Supervisor's Declaration

I hereby declare that the preparation and presentation of this work was supervised in accordance with the guidelines for supervision of thesis /dissertation / project as laid down by the University of Education, Winneba.

Supervisor's Name: Dr. Joseph Ato Forson

Signature:…….……

Date:……

DEDICATION

To my father, Mr. Robertson Kumatse, and my siblings, I dedicate this research work to you for your love, financial support, prayers, and sacrifices that has brought me this far.

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RoA	–	Return on Assets
Own	–	Ownership Type
BGD	–	Board Gender diversity
RTB	–	Risk Taking Behavior
Frms	–	Firm Size
Gdpg	–	Gross Domestic Product Growth
Inf	–	Inflation
Solv	–	Solvency

ABSTRACT

This study investigates the effect of board gender diversity and risk-taking behavior on the performance of Ghanaian-resident universal banks with a moderating role of bank ownership type. The study is guided by specific objectives to (i) assess the effect of board gender diversity in bank performance (ii) ascertain the effect of risk-taking behaviors on bank performance and (iii) assess the moderating role of bank ownership in the risk-taking behaviour-bank performance relationship. A 12-year secondary data was obtained from 15 Ghanaian-resident universal banks. Having employed a quantitative research approach with Arellano-Bond Generalized Method of Moment (GMM) estimation technique, the results indicate that board gender diversity has positive effect on bank profitability whereas risk-taking behaviour negatively impacts bank profitability. The result further evinces that bank ownership significantly moderates the risk-taking behaviour-bank profitability nexus. The study concludes that high female representation on board is essential for bank success. The study also concludes that banks with higher risk appetite tend to incur huge losses. Conclusion was also made that bank ownership is essential in shaping the risk behaviours of banks in Ghana. The study recommends that financial institutions should try and diversified their board to include more females as it helps to increase profitability. Local banks should proactively seek opportunities for knowledge sharing and collaboration with foreign-owned banks. Additionally, policymakers should consider reviewing regulations to encourage collaboration and information exchange between foreign-owned and local banks, aiming to enhance operational efficiency and sector stability. Banks should also implement robust risk assessment processes, stringent credit policies, and investment strategies that prioritize stability over excessive risk. The central bank should increase their focus on enhancing and enforcing risk management regulations for bank.

CHAPTER ONE

INTRODUCTION

1.1 Background of Study

Women exhibit much lower sensitivity than males for both profits and losses, according to a new study by L'Haridon and Vieder (2019, p. 201). The study looked at individual risk preferences in 30 nations. Even though this difference is relatively slight, we also discover that women are less optimistic about increases than males.

Women's presence on boards, once seen as a social issue and a matter of reputation, is now increasingly seen as an asset for businesses (Terjesen & Sealy, 2016). As a result, businesses are under growing social and governmental pressure to boost the number of female directors in their boardrooms. A growing body of research demonstrates that gender diversity on boards positively affects value creation in the organization by connecting organizations to various external constituencies and bringing a broader, fresher, and different voice to the table (Carter, Franco, & Gine, 2015; Saeed, Belghitar, & Yousaf, 2016). This in turn affects firm productivity and performance (Adams & Ferreira, 2009; Green & Homroy, 2018; Sarhan, Ntim, & Al-Najjar, 2018).

The board's decisions on risk are one possible avenue via which a gender-diverse board may have an impact on company success. A gender-diverse board provides benefits from the knowledge, experiences, and backgrounds of various members, which facilitates corporate decision-making, including taking risks. This broadens the board's perspective (Saeed et al., 2016). However, empirical evidence on the subject of the direct link between directors' gender and risk-taking is at best ambiguous, as some studies (Chen,

Gramlich & Houser, 2017; Levi, Li, & Zhang, 2014; Wahid, 2018) claim that women executives have little to no influence on firms' risk-taking while others claim the opposite (Adams & Funk, 2012; Berger, Kick, & Schaeck, 2014; Bernile, Bhagwat, & Yonker, 2018; Green & Homroy, 2018). The researchers propose that since the findings are not definitive, factors influencing the association between gender diversity and risk-taking should be studied rather than the relationship itself (e.g., Bargeron, Lehn, & Zutter, 2010; Berger et al., 2014; Bernile et al., 2018; Miller & Triana, 2009). This suggests that the organizational circumstances may, at least in part, impact how much of a role women executives play in risk-taking. Recent literature (Wiley & Monllor-Tormos, 2018; Adams, Gupta, & Leeth, 2009) has discussed the significance of organizational conditions in which women obtain executive positions; however, there is only a small amount of research examining the role organizational context plays in influencing the outcome of gender diverse boards.

According to this research stream, it is argued that context-specific factors are crucial because they are subject to change (Maxfield, Shapiro, Gupta, & Hass, 2010) and businesses operating in various industries face various economic and environmental constraints, such as competition, regulations, and technology development. As a result, they differ in terms of their fundamental characteristics, such as growth prospects, profit margins, financial risk, and the intensity of research and development, all of which have an impact on the degree of risk-taking. When examining risk-taking in the banking sector, these sectoral variations become more pronounced. Innovation and uncertainty are traits of the banking industry. Particularly, businesses in this industry deal with a fast pace of technological change and uncertain consumer demand. Furthermore, because of

the pressure from the intense competition, many companies favor high-risk strategic initiatives (Wiley & Monllor-Tormos, 2018). The industry needs people who are willing to take risks because of the uncertainty and complexity of the innovation process. Directors who are women are so pressured to adopt a risk-taking attitude. Therefore, the banking industry offers the best context for examining how gender diversity on boards affects risk-taking.

This study focuses on the banking industry, which is known for innovation and uncertainty, in order to more directly examine the influence of women directors on corporate risk-taking. An investigation into the impact of board gender diversity on risk-taking in the United States by Sila, Gonzalez, and Hagendorff (2016) indicated negative effects.

1.2 Problem Statement

Today, the majority of public company boardrooms throughout the world are made up of gender-diverse groupings. Overall meeting attendance rates are higher, discussions consider a wider range of options, discussions are more inquisitive and apolitical, directors receive more equity-based compensation, earnings are higher in quality and more conservative, and management oversight is stronger when boards have more female members. Researchers have analyzed the profitability, stock returns, and firm valuations of companies governed by all-male and mixed-gender boards in light of these findings, with varying degrees of success.

Yet, focusing just on the company's current financial success may be missing the mark. The board of directors has a crucial role in encouraging management to take calculated risks while also steering clear of those that are unlikely to benefit the company's

shareholders. In this regard, Hutchinson et al. (2015) provide Australian evidence showing board gender diversity (BGD) strengthens the link between total stock risk and return on assets. They, therefore, provide evidence that BGD is positively correlated with knowledge of the risk/return ratio that underlies a number of board decisions. Because shareholders are the ones who suffer the long-term impacts of management's risky decisions on investment value, the relationship between board gender diversity and risk is crucial for shareholders.

To a large group of stakeholders beyond the sphere of equity investors, however, reputation and finance concerns are also significant. Workers stake their livelihoods on a company's future, and board decisions about reputational and financial risks have a significant impact on a company's workforce. Employees cannot diversify their capital across many different companies, unlike shareholders. Customers and suppliers depend on the stability of a company just like employees do.

We examine the relationship between board gender diversity (BGD) and firms' financial and reputational risk in order to determine whether gender variations in risk-taking have an impact on corporate risk strategies. If a gender-diverse board increases board oversight and accountability (Adams and Ferreira, 2009; 1 Lee et al., 2015), then only 20.1 percent of boards have at least one female board member. In 2015, 73.5 percent of the 4,218 global firms in the MSCI Global Director Universe database had at least one woman on the board.

The necessity of electing female directors to corporate boards in order to support efficient board functioning is becoming more widely recognized in light of the changing business

climate and rising complexity of organizations (Adams and Ferreira, 2009; Chapple and Humphrey, 2014).

The purpose of this study is to determine whether the presence of female directors benefits shareholders by lowering firm risk in the banking industry. The inherent benefits of having varied workplaces are one justification for gender-diverse boards. Because males and females have diverse cultural and familial backgrounds, having females in senior executive roles might increase the significance of strategic decisions.

Also, a diverse board can communicate to all parties involved in a company's operations, including clients, shareholders, and suppliers, that the company has a gender-inclusive policy. If having a varied workforce of all genders is good for businesses, then these companies may do better than those without diversity. This connection has been the subject of numerous studies, and the conclusions vary depending on the approach and country. Having at least one female director on a board has been found to improve performance, according to studies.

1.3 Objectives of the Study

The purpose of this study is to investigate the impact of board gender diversity, ownership type and risk-taking behaviour on the performance of Ghanaian-resident universal banks. To achieve the purpose of the study, this study is guided by the following objectives:

I. To assess the effect of board gender diversity on the profitability of Ghanaian-resident universal banks.

II. To ascertain the effect of risk-taking behaviour on the profitability of Ghanaian-resident universal banks.

III. To investigate the moderating role of bank ownership type in the relationship between the risk-taking behaviours of Ghanaian-resident universal banks and their profitability.

1.4 Research Question

Following the objectives of this study, the proposed research questions that this study attempts to answer include:

I. Does board gender diversity have a significant impact on the profitability of Ghanaian-resident universal banks?

II. To what extent does risk-taking behaviours of Ghanaian-resident universal banks impact their profitability?

III. Does bank ownership type significantly moderate the relationship between the risk-taking behaviour of the Ghanaian-resident banks and their performance?

1.5 Significance of the Study

The research topic "Board gender diversity and risk-taking behaviour of firms" is an important and timely subject that has received increasing attention in recent years. The topic examines the relationship between the gender diversity of corporate boards and the risk-taking behaviour of firms. Gender diversity on corporate boards has been shown to enhance board effectiveness by bringing in diverse perspectives and experiences, which can lead to better decision-making and risk management. Research has shown that firms with greater gender diversity on their boards are less likely to engage in risky behaviour, such as excessive leverage, risky investments, or aggressive financial reporting.

Gender diversity on corporate boards has been associated with higher financial performance and greater innovation, which can lead to long-term sustainable growth and profitability for firms.

The topic will have important implications for policymakers, as promoting gender diversity on corporate boards may help to mitigate systemic risk in the financial system and promote more equitable and inclusive economic growth.

Overall, the research topic "Board gender diversity and risk-taking behaviour of firms" highlights the important role that gender diversity can play in promoting better corporate governance and risk management practices, as well as creating a more inclusive and sustainable economy.

1.6 Scope of the Study

The research focuses on determining whether the presence of female directors' benefits shareholders by lowering firm risk in the banking industry. The study explores the risk-taking behaviour of Ghanaian banks, with an emphasis on understanding the types and levels of risks undertaken, and how these behaviours might vary based on the gender composition of the board.

The research also investigated the financial performance of Ghanaian banks, looking at key indicators such as return on assets (ROA), to assess the impact of board gender diversity on the overall profitability of these financial institutions. The study further considered the moderating role of bank ownership, examining how different ownership structures (e.g., government-owned, privately-owned, or foreign-owned) may influence the relationship between board gender diversity, risk-taking behaviour, and profitability.

The research utilized secondary data from 15 universal banks within a specified time frame of 2010-2021, focusing on complete data to ensure relevance and accuracy in capturing the current state of board gender diversity, risk-taking, and profitability in the Ghanaian banking sector.

1.7 Limitation of the Study

The availability and reliability of data on board gender diversity, risk-taking behaviour, and profitability may pose as limitations. The research will rely on existing databases, reports, and financial statements, and any gaps or inaccuracies in the data may impact the study's comprehensiveness. Findings from this research may not be fully generalizable to other industries or countries due to the specific context of the Ghanaian banking sector. This makes it essential that caution should be exercised in applying the results to different sectors or regions.

The banking sector is subject to regulatory changes, economic fluctuations, and other dynamic factors. The research may face limitations in accounting for all contextual changes that could impact board decisions, risk-taking, and profitability over the years. The measurement of risk-taking behaviour involves a degree of subjectivity. Different stakeholders may perceive risks differently, and this subjectivity may introduce an element of bias in the research findings.

1.8 Organization of the Study

This study is organized into five main chapters. The first chapter is the introductory chapter and aims to present the background of the study, problem statement, objectives of the study, research questions, significance of the study, and the organization of the chapter of the study. Thus, chapter one helps readers to understand the key issues and

current debates on the key issues. The second chapter is labelled as Chapter Two and presents the literature review on the key variables used in the study. Chapter two has three key sections that capture an overview of the Ghanaian banking sector, theoretical literature review and empirical literature review. The third chapter presents the methods employed to collect data, analyse data, and present and discuss the results obtained from the data collected. The fourth chapter seeks to highlight the results obtained by presenting and discussing the results. In this chapter, the presentation of results and discussion of results are done concurrently. Thus, the chapter primarily presents the results obtained and discusses the results in relation to the findings of prior studies and or theoretical arguments. The last and final chapter, chapter five, presents the summary of key findings, and conclusions and suggests possible recommendations that arise from the objectives and findings obtained.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter delves into the foundational literature that forms the basis of the research. It focuses on providing an in-depth exploration of various aspects that are crucial to this study. Firstly, a comprehensive overview of Ghana's banking sector is presented, shedding light on its current state and key features. Additionally, the chapter highlights the prominence of female leadership within Ghana's banking sector, emphasizing its significance in the context of the research.

Moreover, the chapter elucidates the theoretical frameworks that guide the study, offering insights into the lenses through which the research questions are addressed. It brings attention to the empirical literature review, which comprises a critical analysis of existing studies and findings related to the topic at hand.

Furthermore, this chapter outlines the development of hypotheses that serve as the building blocks for the research's investigative journey. These hypotheses help in systematically exploring and validating the research objectives. Lastly, the conceptual framework for the study is meticulously laid out, providing a structured approach to understanding the interrelationships between various elements and variables within the research.

By meticulously examining and synthesizing these vital components, this chapter establishes a strong foundation for the subsequent phases of the study, guiding the investigation toward valuable insights and meaningful conclusions.

2.2 Overview of Ghana's Banking Sector

Since its inception with the establishment of the British Bank of West Africa in 1896, the banking landscape in Ghana has undergone significant transformations. Over the years, the number of universal banks operating in the country has fluctuated, with twenty-two banks in operation as of 2007, and a growth to twenty-six by the end of 2011. However, in 2017, the financial sector faced a challenging period, prompting the Bank of Ghana to initiate a financial sector clean-up. The purpose of this action was to address liquidity challenges, safeguard customer funds, and restore confidence in the banking sector.

In addition to the clean-up exercise, the Bank of Ghana employed the mechanism of minimum capital requirements as a means of bolstering the banking industry. The most recent directive set the minimum capital requirement at GH¢ 400 million, which universal banks were expected to meet by the end of 2018. The primary aim of this requirement was to ensure stability, efficiency, and overall resilience in the banking sector.

Subsequently, after the financial sector clean-up and the deadline for meeting the new minimum capital requirement, several banks underwent consolidation, resulting in a total of twenty-three remaining universal banks. Remarkably, despite the challenges posed by the COVID-19 pandemic, the banking industry demonstrated resilience in 2020. Notably, consumer confidence in the sector increased, and deposits witnessed substantial growth, amounting to GH¢ 27 billion, representing a remarkable 33.6% surge from the previous year in 2019.

Overall, the banking industry in Ghana has experienced dynamic changes throughout its history. The periodic financial sector clean-ups and the implementation of minimum

capital requirements have been instrumental in reinforcing the industry's stability and safeguarding the interests of customers. Furthermore, despite the unprecedented challenges brought on by the pandemic, the sector has shown remarkable adaptability and continued growth, reflecting its enduring strength and potential for further development.

2.3 Overview of Female Leading and Board Gender Diversity in Ghana's Banking Sector

Table 2.1 provides an overview of the average presence of females in leadership positions within Ghana's banking sector, specifically focusing on the CEO position, board chairperson position, and their overall representation on boards of universal banks from 2010 to 2021. The data reveals that, on the whole, females have been underrepresented in key roles such as chief executive officers and board chairpersons in Ghanaian universal banks during this period. From 2010 to 2021, the proportion of female CEOs in these banks remained consistently below 20%.

Similarly, the data in Table 2.1 demonstrates that, with the exception of 2021, women's representation in board chairperson positions was also less than 20% on average throughout the study period. Additionally, the table presents the average percentage of female presence on boards, ranging from just over 10% to slightly under 30% during the study period. Despite the relatively low figures, there is a positive trend observed in terms of board gender diversity, indicating a gradual improvement from year to year.

In summary, the data in Table 2.1 highlights the predominance of males in leadership roles, specifically as CEOs and board chairpersons, within Ghanaian universal banks. Throughout the years analyzed, female representation in these positions remained

significantly lower than that of their male counterparts. However, the data also suggest a modest positive shift in board gender diversity over time.

Table 2.1: Trend of female CEO, female board chairperson, and board gender diversity

Year/Item	Female CEO	Female Board Chairperson	Board Gender Diversity
2010	0	7	16.06
2011	0	12.5	15.66
2012	6.3	12.5	14.08
2013	6.3	6.3	14.71
2014	5.5	11	15.93
2015	9.5	14.3	16.6
2016	15	15	16.30
2017	15	10	16.34
2018	13.6	9.1	20.3
2019	9	13.6	23.41
2020	9	18.2	26.16
2021	9.5	23.8	26.23

Source: Computed by Student based data from audited bank financial statements

2.4 Theoretical Foundation of the Study

The literature encompasses various theories that contribute to the discourse surrounding female leadership and their presence on boards as factors influencing organizational outcomes. These theories present diverse perspectives, with some emphasizing the positive impact of female leaders in creating value, while others propose a different viewpoint, suggesting potential drawbacks. Theories that can be considered are the upper echelon theory, the resource dependence theory, the theory of ownership, the tokenism theory and the theory of ownership of firms. For the present study, the relevant theories considered are the upper echelon theory, the resource dependence theory, and the theory of ownership. The ensuing discussion elucidates the meaning of these theories and explores their relevance to the current study.

The upper-echelon theory posits that the characteristics, values, and backgrounds of top-level executives significantly influence an organization's strategic decisions and overall performance. In the context of female leadership, this theory may shed light on how the presence of women in key leadership positions affects organizational outcomes.

The resource dependence theory explores the interdependence between organizations and external entities to acquire resources required for functioning. Regarding female inclusion on boards, this theory may provide insights into how gender diversity in the boardroom impacts resource acquisition and utilization, ultimately influencing organizational success.

The theory of ownership delves into the relationship between ownership structures and decision-making within organizations. In the context of female leadership, this theory

may help discern how ownership patterns influence the representation and influence of women in leadership roles and their impact on organizational outcomes.

By incorporating these theories into the study, a comprehensive understanding of the complex dynamics between female leadership, board inclusion, and organizational performance can be attained. Analyzing these theories in the context of the study's objectives will contribute to a nuanced exploration of the effects of female representation in leadership positions and its implications for organizations.

2.4.1 Upper Echelon theory

The Upper echelon theory offers a compelling perspective on how leadership influences organizational performance. According to this theory, the beliefs, values, traits, experiences, talents, personality, and even gender of leaders reflect in the decisions made by organizations and subsequently impact their outcomes. Thus, the theory suggests that traits and personality, among other factors, have implications for decision-making and, consequently, firm performance (Adusei et al., 2017).

In light of this theory, the literature proposes that women and men exhibit variations in leadership approaches. Women are often associated with collaborative and democratic leadership tendencies compared to their male counterparts (Eagly et al., 2003). Attributes commonly attributed to females include adopting a more participatory leadership style, displaying greater democratic inclinations, and being more communal, risk-averse, and conservative. These characteristics contribute to the making of fairer and higher-quality decisions, which can ultimately lead to improvements in firm performance.

If these traits and gender-based factors associated with females hold true, it follows that decisions made by female leaders would likely be of higher quality. Moreover, they would be more likely to pursue well-thought-out strategic plans, thereby enhancing firm profitability and overall performance.

Numerous studies have employed the Upper echelon theory to investigate the subject of female leadership and board gender diversity. For instance, Luanglath, Ali, and Mohannak (2019) utilized this theory to examine top management gender diversity's impact on employee productivity, and they reported a significant positive effect of diversity in top management teams on employee productivity.

In conclusion, the Upper echelon theory provides valuable insights into the connection between leadership attributes, gender diversity, and organizational performance. Understanding the potential differences in leadership approaches between women and men can offer opportunities for organizations to leverage diverse perspectives and foster better decision-making processes, ultimately leading to enhanced firm performance.

2.4.2 Resource dependence theory

The second theory guiding this study is the resource dependence theory, originally proposed by Pfeffer and Salancik (1978). The fundamental premise of this theory is that organizations rely on external resources, and this reliance on crucial external resources influences their decisions and actions (Nienhüser, 2008). Therefore, the theory advocates for stronger networking with external resources as essential for superior organizational performance and overall success (Agyemang-Mintah & Schadewitz, 2017).

In light of this theory, a gender-diversified corporate board is preferred over a less diversified one. The rationale is that a gender-diverse board brings forth a pool of resources, including skills, experiences, and traits, that are relevant for fostering innovation, creativity, and high-quality decision-making, ultimately enhancing overall performance (Terjesen, et al., 2015). Furthermore, the theory suggests that a mix of male and female board members strengthens the monitoring capacity of the board and improves its independence, ensuring alignment between shareholder and manager interests, and leading to higher profitability. In essence, the inclusion of females on boards contributes to improved problem-solving, better decision-making, enhanced board independence, and monitoring, thereby reducing agency costs and ensuring improved firm performance.

Moreover, as boards become more diversified, they gain additional resources in the form of varied experiences and skills, enabling them to make decisions and pursue actions that foster stronger connections with external resources, ultimately contributing to enhanced firm performance (Agyemang-Mintah & Schadewitz, 2017). Past empirical research supports the resource dependence theory's arguments by demonstrating the value creation potential of board gender diversity. For example, Agyemang-Mintah and Schadewitz (2017) applied the resource dependence theory as the theoretical basis of their study and found significant positive impacts of female board representation on the firm value of UK financial institutions.

In conclusion, the resource dependence theory posits that organizations' reliance on external resources makes gender diversity on corporate boards valuable for improving problem-solving, decision-making, board independence, and monitoring, leading to

enhanced firm performance. This theory's applicability has been substantiated by empirical studies, demonstrating the positive influence of female board representation on firm value in various contexts.

2.4.3 Tokenism theory

The concept of tokenism refers to situations where superficial efforts of inclusiveness are made towards minority groups, particularly females, in traditionally male-dominated occupational areas (Kanter, 1977). According to this theory, regulatory and social pressures may lead organizations to appoint individuals from such minority groups (e.g., females) who may not be genuinely suitable for a particular position or job (Low, Roberts, and Whiting, 2015). These gestures of inclusivity are often perfunctory, resulting in limited participation of these individuals in decision-making processes. They may be treated merely as representatives of their group (e.g., gender) since their hiring is primarily to fulfill regulatory requirements, and directives, and address discrimination issues. As a consequence, the impact of the person hired from the minority group may not be significant or evident.

In the context of diversity literature, the theory of tokenism is often discussed in relation to the critical mass theory. The critical mass theory argues that for females to have their voices heard, valued, and to make a substantial impact, their numerical representation in top executive positions, such as corporate boards and top management, must be significant (Torchia et al., 2011). Therefore, the argument suggests that for any tangible impact on performance to be achieved in terms of female directorship, having a critical mass of female representation is essential (Bennouri, et at., 2018). In other words, having just one or two females on a board or in top executive positions may not lead to a

material impact on performance, and their token presence may not yield significant economic benefits for an organization.

In summary, tokenism refers to surface-level efforts of inclusiveness towards minority groups, where their representation may be symbolic rather than substantive. In contrast, the critical mass theory emphasizes the need for a significant numerical representation of females in top leadership roles to ensure their genuine influence and contribution to organizational performance.

2.4.4 Theory of ownership of firms

Lastly, the study incorporates the theory of ownership as a moderator to elucidate the concept of ownership, which plays a crucial role in the analysis. According to the theory of ownership structure, the rights, roles, and responsibilities of all stakeholders within a firm are significantly influenced by the firm's ownership and structure (Meckling & Jensen, 1976). Consequently, the ownership structure of a bank can have a profound impact on its short-term, long-term, and operational goals, thereby influencing the decision-making of top management, which in turn affects the organization's performance.

For instance, private banks, driven by profit maximization, tend to be more concerned with attracting investors. Board gender diversity is a critical aspect that modern investors look for before investing in firms. Therefore, the expectation is that private banks would prioritize board gender diversity to attract investors, leading to improved firm value.

Additionally, the concept of "home field advantage" (Kusi et al., 2021) suggests that local banks possess a better understanding of the dynamics within the banking market.

Consequently, the performance of female leadership and board gender diversity in local banks is anticipated to be superior compared to foreign banks.

Moreover, listed banks, due to their transparency and regulatory requirements stemming from being listed, are expected to place greater emphasis on female leadership and board gender diversity. The visibility and accountability that come with being listed are likely to amplify the focus on these aspects as compared to unlisted banks.

In conclusion, the theory of ownership provides valuable insights into how ownership structure influences decision-making and organizational goals. Private banks are expected to prioritize board gender diversity to attract investors, while local banks may have a competitive advantage in terms of understanding the local market dynamics. Furthermore, listed banks are likely to exhibit a heightened emphasis on female leadership and board gender diversity due to increased transparency and regulatory requirements. By employing the theory of ownership as a moderator, the study gains a comprehensive understanding of how ownership factors interact with female leadership and board gender diversity to influence firm performance.

2.5 Empirical Literature Review and Hypothesis Development

The subject of board gender diversity has garnered significant interest from policymakers, business practitioners, academics, and researchers. However, empirical studies have primarily focused on the percentage of females on boards as a predictor of firm performance, with less attention given to the influence of females in specific top executive positions. These positions are critical as they shape the type and quality of decisions and practices pursued, which ultimately impact organizational outcomes. Moreover, existing studies examining the impact of females in specific executive

positions on performance have been scarce, and those available have predominantly been conducted in contexts outside of Ghana.

Despite the existence of studies on board gender diversity and firm performance in Ghana, they remain limited and are still in the early stages of development, particularly within the banking sector and also considering risk-taking decisions. Considering the pivotal role banks play in the economy's financial system, and the economy as a whole, there is a need for more comprehensive research on this topic in the Ghanaian context.

Against this backdrop, this study presents an empirical review of a select few studies that have explored the influence of females in top executive positions (CEO and board chairperson) on firm performance. Additionally, the study reviews existing research that has examined the impact of board gender diversity on firm performance. By focusing on these dimensions, the study seeks to contribute valuable insights into the specific roles of female leaders in influencing organizational performance when it comes to taking certain risks, particularly in the context of Ghana's banking industry.

2.5.1 Female leading and performance

In the realm of female leadership's influence on firm performance, prior empirical studies have presented mixed and inconclusive findings, leading to the emergence of three distinct strands of empirical evidence. Firstly, some studies have suggested a negative relationship between female leadership and firm performance. For instance, Marpaung, Koto, Hafiz, and Hamdani (2022) found that female CEOs in Indonesian family firms had a negative impact on ROA. Similarly, Satriyo and Harymawan (2018) reported an inverse relationship between female CEOs and firm performance in small firms. In Pakistan, Tahir, Ullah, Ahmad, Syed, and Qadir (2021) discovered that female CEOs and

female directors adversely affected ROA and firm stability. Naseem, Lin, Rehman, Ahmad, and Ali (2019) also found that female CEOs were associated with lower firm performance compared to male CEOs in Pakistan.

On the other hand, the second strand of studies indicates a positive association between female leadership and firm performance. Vo, Nguyen, and Le (2021) demonstrated that female CEOs in Vietnamese firms were linked to higher profitability and lower risks compared to male CEOs. Bjuggren, Nordström, and Palmberg (2018) discovered that female CEOs and directors in family-owned Swedish firms were associated with better performance. Chadwick and Dawson (2018) showed that firms led by female CEOs or CFOs performed better than those led by males in the S&P 500 companies. In Pakistan, Ullah, Fang, and Jebran (2019) found that female CEOs enhanced firm value. Moreover, Strøm, D'Espallier, & Mersland (2014) revealed that female-led microfinance institutions tended to have better financial performance.

Lastly, the third strand of studies did not find any significant effect of female leadership on firm performance. Mittal and Lavina (2018) reported no significant impact of female CEOs and female board chairpersons on performance in Indian firms. Kaur and Singh (2018) found no significant relationship between ROA and female CEOs in the Indian context. Baloyi and Ngwakwe (2017) observed no significant association between female CEOs and turnover, share price, and net profit in South Africa. Lafuente and Vaillant (2019) investigated gender diversity and leadership in Costa Rica and found no significant association between women CEOs and ROA and net intermediation margin (NIM).

Despite these findings, it is worth noting that none of the studies were conducted within the Ghanaian context. Moreover, most of the research focused on direct relationships between female leadership and firm performance, with limited attention given to the possible channels through which female leadership impacts performance. A comprehensive understanding of how female leadership influences firm performance within the Ghanaian banking sector, and whether ownership type moderates this relationship, remains largely unknown.

Drawing upon insights from the upper echelon theory, the resource dependence theory, and the ownership theory, this study aims to fill this knowledge gap by examining the potential impact of female leadership in Ghanaian banks on firm performance. Additionally, it seeks to explore how ownership type may moderate this relationship. The following hypotheses are developed based on prior empirical research and theoretical frameworks. By addressing these research gaps, the study aims to contribute valuable insights into the relationship between female leadership, ownership type, and firm performance within the specific context of Ghanaian banks.

2.5.2 Gender diversity on boards and performance

The relationship between female leadership and firm performance, similar to the studies on board gender diversity, has led to contradictory findings, resulting in three distinct strands of empirical evidence. Some studies suggest that board gender diversity enhances firm performance, while others indicate that it may have a negative impact. However, it is important to note that although the investigation of board gender diversity is not new in Ghana, few studies have explored this subject matter within this context. For a comprehensive review, we will examine studies conducted in different contexts.

In the first set of studies, Ullah, Fang, and Jebran (2020) examined the impact of board gender diversity on firm value in Pakistani listed firms and found a significant positive effect of female directors on firm value, particularly in non-state-owned enterprises. Li and Chen (2018) analyzed the relationship between board gender diversity and firm performance in Chinese listed firms and discovered a significant impact of gender diversity on performance, dependent on the size of the firm. Đặng, Houanti, Reddy, and Simioni (2020) investigated the influence of board gender diversity on firm profitability in S&P 500 firms and reported a significant positive influence of female directors on firm profitability. Song, Yoon, and Kang (2020) examined the moderating effect of internationalization on the relationship between board diversity and firm performance in the US lodging industry, confirming the positive impact of gender diversity on firm performance.

Similarly, Ciavarella (2017) studied board gender diversity and firm performance in European firms and found that firms with higher representation of female and foreign directors tend to perform better. Tleubayev, Bobojonov, Gagalyuk, and Glauben (2020) investigated board gender diversity and firm performance in Russia's agri-food industry and reported a significant positive relationship between the percentage of female directors on boards and firm performance. Low, Roberts, and Whiting (2015) analyzed board gender diversity and firm performance in Asian firms and found a positive impact of increasing female directors on firm performance. Zhang (2020) studied board gender diversity and firm performance across countries and industries, revealing variations in the relationship based on differences in institutional context. In the Ghanaian context, Appiadjei, Ampong, and Nsiah (2017) investigated board gender diversity and firm

performance in listed firms and found that an increase in the ratio of women on boards was associated with improved firm performance.

On the contrary, the second set of studies provides evidence that the presence of females on boards may have a detrimental effect on firm performance. Kweh, Ahmad, Ting, Zhang, and Hassan (2018) found that female and independent directors had a significant negative impact on firm performance in Malaysian firms. Endraswati (2018) studied board gender diversity and firm performance in Indonesian Sharia banks and reported a significant negative impact of the proportion of women on boards on bank performance.

The third set of studies demonstrates that certain moderating factors may influence the relationship between board gender diversity and firm performance. Saleh, Zaid, Shurafa, Maigoshi, Mansour, and Zaid (2021) investigated the moderating role of CSR in the relationship between board gender diversity and firm performance in Pakistani listed firms. Marinova, Plantenga, and Remery (2016) found no significant relationship between board gender diversity and firm performance in Dutch firms, while Hedija and Němec (2021) reported that board gender diversity had no statistically significant effect on firm performance and financial health in Czech firms.

It is evident from these reviews that board gender diversity, measured using various indicators, can either positively impact firm performance or have negative consequences. Moreover, factors specific to firms or industries can moderate the effect of board gender diversity on performance. However, it is essential to note that the majority of these studies were conducted in contexts outside of Ghana and Africa as a whole. Drawing on insights from the resource dependence theory and the theory of ownership and considering the outcomes of prior research, this study aims to develop hypotheses related

to the relationship between board gender diversity and firm performance within the Ghanaian context. By addressing these research gaps, the study aims to provide valuable insights into how board gender diversity impacts firm performance in Ghanaian banks, as well as how ownership type may moderate this relationship.

2.5.3 Board Gender Diversity and Risk-Taking

Managers tend to be risk-averse as they aim to protect the specific human capital of their firm and maintain their own perks (Smith & Stulz, 1985; Williams, 1987). Conversely, diversified stock investors, facing limited liability, generally prefer riskier endeavours at the firm level, particularly when they are safeguarded against managers who might extract wealth (Himmelberg and Quadrini, 2002; Himmelberg et al., 2002; Shleifer and Wolfenzon, 2002; Castro et al., 2004). Consequently, there can be a mismatch in risk preferences between managers and investors, where managers avoid high-risk projects with positive net present value, whereas investors may want the firm to pursue these projects (Coles et al., 2006).

To address these differing risk preferences, finance theorists suggest that managers should be provided with incentive structures that encourage them to accept additional firm risk (Jensen and Meckling, 1976; Leuz et al., 2003; John et al., 2008). Present-day bonus and stock-based compensation schemes are designed to motivate managers to take on more firm-level risks than they would otherwise choose. Some evidence indicates that gender-diverse boards (BGD) might help align the risk preferences of shareholders and managers. For instance, Adams and Ferreira (2009) find that gender-diverse boards receive a larger proportion of equity-based compensation than gender-homogeneous boards. Moreover, gender diversity in boards appears to positively impact decision-

making and strategic choices, particularly in evaluating risky options (Muller-Kahle & Lewellyn, 2011).

Firm-level gender diversity is also associated with a higher likelihood of undertaking innovation (Østergaard et al., 2011), which is inherently risky (Treacy, 2004). Additionally, gender-diverse banks tend to be more risk-taking compared to non-gender-diverse banks (Adams & Ragunathan, 2013; Berger et al., 2014). These findings suggest that BGD could potentially help align the risk preferences of inherently risk-averse managers with shareholders seeking riskier projects.

However, there are legitimate concerns about whether gender-diverse boards always lead to better alignment between investor and manager risk preferences. One concern is that BGD might result in more dysfunctional boards (Groysberg & Bell, 2013; Triana et al., 2014). Another argument is that women's effectiveness on boards might depend on their numbers, as having only a few women could lead to tokenism and hinder effective board control (Torchia et al., 2011).

Moreover, studies suggest that, on average, women tend to be slightly more risk-averse than men (Croson & Gneezy, 2009; Francis et al., 2014). This raises the possibility that gender-diverse boards, based solely on the average risk tolerances of individual board members, could be more risk-averse than male-only boards. Consequently, if individual risk preferences, rather than the ethics or monitoring effects of gender diversity, drive board decisions, then firms with gender-diverse boards might have a greater dispersion between investor and manager risk tolerance levels. This uncertainty makes it unclear how BGD affects a firm's financial risk-taking. To explore this matter, we propose the following null hypothesis:

2.6 Conceptual Framework and Hypotheses Development

A conceptual framework is a visual or written representation that outlines the key concepts, variables, relationships, and theories relevant to a research study (Ayagre et al., 2014). It provides a structured foundation for understanding and analysing complex phenomena, which helps researchers conceptualize their research questions, hypotheses, and the displays the interconnections between different factors concerning the concepts under review. The conceptual framework for this study draws insights from the resource dependence theory and the upper echelon theory as well as the gaps in literature. The model is essential in guiding academics, policymakers and practitioners to understand the need for female representation on boards and prudent management of risk in the Ghanaian banking sector. The framework will also provide a novel perspective on the essence of bank ownership in shaping the risk-taking behaviours of banks. The framework has three main components namely, the explanatory variables—board gender diversity and risk-taking behaviour of banks, moderating variable—bank ownership type and dependent variable—bank profitability. The intricate relationship between these components are shown in Figure 2.1.

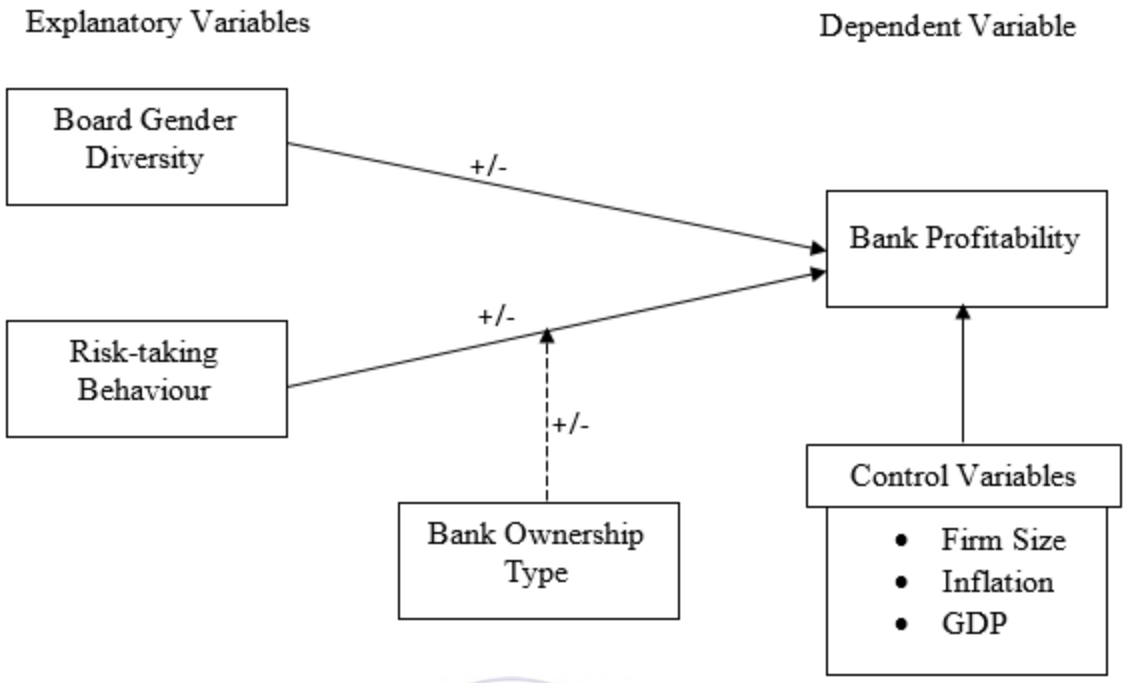

Figure 2. 1: Conceptual framework

Source: Authors Construct

As contained in Figure 2.1, board gender diversity and risk-taking behaviour of banks are proposed to have a significant effect on bank profitability. Ullah et al. (2020) examined the impact of board gender diversity on firm value in Pakistani listed firms and found a significant positive effect of female directors on firm value, particularly in non-state-owned enterprises. Similar empirical studies provide a strong support for this finding (Li & Chen, 2018; Đặng, et al., 2020; Song, et al., 2020; Ciavarella, 2017; Tleubayev et al., 2020), holding that institutions with higher representation of females on their boards tend to perform better.

H1: Board gender diversity has a significant positive effect on bank profitability

Additionally, the risk-taking behaviour of banks is proposed to have a significant negative effect on bank profitability. A number of studies revealed that banks that take

higher risks are prone to huge losses (Mongid & Muazaroh, 2017; Abbas et al., 2019; Bandara et al., 2021), suggesting for an optimum risk appetite for banks.

H2: The risk-taking behaviour of banks negatively and significantly influence their performances

The framework also demonstrates the necessity of bank ownership type in shaping the risk appetite of banks which subsequently influences their profitability. It is imperative to note that the culture and ideological leaning of every business are functions of its owners, likewise their risk-taking behaviours. The framework emphasises on the need to have owners that subscribe to moderate risk-taking in operations which feeds into the risk-taking behaviours of the banks. The empirical literature underscores the significance of bank ownership in shaping their risk-taking behaviours (Srairi, 2013; Dong et al., 2014; Loh & Sok-Gee, 2017).

H3: Bank ownership type significantly moderates the relationship between the risk-taking behaviour of Ghanaian-resident banks and their profitability.

2.7 Chapter Summary

The chapter provides a comprehensive review of relevant literature in relation to the research subject. It begins with an exploration of Ghana's universal banking subsector and examines the presence of female leadership and board gender diversity in banks from 2010 to 2021. The subsequent sections delve into the theoretical foundations guiding the research, including the upper echelon theory, resource dependence theory, and theory of ownership of firms. Furthermore, the chapter delves into a retrospective analysis of previous empirical studies. It culminates in the formulation of the research hypothesis

and the establishment of the study's conceptual framework. In essence, the chapter encompasses an in-depth examination of literature, theories, and empirical findings to provide a solid groundwork for the subsequent research.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

In this chapter, we outline the various steps and methodologies that will be employed throughout the research process to gather, evaluate, report, and communicate the outcomes as aligned with the study's objectives. This section provides a comprehensive rationale for the chosen procedures, methodologies, and techniques applied in the investigation. It encompasses essential details about the research design, the target population, the sampling method, the sources and nature of data, the approach to data analysis, the model utilized, and the criteria for defining and selecting variables. By presenting this chapter, we aim to provide a clear and transparent framework for the research methodology, ensuring that the entire research process is both rigorous and well-justified in order to facilitate a robust and credible study.

3.2 Research Design

For this study, we will adopt a quantitative research design strategy to investigate the predefined objectives. Building upon the findings of previous literature sources such as Wilson (2014) and Saunders, Lewis, and Thornhill (2012), it is contended that employing a quantitative research design is advantageous in elucidating cause-and-effect relationships. This approach is valued for its capacity to yield objective, dependable, and precise results.

Moreover, scholarly discourse in research methodology underscores the objectivity of quantitative research designs, their immunity to researcher biases, and their adherence to

rigorous analytical methodologies and protocols. Consequently, the quantitative research design emerges as the favored strategy for this study. It is believed that this choice will not only enhance the credibility and precision of the study's outcomes but also facilitate the exploration of causal relationships with a high degree of objectivity and reliability, aligning with the study's goals and objectives.

3.3 Population

The concept of "population" is often defined as the specific collection of individuals, entities, or objects under scrutiny in a scientific investigation. This study, focusing on the Ghanaian banking sector from 2017 to 2022, adopts this perspective. During this timeframe, the study encompasses a total of 23 active commercial banks. The population for this study include all commercial banks in Ghana with complete set of data Though there are 23 commercial banks in Ghana during the period for this study however the total number of banks who meet the population criteria are 15 banks because these banks have complete set of information for the period 2010 to 2021. This approach aligns with the scholarly works of Garg (2016) and Opoku, Ahmed, and Akotia (2016), who emphasize that a population should exhibit the relevant attributes necessary for comprehensive research. In essence, this investigation centers its attention on the dynamic and diverse landscape of banking institutions in Ghana over the specified decade.

3.4 Sample and Sampling Technique

A "sample" denotes a specific subset of individuals, entities, or objects drawn from a larger population, a concept well-documented by Garg (2016) and Saunders et al. (2012). The rationale for selecting a sample lies in its ability to streamline and enhance the ease

and reliability of data collection and analysis, a viewpoint supported by Opoku et al. (2016) and Wilson (2014). In the context of this study, 15 commercial banks plying their trade in Ghana with comprehensive data are chosen to facilitate the research's objectives. The study used census sampling technique, a method that select sample by including all the element in the population as part of the sample.

3.5 Data Source

This study relies on secondary data, sourced from pre-existing records not originally collected for the current research objectives, a concept elucidated by Baltagi (2008) and Brooks (2008). The data used in this research is of a quantitative nature, specifically utilizing ratio data. This involves expressing income statement and balance sheet items as percentages or shares relative to other items. Brooks (2008) contends that ratio data surpasses categorical, ordinal, and interval data types in terms of suitability for analysis. Therefore, for this study, the preference for ratio data underscores its effectiveness in fulfilling the research goals. In summary, this investigation draws upon secondary data, primarily quantitative in nature with a focus on ratio data, as it aligns best with the research objectives.

3.6 Estimation Strategy and Models

"In this research, estimations are conducted in accordance with the study's objectives. The study employed econometric techniques specifically the Generalized Moment of Method (Kim, 2015; Semenick, 1990). Objectives 3 on the other hand, utilize regression estimations for their analyses. To examine the objectives of the study a panel data approach is employed to explore the influence of various ownership structures and the presence of female leadership on the performance of banks, specifically in terms of

profitability. Additionally, the study aims to evaluate how different aspects of gender diversity on boards impact the profitability and risk-taking behavior of banks across various ownership types. This investigation encompasses a dataset spanning the period from 2017 to 2023, involving 23 commercial banks operating in the Ghanaian banking sector. The choice of employing a panel data strategy is grounded in econometric literature, which suggests that it yields more robust and persuasive findings compared to traditional cross-sectional or time series methods. This preference for the panel data strategy arises from its ability to rectify the weaknesses inherent in both traditional cross-sectional and time series approaches while capitalizing on their respective strengths, as documented by scholars such as Baltagi (2008), Baltagi and Baltagi (2008), and Brooks (2008). Furthermore, the panel data strategy is advantageous as it helps control for omitted variables and can capture both short-term and long-term effects through the utilization of time series and cross-sectional data, respectively, as highlighted by Imbens and Wooldridge (2009). The panel data is compiled through audited financial statements and the structure of the panel data is expressed as:

$$Y_{it} = \alpha_i + \gamma_t + \beta X_{it} + \varepsilon_{it} \quad \text{.....(Eq. 1)}$$

Where: subscript i denotes the cross-sectional dimension (bank) i =1. . . N and t denote the time series dimension (time), t=1…T; Y_{it} is the dependent variable; α_i is a scalar and constant term for all periods (t) and specific to a bank fixed effect (i); γ_t is the time fixed effect t; β *is a* $k\times1$ vector of parameters to be estimated on the independent variables for the explanatory variables; *Xit is a* $1\times$ k vector of observations on the independent variables comprising of independent variables in the model which includes controlled variables and ε_{it} which is iid is the error term. In the pursuit of modeling bank

profitability while examining the influence of female leadership and ownership types in Objective 3, as well as assessing the impact of board gender-diversity variables on banking profitability and risk-taking behavior across diverse bank ownership types in Objective 4, this study adopts a methodology akin to that of Trujillo-Ponce (2013) in his exploration of factors contributing to bank profitability. To facilitate this investigation, the study opts for the Generalized Method of Moments (GMM) for several compelling reasons. Firstly, GMM is deemed suitable based on previous research findings (Tchamyou, 2019; Tchamyou et al., 2019), which indicate that GMM is well-suited for models where the dependent variable displays dynamic tendencies, with a lagged dependent variable exhibiting a correlation of at least 0.8 with its current value.

Secondly, the GMM model is chosen for its enhanced precision and reliability, particularly when the number of entities (N) exceeds the number of time series (T), as compared to alternative estimation models (Arellano and Bond, 1991; Arellano and Bover, 1995). Lastly, GMM offers the advantage of generating its own internal instruments, simplifying the handling of endogeneity concerns. This obviates the need for researchers to identify instruments that meet stringent econometric, theoretical, and intuitive criteria (Arellano and Bond, 1991; Arellano and Bover, 1995). Following the GMM approach, the generic GMM model is expressed as:

$Y_{i,t} = \alpha Y_{i,t-1} + \beta X_{i,t} + \varepsilon_{i,t}$……..(Eq. 2),

Where: Y is the dependent variable and X is explanatory variables ε_i is the error term.

……(Eq3)

Equation 3 is the functional form linking the indenpendent variabes and the control variables to the dependent variable. Equation 4, is a vector form representing the restricted form of the model whilst equation 5, demostrate the dynamic model.

Where: ROA represent Return on asset measuring financial performance of the underlying banks, OWN represent ownership type, BGD is board gender diversity, RTB denote risk taking behavior, INF is inflation, GDPG represent the gross domestic product growth whilst FRMS stand for firm size. i, t denotes the panel identity, β is elasticities, μ is the stochastic error term.

3.7 Variable Selection and Justification

3.7.1 Financial performance

Banking profitability gauges a bank's capacity to generate income while keeping expenses at a minimum. Within the banking literature, profitability typically encompasses indicators such as net interest margin, return on assets, and return on equity. For the purposes of this research, return on assets will serve as the chosen profitability metric. This is because, unlike net interest margin and return on equity, return on assets takes into account both the impact of leverage and equity in the financing strategies adopted by banks, as noted by Weqar et al. (2020), Vo and Tran (2021), and Gupta et al. (2020). In line with Kusi et al. (2018; 2017), return on assets epitomizes stakeholder profitability, reflecting the earnings available for distribution to all parties with financial and nonfinancial interests in a firm. Consequently, return on assets offers a more comprehensive perspective on banking profitability and is employed as the dependent variable in this study. Its calculation involves dividing interest before interest and taxes

by total assets. Therefore, the financial performance of banks would be operationalized using ROA.

3.7.2 Board gender diversity

Board gender diversity pertains to the degree of female involvement in leadership roles within the Ghanaian banking sector. Consistent with previous research (Luh et al., 2022; Kusi et al., 2018, 2017), women remain underrepresented in leadership positions, despite their capacity to contribute distinctive and valuable qualities that enhance and enrich the attributes of male leaders. To assess female leadership, five distinct indicators are employed. The proportion of female board members relative to the total number of board members. The proportion of top female managers in comparison to the total number of management members. A binary variable is represented as 1 if the board chair is female and 0 otherwise. Another binary variable denoted as 1 if the CEO is female and 0 otherwise. A further binary variable is recorded as 1 if there is at least one female board member and 0 otherwise. The presence of female leaders is generally anticipated to enhance banking performance, as they bring unique qualities that complement and enhance the contributions of male leaders. For the purpose of this study, board gender diversity is represented by the proportion of females on the boards of the banks.

3.7.3 Ownership Types

Ownership type reflects the orientation/characteristics of the owners of a firm (Kusi et al., 2022; Ofori-Sasu et al., 2022). Banking ownership is captured using dummies of 1 if bank is locally-owned and 0 if the bank is foreign, respectively.

3.7.4 Risk-taking behavior

In the banking context, risk-taking denotes a bank's inclination to partake in activities carrying varying degrees of risk, such as extending loans to higher-risk borrowers or investing in riskier assets. When executed prudently, moderate risk-taking can yield elevated returns and, consequently, enhance a bank's profitability. However, excessive or inadequately managed risk-taking can lead to financial instability and a decline in profitability. As a result, comprehending the intricate interplay between risk-taking and profitability emerges as a pivotal facet of financial research and analysis within the banking sector. Research conducted by Smith et al. (2019) and Chen et al. (2015) has illuminated the substantial impact of a bank's risk-taking behavior on its profitability. In this study, the risk-taking behaviour is represented by credit risk (CR).

3.7.5 Firm Size

Bank size is quantified as the natural logarithm of total assets. In financial literature, the concept of size is associated with potential efficiency benefits stemming from economies of scale and scope. This perspective posits that larger banks can achieve cost-efficiency advantages, ultimately enhancing banking profitability, particularly when profitability is computed as revenue minus expenses, as discussed by Kusi et al. (2018; 2017) and Athanasoglou et al. (2008). According to the economies of scale and scope theory, larger banks are conducive to profitability. However, an alternative strand of financial literature introduces the notion of diseconomies of scale, contending that larger banks may suffer from duplicated functions, reduced oversight, slower decision-making processes, and elevated operational costs, resulting in diminished profitability. Thus, the relationship between bank size and profitability is multifaceted and not straightforward.

3.7.6 Inflation

Inflation serves as an indicator of price stability or volatility within an economy. It is typically calculated based on the consumer price index and its relationship with banking profitability can vary, as discussed by Rasiah (2010) and Perry (1992). The nature of this relationship hinges on a crucial factor: the ability of banks to effectively anticipate and adapt to inflationary fluctuations in their operations. When banks possess the capability to accurately predict changes in inflation and make corresponding adjustments to deposit and loan rates to account for these shifts, a positive correlation is expected to emerge between inflation and banking profitability. In this scenario, banks can leverage inflation to their advantage, potentially increasing their profitability. Conversely, when banks struggle to foresee inflationary changes and are unable to align their operations with these shifts, a negative connection is likely between inflation and banking profitability. In such cases, inflation can pose challenges and erode profitability if not managed effectively. Thus, the relationship between inflation and banking profitability is contingent on banks' abilities to anticipate and adapt to inflationary trends.

3.7.7 GDP growth

The growth of gross domestic product (GDP) is a barometer of economic well-being and a mirror of citizens' welfare within an economy. Building upon previous research by Islam and Nishiyama (2016) and Taru et al. (2012), GDP growth signifies an enhancement in the economic welfare and income of the population. Consequently, it is expected to exert a positive impact on banking profitability since an increase in income typically corresponds to heightened interest income and, subsequently, greater bank profitability. Thus, this study anticipates a favorable association between GDP growth

and profitability, underlining the idea that as the economy prospers and citizens' financial situations improve, the banking sector is poised to benefit from increased profitability.

CHAPTER FOUR

RESULTS AND DISCUSSIONS

4.1 Introduction

The purpose of this study is to investigate the impact of board gender diversity, ownership type and risk-taking behaviour on the performance of Ghanaian-resident universal banks. To address the purpose of the study, the study seeks to: (i) assess the effect of board gender diversity on the profitability of Ghanaian-resident universal banks, (ii) ascertain the effect of risk-taking behaviour on the profitability of Ghanaian-resident universal banks and (iii) investigate the moderating role of bank ownership in the relationship between risk-taking behaviour of Ghanaian-resident universal banks on their profitability. To satisfactorily achieve these objectives, the study adopts the experimental research design with Arrelano-Bond Generalised Method of Moments (GMM) as the estimation technique. The chapter begins with assessing the profile of the 12-year panel data including the averages, deviations and shape. Beyond these, descriptive statistics also involves the assessment of the normality of the data using Jarq-Bera statistics.

4.2 Descriptive Result

This section provides a description of the profile of the variables used in this study. As such, Table 4.1 presents the mean, median, maximum, minimum, standard deviation, skewness, kurtosis and Jarque-Bera statistics for each variable. The variables in the study are Risk-taking behaviour (RTB), Board gender diversity (BGD), Inflation (INF), GDP Growth (GDPG), Firm size (FRMS), Ownership type (OWN), and Return on Asset (ROA).

Table 4. 1:Descriptive Statistics

	RTB	BGD	INF	GDPG	FRMS	OWN	ROA
Mean	14.841	1.817	10.628	6.129	15.670	0.333	0.043
Median	10.715	2.000	10.340	6.355	15.265	0.000	0.040
Maxi	49.290	0.9.000	17.450	14.050	22.420	1.000	0.090
Mini	1.600	0.000	0.410	0.410	2.270	0.000	-0.050
Std. Dev.	11.727	1.049	4.559	3.534	3.441	0.473	0.027
Skewness	1.262	-0.066	-0.396	0.449	-0.765	0.707	-0.564
Kurtosis	3.688	2.660	3.072	3.007	6.453	1.500	3.780
Jarq-Bera	12.346	0.999	4.737	6.056	10.008	11.875	14.119
Prob.	0.099	0.307	0.194	0.128	0.090	0.801	0.061
Sum	2671.3	327.0	1913.1	1103.3	2820.6	60.0	7.7
Sq. Dev.	24617.1	197.0	3719.8	2235.4	2118.9	40.0	0.1
Obs	180	180	180	180	180	180	180

Source: Statistical computation (2023)

As contained in Table 4.1, the risk-taking behaviour (RTB) of Ghanaian-resident universal banks was reported to have an average score of 14.841 with a standard deviation of 11.727, which indicates that the average level of risk-taking behaviour among the banks in the sample is relatively high with high variability. The data for RTB also exhibited a moderately right-skewed distribution since it reports a mean score relatively higher than its median score of 10.715 and a positive skewness score of 1.262. It is also important to note that some banks in the sample exhibited extremely high levels of risk-taking behaviour as indicated by the maximum value of 49.290, which is significantly higher than the mean and median values. Also, the minimum value of RTB is 1.600, which is significantly lower than the mean and median values, indicating that there are some banks in the sample that exhibit very low levels of risk-taking behaviour. From these revelations, it is not surprising to observe RTB record a kurtosis score of 3.688 indicating a mild thickened-tailed and peaked distribution otherwise known as the presence of outliers in the dataset.

Board gender diversity (BGD) was also found to report a mean value of 1.817, which indicates that the average level of board gender diversity among the firms in the sample is relatively low. The variable also reports a median value of 2.000, which suggests that the distribution of BGD is roughly symmetrical, as validated by the skewness score of -0.066. The maximum value of BGD was 4.000, which is significantly higher than the mean and median values, indicating that there are some firms in the sample that exhibit relatively high levels of board gender diversity. It must be noted that there are some firms in the sample that have no female representation at all. The result for BGD also suggests that there is no existence of extreme values in the dataset.

Ghana's inflation within the study period also recorded an average score of 10.628, reading a height of 17.450. The results also show that the data for inflation reports an approximately symmetrical distribution as validated by a skewness score of -0.396 and Jarque-Bera statistics of 4.737 with a p-value of 0.194. It was also reported that economic growth over the study period averages 6.129 percent with the country recording as high as 14.050 percent. As indicated in the table, the banks' profitability over the period has not been encouraging as the result reports an average return on asset of 0.043, implying that the banking sector largely makes about 4.3 percent return on its total assets.

4.3 Pairwise Correlation

This section presents information about the correlation between the variables used in the study. The table shows the correlation coefficients between each pair of variables. The variables in Table 4.2 are Risk taking behaviour (RTB), Board gender diversity (BGD), Inflation (INF), GDP Growth (GDPG), Firm size (FRMS), Ownership type (OWN), and Return on Asset (ROA). The correlation coefficients range from -1 to 1, with -1

indicating a perfect negative correlation, 0 indicating no correlation, and 1 indicating a perfect positive correlation (Schober et al., 2018). One important consideration when interpreting the pairwise correlation coefficients is the presence of multicollinearity (Dormann et al., 2013; Elith et al., 2006). Multicollinearity occurs when two or more independent variables in a regression model are highly correlated with each other, making it difficult to determine the individual effect of each variable on the dependent variable (Elith et al., 2006). In the presence of multicollinearity, the coefficients of the correlated variables may be unstable and have large standard errors, making it difficult to interpret their significance. According to Elith et al. (2006), a correlation coefficient between two explanatory variables of more than 0.85 indicates the presence of multicollinearity.

Table 4. 2:Pairwise correlation

	RTB	BGD	INF	GDPG	FRMS	OWN	ROA
RTB	1.000						
BGD	-0.031*	1.000					
INF	0.048	-0.079	1.000				
GDPG	-0.056	-0.148	-0.422	1.000			
FRMS	-0.200	-0.045	-0.090	-0.063	1.000		
OWN	0.030	0.135	0.010	0.004	-0.088	1.000	
ROA	-0.046**	0.095**	0.033*	0.093*	0.080	-0.352*	1.000

Source: Author's construct

As reported in Table 4.2, RTB recorded a significant and weak negative correlation coefficient of -0.031 with board gender diversity, an indication that an increased female representation on the board could cause a decrease in the risk-taking behaviour of the banks. The result also records an insignificant and negative relationship between risk-taking behaviour and GDPG(r=-0.056) and FRMS(r=-0.200). Additionally, RTB was found to have positive but insignificant relationship with inflation rate (r=0.048),

ownership type(r=0.030) and a significant negative significant correlation with ROA (-0.046). More so, board gender diversity was found to have a weak negative but insignificant relationship with inflation(r=-0.079), GDPG(r=-0.148), FRMS(r=-0.045), a positive but insignificant relationship with ownership type(r=0.135) and a positive significant relationship with ROA(r=0.095). However, ownership type(r=-0.376), a positive but insignificant relationship with FRMS(r=0.127) and a significant positive connection with ROA(r=0.876). More so, inflation reported a negative but insignificant relationship with GDPG(r=-0.722), FRMS(r=-0.090), a negative but insignificant with ownership type(r=0.010) and a significant positive relationship with ROA(r=0.033). Relatedly, the results revealed that GDPG had a significant positive association with ROA(r=0.093), insignificant positive relationship with ownership type(r=0.004) and an insignificant negative correlation with FRMS(r=-0.063). Firm size (FRMS) also reported an insignificant positive relationship with ROA(r=0.080) and an insignificant negative correlation with ownership type(r=-0.088) as ownership type was also found to have a significant negative relationship with ROA(r=-0.352).

Overall, Table 4.2 reveals a weak correlation between the different pairs of the variables under study suggesting an absence of serious multicollinearity problems among the explanatory variables as alluded to by Elith et al. (2006).

4.4 Stationarity Test

Table 4.3 and Table 4.4 provides information about the panel unit root test results for the variables used in the study. The stationarity test is important in panel data analysis because it determines whether a series is stationary or non-stationary. A stationary series has a constant mean and variance over time, while a non-stationary series has a changing

mean and variance over time. The stationarity test was conducted using the Augmented Dickey-Fuller (ADF) test, which tests the null hypothesis that a series has a unit root against the alternative hypothesis that a series is stationary. The test statistic is compared to the critical values at different levels of significance to determine whether to reject or fail to reject the null hypothesis. The table shows the t-statistic, probability value, and order of differencing for each variable. The order of differencing indicates the number of times a series needs to be differenced to become stationary. The variables in the study are Risk taking behaviour (RTB), Board gender diversity (BGD), Inflation (INF), GDP Growth (GDPG), Firm size (FRMS), Ownership type (OWN), and Return on Asset (ROA).

Table 4.3:Panel Unit root

	Unit root test Level							
	ADF				PP			
	Constant		Constant and Trend		Constant		Constant and Trend	
Variables	t-Statistic	Prob.	t-Statistic	Prob.	t-Statistic	Prob.	t-Statistic	Prob.
GDPG	-4.417	0.122	-2.908	0.1768	-4.5671	0.107	-2.323	0.022**
RTB	-2.953	0.553	-3.922	0.0345**	-10.4352	0.987	-1.596	0.102
IF	-0.967	0.462	-2.715	0.233	-2.9335	0.0576	1.26	0.942
ROA	-0.330	0.907	-1.592	0.7502	-5.7926	0.101	1.998	0.986
OWN	-2.499	0.125	1.634	0.0251**	-6.9904	0.422	-1.094	0.24
FRMS	-1.700	0.419	-3.152	0.0345**	-4.1372	0.404	-0.119	0.632
BGD	-1.569	0.483	-2.548	0.3051	-4.3277	0.209	1.452	0.013**

Source: Statistical computation

Table 4.4: Panel unit root at first difference

Unit root test First Difference								
	ADF				**PP**			
	Constant		**Constant and Trend**		**Constant**		**Constant and Trend**	
Variables	t-Statistic	Prob.	t-Statistic	Prob.	t-Statistic	Prob.	t-Statistic	Prob.
GDPG	-4.490	0.002	-4.631	0.0118**	-4.567	0.002	-4.789	0.000***
RTB	-6.697	0.000	-4.608	0.0122**	-10.435	0.000	-11.353	0.000***
IF	-2.925	0.059	-3.331	0.045**	-2.934	0.058	-2.638	0.011**
ROA	-5.315	0.000	-4.347	0.0189**	-5.793	0.000	-4.586	0.000***
OWN	-7.074	0.000	2.342	0.0021***	-6.990	0.000	-7.159	0.000***
FRMS	-4.188	0.004	-5.608	0.0212**	-4.137	0.004	-4.352	0.000***
BGD	-4.941	0.001	-3.409	0.0478**	-4.328	0.003	4.542	0.003***

Source: Author's construct

As indicated in Table 4.3, RTB reports a t-statistic of -3.9522, with a p-value of 0.0345. This indicates that the null hypothesis of a unit root in RTB can be rejected at the 5% level of significance. The order of differencing for RTB is 0, which suggests that RTB is stationary and does not require differencing. BGD also records a t-statistic of -4.6307, with a p-value of 0.0118, an indication that the null hypothesis of a unit root in BGD is rejected at the 5% level of significance and a conclusion made that the series for BGD is stationary. The results demonstrates that the series for all the other variables such as ownership type, inflation, GDP growth return on asset and firm size are stationary at different levels of differencing as validated by their respective t-statistics and p-values.

The study proceeded to test the stationarity of the variables through the Phillip-Perron unit root testing approach. This technique tests the null hypothesis that the variables are at unit root which means that the variables are non-stationary. According to the PP test

result presented in Table 4.3 and Table 4.4, GDPG and FR recorded p-values less than 0.05, based on these values the null hypothesis was rejected leading the conclusion that there is no unit root. The study tested at the first difference and found the remaining variables are stationery at level. This means that the data under consideration is without random walk.

4.5 Regression Result

This section presents the Arellano-Bond GMM result which seeks to provide the relative influence of the various explanatory variables in the model. Table 4.4 shows the coefficient, standard error, t-statistic, and probability value for each variable. The regresand in the study is Return on Asset (ROA), while the regressors are Risk taking behaviour (RTB), Board gender diversity (BGD), Inflation (INF), GDP Growth (GDPG), Firm size (FRMS), and Ownership type (OWN).

Table 4. 5: Effect of independent variables on profitability of banks with bank ownership as a moderator

Variables	Model 1 Dependent Variable ROA	Model 2 Dependent Variable ROA	Model 3 Dependent Variable ROA
Roa(-1)	2.62512** (0.0463)	2.33621** (0.0423)	1.99525** (0.033)
Rtb	-0.1212** (0.0331)		
Bgd		0.13351** (0.0231)	
Own*Rtb			-0.1761** (0.0322)
Frms	0.0126** (0.0413)	0.02145** (0.0114)	0.0192** (0.0244)
Gdpg	0.0033** (0.0433)	0.01553** (0.0431)	0.00633** (0.0363)
Inf	-0.0078** (0.0114)	-0.02119** (0.0333)	-0.0084** (0.0211)
Constant	0.0048** (0.0164)	0.0055** (0.0363)	0.00321* (0.0722)
R-square	0.7780	0.7553	0.7221
Adj R-square	0.7700	0.7366	0.7115
Obs	180	180	180
AR(1)	0.1482	0.1331	0.1193
AR(2)	0.2314	0.2233	0.1661
Sargan	0.1712	0.1633	0.1552
Hansen	0.1086	0.1012	0.0933

Source: , Note: *** p<0.01, ** p<0.05, * p<0.1

As contained in Table 4.4, the risk-taking behaviour of the Ghanaian-resident universal banks was found to have a negative and statistically significant effect on the profitability of the banks (β=-0.1212, p-value=0.0463**) (see model 1). This result is an indication that banks taking extreme risk are highly likely to face profitability challenges with time. This may take the form of advancing loans to highly risky businesses in the quest of

chasing profit. This result is a wake-up call for the banks to be conservative in the amount of risk they take. The results also revealed that more female representation on the boards of Ghanaian-resident universal banks puts the banks in a better position to increase their profitability. This claim is supported by the beta coefficient of 0.13351 with a p-value of 0.0231**(see model 2). Relatedly, the interaction between bank ownership and risk-taking behaviour of the banks was found to have a negative and statistically significant effect on the profitability of the banks (β=-0.1761, p-value=0.0322**) (see model 3), an indication that prudent risk-taking behaviours of banks cannot manifest without the intervention of bank ownership. This is because different ownership structures come with different levels of risk appetite, hence the necessity of bank ownership. It is instructive to note that the models demonstrate a high level of explanatory power, considering the high adjusted R-squared scores of 0.7700, 0.7366 and 0.7115 for model 1, model 2 and model 3 respectively.

4.6 Discussion of the Results

This section presents a comprehensive discussion of the GMM result on the effect of board gender diversity, risk-taking behaviour on the profitability of Ghanaian-resident universal banks as well as the moderating role of bank ownership in the risk-taking behaviour-profitability nexus. These discussions are done from logical, theoretical and empirical perspectives. These discussions are presented in subsections 4.6.1, 4.6.2 and 4.6.3.

4.6.1 Impact of Board Gender Diversity on the Profitability of Ghanaian-resident Universal Banks

From the results, board gender diversity was reported to have a positive and statistically significant impact on the profitability of Ghanaian-resident universal banks, which indicates there is sufficient evidence to assert that banks with more female representation on their banks are highly likely to perform better than those with less or no female representation. The presence of female representation on the banks' boards being a catalyst for profit growth and overall success can be ascribed to several compelling reasons including, diverse perspectives, improved risk management, enhanced decision-making, customer insights and market understanding, talent attraction and retention, compliance and reputation, stakeholder confidence, innovation and creativity, improved governance, competitive advantage, among others.

For instance, women bring diverse perspectives, experiences, and viewpoints to the decision-making process (Papangkorn et al., 2021). This diversity in thought can lead to more well-rounded and effective strategies for managing risk, expanding markets, and identifying opportunities, ultimately leading to improved profitability Also, diverse boards are associated with improved risk management. The inclusion of women on boards can lead to a more cautious and balanced approach to risk, reducing the likelihood of excessive risk-taking, which may lead to financial instability. It is instructive to note that companies with more women in leadership positions tend to have stronger risk management practices. This is because, female board members often exhibit a more conservative and prudent approach to risk, which can help banks avoid excessive risk-taking and mitigate financial crises. Again, gender-diverse boards are associated with

better decision-making processes. Women are often found to be more collaborative and inclusive in their decision-making, which can lead to more robust and effective choices.

It is also essential to note that women can offer valuable insights into consumer behaviour and preferences, as they often have a strong understanding of the needs and concerns of female clients. This can be particularly important in retail banking, where understanding diverse customer bases is critical. Additionally, banks with gender-diverse boards are often viewed as more progressive and inclusive by potential employees. This can help attract and retain top talent, which, in turn, can contribute to higher performance and profitability. Banks with diverse boards tend to be more sensitive to social and ethical issues (Liu et al., 2020). A strong commitment to social responsibility and ethical conduct can enhance a bank's reputation and reduce the likelihood of costly legal and reputational issues. More so, diverse boards can inspire greater confidence among stakeholders, including investors, clients, and the general public. This confidence can translate into stronger customer loyalty and higher shareholder value. Gender diversity fosters innovation. Women can bring fresh perspectives to problem-solving and contribute to the development of new financial products, services, and operational improvements that can drive bank profitability (Chen et al., 2018).

Interestingly, gender diversity is often linked to better corporate governance (Ararat & Yurtoglu, 2021). Enhanced governance practices can reduce the likelihood of governance-related scandals and financial improprieties, which may have a detrimental impact on profitability. An increased focus on gender diversity on boards is reflected in evolving legal and regulatory requirements in many jurisdictions. Banks that proactively comply with these requirements may avoid legal penalties and regulatory scrutiny. Banks

with gender-diverse boards can have a competitive advantage in attracting a broader customer base (Bennouri et al., 2018). They may be better positioned to serve diverse client needs, which can result in higher market share and profitability.

This revelation is consistent with previous empirical research (Mori & Towo, 2017; Green & Homroy, 2018; Chen et al., 2018; Bennouri et al., 2018; Bouzgarrou et al., 2018; Kirsch, 2018; Terjesen & Sealy, 2016; Brahma et al., 2021; Ararat & Yurtoglu, 2021; Pasaribu, 2017; Martín-Ugedo et al., 2019), holding that institutions with higher representation of females on their boards engender prosperity for those institutions. For instance, Green & Homroy (2018) in their study of female board representation and performance, found support for the assertion that higher female representation on audit committees, nomination committees and compensation committees positions firms in the European economy to make more profit. This was also validated by Chen et al. (2018) who evince that female board representation is significantly associated with innovative success among firms where creativity and innovation are prioritized and the same revelation was noticeable in a study by Martín-Ugedo et al. (2019) focusing on Spanish firms. Ararat & Yurtoglu, (2021) also confirm that female directors predict higher firm value when they have a more active role in board governance through board committee memberships and when they are represented in these committees in relatively large numbers. Solidifying this position was amplified by Papangkorn et al. (2021) who asserted that the presence of female directors on the board of firms significantly improved firm performance during the Great Recession of 2008, specifically stating that a percentage increase in female representation by one standard deviation was associated with 8.41 percent increase in return on asset. From a theoretical point of view, the finding

of this study supports the upper echelon theory, which posits that the characteristics of top-level decision-making groups of firms are essential in determining the fortunes of the firms among which female representation cannot be overlooked. The findings of this study, however, disagree with Marinova et al. (2016) who assert that no significant association exists between female board representation and firm performance. Martín-Ugedo et al. (2019), however, found evidence in support of the assertion that female board representation has a negative and significant effect on performance among Italian firms.

4.6.2 Impact of the Risk-Taking Behaviour on the Profitability of Ghanaian-resident Universal Banks

The risk-taking behaviour of Ghanaian-resident universal banks was also reported to have a significant negative effect on their profitability. This result suggests that banks with high-risk appetites are highly likely to witness decreasing profitability, a reference point to admonish all stakeholders in Ghana's banking fraternity to exhibit more prudence in their financial intermediary endeavours. The high-risk behaviour of banks can significantly reduce their profitability for a multitude of reasons, including, increased default risk, credit losses, capital adequacy requirements, increased regulatory cost, reputation damage, liquidity risk, funding cost, legal and regulatory fines, erosion of trust, operational risk, reduced access to funding, diminished market confidence and long-term sustainability.

For instance, high-risk behaviour, such as aggressive lending and investment practices, can lead to a higher rate of default on loans and investments. When borrowers or investments fail to meet their obligations, banks incur substantial losses, which directly

impacts profitability. Risky lending practices can result in a higher proportion of non-performing loans in a bank's portfolio. Due to higher risk appetite, the banks must set aside provisions for credit losses, reducing their profits and capital available for further lending or investment. Also, regulators often impose higher capital adequacy requirements on banks engaged in high-risk activities. To meet these requirements, banks may need to raise additional capital or reduce dividend pay-outs, which can reduce profitability.

Furthermore, high-risk activities can lead to adverse events, such as financial scandals or unethical behaviour. These events can damage a bank's reputation, resulting in a loss of customers, which, in turn, reduces profitability. High-risk investments or illiquid assets can lead to liquidity problems. Banks may need to sell assets at a discount or access costly short-term funding to meet liquidity needs, impacting profitability. Riskier banks may face higher funding costs due to concerns from depositors and creditors about their financial stability. Increased interest expenses reduce net interest income, a major source of bank profitability. High-risk behaviour can lead to regulatory fines and legal settlements. Banks may be required to pay substantial penalties for violating laws and regulations, directly impacting profitability. In in sync with intuition, high-risk behaviour erodes trust among stakeholders, including customers, shareholders, and regulators. Reduced trust can lead to increased scrutiny and reluctance to engage with the bank, negatively affecting profitability.

It is noteworthy that high-risk activities can also result in operational failures, such as cybersecurity breaches or internal control weaknesses. The costs associated with resolving operational issues can feed into profits. Consistent with earlier submission,

riskier banks may find it more challenging to access funding in the capital markets or from depositors. This can limit their ability to grow and lend, ultimately affecting profitability. It is not far-fetched to note that market confidence plays a crucial role in a bank's ability to raise capital, attract investors, and maintain a strong stock price. High-risk behaviour can lead to a loss of market confidence, hindering profitability. High-risk behaviour can compromise a bank's long-term sustainability. By prioritizing short-term gains over long-term stability, banks may find themselves facing significant financial challenges, impacting their profitability over time.

This finding lends support to the extant literature (Gizaw et al., 2015; Tan et al., 2017; Trad et al., 2017; Mongid & Muazaroh, 2017; Abbas et al., 2019; Bandara et al., 2021), as they found that high risk from various perspectives has had a debilitating effect on the profitability of banks. For instance, Gizaw et al. (2015) found that credit risk as measured by non-performing loans had a significant negative impact on the profitability of commercial banks in Ethiopia and admonished the need for enhancing credit risk management practices to enhance the wealth of banks' shareholders. Additionally, Abbas et al. (2019) found that credit risk had a significant negative effect on the profitability among commercial banks in both Asian developed economies and USA, holding that the impact on the USA was harsher than that of Asia on the grounds that Asian banks use a tight credit policy and manage loans more efficiently as compared to US banks. The study also attributed the difference in the impact to the volume of loans and the poor management of monitoring and screening of borrowers. In conformity to the earlier revelations, Bandara et al. (2021) also supported the risk-mitigating call by admonishing the Sri Lanka banking sector to scale up its credit risk management effort in order to

preserve the sector's profitability, having found a significant negative causal relationship between credit risk and profitability. The recommendation of Bandara et al. (2021) lends support to Tan et al. (2017) who also found that an increase in credit risk and capital risk could pose profitability challenges among Chinese commercial banks.

4.6.3 The moderating role of ownership type in the risk-taking behaviour-profitability relationship Ghanaian-resident Universal Banks

The results also evince that foreign-owned Ghanaian-resident universal banks are better positioned to make more profits than Ghanaian-owned ones through prudent risk measures. This revelation could be attributed to many factors among which are, access to capital and resources, global expertise, advanced technology and innovation, risk management and compliance standards, access to global networks, diversification of products and services, economies of scale, access to niche markets, adherence to international standards, international trade finance and access to skilled workforce.

More comprehensively, foreign-owned banks typically have access to larger financial resources (Nguyen et al., 2020) due to the backing of their parent institutions. This enables them to make substantial investments in technology, infrastructure, and talent, leading to enhanced operational efficiency and service quality. This phenomenon offers them a significant advantage in terms of liquidity, ability to absorb losses, and capacity for lending. Again, foreign-owned banks typically bring advanced risk management practices, international banking expertise, and experience in dealing with complex financial products. This enables them to navigate Ghana's financial landscape with greater confidence. Due to their advanced risk management practices, foreign banks typically have robust credit risk assessment and management systems, reducing non-

performing loans and maintaining a healthier loan portfolio. Their ability to maintain high standards in risk management, regulatory compliance, and corporate governance helps instill confidence among customers and regulators, making them more attractive partners for local and international businesses.

Furthermore, foreign banks bring global best practices and expertise in banking and financial services to the Ghanaian market. Their experience in various financial markets equips them with a deep understanding of risk management, financial products, and customer needs. Foreign banks often leverage advanced technological solutions and innovation, which can result in more convenient and efficient banking services. This includes digital banking, online platforms, and mobile banking apps that resonate with the evolving preferences of consumers. Foreign-owned banks can facilitate international trade and cross-border transactions more effectively due to their extensive global networks. This positions them as preferred choices for businesses engaged in international trade. These banks often provide a more diverse range of financial products and services, meeting the needs of both retail and corporate clients. Diversification can lead to increased revenue streams and reduced risk exposure. Foreign banks have access to a broader talent pool, which enables them to hire skilled professionals with global exposure devoid of political influence (Ambarwati, 2021). This contributes to better customer service, risk management, and innovation. The reputation and brand recognition of foreign banks can inspire greater confidence among customers and investors. This trust can translate into higher deposits and investments in these institutions. Foreign-owned banks can benefit from economies of scale, reducing operational costs and enabling them to offer more competitive pricing and better interest rates on deposits and loans. Their

global reach enables foreign-owned banks to serve niche markets and specific customer segments that indigenous banks may not have the capacity or expertise to reach effectively. Foreign-owned banks are often held to international standards by their parent companies or regulators. This results in a culture of adherence to best practices, risk mitigation, and regulatory compliance.

The position established by this finding is congruent with a number of previous empirical studies (Alnaa et al., 2016; Malik et al., 2016; Bentivogli & Mirenda, 2017; Kao et al., 2018; Ambarwati, 2021; Nguyen et al., 2020; Rashid, 2020; Greenaway et al., 2020). For instance, Alnaa et al. (2016) found that foreign-owned banks outperformed their local counterparts in Ghana, subsequently recommending that protective measures be fashioned to make the indigenous banks more competitive. Being on the same wavelength, Ambarwati (2021) found that acquisitions by foreign parties were able to improve the performance of local banks and that foreign-owned banks are associated with increased profits. Additionally, Nguyen et al. (2020) also found support for the position that foreign ownership has a positive and significant impact on the financial performance among Vietnamese-resident firms as Rashid (2020) also found a positive causal relationship between foreign ownership and director ownership on the performance among Bangladesh firms. However, the study dispels other studies (Saif-Alyousfi et al., 2017; Malik et al., 2016). For instance, Malik et al., (2016), in their investigation of Vietnamese firms, found that state ownership has a negative impact on performance but found no evidence to support the assertion that foreign-owned banks outperform their counterpart local ones. It was also found that joint ventures perform better than wholly-owned foreign or purely local firms (Greenaway et al., 2020).

4.8 Chapter Summary

This chapter was devoted to analysing the 12-year secondary panel data to address the research objectives which sought to investigate the impact of board gender diversity, ownership types and risk-taking behaviours of Ghanaian-resident banks on their profitability. The chapter employed Arellano-Bond Generalized Method of Moments (GMM) as the estimation technique and found that risk-taking behaviour of the banks in the sample had negative and significant impact on bank profitability as bank ownership significantly moderates this relationship. However, board gender diversity had a positive and significant impact on the profitability of the banks.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter of the study present the summary of the results and findings ascertained from the various statistical tests conducted to assess the objectives of the study. The chapter also make conclusions based on the findings recorded by the study. Finally, it presents recommendations based on the findings of the study and give direction for further studies.

5.2 Summary of the study

The long-term survival of banks and other financial institutions are necessary element for the growth of every economy since financial institutions play remarkable role in the development of an economy. For bank to operate for the unforeseeable future its profitability level cannot be underestimated. The financial performance of banks which is usually measured by financial indicators such as interest income, Tobins Q, return on asset and return on equity can be affected by myriad of factors ranging from internal variables such as control measures and other macroeconomic variables among others. Plethora of studies have endeavoured to investigate the factors influencing the financial performance of banks however, the financial performance literature in the Ghanaian perspective has seemly missed certain examination such as the impact of risk measures and ownership status on financial performance leaving a lacuna in the financial performance literature which prompt further research.

Per this account, this study delved to explore this gap by specifically assessing the following objectives. One, to investigate the effect of board gender diversity on the

financial performance of banks. Two, to examine the effect of risk-taking behaviour on the financial performance of banks in Ghana. and three, to examine the moderating role of bank ownership type in the relationship between the risk-taking behaviour of Ghanaian-resident banks and their profitability. To assess these objectives, the study reviewed existing studies to serve as the background of the study. On methodology, the study employed the explanatory research design, the population for the study was 15 commercial banks, the census sampling technique was used to select the 15 banks for the analysis. The period for data collection was 12 years from 2010 to 2021, the data utilized in the study was ascertained from the bank of Ghana and individual banks websites. The inquiry employed the GMM estimation technique to assess the objectives with result summarized below.

5.3 Summary of findings

The individual findings recorded from the statistical tests conducted are summarized based on the objective under the subsections 5.3.1, 5.3.2 and 5.3.3.

5.3.1 Effect of board gender diversity on financial performance of banks in Ghana.

On objective one which was to examine the effect of board gender diversity on financial performance of banks, the study revealed a statistically significant positive relationship between board gender diversity and financial performance at a coefficient of 0.13351 associated with a p-value of 0.0231**. This result implies that the more diverse a bank's board is, the higher the bank performs financially. The reason for the revealed result is that when different gender is on a board, they are able to devise agile investment and operating strategies that helps the bank to earn more profit. The result is intuitional since inclusion of women on a board can enable banks to commit to diverse investment

portfolios with high returns. Also, the finding aligns with literature that posit positive effect of board gender diversity on financial performance of banks.

5.3.2 Effect of risk-taking behaviour on the financial performance of banks in Ghana.

To examine objective two, the analysis found significant negative association between risk taking behaviour and financial performance of banks in Ghana at a coefficient of -0.1212 and p-value of 0.0331**. The registered finding implies when a bank invests in a risky portfolio it undermines its financial performance. This result is intuitional and can be ascribed to the fact that pushing more of a banks funds in a high volatile venture, the bank stand to lose huge sums of money when such venture experiences any economic shock this in turn decrease the profitability of the bank.

5.3.3 The moderating role of bank ownership type in the relationship between the risk-taking behaviour of Ghanaian-resident banks and their profitability.

Regarding the second objective, the investigation discovered a statistically significant inverse relationship between ownership type and financial performance of banks in Ghana. The extent of effect and the significance of this effect were -0.1761 and 0.0322** respectively. The ascertained result connotes that the ownership status of a bank is essential in shaping the risk-taking behaviour of Ghanaian-resident banks which has a resultant effect of their profitability.

5.4 Conclusion of the study

According to the research result and the interpretations therein the following conclusions are drawn.

5.4.1 Effect of board gender diversity on financial performance of banks in Ghana.

Premised on the positive relationship registered between board gender diversity and financial performance, it is concluded that constituting a board with diverse gender leads to strategic decision making that improves financial performance of banks. Again, it is also finalized that diverse board in terms of gender undertake balanced and profitable decisions.

5.4.2 Effect of risk-taking behaviour on the financial performance of banks in Ghana.

Based on the adverse impact of risk-taking behaviour on financial performance of banks in Ghana, the study concludes that investing in highly risky ventures decrease financial performance due to the high risk associated with the portfolios. Also, the research concludes that investing in risky portfolios can plunge a financial institution into financial crisis.

5.4.3 The moderating role of bank ownership type in the relationship between the risk-taking behaviour of Ghanaian-resident banks and their performance.

Drawing from the ascertained results, it can be concluded that the risk-taking behaviour of Ghanaian-resident banks is a derivative of the ownership status of the banks, an indication that the nature and extent of risk taken by the banks is largely inspired by the risk appetite of the banks owners.

5.5 Recommendation

The myriad findings and its conclusions above give rise to the following recommendations.

5.5.1 Effect of board gender diversity on financial performance of banks

Financial institutions in Ghana should ensure adequate female representation on their board. Again, develop formal diversity and inclusion initiatives, recruitment strategies that actively seek out diverse candidates, and mentorship programs to support the career growth of underrepresented individuals. Also, the central bank and the regulators of the financial sector should require banks to institute board gender equity as part of their policies. Furthermore, the regulator can institute incentives for banks that integrate or maintain a gender balanced board.

5.5.2 Effect of risk-taking behaviour on the financial performance of banks

For banks operating in Ghana, it is crucial to prioritize risk management and adopt prudent risk-taking behaviour as an integral part of their corporate culture. This involves implementing robust risk assessment processes, stringent credit policies, and investment strategies that prioritize stability over excessive risk. Furthermore, banks should continuously train their staff and leadership in risk management practices to ensure they have the knowledge and skills to make informed decisions that contribute to long-term financial stability.

Policymakers and regulatory bodies in Ghana should focus on enhancing and enforcing risk management regulations for banks. These regulations should encourage a balanced approach to risk-taking, ensuring that banks have the necessary safeguards in place to prevent excessive risk exposure. Additionally, policies can incentivize banks to implement comprehensive risk management frameworks that prioritize financial stability, ultimately contributing to the overall health and resilience of the banking sector.

5.5.3 The moderating role of bank ownership type in the relationship between the risk-taking behaviour of Ghanaian-resident banks and their profitability.

For banking institutions in Ghana, it is advisable to proactively explore opportunities for knowledge sharing and operational best practices. Locally-owned banks should actively seek collaboration and learning from foreign-owned counterparts. By doing so, they can harness the agility and operational insights that foreign-owned banks exhibit, potentially improving their own financial performance. Moreover, fostering a culture of adaptability and innovation within local banks can contribute to more effective decision-making, ultimately enhancing financial performance.

Again, it is recommended that policymakers review regulations and policies related to foreign ownership of banks. Consideration should be given to fostering an environment that promotes collaboration and knowledge transfer between foreign-owned and locally-owned banks. Encouraging such partnerships and information exchange can help enhance the operational efficiency and financial performance of locally-owned banks, potentially levelling the playing field and contributing to overall sector stability.

5.6 Recommendation for further studies

The study implores future studies to explore the factors that account for the high financial performance in banks owned by foreigners. Again, the research advice academia to explore the concept with the focus on banks in developed economies like the United State and the Great Britain.

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APPENDIX

BANK	YEAR	CODE	ROA	BGD	FRMS	RTB	GDPG	IF	OWN
ABSA	2008	1	0.047723	0.22	30.36174	0.002001	9.149799	16.49464	1
ABSA	2009	1	0.052362	0.6	21.95276	0.012301	4.844487	19.24695	1
ABSA	2010	1	0.058442	0.6	23.64255	0.014427	7.899712	10.73339	1
ABSA	2011	1	0.048223	0.6	25.67027	0.020866	14.04712	8.728459	1
ABSA	2012	1	0.043794	0.6	30.36174	0.025775	9.292789	11.18634	1
ABSA	2013	1	0.076657	0.44	21.95276	0.010427	7.312525	11.66619	1
ABSA	2014	1	0.022704	0.44	23.64255	0.051733	2.85624	15.48962	1
ABSA	2015	1	0.042478	0.44	25.67027	0.002082	2.120759	17.14997	1
ABSA	2016	1	0.118976	0.22	26.28078	0.008846	3.373466	17.45463	1
ABSA	2017	1	0.108416	0.22	25.48833	0.005929	8.128895	12.37192	1
ABSA	2018	1	0.211067	0.22	25.12738	0.00038	6.200078	7.808765	1
ABSA	2019	1	0.112613	0.44	26.39175	-0.00055	6.507775	7.14364	1
ABSA	2020	1	0.112613	0.44	30.81732	0.540566	0.513942	9.88729	1
ABSA	2021	1	0.135213	0.44	31.23453	0.166404	5.356478	9.971089	1
ACCESS	2008	2	0.047723	0.13	30.36174	0.002001	9.149799	16.49464	1
ACCESS	2009	2	0.052362	0.13	21.95276	0.012301	4.844487	19.24695	1
ACCESS	2010	2	0.058442	0.13	23.64255	0.014427	7.899712	10.73339	1
ACCESS	2011	2	0.048223	0.4	25.67027	0.020866	14.04712	8.728459	1
ACCESS	2012	2	-0.07444	0.4	30.36174	0.056133	9.292789	11.18634	1
ACCESS	2013	2	-0.17105	0.4	21.95276	0.041179	7.312525	11.66619	1
ACCESS	2014	2	-0.05282	0.25	23.64255	0.203942	2.85624	15.48962	1
ACCESS	2015	2	0.010206	0.25	25.67027	0.00352	2.120759	17.14997	1
ACCESS	2016	2	0.018635	0.22	26.28078	0.01322	3.373466	17.45463	1
ACCESS	2017	2	-0.01952	0.2	25.48833	0.024176	8.128895	12.37192	1
ACCESS	2018	2	0.241924	0.2	25.12738	0.003686	6.200078	7.808765	1
ACCESS	2019	2	0.03031	0.2	26.39175	0.026291	6.507775	7.14364	1
ACCESS	2020	2	0.017586	0.22	30.81732	0.037726	0.513942	9.88729	1
ACCESS	2021	2	0.008583	0.31	31.23453	0.153639	5.356478	9.971089	1
ADB	2008	3	0.052362	0.5	21.95276	0.012301	9.149799	16.49464	0
ADB	2009	3	0.058442	0.2	23.64255	0.014427	4.844487	19.24695	0
ADB	2010	3	0.048223	0.2	25.67027	0.020866	7.899712	10.73339	0
ADB	2011	3	0.043794	0.09	30.36174	0.025775	14.04712	8.728459	0
ADB	2012	3	0.00682	0.09	30.36174	0.029851	9.292789	11.18634	0
ADB	2013	3	0.060991	0.09	21.95276	0.020592	7.312525	11.66619	0
ADB	2014	3	0.046299	0.09	23.64255	0.021048	2.85624	15.48962	0
ADB	2015	3	0.058231	0.09	25.67027	0.030039	2.120759	17.14997	0
ADB	2016	3	0.07239	0.27	26.28078	0.047919	3.373466	17.45463	0
ADB	2017	3	0.071668	0.27	25.48833	0.043157	8.128895	12.37192	0
ADB	2018	3	0.050616	0.27	25.12738	0.004507	6.200078	7.808765	0
ADB	2019	3	0.025768	0.27	26.39175	0.01031	6.507775	7.14364	0
ADB	2020	3	0.007219	0.27	30.81732	0.002283	0.513942	9.88729	0

ADB	2021	3	0.075479	0.27	31.23453	0.060991	5.356478	9.971089	0
BOA	2008	4	0.047723	0.22	30.36174	0.002001	9.149799	16.49464	0
BOA	2009	4	0.052362	0.22	21.95276	0.012301	4.844487	19.24695	1
BOA	2010	4	0.058442	0.33	23.64255	0.014427	7.899712	10.73339	1
BOA	2011	4	0.048223	0.33	25.67027	0.020866	14.04712	8.728459	1
BOA	2012	4	0.047723	0.27	30.36174	0.002001	9.292789	11.18634	1
BOA	2013	4	0.052362	0.36	21.95276	0.012301	7.312525	11.66619	1
BOA	2014	4	0.058442	0.36	23.64255	0.014427	2.85624	15.48962	1
BOA	2015	4	0.048223	0.36	25.67027	0.020866	2.120759	17.14997	1
BOA	2016	4	0.058063	0.27	26.28078	0.011428	3.373466	17.45463	1
BOA	2017	4	0.056622	0.27	25.48833	0.007257	8.128895	12.37192	1
BOA	2018	4	0.076467	0.36	25.12738	0.018082	6.200078	7.808765	1
BOA	2019	4	0.070607	0.36	26.39175	0.026367	6.507775	7.14364	1
BOA	2020	4	0.056967	0.33	30.81732	0.011821	0.513942	9.88729	1
BOA	2021	4	0.014763	0.33	31.23453	0.03734	5.356478	9.971089	1
CAL	2008	5	0.045793	0.07	30.36174	0.006038	9.149799	16.49464	0
CAL	2009	5	0.004644	0.07	21.95276	0.006327	4.844487	19.24695	0
CAL	2010	5	0.032874	0.14	23.64255	0.008927	7.899712	10.73339	0
CAL	2011	5	0.037476	0.14	25.67027	0.015779	14.04712	8.728459	0
CAL	2012	5	0.0074	0.17	30.36174	0.05102	9.292789	11.18634	0
CAL	2013	5	0.107503	0.17	21.95276	0.010205	7.312525	11.66619	0
CAL	2014	5	0.070607	0.09	23.64255	0.131342	2.85624	15.48962	0
CAL	2015	5	0.075479	0.09	25.67027	0.056133	2.120759	17.14997	0
CAL	2016	5	0.107496	0.14	26.28078	0.041179	3.373466	17.45463	0
CAL	2017	5	0.095194	0.14	25.48833	0.203942	8.128895	12.37192	0
CAL	2018	5	0.06442	0.23	25.12738	0.00352	6.200078	7.808765	0
CAL	2019	5	0.027868	0.23	26.39175	0.01322	6.507775	7.14364	0
CAL	2020	5	0.008773	0.29	30.81732	0.024176	0.513942	9.88729	0
CAL	2021	5	0.026291	0.29	31.23453	0.003686	5.356478	9.971089	0
ECO	2008	6	0.047723	0.17	30.36174	0.002001	9.149799	16.49464	1
ECO	2009	6	0.052362	0.17	21.95276	0.012301	4.844487	19.24695	1
ECO	2010	6	0.058442	0.17	23.64255	0.014427	7.899712	10.73339	1
ECO	2011	6	0.048223	0.17	25.67027	0.020866	14.04712	8.728459	1
ECO	2012	6	-0.17105	0.17	30.36174	0.026291	9.292789	11.18634	1
ECO	2013	6	-0.05282	0.17	21.95276	0.037726	7.312525	11.66619	1
ECO	2014	6	0.010206	0.25	23.64255	0.153639	2.85624	15.48962	1
ECO	2015	6	0.018635	0.3	25.67027	0.061997	2.120759	17.14997	1
ECO	2016	6	-0.01952	0.45	26.28078	0.022211	3.373466	17.45463	1
ECO	2017	6	0.012262	0.25	25.48833	0.029973	8.128895	12.37192	1
ECO	2018	6	0.03031	0.21	25.12738	0.019353	6.200078	7.808765	1
ECO	2019	6	0.017586	0.21	26.39175	0.026291	6.507775	7.14364	1
ECO	2020	6	0.008583	0.21	30.81732	0.022445	0.513942	9.88729	1
ECO	2021	6	0.056953	0.21	31.23453	0.018005	5.356478	9.971089	1
FBN	2008	7	0.047723	0.11	30.36174	0.002001	9.149799	16.49464	1

FBN	2009	7	0.052362	0.11	21.95276	0.012301	4.844487	19.24695	1
FBN	2010	7	0.058442	0.11	23.64255	0.014427	7.899712	10.73339	1
FBN	2011	7	0.048223	0.11	25.67027	0.020866	14.04712	8.728459	1
FBN	2012	7	0.010999	0.11	30.36174	0.083815	9.292789	11.18634	1
FBN	2013	7	-0.00303	0.21	21.95276	0.053754	7.312525	11.66619	1
FBN	2014	7	0.051457	0.24	23.64255	0.012429	2.85624	15.48962	1
FBN	2015	7	0.007418	0.22	25.67027	0.016981	2.120759	17.14997	1
FBN	2016	7	0.019918	0.26	26.28078	0.039251	3.373466	17.45463	1
FBN	2017	7	0.01531	0.25	25.48833	0.034501	8.128895	12.37192	1
FBN	2018	7	0.017899	0.25	25.12738	0.025324	6.200078	7.808765	1
FBN	2019	7	0.018476	0.25	26.39175	0.050992	6.507775	7.14364	1
FBN	2020	7	0.01699	0.25	30.81732	0.038544	0.513942	9.88729	1
FBN	2021	7	0.00662	0.25	31.23453	0.080999	5.356478	9.971089	1
FNAB	2008	8	0.045793	0.35	30.36174	0.006038	9.149799	16.49464	1
FNAB	2009	8	0.004644	0.35	21.95276	0.006327	4.844487	19.24695	1
FNAB	2010	8	0.032874	0.24	23.64255	0.008927	7.899712	10.73339	1
FNAB	2011	8	0.037476	0.58	25.67027	0.015779	14.04712	8.728459	1
FNAB	2012	8	0.025704	0.58	30.36174	0.010061	9.292789	11.18634	1
FNAB	2013	8	0.059404	0.58	21.95276	0.029851	7.312525	11.66619	1
FNAB	2014	8	0.040438	0.58	23.64255	0.020592	2.85624	15.48962	1
FNAB	2015	8	0.04683	0.58	25.67027	0.021048	2.120759	17.14997	1
FNAB	2016	8	0.073242	0.22	26.28078	0.030039	3.373466	17.45463	1
FNAB	2017	8	0.0798	0.22	25.48833	0.047919	8.128895	12.37192	1
FNAB	2018	8	0.078484	0.22	25.12738	0.043157	6.200078	7.808765	1
FNAB	2019	8	0.064529	0.22	26.39175	0.004507	6.507775	7.14364	1
FNAB	2020	8	0.06894	0.22	30.81732	0.01031	0.513942	9.88729	1
FNAB	2021	8	0.017712	0.22	31.23453	0.002283	5.356478	9.971089	1
FIDELITY	2008	9	0.045793	0.2	30.36174	0.006038	9.149799	16.49464	0
FIDELITY	2009	9	0.004644	0.2	21.95276	0.006327	4.844487	19.24695	0
FIDELITY	2010	9	0.032874	0.2	23.64255	0.008927	7.899712	10.73339	0
FIDELITY	2011	9	0.037476	0.2	25.67027	0.015779	14.04712	8.728459	0
FIDELITY	2012	9	0.02197	0.33	30.36174	0.009613	9.292789	11.18634	0
FIDELITY	2013	9	0.026037	0.33	21.95276	0.014913	7.312525	11.66619	0
FIDELITY	2014	9	0.03371	0.33	23.64255	0.016862	2.85624	15.48962	0
FIDELITY	2015	9	0.0306	0.33	25.67027	0.011695	2.120759	17.14997	0
FIDELITY	2016	9	0.026737	0.33	26.28078	0.010592	3.373466	17.45463	0
FIDELITY	2017	9	0.048846	0.33	25.48833	0.009862	8.128895	12.37192	0
FIDELITY	2018	9	0.051619	0.33	25.12738	0.0164	6.200078	7.808765	0
FIDELITY	2019	9	-0.02367	0.33	26.39175	0.019594	6.507775	7.14364	0
FIDELITY	2020	9	-0.03071	0.33	30.81732	0.020969	0.513942	9.88729	0
FIDELITY	2021	9	0.00612	0.33	31.23453	0.092138	5.356478	9.971089	0
F.ATLAN	2008	10	0.047723	0.17	30.36174	0.002001	9.149799	16.49464	1
F.ATLAN	2009	10	0.052362	0.17	21.95276	0.012301	4.844487	19.24695	1
F.ATLAN	2010	10	0.058442	0.17	23.64255	0.014427	7.899712	10.73339	1

F.ATLAN	2011	10	0.048223	0.17	25.67027	0.020866	14.04712	8.728459	1
F.ATLAN	2012	10	0.050067	0.17	30.36174	0.026227	9.292789	11.18634	1
F.ATLAN	2013	10	0.046662	0.17	21.95276	0.025648	7.312525	11.66619	1
F.ATLAN	2014	10	0.039534	0.17	23.64255	0.022266	2.85624	15.48962	1
F.ATLAN	2015	10	0.062071	0.17	25.67027	0.014975	2.120759	17.14997	1
F.ATLAN	2016	10	0.037728	0.23	26.28078	0.02162	3.373466	17.45463	1
F.ATLAN	2017	10	0.041223	0.23	25.48833	0.026352	8.128895	12.37192	1
F.ATLAN	2018	10	0.042374	0.23	25.12738	0.010279	6.200078	7.808765	1
F.ATLAN	2019	10	0.015206	0.23	26.39175	0.022725	6.507775	7.14364	1
F.ATLAN	2020	10	0.037524	0.09	30.81732	0.043742	0.513942	9.88729	1
F.ATLAN	2021	10	0.026149	0.09	31.23453	0.041595	5.356478	9.971089	1
GCB	2008	11	0.045793	0.1	30.36174	0.006038	9.149799	16.49464	0
GCB	2009	11	0.004644	0.13	21.95276	0.006327	4.844487	19.24695	0
GCB	2010	11	0.032874	0.13	23.64255	0.008927	7.899712	10.73339	0
GCB	2011	11	0.037476	0.13	25.67027	0.015779	14.04712	8.728459	0
GCB	2012	11	0.045793	0.13	30.36174	0.006038	9.292789	11.18634	0
GCB	2013	11	0.004644	0.18	21.95276	0.006327	7.312525	11.66619	0
GCB	2014	11	0.032874	0.18	23.64255	0.008927	2.85624	15.48962	0
GCB	2015	11	0.037476	0.18	25.67027	0.015779	2.120759	17.14997	0
GCB	2016	11	0.045876	0.18	26.28078	0.091287	3.373466	17.45463	0
GCB	2017	11	0.052285	0.18	25.48833	0.027166	8.128895	12.37192	0
GCB	2018	11	0.059419	0.55	25.12738	0.024615	6.200078	7.808765	0
GCB	2019	11	0.485375	0.55	26.39175	0.015206	6.507775	7.14364	0
GCB	2020	11	0.041222	0.09	30.81732	0.012178	0.513942	9.88729	0
GCB	2021	11	0.012723	0.09	31.23453	0.00916	5.356478	9.971089	0
GTBANK	2008	12	0.047723	10	30.36174	0.002001	9.149799	16.49464	1
GTBANK	2009	12	0.052362	11	21.95276	0.012301	4.844487	19.24695	1
GTBANK	2010	12	0.058442	11	23.64255	0.014427	7.899712	10.73339	1
GTBANK	2011	12	0.048223	11	25.67027	0.020866	14.04712	8.728459	1
GTBANK	2012	12	0.04451	9	30.36174	0.036509	9.292789	11.18634	1
GTBANK	2013	12	0.059616	9	21.95276	0.040396	7.312525	11.66619	1
GTBANK	2014	12	0.060863	10	23.64255	0.005678	2.85624	15.48962	1
GTBANK	2015	12	0.057856	10	25.67027	0.036897	2.120759	17.14997	1
GTBANK	2016	12	0.071315	10	26.28078	0.029061	3.373466	17.45463	1
GTBANK	2017	12	0.091436	10	25.48833	0.016502	8.128895	12.37192	1
GTBANK	2018	12	0.078385	9	25.12738	0.007003	6.200078	7.808765	1
GTBANK	2019	12	0.027026	9	26.39175	0.015845	6.507775	7.14364	1
GTBANK	2020	12	0.079011	9	30.81732	0.037785	0.513942	9.88729	1
GTBANK	2021	12	0.026434	9	31.23453	0.107318	5.356478	9.971089	1
NIB	2008	13	0.045793	8	30.36174	0.006038	9.149799	16.49464	0
NIB	2009	13	0.004644	9	21.95276	0.006327	4.844487	19.24695	0
NIB	2010	13	0.032874	9	23.64255	0.008927	7.899712	10.73339	0
NIB	2011	13	0.037476	9	25.67027	0.015779	14.04712	8.728459	0
NIB	2012	13	-0.03242	9	30.36174	0.061277	9.292789	11.18634	0

NIB	2013	13	0.004211	9	21.95276	0.032064	7.312525	11.66619	0
NIB	2014	13	0.034697	9	23.64255	0.098565	2.85624	15.48962	0
NIB	2015	13	0.052657	10	25.67027	0.054153	2.120759	17.14997	0
NIB	2016	13	0.089267	9	26.28078	0.055092	3.373466	17.45463	0
NIB	2017	13	0.078444	9	25.48833	0.014613	8.128895	12.37192	0
NIB	2018	13	0.077788	12	25.12738	0.01551	6.200078	7.808765	0
NIB	2019	13	0.037358	12	26.39175	0.007021	6.507775	7.14364	0
NIB	2020	13	0.056292	12	30.81732	0.061154	0.513942	9.88729	0
NIB	2021	13	0.026533	12	31.23453	0.048138	5.356478	9.971089	0
PRUDEN	2008	14	0.047723	10	30.36174	0.002001	9.149799	16.49464	1
PRUDEN	2009	14	0.052362	11	21.95276	0.012301	4.844487	19.24695	1
PRUDEN	2010	14	0.058442	11	23.64255	0.014427	7.899712	10.73339	1
PRUDEN	2011	14	0.048223	11	25.67027	0.020866	14.04712	8.728459	1
PRUDEN	2012	14	0.016395	12	30.36174	0.014868	9.292789	11.18634	1
PRUDEN	2013	14	0.01168	12	21.95276	0.006458	7.312525	11.66619	1
PRUDEN	2014	14	0.017363	12	23.64255	0.053309	2.85624	15.48962	1
PRUDEN	2015	14	0.025404	12	25.67027	0.018158	2.120759	17.14997	1
PRUDEN	2016	14	0.024092	13	26.28078	0.00389	3.373466	17.45463	1
PRUDEN	2017	14	0.024357	13	25.48833	0.002748	8.128895	12.37192	1
PRUDEN	2018	14	0.01923	13	25.12738	0.001596	6.200078	7.808765	1
PRUDEN	2019	14	0.013398	13	26.39175	0.006896	6.507775	7.14364	1
PRUDEN	2020	14	0.010393	11	30.81732	0.006448	0.513942	9.88729	1
PRUDEN	2021	14	0.034697	11	31.23453	0.005018	5.356478	9.971089	1
UMB	2008	3	0.052362	0.5	21.95276	0.012301	9.149799	16.49464	0
UMB	2009	3	0.058442	0.2	23.64255	0.014427	4.844487	19.24695	0
UMB	2010	3	0.048223	0.2	25.67027	0.020866	7.899712	10.73339	0
UMB	2011	3	0.043794	0.09	30.36174	0.025775	14.04712	8.728459	0
UMB	2012	3	0.00682	0.09	30.36174	0.029851	9.292789	11.18634	0
UMB	2013	3	0.060991	0.09	21.95276	0.020592	7.312525	11.66619	0
UMB	2014	3	0.046299	0.09	23.64255	0.021048	2.85624	15.48962	0
UMB	2015	3	0.058231	0.09	25.67027	0.030039	2.120759	17.14997	0
UMB	2016	3	0.07239	0.27	26.28078	0.047919	3.373466	17.45463	0
UMB	2017	3	0.071668	0.27	25.48833	0.043157	8.128895	12.37192	0
UMB	2018	3	0.050616	0.27	25.12738	0.004507	6.200078	7.808765	0
UMB	2019	3	0.025768	0.27	26.39175	0.01031	6.507775	7.14364	0
UMB	2020	3	0.007219	0.27	30.81732	0.002283	0.513942	9.88729	0
UMB	2021	3	0.075479	0.27	31.23453	0.060991	5.356478	9.971089	0