

KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY,
KUMASI

KNUST

EFFECT OF INTERNATIONAL FINANCIAL REPORTING STANDARDS (IFRS)
ADOPTION ON FINANCIAL PERFORMANCE OF BANKS IN GHANA.

BY
LINDA SERWAA MENSAH
(BSc. ADMINISTRATION (ACCOUNTING))

A Thesis submitted to the School of Business,
Kwame Nkrumah University of Science and Technology
in Partial Fulfillment of the Requirement for the Degree of
MASTER OF BUSINESS ADMINISTRATION (ACCOUNTING OPTION)

NOVEMBER, 2023

DECLARATION

‘I hereby declare that this submission is my own work towards the Master of Business Administration (Accounting Option) and that, to the best of my knowledge and belief, it contains no material previously published by another person nor material which has been accepted for the award of any other degree of the University, except where due acknowledgement has been made in the text’.

Linda Serwaa Mensah

.....

.....

(PG3996420)

Signature

Date

Certified by

Prof. Michael Adusei

.....

.....

Supervisor

Signature

Date

Certified by

Prof. K. O. Appiah

.....

.....

Head of Department

Signature

Date

DEDICATION

This work is dedicated to my husband, Mr. Dennis Osei.

KNUST



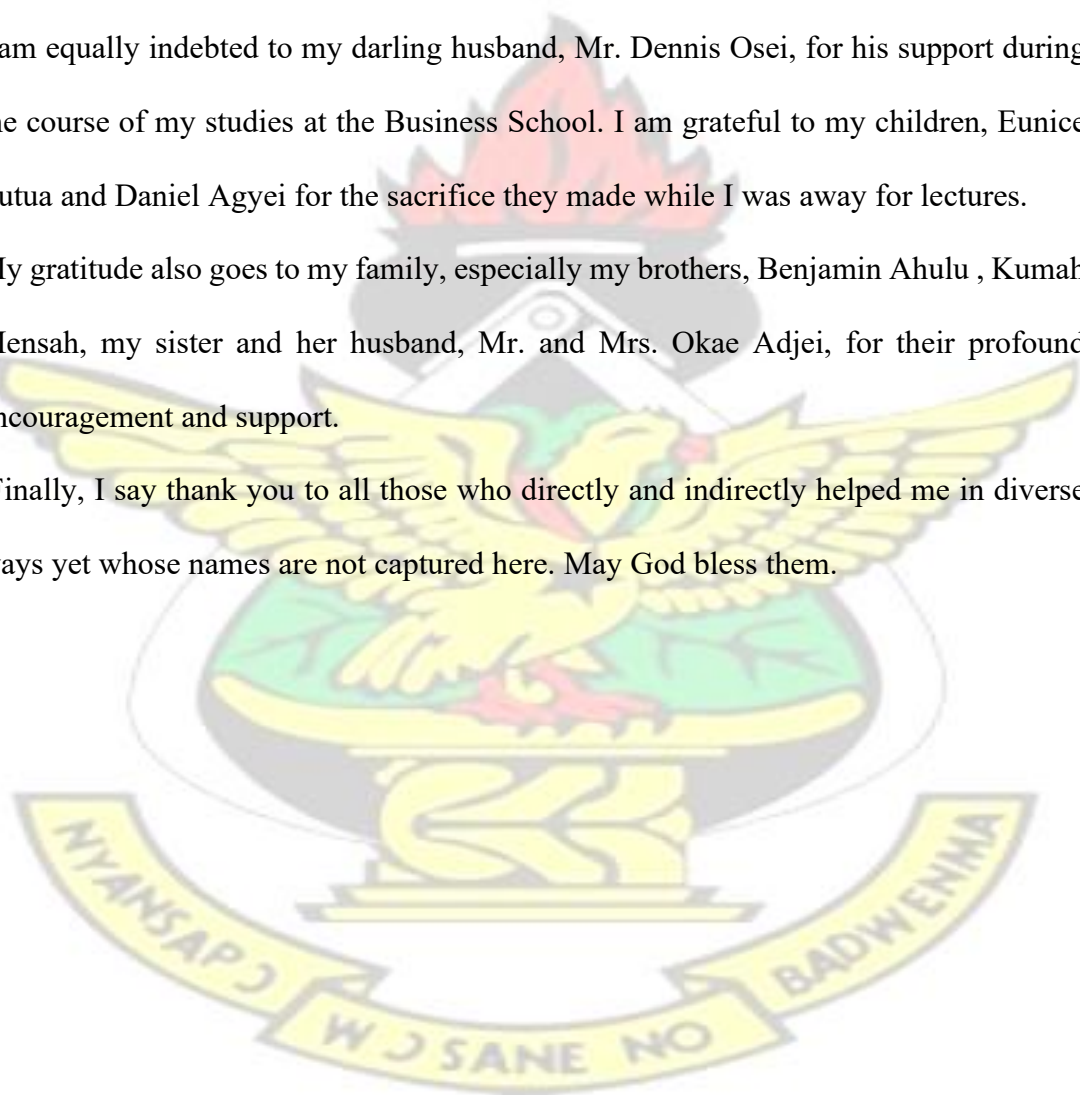
ACKNOWLEDGEMENTS

I would want to thank the Almighty God for the strength and guidance to carry out this research. My sincere gratitude goes to my supervisor, Professor Michael Adusei, for his incalculable support, research guidance, constructive criticisms, suggestions and encouragement throughout the research process. I also express my sincerest appreciation to Professor K. O. Appiah for his dedication and commitment to me as Accounting major student.

I am equally indebted to my darling husband, Mr. Dennis Osei, for his support during the course of my studies at the Business School. I am grateful to my children, Eunice Tutua and Daniel Agyei for the sacrifice they made while I was away for lectures.

My gratitude also goes to my family, especially my brothers, Benjamin Ahulu , Kumah Mensah, my sister and her husband, Mr. and Mrs. Okae Adjei, for their profound encouragement and support.

Finally, I say thank you to all those who directly and indirectly helped me in diverse ways yet whose names are not captured here. May God bless them.



ABSTRACT

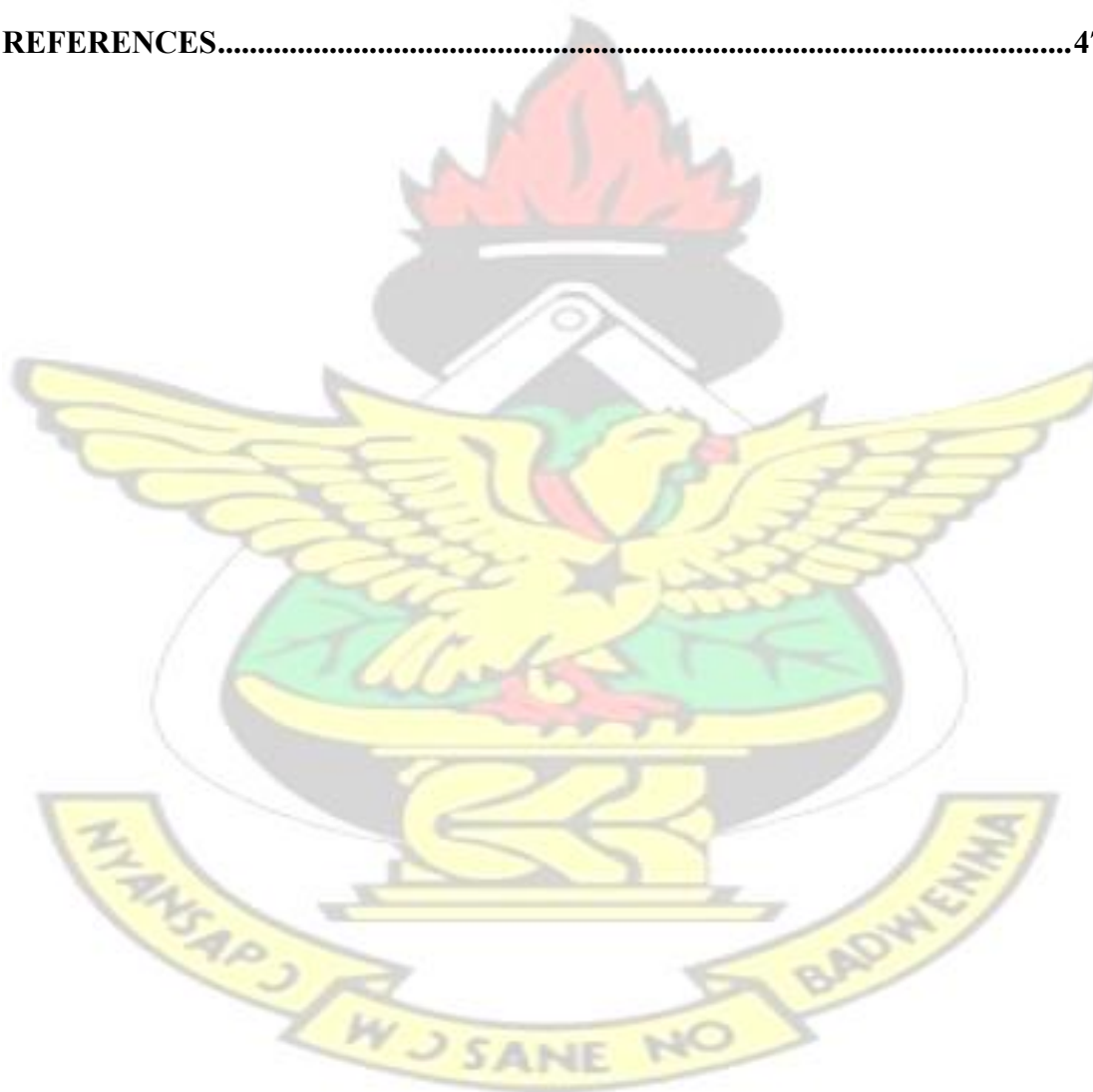
This study investigates the effect of adoption of the International Financial Reporting Standards (IFRS) on financial performance of commercial banks in Ghana. The study adopts quasi-experimental design, and follows a quantitative approach. IFRS adoption is measured as a binary dummy variable, assigning it with a value of one (1) for the post-IFRS adoption years, and zero (0) for the pre-IFRS adoption years, while secondary quantitative data for the control variables (firm size, firm age and board independence) from 10 dominant commercial banks are taken from the yearly activity reports of the selected banks over a 13-year period for the pre-IFRS adoption years (2004 to 2006) and the post-IFRS adoption years (2008-2017). Data is analyzed using panel fixed effect regression estimation method aided by Hausman specification test using E-views econometric software (version 9). The findings reveal that IFRS has positive significant effect on banks' returns on asset as well as on return on equity. The study recommends that banking institutions should wholly implement the reporting principles and requirements inherent in the IFRS regime and not resort to partial implementation.

TABLE OF CONTENTS

DECLARATION.....	ii
DEDICATION.....	iii
ACKNOWLEDGEMENTS	iv
ABSTRACT	v
TABLE OF CONTENTS	vi
LIST OF TABLES	ix
LIST OF FIGURES	x
CHAPTER ONE	1
INTRODUCTION.....	1
1.0 Background to the Study.....	1
1.1 Statement of the Problem.....	5
1.2 Objectives of the Study	6
1.3 Research Questions	6
1.4 Significance of the Study	6
1.5 Scope of the Study	7
1.6 Brief Methodology	8
1.7 Organization of the Study	9
CHAPTER TWO	10
LITERATURE REVIEW	10
2.0 Introduction.....	10
2.1 Conceptual Review	10
2.1.1 The Evolution of the IFRS Concept.....	10
2.1.2 Objectives of the IFRS.....	12
2.1.3 Adoption of IFRS in Ghana	12
2.1.4 Corporate Financial Performance	14
2.1.4.1 Accounting-based Indicators of Performance.....	14
2.1.4.2 Market-Based Measures of Performance	16

2.2 Theoretical Review	17
2.2.1 Agency Theory.....	17
2.3 Empirical Review.....	19
2.4 Conceptual Framework.....	25
CHAPTER THREE.....	27
RESEARCH METHODOLOGY	27
3.0 Introduction.....	27
3.1 Research Design.....	27
3.2 Population of the Study.....	28
3.3 Sample Size and Sampling Technique.....	28
3.4 Data and Sources of Data.....	28
3.5 Data Collection Procedure	29
3.6 Empirical Models.....	29
3.7 Model Estimation Strategies	32
3.7.1 Hausman Statistical Test.....	32
3.7.2 Panel Fixed Effect Modeling	32
3.7.3 Panel Random Effect Modeling.....	33
3.8 Measurement of IFRS Adoption.....	33
3.9 Methods of Data Analysis.....	34
CHAPTER FOUR.....	36
RESULTS AND DISCUSSIONS	36
4.0 Introduction.....	36
4.1 Descriptive Statistics and Variance Inflation Factors	36
4.2 Correlation Analysis	38
4.3 Hausman Test Results.....	39
4.4 Effect of IFRS on Banks' Financial Performance	40

4.4.1 Effect of IFRS on Banks' Return on Assets	40
4.4.2 Effect of IFRS on Banks' Return on Equity	42
CHAPTER FIVE	44
SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS ..	44
5.0 Introduction.....	44
5.2 Conclusion	45
5.3 Recommendations.....	46
REFERENCES.....	47



LIST OF TABLES

Table 4.1: Descriptive statistics	37
Table 4.2: Correlation analysis	38
Table 4.3: Hausman test output	39
Table 4.4: Fixed effect model output for IFRS effect on ROA	40
Table 4.5: Fixed effect model output for IFRS effect on ROE.....	42



LIST OF FIGURES

Figure 2.1: Conceptual framework	26
--	----



CHAPTER ONE

INTRODUCTION

1.0 Background to the Study

The central role of banking institutions in the development of today's market-driven economies is well-known. The contributions of the banking sector in the growth of the real sectors of every economy revolves around the financial intermediation activities undertaken by banks (Tilahun, 2017; Nuhiu, Hoti & Bektashi, 2017). By mobilizing funds for investment programs, banks contribute towards a thriving economy through industrial development, wealth creation and employment generation (Osotimehin, Jegede & Akinlabi, 2017).

The implication from the above is that outstanding performance of banks is of great concern to all stakeholders in the economy. This is because it is believed that the failure or the collapse of the banking sector presents serious public policy consequences for the overall health and wellbeing of every economy (Calomiris & Jaremski, 2016). Therefore, efficient and effective banking performance and operations appear to be pre-requisites for the sustenance of an economy (Nuhiu, Hoti & Bektashi, 2017; Alhassan, Tetteh & Brobbey, 2016).

Monitoring and evaluation of banking institutions' performance is important if stakeholders are to have confidence in the banking system (Sanyaolu, Iyoha & Oljeka, 2019). Mandatory corporate information disclosures seem to be critical for monitoring corporate performance, achieving accountability and transparency. We can infer that corporate performance measurement can be effective if a standardized system of information disclosure and reporting practices are established (Neely, Gregory & Platts,

2005). The need for a formalized system of reporting accounting information appears to be heightened as modern-day businesses have become more globalized (Mbir, Otuo-Serebour, Tackie & Abeka, 2020).

The International Financial Reporting Standards (IFRS) were introduced by the International Accounting Standard Board (IASB) as a response to the globalization of businesses, and as a replacement for the locally accounting principles and standards countries were using (Sanyaolu et al, 2019). Thus, the development and adoption of the IFRS was principally required as a system for harmonizing accounting reporting practices and corporate information disclosures. Technological innovations facilitating trade across national borders in the form of multinationalism, or what is known as foreign direct and portfolio investments, make a case for the adoption of a globally recognized accounting reporting standards (Akpan-Essien, 2018).

Literature shows that the transition from locally acceptable accounting reporting frameworks to globally recognized system of reporting has become a subject of intense debate among accounting scholars (Uwuike, Emeni, Uwuike & Ataiwrehe, 2017). Supporters of the IFRS argue that adopting a common method of financial reporting globally, firms' accounting information disclosures are likely to improve, which in turn ensures reliance, relevance, uniformity and comparability of information contained in published financial statements (Arum, 2013; Lang, Ready & Yetman, 2003; Barth, Landsman & Lang, 2007; Nassar, Uwuike, Uwuike & Abuwa, 2014). Abdulkadir (2012) opines that cost of global business operations reduces if firms comply with the IFRS system because of the requirement for minimal additional information in the financial reports, and Barth (2007) suggests IFRS tends to curtail managerial

discretionary behaviours since the choice of reporting methods available to firms is limited. In the end, proponents argue that information disclosure quality is enhanced under IFRS.

The other side of the argument is that some scholars opine that given the principled-based nature of the IFRS, corporate managers are inclined to engage in manipulative and creative accounting practices, hence adversely affecting the quality of the financial reporting exercise (Beuren & Klann, 2015). It is equally believed that the principles inherent in the IFRS deviate markedly from those of the adopting countries (Uwuigbe et al, 2017). Countries adopting the IFRS have their own locally accepted accounting standards which are founded on home-based traditions, legal regimes and regulatory frameworks, distinct economic, socio-cultural dynamics, and so adopting a foreign-based accounting system ends up collapsing home-made approach to accounting reporting (Sanyaolu et al, 2019). The argument is quite settled with the evidence provided by a large number of empirical studies which suggest that implementation of the IFRS improves accounting reporting quality and credibility to financial statements (Mbir, Otuo-Serebour, Tackie & Abeka, 2020; Mensah, 2021; Appiah-Kubi, 2020; Amissah & Hammoud, 2020).

Different countries, both developed and developing, have adopted the IFRS regimes as a means of normalising accounting principles and corporate information reporting practices (Owolabi & Iyoha, 2012; Ramanna & Sletten, 2014). In the Sub-Saharan African (SSA) region, Ghana was part of the few nations that initially complied with the IFRS regime (Mbawuni, 2018). In Ghana, the IFRS was adopted as a replacement for the Ghana National Accounting Standards (GNAS) in January 2007, and that all

public listed companies, banks and insurance firms and other public-interest entities, as well as small and medium enterprises (SMEs), were expected to apply the IFRS for the preparation of their annual reports and financial statements by December 2007 (Agyei-Mensah, 2016). The advocacy, promotion and progress monitoring of the IFRS implementation in Ghana has been championed by the Institute of Chartered Accountants Ghana (ICAG) which was tasked by the World Bank to oversee the adoption and implementation processes (Mbawuni, 2018).

The advent of the IFRS in both developed and emerging nations has generated huge research interests among academics and practicing professionals. Researchers in developing countries in particular have examined various topics relating to IFRS adoption and implementation.

Studies in Ghana have largely focused on the appropriateness of IFRS for SMEs (Aboagye-Otchere & Agbeibor, 2012), evaluation of compliance of IFRS (Amoako & Asante, 2014; Occansey & Enahoro, 2012; Yiadom & Atsunyo, 2014), and financial reporting quality gains from IFRS implementation (Mbir, Otuo-Serebour, Tackie & Abeka, 2020; Mensah, 2021; Appiah-Kubi, 2020; Amissah & Hammod, 2020; Amankwa, Mawutor & Boachie-Yiadom, 2020), and the challenges enterprises encounter by implementing the IFRS (Nasiru, 2018; Mbawuni, 2018; Akolor, 2019). Notwithstanding the growing number of studies in Ghana, it appears that previous studies have not attempted to examine the performance effects associated with adoption of the IFRS in Ghana. This study aims at filling this gap by investigating the effects IFRS adoption has on Ghanaian commercial banks' return on asset (ROA), return on equity (ROE), earnings per share (EPS), and financial leverage and on cost efficiency.

1.1 Statement of the Problem

The idea behind the introduction of the IFRS framework is to make financial reporting practices of firms comparable across the globe, and also to ensure accountable and transparent reporting system (Akpan-Essien, 2018). This recognition seems to have engendered research interests in IFRS adoption and related firm-level variables. In particular, a large number of studies has been conducted on the influence of IFRS implementation on firms' financial performance (Akinleye, 2016; Yetunde, 2016; Umobong, 2017; Umobong & Ibanichuka, 2019; Ironkwe & Oglekwu, 2019; Sanyaolu, Iyoha & Oljeka, 2019). However, outcomes produced by such prior studies have not been consistent, and there is the absence of consensus among academic scholars on the influence of IFRS adoption on firms' performance. For instance, some studies report that compliance with IFRS improves financial performance measures (Akinleye, 2016; Yetunde, 2018) while others find the opposite result (Umobong, 2017; Umobong & Ibanichuka, 2019; Ironkwe & Oglekwu, 2019). Other studies also report of mixed effect whereby both positive and negative impacts on financial measures have been observed (Yetunde, 2018). The absence of evidence certainty makes it imperative for new research to be conducted to unravel new evidence. Therefore, this study seeks to investigate the effects IFRS adoption have on commercial banks' financial performance.

Also, in the context of Ghana, accounting research has failed to investigate the effects IFRS have on banking firms' financial performance. Instead, studies appear to have focused on IFRS's impacts on quality information disclosures (Mbir, Otuo-Serebour, Tackie & Abeka, 2020; Mensah, 2021; Appiah-Kubi, 2020; Amissah & Hammod, 2020; Amankwa, Mawutor & Boachie-Yiadom, 2020) and on earnings management

practices of Ghanaian firms (Akolor, 2019). The dearth of research on the issue in Ghana requires that extensive studies are conducted to contribute to making empirical knowledge available in the extant literature in Ghana. This study therefore aims at investigating the financial performance effects of compliance with the IFRS in the Ghanaian commercial banking sector.

1.2 Objectives of the Study

This study's aim is to investigate the effects imposed on commercial banks' financial performance as a result of adoption and implementation of the IFRS. The specific objectives of the study are:

1. To examine how the adoption of IFRS affects banks' return on asset.
2. To examine the effects of IFRS adoption on banks' return on equity.

1.3 Research Questions

This study is underpinned by the following questions.

1. How does the adoption of IFRS affect banks' return on asset?
2. What are the effects of IFRS adoption on banks' return on equity?

1.4 Significance of the Study

IFRS represents a framework through which firms are expected to provide non-manipulated accounting information to stakeholders having interests in firms' affairs. Evidence from this study is expected to contribute immensely towards benefiting an array of stakeholder groupings in the banking industry in Ghana. For banks in general, it is envisaged that the outcome of this study will reinforce the need for managers and directors to continue reporting under the IFRS regime. This is because, the study expects to see positive influence of IFRS implementation on financial performance

measures of the selected banks, and that will substantiate the call for banking management to continue complying with its rules.

Findings from this study are further expected to benefit investors or shareholders, industry analysts and the general public. Given the position and role of the banking sector in the development of every economy, stakeholders' interests in, and demand for high quality, credible and accurate corporate information disclosure is heightened for decision making purposes. The confidence of the above-mentioned accounting information users in corporate reporting practices is enhanced when stakeholders know that banking firms comply with the IFRS regime. The IFRS may therefore serve as a benchmark for stakeholders' assessment and evaluation of banks' performance reporting. This study focuses on the effects of IFRS adoption on banks' financial performance, and it is foreseen that evidence from this study may contribute to enhancing stakeholders' judgement of banks' performance. In terms of its contribution to the development of the growing literature in Ghana, this study makes significant attempt at adding to the existing stock of knowledge with its focus on commercial banking firms in Ghana.

1.5 Scope of the Study

This study basically revolves around commercial banks' adoption and implementation of IFRS and how this accounting reporting framework affects their financial performance measures. In particular, the study focuses on IFRS's effects on ROA and ROE indicators as broad proxies for financial performance of commercial banking institutions in Ghana. The study covers a 13-year period from 2004 to 2017 given that IFRS was implemented by the Ghanaian banking institutions in December 2007.

1.6 Brief Methodology

This study is quantitative in nature, and adopts quasi-experimental research design. The coverage of the study entails a selection of a panel of 10 commercial banks in the Ghanaian banking industry. The list of firms includes both listed and non-listed banks, and foreign-owned and locally owned banks. The choice of the 10 banks is made on the basis of data availability and accessibility. The study assembles secondary financial data covering a 13-year period from 2004 to 2017. The justification for choosing this time period is because IFRS was officially implemented by commercial banks in Ghana in December 2007 (Agyei-Mensah, 2016; Mbawuni, 2018; Akolor, 2019).

To examine the impact of the 'IFRS event' on financial performance, this study requires banks' financial data for the years prior to the adoption, and data for the post adoption years, and then subjects the data to econometric estimation and analysis. Following recent empirical studies, the study's 13-year period is divided into two covering 3 years of pre-IFRS adoption (2004 to 2006) and 10 years post-IFRS adoption period (2008 to 2017). This study treats the official year of implementation of the IFRS in Ghana (2007) as a transitional period, and therefore, does not collect data for that year in order to examine whether IFRS has impacted financial performance of banks in the post implementation years.

As in prior research, this study does not use questionnaire instrument for data collection, but collects financial data from the banks' annual reports and financial statements for the pre IFRS adoption years and for the post IFRS adoption years. 'IFRS adoption' is the main independent variable around which the study revolves, and it is treated as a

binary dummy variable, coded with a value of one (1) for the post IFRS adoption years and zero (0) for the pre IFRS adoption years.

Two dependent variables measuring financial performance (ROA and ROE) are employed in this study. A list of control variables comprising firm specific attributes (firm size and age) and corporate governance indicators (board size, board independence and audit quality) are introduced in the panel models. First-tier panel modeling strategies, namely, fixed effect and random effect models, aided by Hausman specification testing, are implemented as data estimation procedures and systems for generating and analyzing the raw data results. Data processing is undertaken with the help of Eviews econometric software, version 9.

1.7 Organization of the Study

Five chapters make up the study's full structure. The study's introduction and historical context are covered in Chapter 1. It provides information about the research problem, the purpose and particular goals of the study, as well as the research questions being considered. A review of the literature is attempted in Chapter 2. A conceptual framework serves as the chapter's conclusion. In terms of the research design, demographic and sample difficulties, data collecting, estimating methodologies, and analytic procedures, Chapter 3 outlines the research methodology. The findings are summarized and discussed in Chapter 4. The summary of findings, the conclusion, and the suggestions are the main topics of Chapter 5.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter presents a review of the literature relating to the topic of the study. The chapter contains four sections, comprising conceptual, theoretical and empirical reviews. The last section showcases and explains the conceptual framework for the study.

2.1 Conceptual Review

Under this section, a review of key concepts for this study is conducted. This study broadly focuses on IFRS and financial performance. Therefore, the evolution and concept of the IFRS is treated in this section, followed by the adoption of the IFRS in Ghana. Measurement of financial performance of banks is also covered.

2.1.1 The Evolution of the IFRS Concept

IASB, an independent institution with headquarters in London, UK, has released accounting principles and rules known as IFRS. Prior to the establishment of the IASB, the International Accounting Standard Committee (IASC), a body created in 1973 by an agreement signed by specialized worldwide accountancy organisations, set international standards known as International Accounting Standards (IAS). After nearly 25 years of success, the IASC realized in 1997 that, in order to fulfil its mandate successfully moving forward, it would need to find a means to bring national accounting standards and practices and high-quality international accounting standards closer together. The new standards-setting body was given the name International Accounting Standards Board (IASB), and since April 2001, it has been carrying out

rule-making tasks, such as developing and disseminating accounting standards of public interest, which were to be followed to ensure that audited accounts and financial statements were prepared, presented, and reported in a way that would promote widespread approval. Since then, the movement toward the implementation of International Accounting Standards has proceeded quickly; in 2009, the European Union and more than 130 other nations either approved or mandated the use of IFRS created by the IASB.

International accounting standards convergence, according to Nobes (2006), is not a recent concept; it was first proposed in the later-half of 1950 in reaction to the post-World War II increase in capital flow across borders and post-war economic and financial integration. Prior to this, initiatives were made to harmonize accounting standards. This merely implies that the accounting concepts and principles used in the majority of capital markets across the globe are becoming less distinct. Harmonization was replaced in the 1990s by the idea of convergence, which essentially refers to the development of excellent international accounting standards for use in practically all of the major capital markets worldwide. To eliminate the global variations that limited investment prospects globally, this uniform set of accounting rules was made a reality (IFAC, 2008). Given that one's environment has an impact on how and how well accounting is practiced, this perceived cultural factor of such environment includes each person's personal belief system and the values they uphold; the value system of the accountant is also influenced by the cultural environment that is prevalent in that country.

Accounting is widely acknowledged as the business language through which an entity's performance and position are conveyed to outsiders (stakeholders), and as such, it must be stated in a language that all stakeholders can understand. This claim has been proven true by IFRS since, as a result of their adoption, business language can now be communicated in a tongue that practically all investors around the world are familiar with, accept, and understand (Ironkwe & Oglekwu, 2016).

2.1.2 Objectives of the IFRS

The IASB's influence on global affairs has grown. Its main goal is to publish IASs or IFRS in order to increase financial reports produced by firms' transparency, uniformity, and comparability regardless of where those companies are located in the world (Choi et al, 2002). As a result, the following are some of the goals of the IFRS: To ensure financial reporting is transparent; to improve worldwide comparability; and to raise the caliber of financial information so that investors and other market participants may easily make wise financial or economic decisions to enhance and improve accountability by reducing the knowledge gap between capital suppliers and the recipients of their funds. As a result, the IFRS guarantees that all pertinent information is given to the stakeholders in a proper manner to improve capital allocation and increase financial and economic efficiency by assisting investors in spotting global opportunities and hazards. Businesses' cost of capital and foreign reporting expenses is reduced when a single, widely used accounting language is used.

2.1.3 Adoption of IFRS in Ghana

Ghana's corporate financial reporting procedures have been completely transformed by the implementation of IFRS (Mbir et al, 2020). Before Ghana adopted IFRS, Ghana

National Accounting Standards (GNAS) served as the country's implementation of generally accepted accounting principles (Mensah, 2021). The Statements of Standard Accounting Practices (SSAPs) of the UK and the earlier International Accounting Standards served as the foundation for the GNAS (Agyei-Mensah, 2016). An assessment of Ghana's accounting and auditing practices was carried out in 2004 by the World Bank (WB), and the results were published in the report "Observance of Standards and Codes." The review's goal was to determine the weaknesses and advantages of the nation's accounting and auditing procedures. The report's primary flaws included the fact that the GNAS was out-of-date and significantly deviated from IFRS principles.

As a result, the WB suggested Ghana adopt IFRS. The WB subsequently charged the ICAG with overseeing the implementation of IFRS in Ghana (Mbawuni, 2018). Therefore, the ICAG announced that starting in 2007, all financial reports in Ghana must comply with the IFRS (Agyei-Mensah, 2016). As a result, Ghana abandoned the GNAS and began using the IFRS on January 1, 2007. Therefore, it was mandatory for all public utilities, banks, insurance firms, and listed corporations on the Ghana Stock Exchange (GSE) to adhere to IFRS (Amankwa et al., 2020). Ghanaian businesses have until the year ending December 31, 2007, to produce their financial accounts using IFRS. However, because of technical difficulties, businesses were unable to fully comply, and as a result, many businesses released their first financial reports produced in accordance with IFRS in 2008. (Tackie & Abeka, 2020). With the acceptance, the use of IFRS officially replaced the use of GNAS. The two-year transition period, which ends in 2009, was offered to SMEs, MDAs, state-owned organizations, private organizations, and organizations that are not for profit. Seven new standards, nine

interpretations, 13 IAS revisions, and 18 IAS amendments were incorporated in the IFRS (Nasiru, 2018).

2.1.4 Corporate Financial Performance

The practice of evaluating an activity's efficacy and efficiency is known as measuring performance (Neely, Gregory & Platts, 2005). Performance monitoring programs, reporting progress, enhancing motivation and communication, and identifying issues and difficulties can all benefit from significant information that performance measurement can provide (Waggoner, Neely & Kennerley, 1999). Evaluation of the company's performance is therefore in the best interest of the company. The lack of consensus over what defines organizational performance, however, is a management issue in this field (Rouf, 2011). From the financial statement provided by the corporation, one may see how the company performed. A successful business will therefore support management's commitment to quality disclosure (Herly & Sisnuhadi, 2011). A number of factors can be used to gauge a company's financial performance. As a result, many measuring metrics can be used to assess the financial performance of an organization, but Al-Matari, Al-Swidi, and Bt Fadzil have recognized two basic classifications (2014). These indicators are based on economic/market conditions as well as accounting.

2.1.4.1 Accounting-based Indicators of Performance

Using the risk-adjusted weighted average cost of capital as a benchmark, accounting-based measures are widely accepted as a reliable predictor of a company's profitability and business performance. Financial performance is associated with an institution's profitability performance, and accounting or finance-based indicators (also called profit

measures), such as profitability ratios, are commonly employed as proxies for financial performance. Business financial performance can be defined as the rate at which a company is able to increase its assets through its core operations over a given time frame. Money in and money out are the usual metrics used to establish this.

Return on assets (ROA), return on equity (ROE), Tobin's q, gross profit margin (GPM), net profit margin (NPM), operating profit margin (OPM), earnings per share (EPS), and dividend yield (DY) are the accounting-based indicators typically used in the measurement of financial performance, as stated by Al-Matari, Al-Swidi, and Bt Fadzil (2014). The price-earnings ratio (PE), the return on sales (ROS), the expense to asset ratio (ETA), the cash to asset ratio (CTA), the sales to asset ratio (STA), the expense to sale ratio (ETS), abnormal returns, the annual stock return (RET), the operating cash flow (OCF), the return on capital employed (ROCE), labor productivity (LP), critical business return on asset (CROA), cost of capital (COC), economic value added (EVA), cash value added (The others are superior than CARS, PPE, and ROFA, and include output per staff (OPS), cost per service supplied (CPSP), and cost per client served (CCS). Measures like the cost-to-income ratio, return-on-earnings-assets ratio, and net interest spread (NIS) have also been used in research.

The majority of these metrics have been used in the past to evaluate performance (Najid & Abdul Rahman, 2011; Al Manaseer et al., 2012; Rehman & Raoof, 2010; Hutchinson & Zain, 2009- as mentioned by Al-Matari, Al-Swidi & Bt Fadzil, 2014). The Return on Assets (ROA) is the most popular metric used in empirical studies; it is calculated by dividing the pre-tax profit by the total assets of a company (Al-Matari, Al-Swidi, & Bt Fadzil, 2014).

Return on assets (ROA) is a measure of how well assets are being managed. Thus, it represents the efficacy and efficiency with which banks' management has turned assets into profits. And a better performance is shown by a larger ratio. It's a great resource for analyzing the commercial banking industry as a whole or evaluating the success of individual banks.

It has been argued by a number of academics that accounting-based performance indicators are preferable to market-based measures for studying the connection between corporate governance and firm performance (Hutchinson & Gul, 2004; Mashayekhi & Bazazb, 2008). However, these types of profits have been criticized due to their hindsight bias and the fact that they only provide a partial estimate of future events after accounting for things like depreciation and amortization. Accounting techniques, such as the numerous methodologies adopted for the appraisal of tangible and intangible assets, can have an effect on the rate of profit as measured by the accountant, which is in turn constrained by standards established by the profession (Kapopoulos & Lazaretou, 2007).

2.1.4.2 Market-Based Measures of Performance

Market-based indicators are another form of analysis. Among them are the Tobin's Q ratio, the market value added (MVA), the market-to-book value (MTBV), abnormal returns, the annual stock return (RET), the dividend yield (DY), the price-earnings ratio (PE), the log of market capitalization, stock buybacks, and the superior-to-cumulative abnormal returns (CARs). Forward-looking in nature, market-based measurement reflects shareholders' expectations about the firm's future performance, which is founded on past or present performance (Wahla, ShahSyed, & Hussain, 2012; Shan &

McIver Ron, 2011; Ganguli & Agrawal, 2009). There are more indicators that cannot be placed in either the accounting-based or market-based categories. Productivity per employee, expenses per client, and similar metrics are examples.

Profitability has been estimated in studies of commercial banks by calculating ratios from annual financial statements. Therefore, it is helpful to create a set of ratios in financial statement analysis to simplify comparison across time and between organizations. An organization's public financial statement is a useful source of information regarding the company's current financial health and possible future results. It has been stated that ratios are immune to market swings. The real worth of profits may not be affected by unstable price movements; therefore, ratios are a useful index for determining profitability performance when working with time series data (Rasiah, 2010). Both ROA and ROE are used as surrogates for financial health in this analysis.

2.2 Theoretical Review

2.2.1 Agency Theory

Agency theory is based on the premise that when a company is originally founded, the owners also serve as the managers, but as the firm grows, the owners realize they need to assign managers to handle the day-to-day operations. In agency theory, "agents" and "principals" refer to firm management and stockholders, respectively (Morris, 1987). Managers (agents) are accountable to the company's owners, who believe that the managers' (owners') interests must come first. This means that the owners of the business and the managers of the company who engage with users of financial accounting reports are agents of each other. The same is true of managers who engage

in opportunistic behavior by, for example, artificially increasing or decreasing wages (Sun, Salma, & Hussainey, 2010) in order to satisfy their own needs.

By defining an agency relationship as "a contract under which one or more persons (the principal(s)) engage another person (the agent) to perform some service on their behalf which involves delegating some decision-making authority to the agent," Jensen and Meckling (1976) offer a clear picture of how these partnerships work in practice. One might play the role of investor, while the other represents the business. As such, the managers of a firm serve as representatives of the company on behalf of the owners (principals) (Shapiro, 2005). Both the principal and the agent are assumed to maximize their respective utility functions. Given this situation, the worldwide trend of adopting IFRS could be a means of resolving the inherent tensions between shareholders and management. In addition, IFRS is a more principle-based standard that can limit managers' discretionary accounting practices by reducing their opportunistic behavior; and its adoption tends to add value or improve shareholders' wealth status (Cuijpers & Buijnik, 2005). Accordingly, Jermalowicz (2004), Jermakowicz and Tomaszewski (2006) argue that using IFRS to publish annual reports and financial statements helps to increase equity value and the quality of income.

Since the IFRS imposes constraints on managers' arbitrary, manipulative, and opportunistic behavioral tendencies, it may be deduced that the agency theory establishes a direct relationship between adoption of IFRS principles and business financial success. It is possible that the potential that IFRS adoption can help in seeking redress for the competing interests between management and principals accounts for the direct association between IFRS adoption and company performance as envisioned

by the agency theory. Managers may be motivated to achieve exceptional financial results if their salary is contingent on those results being achieved by the company as a whole. Overall, agency theory suggests a favorable association between IFRS and corporate financial performance because it predicts that firms' book value will likely increase with the adoption of IFRS.

2.3 Empirical Review

Adoption of IFRS influences business performance measures in numerous dimensions. This section includes an overview of prior studies on the question of IFRS's implications on financial performance.

Nwufo and Chima (2021) assess the influence of IFRS adoption on corporate performance among 21 listed Nigerian banks throughout the years from 2007 to 2016 for both pre (2007 to 2011) and post (2012 to 2016). Capturing IFRS adoption as a binary dummy independent variable, the analysis analyzes the data through the pooled form of panel regression, and finds that IFRS adoption has no statistically relevant influence on performance, assessed by net interest margin (NIM) and EPS. Another finding is that IFRS adoption does not affect earnings growth of the banks.

Ekwe, Abaa and Okrolor (2020) study how compliance with the IFRS affects organizational financial performance parameters of five listed commercial banks in Nigeria. The data for the study which starts from 2007 to 2016 for both before (2007 to 2011) and after (2012 to 2016) eras, were evaluated using analysis of variance. The numerical results reveal that compliance with the IFRS system leads to large growth in post-tax profit, but no statistically important impact is seen for ROA, ROE and EPS.

Nwaogwugwu (2020) studies performance consequences of adopting the IFRS for accounting reporting purposes across listed Nigerian banks. Treating IFRS adoption as a binary dummy independent variable, the paper estimates the panel data from 2008 to 2016 for the five sample banks using fixed effect models. Findings reveal that IFRS has failed to improve financial performance indicators of ROA, ROE and EPS and hence firm value of the banks.

Agyei-Boapeah et al (2019) evaluate IFRS adoption's impact on business value using data from 534 firms from 7 African nations over the period 2000-2015. Applying difference in difference method of assessing the data, the study's findings reveal that IFRS positively affects firm value, evaluated by Tobin's Q. Further empirical data demonstrate that full application of IFRS generates improved benefits as opposed to partial adoption.

Yeboah and Takacs (2018) study corporate performance consequences of IFRS implementation for 49 listed South African enterprises throughout the years from 2000 to 2015. The study applies fixed effect version of static panel regression estimations, and indicates that IFRS adoption has negative large influence on ROA, ROE and market to book value while the impact on EPS is positive and significant.

Compliance with the IFRS model of accounting is examined by Abdul-Baki (2018) to determine its effect on Nigerian performing enterprises. The research incorporates a comparison ratio analysis of yearly reports prepared using IFRS and those prepared using NGAAP. Neither set of financial ratios under the two accounting reporting standards differ significantly from one another.

Yetunde (2018) analyzes the impact of IFRS on Nigerian bank performance using comparative research. Two years before the adoption (2010-2011) and two years after (2012-2013) are included in the study's four-year time frame. The study uses accounting techniques like t-testing on samples to determine that profitability and leverage ratios improved after IFRS implementation, whereas liquidity and asset quality ratios declined. No statistically significant change in the ratios was found after implementing IFRS, as determined by a t-test. At the levels of 5% and 10%, respectively, the cash ratio and the non-performing loan ratio achieve statistical significance.

Ibanichuka and Asukwo (2018) look into the connection between IFRS implementation and the financial success of publicly traded Nigerian oil companies. The research uses one-sample t-testing and analysis of variance to compare data from 10 different businesses. The empirical findings of this study demonstrate that enterprises' earnings per share (EPS) are severely impacted after adopting IFRS. However, there is no statistical support for the connections between ROA and ROE.

For 23 listed banks in Indonesia between 2007 and 2012, Ramli (2018) analyzes how the introduction of IFRS affected the value relevance of accounting data and the implications for performance. Panel model estimates imply that IFRS helps make book values, net earnings, and operating cash flows more relevant to investors. Financial parameters including ROA, ROE, and EPS all see substantial growth after adopting IFRS, according to the study.

The impact of International Financial Reporting Standards (IFRS) adoption on the profitability of Nigerian banks is the subject of Akinleye's (2016) research. The study

uses secondary data collected from annual reports and financial accounts of 10 banks between 2009 and 2014 and analyzes the information using fixed effect, random effect, and pooled OLS panel estimations, treating IFRS adoption as a binary dummy variable. The outcomes show that performance indicators like ROA and ROE improve after implementing IFRS.

The implications of International Financial Reporting Standards (IFRS) adoption on the financial performance of 15 listed money deposit banks in Nigeria between 2004 and 2013 are analyzed by Onipe, Musa, and Isah (2017). Results from binary logistic regression analysis indicate that IFRS is beneficial to financial performance as measured by metrics of profitability and growth such as gross interest margin, earnings per share, and return on investment. The analysis confirms previous findings that under IFRS, bank leverage ratios increase.

Ibiamke, Adzor, and Ateboh-Briggs (2017) investigate how implementing IFRS has altered financial indices for publicly traded Nigerian companies. Financial ratios calculated using International Financial Reporting Standards (IFRS) and Nigerian Generally Accepted Accounting Principles (NGAAP) are compared and analyzed using paired sample t-tests and Levene's F-tests to establish statistical significance. The most important finding is that businesses' financial ratios tend to worsen after adopting IFRS.

Using data from 2007 to 2010, Tanko (2017) analyzes how some Nigerian listed banks fared after adopting IFRS. The t-test and the logit regression are used to analyze the data. The results imply that the adoption of the IFRS leads to an increase in profitability indicators such as earnings per share. The research also shows that in the post-adoption

era, leverage and liquidity indicators improve while earnings unpredictability decreases.

Umobong (2017) analyzes the impact of IFRS on the bottom line of Nigerian companies in the food and beverage industry. Using sample t-testing, this study adopts a comparative study methodology to examine data collected from 16 publicly traded corporations during the years 2009-2013. Market performance as indicated by EPS, PER, and dividend yield has not altered noticeably as a result of IFRS implementation. That is to say, there was little discernible impact from the implementation of IFRS on market performance between the pre- and post-IFRS eras.

For the years 2006–2014, Umobong and Ibanichuka (2017) analyze the effects of IFRS compliance on financial performance at a sample of Nigerian enterprises. The study used a comparative research design, and descriptive statistics, an independent samples t-test, and an analysis of variance were used to analyze the data. The average numbers for ROA, ROE, and EPS show no significant variation between the years before and after IFRS adoption, suggesting that the adoption of IFRS had no effect on the financial performance of the companies examined.

Ironkwe and Oglekwu (2017) analyze the impact of IFRS on the financial health of publicly traded Nigerian manufacturing firms. Both the years before and after the adoption are included in the study's time frame (2009-2011 and 2012-2014, respectively). The post-adoption regime is characterized by lower ROE and higher EPS for banks that have adopted IFRS, as shown by panel estimation results. There is no

statistically significant connection between banks' ROE and EPS before and after adopting IFRS, according to a t-testing approach.

The effects of implementing IFRS on the bottom lines of Nigerian banks are analyzed by Jeroh and Okoro (2017). The study included information from three different financial institutions for the years 2007-2014, including the pre-adoption years of 2010 and the adoption years of 2011-2014. The study uses panel least squares to determine that IFRS is beneficial to the asset and equality situations of the banks examined.

Yahaya, Joseph, and Safiya (2017) used accounting data to determine the value of Nigerian banks after they had adopted IFRS. The results of the study, which modeled the data with two regression equations, suggest that the value relevance of accounting information offered by price per share, earnings per share, and cash flow per share is enhanced by the introduction of IFRS. Other research shows that when businesses use IFRS, their financial metrics like annual returns improve.

Listed Nigerian banks are the focus of Yahama's (2018) research into the value relevance and performance implications of adopting IFRS. Using straightforward regression techniques, the study demonstrates that IFRS benefits banks by increasing the accuracy and usefulness of accounting information based on profitability ratios of ROA and ROE. Olayinka's (2017) study on IFRS and profitability of listed Nigerian banks uses regression techniques to find that profitability ratios increase as banks begin adhering to IFRS regulations.

The effects of implementing IFRS on the performance of Nigerian oil and gas businesses are investigated by Abdullahi, Abubakar, and Ahmad (2017). Eight organizations' worth of data were studied using regression models and comparative analysis, encompassing both the pre-adoption (2010-2011) and post-adoption (2012-2013) years. The results show that IFRS has no positive effect on business performance as evaluated by ROA, ROE, EPS, leverage ratios, or operating profit margin. There is no improvement in enterprises' liquidity or capital structure after adopting IFRS, according to other research.

When it comes to financial and accounting ratios, Ibiamke and Ateboh Briggs (2017) zero emphasis on how banks in Nigeria adapt to IFRS. The research uses a fixed effect technique on 10-years of data and demonstrates that IFRS adoption reduces banks' return on equity, return on assets, and earnings per share.

Blanchette, Racicot, and Girard (2017) look into the effects of IFRS adoption on key financial ratios for Canadian businesses. The results indicate that under the IFRS framework, profitability is lower than anticipated. The study also reveals that IFRS increases liquidity ratios as a result of the rapid recognition of operational incomes and accounts receivable, which boosts current assets.

2.4 Conceptual Framework

Based on the above, this study has developed the following conceptual framework shown in Figure 2.1. The empirical effect of the adoption of IFRS, the independent variable, on financial performance, the dependent variable (measured by ROA and

ROE), is tested in this study. A set of control variables including firm size, firm age, board independence and audit quality are introduced.

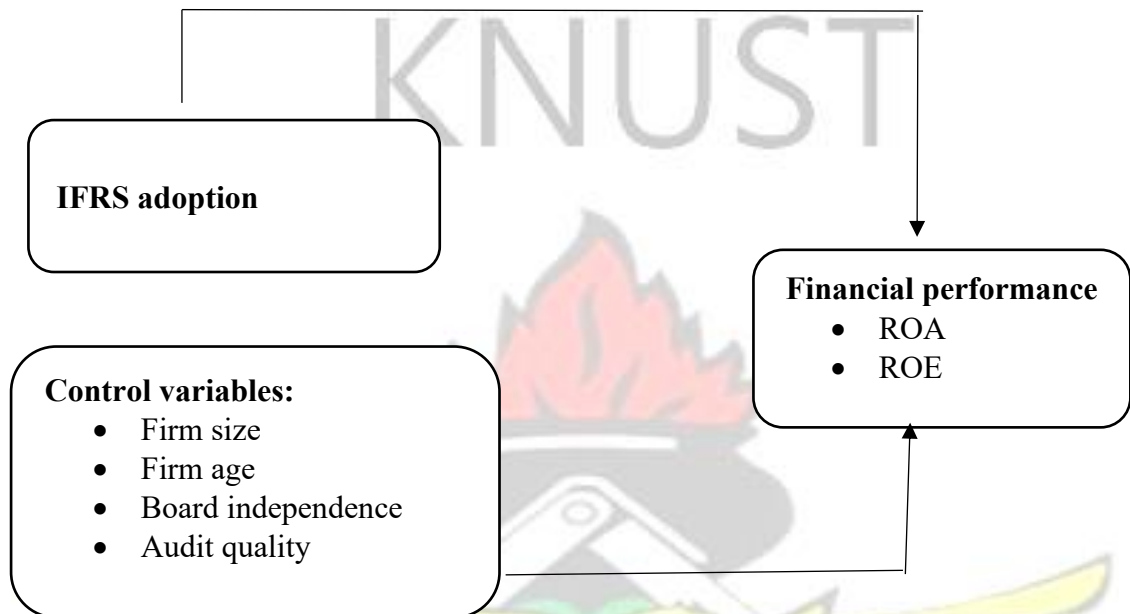


Figure 2.1: Conceptual framework

Source: Author's construct, 2023

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter presents the methodology for the study. The chapter contains sections focusing on the research design, population and sampling technique, data and sources of data. Data collection methods, empirical models and data estimation strategies are also presented. The chapter ends with data analysis methods.

3.1 Research Design

This study adopts quasi-experimental research design, as a form of quantitative approach design (Leedy & Ormrod, 2005). The study adopts quasi-experimental design because it offers relatively higher degree of numerical validity for the causal linkages between policy interventions and expected outcomes (Trochim, 2001). This validity is achieved when panel data is collected and analyzed for the purposes of evaluating policies and program interventions and their outcomes (Wooldridge, 2013).

This study focuses on IFRS adoption's effect on financial performance. This implies that the study aims at evaluating the impact of IFRS policy adoption on banks' financial performance. In other words, the study seeks to ascertain whether implementation of the IFRS reporting reforms have any statistical effect on financial performance of implementing banks. In view of this, the quasi-experimental design is suitable. That's because IFRS adoption is the operational independent variable in this study, while the dependent variable, financial performance, represents the influence of the policy intervention. Therefore, one technique to investigate the impact of IFRS regulation on financial performance is to build a panel data model comparing results from before and

after the policy intervention. In addition to the foregoing, it is only fitting that a quantitatively-based design be used because the study is founded on a quantitative strategy or approach.

3.2 Population of the Study

Commercial banks operating in Ghana are the focus of this research. The sample for this research consists of the 23 financial institutions that have been granted banking privileges.

3.3 Sample Size and Sampling Technique

The coverage of the study entails a selection of a panel of 10 commercial banks from the Ghanaian banking industry. The list of firms includes both listed and non-listed banks, and foreign-owned and locally owned banks. The choice of the 10 banks is made on the basis of data availability, data accessibility and data consistency over the study period. Banks whose financial reports were available but inaccessible are excluded from the sample. The 10 banks are those that meet the selection criteria. Also, the decision to use 10 banks is consistent with, and guided by the empirical literature.

3.4 Data and Sources of Data

As in prior research, this study does not use questionnaire instrument for data collection. Three groups of secondary quantitative data sets are used in this study. The first is the independent variable, which is IFRS adoption. The second is made up of two dependent variables, namely, ROA and ROE. The third group contains the control variables which include firm size, firm age, board independence and audit quality. All these data are taken from the banks' annual reports and financial statements for the pre-IFRS adoption

years and for the post-IFRS adoption years. The study's secondary financial data covers a 14-year period from 2004 to 2017. The justification for choosing this time period is because IFRS was officially implemented by commercial banks in Ghana in December 2007 (Agyei-Mensah, 2016; Mbawuni, 2018; Akolor, 2019). This study treats the official year of implementation of the IFRS in Ghana (2007) as a transitional period, and therefore does not collect data for that year. The starting period for the pre-adoption year (2004 to 2006) was chosen due to availability of data for the variables (ROA, ROE, firm size and firm age and board independence) for the selected banks.

3.5 Data Collection Procedure

The first step in collecting the data used in this study was to go online and get the relevant annual reports from the websites of the selected institutions. After that, we compute the necessary ratios using recognized ratio methods in Microsoft Excel to collect data for the ROA and ROE variables. To determine how old a bank is, take the current year and subtract the date (year) the bank was incorporated or licensed. Information on board independence can be gleaned by counting how many independent board members there are in relation to the overall number of board members. Audit quality is treated as a binary dummy variable with a value of one (1) if banks are audited by any of the big 4 auditing firms (KPMG, Ernest and Young, Deloitte, and Pricewaterhouse Coopers) or zero (0) otherwise.

3.6 Empirical Models

To examine how IFRS adoption has impacted the financial performance of the chosen banks, this study builds first-tier panel regression models to take advantage of the panel structure of the data obtained. The following is the functional notification model's

conceptualization of the relationships, predicated on the premise that linear linkages are the norm among the variables.

$$\text{Financial Performance} = f(\text{IFRS adoption, control variables}) \dots\dots\dots (1)$$

This model suggests that financial performance is a function of IFRS adoption. Given that other internal and external factors influence financial performance, these factors are included in the model as control variables. This study considers firm size, firm age, board independence and audit quality as factors that can influence financial performance, and are therefore, controlled. Hence, amending equation 1 by substituting the control variables, equation 2 is constructed.

$$\text{Financial Performance} = f(\text{IFRS, firm size, firm age, board independence and audit quality}) \dots\dots\dots (2)$$

In the next stage, the symbolic identities of the variables are introduced. Consequently, the notification model 2 is transformed into models 3 and 4 for the study's objective 1 and 2 respectively. In objective 1, financial performance is proxied by ROA while ROE is used for objective two.

$$\text{ROA} = f(\text{IFRS, FS, AGE, BI, AQ}) \dots\dots\dots (3)$$

$$\text{ROE} = f(\text{IFRS, FS, AGE, BI, AQ}) \dots\dots\dots (4)$$

To establish the final baseline empirical models for the investigation, the aforementioned models are rebuilt using logarithmic transformations. Given that IFRS and audit quality (AQ) are binary dummy variables, they are not log-transformed. Transforming the variables to their natural logarithmic forms enables the coefficients of the logged independent variables become elasticities of the dependent variable with respect to a percentage change in the independent variables (Brooks, 2008; Gujarati,

2009). This notion aids in making interpretations of the slope parameters quite simple and easier (Hsiao, 2005). Again, the logged values can help reduce the problem of outliers, as well as linearizes a non-linear relationship between the variables (Gujarati, 2009).

Objective 1 model

$$\begin{aligned} \ln ROA_{it} = & \beta_0 + \beta_1 IFSR_{it} + \beta_2 \ln FS_{it} + \beta_3 \ln AGE_{it} + \beta_4 \ln BI_{it} + \beta_5 AQ_{it} + \\ & + \varepsilon_{it} \dots \dots \dots (5) \end{aligned}$$

Objective two model

$$\begin{aligned} \ln ROE_{it} = & \beta_0 + \beta_1 IFSR_{it} + \beta_2 \ln FS_{it} + \beta_3 \ln AGE_{it} + \beta_4 \ln BI_{it} + \beta_5 AQ_{it} + \\ & + \varepsilon_{it} \dots \dots \dots (6) \end{aligned}$$

The symbolic notations in the above models are explained as follows.

ROA = Net income as a ratio of total asset, expressed as percentage.

ROE = Net income as a ratio of total equity, expressed as percentage

IFRS = Adoption of IFRS, measured as a binary dummy variable with a value of one
(1) for the post-adoption years and zero (0) for the pre-adoption years.

FS = Firm size, measured as total asset in thousands of local currency units

AGE = Firm age, measured as number of years in operation since date of official
licensing

BI = Board independence, determined as number of external directors (non-executive
directors) to total number of board members in a particular year

AQ = Audit quality, measured as a binary dummy variable having a value of 1 if banks
are audited by the ‘big 4’ auditing firms in a particular year, or zero (0) otherwise.

β_0 = a constant parameter of the model

β_1 to β_6 = denote weights of the independent variables to be estimated

ε = Error term representing other determinants of banks' financial performance not captured in these models, given at 5% confidence level.

3.7 Model Estimation Strategies

To estimate the aforementioned models, this work uses static panel regression techniques using fixed effect and random effect methodologies. Due to the panel nature of the data gathered for the investigation, these estimating techniques were chosen. The study runs a Hausman specification test as part of the necessary estimation procedures to help identify whether fixed effect or random effect estimates are preferable for analysis and reporting.

3.7.1 Hausman Statistical Test

This study follows the Hausman statistical testing procedure to aid the decision concerning which model to use for analysing the estimated results. The general structure of the testing procedure, in the form of equation, is provided as follows.

$$H = (\hat{\beta}_{RE} - \hat{\beta}_{FE})' (\Sigma^{FE} - \Sigma^{RE})^{-1} (\hat{\beta}_{RE} - \hat{\beta}_{FE}) \dots\dots\dots (7)$$

where β is the estimated beta, FE and RE respectively represent fixed and random effect estimators. The FE and RE estimators are not statistically different, according to the Hausman test's null hypothesis. Rejecting the null hypothesis means that the results of the random effect estimation are inappropriate and that the fixed effect is effective and reliable instead (Gujarati, 2009).

3.7.2 Panel Fixed Effect Modeling

The fixed effect version of panel data modeling can be estimated by applying a variety of routes including the first-difference, time-demeaning and the least squares dummy variable (LSDV) methods (Wooldridge, 2013). This study applies the LSDV method in

estimating the fixed effect forms of the empirical models constructed in section 3.6. The constructed models for both objective one and two in section 3.6 are reconfigured using the LSDV specification for easy estimation process. To eliminate unobserved cross-sectional effects, the LSDV technique uses dummy variables for each cross-sectional unit rather than time-demeaning. As a result, using the LSDV approach to estimate the data aids in addressing the issue of time-constant unobserved unit heterogeneity among the variables (Gujarati, 2009). This approach is quite simple to estimate and interpret (Baltagi, 2005), and it also offers the same estimator to the time-demeaning estimates and standard errors (Wooldridge, 2013).

3.7.3 Panel Random Effect Modeling

Following a similar procedure as described above, the empirical models constructed for objective one and two of the study are recalibrated to capture the random effect modeling properties for subsequent estimation. Brooks (2008) opines that the random effect system assumes the presence of a random variable that can be used to represent specific effects imposed by cross-sectional units. In other words, the random effect modelling considers the unobserved heterogeneity as random as opposed to being fixed, making it suitable when the cross-sectional units are chosen randomly (Wooldridge, 2013).

3.8 Measurement of IFRS Adoption

The operational independent variable for this study is IFRS adoption. To examine the effect of IFRS adoption on financial performance, this study follows prior research (Nwufu & Chima, 2021; Ekwe et al, 2020; Chuks, 2020; Agyei-Boapeah et al, 2019), and treats “IFRS adoption” as a binary dummy variable, assigning it with a value of

one (1) for the post-IFRS adoption years, and zero (0) for the pre-IFRS adoption years. The rationale behind this style of measurement is because IFRS adoption is considered as a ‘regulatory event’ or policy intervention whose effect can best be measured over time.

3.9 Methods of Data Analysis

Data analysis is conducted in two phases, employing two broad statistical methods. In the first phase, preliminary analysis of the raw data is carried out using descriptive statistics to check the nature and characteristics of the raw panel data. Mean scores and standard deviation values are employed for this purpose. As part of the preliminary data analysis, correlation analysis is undertaken to determine the presence or otherwise of multicollinearity among the panel dataset. Both variance inflation factors (VIFs) and spearman rank order procedure are employed to get the correlation estimates for the variables.

The second phase of the data analysis processes entails panel regression output analysis for the objectives of the study. The collected data for the two objectives of this study are analyzed using first-tier, static panel modelling strategies, namely, fixed effect and random effect models, making use of E-views econometric software (version 9) for estimation purposes. The study uses the Hausman specification test to compare the fixed and random effect processes in order to make decisions on which is more effective. The outputs of the regression are put under close examination after the Hausman test has determined the models' efficacy.

In order to determine the nature of the independent variables' effects, their relative statistical strength (if any), and how each independent variable accounts for variations

in the dependent variables, parametric weights or coefficients of the independent variables in relation to the dependent variables are generated. In other words, the statistical effect of IFRS adoption on financial performance measures (ROA and ROE) are ascertained through its coefficient after controlling for other internal and corporate governance factors or variables (such as firm size, firm age, board independence and audit quality) that may influence financial performance.



CHAPTER FOUR

RESULTS AND DISCUSSIONS

4.0 Introduction

The purpose of this chapter is to analyze data of the study. The chapter equally discusses the reported results in line with the existing literature. This chapter is submitted in the following order. Section 4.1 presents descriptive statistics of the variables, while correlation analysis is conducted in section 4.2. Results for Hausman specification test are presented in section 4.3. Quantitative results pertaining to the objectives of the study are presented in section 4.4 and its sub-sections.

4.1 Descriptive Statistics and Variance Inflation Factors

This study principally centers on seven variables comprising two dependent variables (ROA and ROE), one independent variable (IFRS) and four control variables (Firm size, firm age, board independence [BI] and audit quality [AQ]). The summary statistics describing the key measures of central tendencies of the variables in the raw forms, together with the variance inflation factors (VIFs) for the independent and control variables, are presented in Table 4.1. It should be made known that firm size is measured by firm's total assets quantified in local currency units. This explains why the raw figures for firm size appear quite huge among the variables in Table 4.1. Both IFRS and AQ are measured as binary dummy independent variables while firm age is taken as the number of years banks have been in operation since date of licensing. Financial performance proxies of ROA and ROE are taken as percentages per unit of asset deployed and equity invested respectively. The data is obtained from a sample of 10 banks over a 13-year period from 2004 to 2017, with the year of IFRS

implementation taken as a transition year. This produces a total firm-year panel observation of 130.

Table 4.1: Descriptive statistics

Variables	Mean	Max.	Min.	Std. Dev.	VIF	Obs.
ROA	3.239	6.961	-3.701	2.172	-	130
ROE	21.332	49.984	-27.351	14.428	-	130
IFRS	0.500	1.000	0.000	0.504	1.424	130
FIRM SIZE	5182618.	15882414	809364.0	3659259	3.742	130
FIRM AGE	45.200	122.000	4.000	35.508	1.122	130
BI	0.843	0.946	0.126	0.085	1.149	130
AQ	0.483	1.000	0.000	0.376	1.713	130

Source: Author's estimation from Eviews 9 (2023)

The summary statistics show that the average performing banks earned 3.239% on assets employed for the period, while the very efficient ones are able to generate a maximum of 6.961% over the study period. The inefficient firms recorded loss of -3.701%. In the same manner, the ROE figures indicate a mean score of 21.332%, with a maximum limit of 49.984% and a minimum value of -27.351%. The corresponding standard deviations for both ROA and ROE which respectively stand at 2.172 and 14.428 are quite high, with each being more than half of their respective mean scores. This suggests that the ROA and ROE percentages are quite unstable over the period under consideration.

Firm size's statistics range from a minimum of GHS 809,364.0 to a maximum of GHS 15,882,414, and possesses a mean value of GHS 5,182,618. The standard deviation for firm size is GHS 3,659,259 which is quite low. Firm age also begins from 4 years to 122 years with a deviation of 35.508 years, whereby most of the banks are around 45 years. Board independence has a minimum of 0.126, a maximum of 0.946 and a mean

score of 0.843. This suggests that average number of banks studied has approximately 80% of board members being non-executive or external directors. Having the least standard deviation of 0.085 implies that the board independence variable is quite stable and predictable.

In terms of the VIF, the results reveal that both the independent variable and the control variables do not seem to exhibit multicollinearity since none of them has a score of 10. It can be observed that the variable with the highest VIF score is firm size, having 3.742.

4.2 Correlation Analysis

Correlation analysis is conducted as alternative to the VIF to detect the presence of multicollinearity in the dataset. The results showing the correlation coefficient estimates for both dependent and independent variables are reported in Table 4.2. The statistical probabilities for the estimates are shown in parenthesis with asterisks.

Table 4.2: Correlation analysis

Variable	1	2	3	4	5	6	7
1. ROA	1.000 -----						
2. ROE	0.658 (0.000) ***	1.000 -----					
3. IFRS	0.395 (0.001) ***	0.102 (0.438)	1.000 -----				
4. FS	0.277 (0.032) **	-0.036 (0.782)	0.321 (0.012) **	1.000 -----			
5. AGE	0.374 (0.003) ***	0.225 (0.083) *	0.405 (0.001) ***	0.066 (0.618)	1.000 -----		
6. BI	0.062 (0.636)	0.208 (0.111)	-0.126 (0.338)	-0.265 (0.040) **	-0.019 (0.885)	1.000 -----	
7. AQ	0.100 (0.443)	-0.045 (0.730)	0.323 (0.011) **	0.466 (0.000) ***	0.525 (0.000) ***	0.312 (0.015) **	1.000

Source: Author's estimation from Eviews 9, (2023). Notes: ***, ** and * for $p < 0.01$,

$p < 0.05$ and $p < 0.1$ respectively

The correlation estimates generally show the absence of multicollinearity among the variables of the study. This is because the correlation estimates between the independent variable (IFRS) and each of the control variable are very low. For example, the estimate for IFRS and firm size stays positive and significant at 5% ($r = 0.321$, $p < 0.05$), while the estimate for IFRS and firm age is also positive and significant ($r = 0.405$, $p < 0.01$). Similarly, the coefficient defining the correlation between IFRS and audit quality is significantly positive ($r = 0.323$, $p < 0.05$). Further, between IFRS and the dependent variables, the correlations are positive, but only the estimate connecting IFRS and ROA is statistically significant ($r = 0.395$, $p < 0.01$). Lastly, among the control variables, the results additionally reveal that the correlation estimates are very low, with the biggest estimate being 0.525 for audit quality and board independence. Therefore, based on the results from the VIF scores and the correlation estimates, this study concludes that the dataset does not pose threat of multicollinearity.

4.3 Hausman Test Results

This study carries out Hausman test to determine the suitability of fixed effect or over random effect model for the dataset. The results extracted from the test presented in Table 4.3 suggest that the leading hypothesis cannot be accepted but that of the supporting one. This is because the probabilities for the chi-square statistic for each model is less than the 5% limit. This implies that the fixed effect versions of the two models are better than their random effect counterparts.

Table 4.3: Hausman test output

Models	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
ROA model	10.975706	5	0.0000
ROE model	18.106957	5	0.0060

Source: Author's estimation from Eviews 9 (2023)

4.4 Effect of IFRS on Banks' Financial Performance

The overall aim of this study is to investigate the effect of IFRS adoption on banks' financial performance. Measuring financial performance using ROA and ROE, two separate panel fixed effect models are estimated for each of the two specific objectives. The results are presented and explained in the following sub-sections.

4.4.1 Effect of IFRS on Banks' Return on Assets

The first objective of this study seeks to examine the effect of IFRS adoption on banks' return on assets. The panel regression results based on the fixed effect modeling are presented in Table 4.4.

Table 4.4: Fixed effect model output for IFRS effect on ROA

Variable	Coefficient t	Std. Error	t-Stat	Prob.
Constant	-0.310230	1.192587	-0.260132	0.7958
IFRS	1.154251	0.566198	2.038601	0.0464**
LnFirm Size	0.127621	0.068908	1.852036	0.0687*
LnFirm Age	0.127408	0.050830	2.506577	0.0152**
LnBoard independence	0.016005	0.006768	2.364712	0.0217**
Audit quality	0.125118	0.063638	1.966083	0.0544*

Source: Author's estimation from Eviews 9, (2023). Notes: ** and * for $p < 0.05$ and

$p < 0.1$ respectively

From the results, IFRS has a positive significant effect on ROA, given its coefficient of 1.154251 and a corresponding 5% probability of 0.0464. These statistics suggest that as adoption and implementation of the IFRS framework intensifies, banks benefit through improved financial performance. These results particularly show that in the presence of independent control variables, IFRS has the strongest influence on ROA having the leading coefficient among the variables in the model. By implication, the results can be interpreted to indicate that implementation of the IFRS seems to encourage banks to report growth in ROA numbers in their financial statements.

The finding of a positive significant effect of IFRS adoption on ROA is consistent with research findings of earlier scholars. For example, this study's results corroborate Agyei-Boapeah et al (2019) who finds that IFRS implementation positively enhances the value of selected companies in Africa. Likewise, this study's outcome supports Ramli (2018) who finds that IFRS contributes significantly towards growing return on banks' asset in Indonesia, just as the results are comparable to Akinleye's (2017) positive impacts on ROA of Nigerian banks. This study's outcomes however depart from the empirical results of some studies such as Yeboah and Takacs (2018), Ekwe et al (2020) and Chuks (2020). Each of these studies show that IFRS does not engender improvement in banks' ROA.

On the part of the control variables, the regression results reveal that firm-level characteristics such as firm size and age significantly contribute towards banks' financial performance. This is because firm size, measured by asset size, has a statistically significant positive effect on the selected banks' ROA. The coefficient of firm size stands at 0.127621 with 10% probability of 0.0687, indicating that, all things being equal, large firms are able to increase returns on assets compared to small firms. Similarly, firm age possesses positive significant impact on banks' ROA, after achieving a coefficient of 0.127408 at a 5% significant probability of 0.0152. This means that how long banks have been operating has direct impact on their financial performance.

Corporate governance control variables also exhibit statistically relevant impacts on banks' financial performance. For example, the results indicate that board independence significantly determines variations in ROA of the selected banks, having

obtained a coefficient of 0.016005 at a-5% significant probability of 0.0217. This result is expected since a larger percentage of non-executive or external directors of corporate boards are expected to express independent, professional opinions on managerial decisions, and serve as a check on managerial arbitrariness. Audit quality equally imposes a-10% significant coefficient (0.125118) on ROA, suggesting that if the big-4 auditing firms (KPMG, Ernest and Young, Deloitte, and Pricewaterhouse Coopers) audit the books of banks, their financial performance may improve tremendously.

4.4.2 Effect of IFRS on Banks' Return on Equity

The second objective of this study examines the effect of IFRS adoption on banks financial performance proxied by return on equity. The panel fixed effect modeling results for this objective are reported in Table 4.5.

Table 4.5: Fixed effect model output for IFRS effect on ROE

Variable	Coefficient	Std. Error	t-Stat	Prob.
Constant	12.61530	6.717383	1.878009	0.0658
IFRS	5.598686	3.189173	1.755529	0.0848*
LnFirm Size	0.089644	0.044592	2.010311	0.0487**
LnFirm age	0.224441	0.286304	0.783927	0.4365
LnBoard independence	0.067198	0.038123	1.762657	0.0836*
Audit quality	0.850863	0.358451	2.373721	0.0212**

Source: Author's estimation from Eviews 9, (2023). Notes: ** and * $p < 0.05$ and $p <$

0.1 respectively

The results reported in Table 4.5 are not widely different from those recorded in Table 4.4 in the preceding section. This is because, similar to the previous section, IFRS maintains its positive significant effect on ROE, after injecting a coefficient of 5.598686 with a-10% probability value of 0.0848. This means that, assuming all other factors remain unchanged, if banks subscribe to the principles of IFRS, return on their equity enhances, thereby improving the wealth of shareholders. Whereas the results are

consistent with some prior studies (Akinleye, 2017; Ramli, 2018; Agyei-Boapeah et al., 2019), they do not support other studies (Yeboah & Takacs, 2018; Ekwe et al., 2020; Chuks, 2020). As the former studies report that IFRS significantly enhances ROE growth in the post adoption era, the latter studies find otherwise.

Furthermore, the results pertaining to the impacts of the control variables on ROE are similar to the earlier results generated from the ROA model. It can be seen that firm size and age maintain their positive influences on ROE, only that the influence of firm age is not statistically significant. Firm size has a 5% significant weight of 0.089644 at a probability value of 0.0487, while firm age's weight of 0.224441 is non-significant given the probability value of 0.4365. Again, board independence and audit quality have statistically strong impacts on ROE, just as was observed in the previous section. Board independence has a coefficient of 0.067198 at 10% probability value of 0.0836, while audit quality's coefficient stands at 0.850863 with a probability of 0.0212, which is significant at 5%.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This final chapter provides summary of findings, conclusion and recommendations. Accordingly, the chapter is divided into three sections. Section one provides summary of findings. Sections two and three provide conclusion and recommendations of the study respectively.

5.1 Summary of Findings

This study focuses on examining how adoption of the IFRS framework affects banks' financial performance in Ghana. Two main objectives define the scope of the study. The findings show that IFRS has positive significant effect on banks' ROA and ROE which suggest that IFRS regime enhances banking firms' financial performance.

The reported findings appear to substantiate the arguments inherent in the agency theory, which seemingly predict that firms adopting the IFRS are likely to experience improved financial performance. The argument is based on the positioning that IFRS sets restrictions on managerial behaviors barring management from engaging in manipulative, individual exploitative activities. In other words, proponents of the IFRS are of the opinion that adoption of this accounting standards provides theoretical redress for the competing interests between managers and firm owners. Further insights suggests that managerial incentives proposed by the theory like tying managers' remuneration to firm performance, are meant to ensure that managers have reasons to achieve outstanding financial performance. Lastly, the findings of this study corroborate the theoretical argument that firms implementing the IFRS regimes

experience bolstered book value. The practical implications of the findings are that value relevant information may be provided to stakeholders through application of the tenets of the IFRS principles -financial statements may be prepared based on internally acceptable accounting guidelines. Enforcement of IFRS principles serves as a check on managerial selfish behaviors and conflicting interests with shareholders, and in the end, firms reap enhanced financial performance.

5.2 Conclusion

The overall aim of this study is to investigate the effect of adoption of the IFRS accounting guidelines on financial performance of commercial banks in Ghana. The study adopts quasi-experimental design, and follows a quantitative approach. IFRS adoption is measured as a binary dummy variable, assigning it with a value of one (1) for the post-IFRS adoption years, and zero (0) for the pre-IFRS adoption years while quantitative data for the control variables (firm size, firm age and board independence) from 10 dominant commercial banks are taken from the yearly activity reports of the selected banks over a 13-year period for the pre-IFRS adoption years (2004 to 2006) and the post-IFRS adoption years (2008-2017).

The data collected are analyzed using panel fixed effect modeling aided by Hausman test. Findings which show statistically beneficial effects of IFRS adoption on banks' financial performance imply that the global accounting and reporting regime is a laudable initiative whose implementation should be strictly enforced. The findings imply that reporting under the IFRS system signifies that banks' assets are better utilized and that shareholders' wealth gets improved under the IFRS regime.

5.3 Recommendations

The study finds that banks benefit from adoption and implementation of the IFRS system through enhanced financial performance. Therefore, it is recommended that banking institutions should wholly implement the reporting principles and requirements inherent in the IFRS regime and not resort to partial implementation.

Also, given the beneficial effects of the IFRS adoption, the study recommends further that regulatory authorities should roll out stringent compliance monitoring and auditing initiatives to ensure that all banking institutions follow the IFRS requirements.

Further studies may want to apply dynamic panel models to test the effect of IFRS adoption on banks' financial performance measures, given that this study relies on the static panel modeling for the investigations.

This study treats audit quality as a control variable. It is suggested that future studies treat audit quality as a moderating or mediating variable to examine how audit quality moderates or mediates the relationship between IFRS adoption and financial performance. This study measures financial performance using ROA and ROE, while IFRS adoption is treated as a composite construct. It is suggested that future research considers other measures of financial performance such as earnings per share and net interest margin whereas the effect of specific dimensions of the IFRS framework are explored. Relatedly, new studies focusing on the relationship between IFRS and banks' earnings management practices will let us know whether adoption of the IFRS prevents managers' earnings manipulative practices.

REFERENCES

- Abdullahi, A., Abubakar, M. and Ahmad, S.S.A., 2017. International Financial Reporting Standards (IFRS) adoption and oil & gas companies performance in Nigeria. *International Journal of Accounting and Economics Studies*, 5(2), pp.146-149.
- Aboagye-Otchere, F. and Agbeibor, J., 2012. The International Financial Reporting Standard for Small and Medium-sized Entities (IFRS for SMES): suitability for small businesses in Ghana. *Journal of Financial Reporting and Accounting*, 10(2), pp.190-214.
- Agyei-Boapeah, H., Ntim, C.G. and Fosu, S., 2019. Governance structures and the compensation of powerful corporate leaders in financial firms during M&As. *Journal of International Accounting, Auditing and Taxation*, 37, p.100285.
- Agyei-Mensah, B.K., 2016. Impact of Adopting IFRS in Ghana: Empirical Evidence. In *Economics and Political Implications of International Financial Reporting Standards* (pp. 191-230). IGI Global.
- Agyei-Mensah, B.K., 2016. Internal control information disclosure and corporate governance: evidence from an emerging market. *Corporate Governance: The international journal of business in society*, 16(1), pp.79-95.
- Akingunola, R. O., Olowofela, E.O. and Yunusa, L., 2018. Impact of microfinance banks on micro and small enterprises in Ogun State, Nigeria. *Binus Business Review*, 9(2), pp.163-169.
- Akinleye, G. T., 2016. Effect of international financial reporting standards (IFRS) adoption on the performance of money deposit banks in Nigeria. *European Journal of Business, Economics and Accountancy*, 4(4), pp.87-95.
- Akolor, M., 2019. *Effect of International Financial Reporting Standards on Earnings Management: Evidence from Ghana* (Doctoral dissertation).
- Alhassan, A. L., Tetteh, M.L. and Brobbey, F.O., 2016. Market power, efficiency and bank profitability: evidence from Ghana. *Economic Change and Restructuring*, 49, pp.71-93.
- Al-Matari, E. M., Al-Swidi, A. K. and Fadzil, F. H., 2014. The effect of board of directors characteristics, audit committee characteristics and executive committee characteristics on firm performance in Oman: An empirical study. *Asian Social Science*, 10(11), pp.149-171.
- Al-Matari, E. M., Al-Swidi, A. K. and Fadzil, F.H.B., 2014. The measurements of firm performance's dimensions. *Asian Journal of Finance & Accounting*, 6(1), p.24.
- Amankwa, R.F., Mawutor, J.K.M. and Yiadom, E.B., 2020. A Panel Examination of IFRS Adoption and Financial Statement Quality: Evidence from Selected Firms in Ghana. *International Journal of Accounting & Finance Review*, 5(2), pp.45-53.

- Amissah, E., Hammond, P. and Djimatey, R., 2020. The effects of international financial reporting standards on reporting quality of financial institutions in Ghana. *International Journal of Accounting and Financial Reporting*, 10(2), pp.94-118.
- Amoako, N., Asante, K.P., Adjei, G., Awandare, G.A., Bimi, L. and Owusu-Agyei, S., 2014. Associations between red cell polymorphisms and Plasmodium falciparum infection in the middle belt of Ghana. *PloS one*, 9(12), p.e112868.
- Appiah-Kubi, P. and Annan, E., 2020. A review of a collaborative online international learning. *International Journal of Engineering Pedagogy*, 10(1).
- Atsunyo, W. and Marfo-Yiadom, E., 2014. Compliance with international financial reporting standards by listed companies in Ghana.
- Babatunde, D.A., 2022. International Financial Reporting Standards (Ifs) And Financial Performance Of Selected Money Deposit Banks In Nigeria. *Annals Of Spiru Haret University. Economic Series*, 22(2), Pp.131-147.
- Baltagi, B.H., Bratberg, E. and Holmås, T.H., 2005. A panel data study of physicians' labor supply: the case of Norway. *Health Economics*, 14(10), pp.1035-1045.
- Barth, M., Godemann, J., Rieckmann, M. and Stoltenberg, U., 2007. Developing key competencies for sustainable development in higher education. *International Journal of sustainability in higher education*, 8(4), pp.416-430.
- Barth, M.E., Landsman, W.R., Lang, M. and Williams, C., 2007. Accounting quality: International accounting standards and US GAAP. *Manuscript, Stanford University*.
- Bhuiyan, M.B.U., Salma, U., Roudaki, J. and Tavite, S., 2020. Financial reporting quality, audit fees and risk committees. *Asian Review of Accounting*, 28(3), pp.423-444.
- Big-Alabo, M. and Ofurum, C.O., IFRS Adoption and Financial Performance Indicators of Quoted Conglomerates Firms in Nigeria.
- Big-Alabo, M. and Ofurum, C.O., IFRS Adoption and Financial Performance Indicators of Quoted Conglomerates Firms in Nigeria.
- Brooks, C. and Manza, J., 2008. *Why welfare states persist: The importance of public opinion in democracies*. University of Chicago Press.
- Brooks, C. and Manza, J., 2008. *Why welfare states persist: The importance of public opinion in democracies*. University of Chicago Press.
- Calomiris, C.W. and Jaremski, M., 2016. Deposit insurance: Theories and facts. *Annual review of financial economics*, 8, pp.97-120.
- Chougule, A.K., A Study on IFRS and its Impact on Selected Indian Companies.

- Egbunike, A.P. and Okoro, G.E., 2018. Does green accounting matter to the profitability of firms? A canonical assessment. *Ekonomski horizonti*, 20(1), pp.17-26.
- Ekwe, A. C., Opara, A.I., Okeugo, C.G., Azuoko, G.B., Nkitnam, E.E., Abraham, E.M., Chukwu, C.G. and Mbaeyi, G., 2020. Determination of aquifer parameters from geosounding data in parts of Afikpo Sub-basin, southeastern Nigeria. *Arabian Journal of Geosciences*, 13, pp.1-15.
- Ekwe, M.C., Abaa, E.O. and Okroolor, J.A., 2020. Adoption of International Financial Reporting Standards and financial performance of listed deposit money banks in Nigeria. *Corporate governance*.
- Elosiuba, J.N. and Okoye, E.I., 2018. Effects of International Financial Reporting Standards on corporate performance of selected banks listed on Nigeria Stock Exchange. *ELOSIUBA, JN & OKOYE, EI (2018). Effects of International Financial Reporting Standards on Corporate Performance of Selected Banks Listed on Nigeria Stock Exchange. Annals of Spiru Haret University Economic Series*, 19(1).
- Essien, A.J., 2018. The mechanical invariance factor in musical acoustics and perception (Revisited). *American Journal of Modern Physics*, 7(1), pp.1-13.
- Ganguli, S.K. and Agrawal, S., 2009. Ownership structure and firm performance: An empirical study on listed mid-cap Indian companies. *IUP Journal of Applied Finance*, 15(12).
- Hall, B.H. and Oriani, R., 2006. Does the market value R&D investment by European firms? Evidence from a panel of manufacturing firms in France, Germany, and Italy. *International Journal of Industrial Organization*, 24(5), pp.971-993.
- Hutchinson, M. and Gul, F.A., 2004. Investment opportunity set, corporate governance practices and firm performance. *Journal of corporate finance*, 10(4), pp.595-614.
- Ibanichuka, E.A.L. and Asukwo, I.S., 2018. International financial reporting standards adoption and financial performance of petroleum marketing entities in Nigeria. *International Journal of Advanced Academic Research, Accounting and Economic Development*, 4(2), pp.1-15.
- Ironkwe, U.I. and Oglekwu, M., 2016. International financial reporting standards (IFRSs) and corporate performance of listed companies in Nigeria. *International Journal of Banking and Finance Research*, 2(3), pp.1-13.
- Jermakowicz, E.K. and Gornik-Tomaszewski, S., 2006. Implementing IFRS from the perspective of EU publicly traded companies. *Journal of international accounting, auditing and taxation*, 15(2), pp.170-196.
- Jinadu, O., Oluwafemi, S., Soyinka, M. and Akanfe, K., 2017. Effects of international financial reporting standards (IFRS) on financial statements comparability of companies. *Journal of Humanities Insights*, 1(01), pp.12-16.

- Kajola, S.O., Alao, A., Sanyaolu, W.A. and Ojuronbe, O.J., 2019. Effect of liquidity and leverage on financial performance of Nigerian listed consumer goods firms. *The journal Contemporary Economy*, 4(3), pp.91-102.
- Kapopoulos, P. and Lazaretou, S., 2007. Corporate ownership structure and firm performance: evidence from Greek firms. *Corporate Governance: An International Review*, 15(2), pp.144-158.
- Kim, Y., Choi, T.Y., Yan, T. and Dooley, K., 2011. Structural investigation of supply networks: A social network analysis approach. *Journal of operations management*, 29(3), pp.194-211.
- Klann, R.C. and Beuren, I.M., 2015. The impact of the international accounting convergence on income smoothing in brazilian companies. *Brazilian Business Review*, 12(2), pp.1-24.
- Kutin, E.Y., 2020. *International Financial Reporting Standards (IFRS) Adoption, Corporate Governance Practices and Earnings Management: A Case of Listed Firms in Ghana* (Doctoral dissertation, University of Cape Coast).
- Kwasau, N.A., 2021. Impact of International Financial Reporting Standards Adoption on Reporting Quality of Deposit Money Banks in Nigeria.
- Levy, Y. and Ellis, T.J., 2011. A guide for novice researchers on experimental and quasi-experimental studies in information systems research. *Interdisciplinary Journal of information, knowledge, and management*, 6, p.151.
- Mangba, S., Adefiranye, J.R.A., Yetunde, R., Ahmed, J.T., Mahinoud, A., Vincent, H.S., Clildiebere, I., Bala, A. and Samuel, A.A., 2020. Banks-Ibrahim, Kamaludeen Funsho Adisa, Aza.
- Mashayekhi, B. and Bazaz, M.S., 2008. Corporate governance and firm performance in Iran. *Journal of Contemporary Accounting & Economics*, 4(2), pp.156-172.
- Mbawuni, J. and Nimako, S.G., 2018. Muslim and non-Muslim consumers' perception towards introduction of Islamic banking in Ghana. *Journal of Islamic Accounting and Business Research*, 9(3), pp.353-377.
- Mbir, D.E.G., Agyemang, O.S., Tackie, G. and Abeka, M.J., 2020. IFRS compliance, corporate governance and financial reporting quality of GSE-listed non-financial firms. *Cogent Business & Management*, 7(1), p.1759856.
- Morris, D.W., 1987. Ecological scale and habitat use. *Ecology*, 68(2), pp.362-369.
- Nasir, Q., Qasse, I.A., Abu Talib, M. and Nassif, A.B., 2018. Performance analysis of hyperledger fabric platforms. *Security and Communication Networks*, 2018.
- Nassar, L.M., Uwuigbe, O.R., Uwuigbe, U. and Abuwa, J.T., 2014. IFRS adoption and its integration into accounting education curriculum in Nigerian Universities. *Research Journal of Finance and Accounting*, 5(22), pp.76-82.

- Neely, A., Gregory, M. and Platts, K., 2005. Performance measurement system design: A literature review and research agenda. *International journal of operations & production management*, 25(12), pp.1228-1263.
- Neely, A., Gregory, M. and Platts, K., 2005. Performance measurement system design: A literature review and research agenda. *International journal of operations & production management*, 25(12), pp.1228-1263.
- Nobes, C., 2006. The survival of international differences under IFRS: towards a research agenda. *Accounting and business research*, 36(3), pp.233-245.
- Nuhiu, A., Hoti, A. and Bektashi, M., 2017. Determinants of commercial banks profitability through analysis of financial performance indicators: evidence from Kosovo. *Business: Theory and Practice*, 18, pp.160-170.
- Nuhiu, A., Hoti, A. and Bektashi, M., 2017. Determinants of commercial banks profitability through analysis of financial performance indicators: evidence from Kosovo. *Business: Theory and Practice*, 18, pp.160-170.
- Nwaogwugwu, C. C., 2020. Effects of IFRS adoption on the financial performance and value of listed banks in Nigeria. *Journal of Finance and Accounting*, 8(4), pp.172-181.
- Nwufo, C.I. and Chima, M.I., 2021. The Effect of IFRS Adoption on Corporate Performance of Listed Firms in Nigeria. *Sciences*, 11(3), pp.1-18.
- Nwufo, C.I. and Chima, M.I., 2021. The Effect of IFRS Adoption on Corporate Performance of Listed Firms in Nigeria. *Sciences*, 11(3), pp.1-18.
- Ocansey, E.O.N.D. and Enahoro, J.A., 2012. Determinant controllability of responsibility accounting in profit planning. *Canadian social science*, 8(6), pp.91-95.
- ODO, J.O. and Isamade, B.A., 2021. Implications of accounting policies on firm performance in Nigeria. *International Journal of Advanced Research in Management and Social Sciences*, 10(9), pp.19-37.
- Olague, E.P., Jeltama, S., Gauthier, T., Jermalowicz, D., Ostaszewski, A., Batterman, S., Xia, T., Raneses, J., Kovalchick, M., Miller, S. and Acevedo, J., 2022. Landfill emissions of methane inferred from unmanned aerial vehicle and mobile ground measurements. *Atmosphere*, 13(6), p.983.
- Olayinka, E., Emoarehi, E., Jonah, A. and Ame, J., 2017. Enterprise Risk Management and Financial Performance: Evidence from Emerging Market. *International Journal of Management, Accounting & Economics*, 4(9).
- Owolabi, A. and Iyoha, F.O., 2012. Adopting international financial reporting standards (IFRS) in Africa: Benefits, prospects and challenges. *African Journal of Accounting, Auditing and Finance*, 1(1), pp.77-86.
- Ramanna, K. and Sletten, E., 2014. Network effects in countries' adoption of IFRS. *The accounting review*, 89(4), pp.1517-1543.

- Ramli, A.H., 2018. Compensation, job satisfaction and employee performance in health services. *Business and Entrepreneurial Review*, 18(2), pp.177-186.
- Ramli, I., 2018. The Relevant Value of Accounting Information on the Adoption of the IFRS in the Capital Market: Evidence in the Indonesian Banking Industry. In *State-of-the-Art Theories and Empirical Evidence: Selected Papers from the 6th International Conference on Governance, Fraud, Ethics, and Social Responsibility* (pp. 107-125). Springer Singapore.
- Rasiah, D., 2010. Review of Literature and Theories on Determinants of Commercial Bank Profitability. *Journal of Performance management*, 23(1).
- Rouf, D.M.A., 2011. The relationship between corporate governance and value of the firm in developing countries: Evidence from Bangladesh. *The International Journal of Applied Economics and Finance*, 5, pp.237-244.
- Semykina, A. and Wooldridge, J.M., 2013. Estimation of dynamic panel data models with sample selection. *Journal of Applied Econometrics*, 28(1), pp.47-61.
- Semykina, A. and Wooldridge, J.M., 2013. Estimation of dynamic panel data models with sample selection. *Journal of Applied Econometrics*, 28(1), pp.47-61.
- Shah, S. Z. A. and Hussain, Z., 2012. Impact of ownership structure on firm performance evidence from non-financial listed companies at Karachi Stock Exchange. *International Research Journal of Finance and Economics*, 84(3), pp.6-13.
- Shan, Y. G. and McIver, R. P., 2011. Corporate governance mechanisms and financial performance in China: Panel data evidence on listed non financial companies. *Asia Pacific Business Review*, 17(3), pp.301-324.
- Shapiro, S. P., 2005. Agency theory. *Annu. Rev. Sociol.*, 31, pp.263-284.
- Soderstrom, N.S. and Sun, K.J., 2007. IFRS adoption and accounting quality: a review. *European accounting review*, 16(4), pp.675-702.
- Tankó, G., 2017. Literary research article abstracts: An analysis of rhetorical moves and their linguistic realizations. *Journal of English for Academic Purposes*, 27, pp.42-55.
- Tilahun, D., 2019. *Challenges Of Deposit Mobilization In Bunna International Bank Sc Casestudy In Addis Ababa Branches* (Doctoral Dissertation, St. Mary's University).
- Trochim, W.M. and Donnelly, J.P., 2001. *Research methods knowledge base* (Vol. 2). Macmillan Publishing Company, New York: Atomic Dog Pub..
- Umobong, A.A. and Ibanichuka, E.A.L., 2017. Audit committee attributes and financial reporting quality of food and beverage firms in Nigeria. *International Journal of Innovative Social Sciences & Humanities Research*, 5(2), pp.1-13.

- Umobong, A.A. and Ibanichuka, E.A.L., 2017. Audit committee attributes and financial reporting quality of food and beverage firms in Nigeria. *International Journal of Innovative Social Sciences & Humanities Research*, 5(2), pp.1-13.
- Uwuigbe, U., Emeni, F.K., Uwuigbe, O.R. and Ataiwrehe, C.M., 2016. IFRS adoption and accounting quality: Evidence from the Nigerian banking sector. *Journal of Corporate Ownership and Control*, 9(4), pp.187-196.
- Uwuigbe, U., Uwuigbe, O. R., Durodola, M.E., Jafaru, J. and Jimoh, R., 2017. International financial reporting standard adoption and value relevance of accounting information in Nigeria. *International Journal of Economics and Financial Issues*, 7(3), pp.1-8.
- Waggoner, D.B., Neely, A.D. and Kennerley, M.P., 1999. The forces that shape organisational performance measurement systems:: An interdisciplinary review. *International journal of production economics*, 60, pp.53-60.
- Yeboah, M. and Takacs, A., 2018. The effect of IFRS adoption and corporate performance: evidence of South Africa. *WSEAS Transactions on Business and Economics*, 15, pp.475-488.
- Yetunde Mutiat, F.B., Gbolahan, B. and Olu, O., 2018. A comparative study of the wild and mutated heavy metal resistant *Klebsiella variicola* generated for cadmium bioremediation. *Bioremediation Journal*, 22(1-2), pp.28-42.

