CATHOLIC UNIVERSITY COLLEGE OF GHANA

IMPACT OF CORPORATE GOVERNANCE STANDARDS ON FINANCIAL PERFORMANCE OF RURAL BANKS IN THE BONO REGION

FRANCIS YANCHIRA

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BY

FRANCIS YANCHIRA

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DECLARATION

Candidate's Declaration

I hereby declare that this dissertation is the result of my own original research and that no part of it has been presented for another degree in this university or elsewhere.

Candidate's Signature:…… Date: ……

Name: Francis Yanchira

Supervisor's Declaration

I hereby declare that the preparation and presentation of the dissertation were supervised in accordance with the guidelines on supervision of dissertation laid down by the Catholic University College of Ghana.

Supervisor's Signature:…… Date: ……..……

Name: Mr. Isaac Appiah Amankwa

ABSTRACT

The collapse of Ghanaian banks in recent times has been blame on low compliance with Corporate Governance Standards. This study examined the compliance level of rural banks with the Corporate Governance Standards. It again assessed the distress levels of rural banks in the Bono Region; and finally, analyzed the impact of Corporate Governance Standards on financial performance of rural banks in the Bono Region. Secondary data was obtained from banks' annual financial statements. Banks' financial performance was measured using both Return on Asset (ROA) and Return on Equity (ROE). The Altman's Z-Score was also used to examine their distress levels. Primary data was collected from fifty-five (55) randomly selected board members across all the eleven rural banks, using questionnaires to assess their level of compliance. All data collected covered five years (2015-2019). STATA Software was used to perform Fixed Effect and Random Effect Estimation while the Hausman Test was used to choose the Random Effect Estimation. The results showed that rural banks in the Bono Region complied with the Corporate Governance Standards at acceptable levels. Generally, rural banks in the Bono Region were found unlikely to be financially distressed. It was also revealed that compliance with Corporate Governance Standards had significant positive impact on both Return on Asset and Return on Equity, hence confirming the Alternate hypothesis of the study. It is recommended to the Bank of Ghana to intensify its supervisory roles over rural banks especially those in the Bono Region. It is also suggested that a further study be done on the effect of corporate governance on the performance of commercial banks in Ghana.

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DEDICATION

This work is dedicated to my fiancée, Ms Mavis Kyeremaa.

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LIST OF ACRONYMS

BOD	Board of Directors
BOG	Bank of Ghana
CEO	Chief Executive Officer
CGI	Corporate Governance Index
CGS	Corporate Governance Standards
FE	Fixed Effect Estimation
NED	Non-Executive Director
OECD	Organization for Economic Coorperation and Development
PWC	PriceWaterhouseCoopers
RCB	Rural and Community Bank
ROA	Return On Asset
RE	Random Effect Estimation
ROE	Return On Equity
SEC	Securities and Exchange Commission
UK	United Kingdom
USA	United State of America

CHAPTER ONE

INTRODUCTION

Background of the Study

Since 1963, the concept of providing credit facilities to the people in rural areas for economic growth and development has been a problem for policy makers (Kumah & Agbogah, 2001). In 1964, the Rural Scheme of Bank of Ghana was formed with the aim to solve rural people's problem of credit insufficiency. The plan was to investigate the problems involved in small scale businesses, agriculture and cottage industrial activities. It was later discovered by the government that the rural folks did not get the needed aid from the scheme which meant that the system was not helping them to accomplish their aims. This resulted in the formation of rural banks to provide credit facilities to support the rural people in the country (Kumah & Agbogah, 2001; Awunyo-Victor, 2012).

In 1976, rural banks were founded in the country, with the aim of offering fiscal intermediary in the country's rural centers to stimulate accelerated growth of the economy and to enhance the living standards of most people in the rural centres (Awunyo-Victor, 2012). As at the end of 2019, information from ARB Apex Bank showed that, there were One Hundred and Thirty-Five (135) licensed Rural and Community Banks in Ghana which are owned and managed locally.

In the 1980s and 90s, main push for improved corporate governance practices occurred in the UK when corporations such as Barings Bank, Polly Peck International, Commerce and Industry, and Bank of Credit collapsed out of the blue and it was revealed that for all of them, there had been weak internal

controls and irregularities of financial reporting. The Cadbury Committee was established to investigate the financial facets of corporate governance because of the fact that there were high suspicions of "window dressing" of accounts by companies. Other reports like the Higgs, Turnbull and Hampel reports were put together and polished to become the UK Combined Code (Arthur, 2015).

The issue of corporate governance got serious attention around the world at the beginning of the 21st century after some company collapses and scandals like the Lehman Brothers, WorldCom, Tyco and Enron incidents which were attributed to practices of poor governance. Several and enormous accounting and fiscal scandals messed up world business and commercial markets (Brick et al., 2006; Oteng-Abayie et al., 2018)

In Ghana, the Securities and Exchange Commission (SEC) published the Corporate Governance Guidelines on Best Practices. In Ghana, corporate governance guidelines were introduced to address issues of corporate governance consistent with their obligation to promote financial stability and sustainable economic growth. It is expected that all the principles and rules enclosed in these guidelines will aid enhance the financial and operational performance of companies (banks), and consequently the wealth created for their stakeholders.

Statement of the Problem

Since 2017, the Bank of Ghana has cracked the whip at the banking sector in the bid to restore sanity in the industry. In August 2017, the UT and Capital Banks were liquidated by the Bank of Ghana. Moreover, by 4th January, 2019, seven local banks namely: UniBank, Royal Bank, Beige Bank, Sovereign

Bank, Construction Bank, Heritage Bank and Premium Bank had been joined together to form the 'Consolidated Bank of Ghana' (Bank of Ghana, 2019).

Rural banks were not also spared. Nineteen (19) rural banks were recognized as 'mediocre' banks, while 15 others were branded as 'distressed' (ARB Apex Bank, 2017). Again, by November 2018, twenty-six (26) rural banks were described by the ARB Apex Bank as struggling with capital adequacy and liquidity. (ARB Apex Bank, 2018).

The Bank of Ghana's statement on the closure and consolidation of the banks cited among other factors, weak Corporate Governance as the major cause of the crises.

Moreover, previous study by Opoku-Debra et al. (2012) on the effectiveness of corporate governance in the rural banking industry, using Atwima Kwawoma Rural Bank Ltd as a case, revealed from that poor performance of the rural banks was due to lack of effective corporate governance practices. All the above observations suggest that, there is a link between corporate governance and the financial performance of banks.

Given the contribution of rural banks to the government and the indigenous folks, it is imperative that the sustainability of their operations and safety of depositors' funds are guaranteed for all stakeholders, hence the need to find out how corporate governance standards impact on their financial performance.

Purpose of the Study

Generally, the purpose of the study is to analyze the impact of Corporate Governance Standards on the financial performance of Rural Banks in the Bono Region of Ghana.

Research Objectives

The specific objectives of the study are:

1. To ascertain the level of compliance to the Corporate Governance Standards by Rural Banks in the Bono Region.
2. To assess the financial distress levels of rural banks in the Bono Region.
3. To analyze the influence of Corporate Governance Standards on financial performance of Rural Banks in the Bono Region.

Research Questions

In order to achieve the objectives of this study the researcher sought to gather data, analyze and find answers to the following questions.

1. To what extent do Rural Banks in the Bono Region comply with the Corporate Governance Standards?
2. What are the financial distress levels of rural banks in the Bono Region?
3. What influence does Corporate Governance Standards have on the financial performance of Rural Banks in the Bono Region?

Hypothesis

H_0: Compliance to corporate governance standards has no influence on the financial performance of rural banks in the Bono Region.

H_1: Compliance to corporate governance standards has influence on the financial performance of rural banks in the Bono Region.

Significance of the Study

Over the past years, the Ghanaian rural banking sector has been very vibrant. There have been expansions in the number of rural banks in addition to launching new products and services. The rural banks play essential roles by contributing considerably to the Ghanaian economy. It is extremely crucial that

the operations of rural banks are controlled and directed in a way that increases the degree of accountability to all stakeholders.

A research on the impact of corporate governance standards on the financial performance of rural banks is extremely necessary, as it could be a source of information to rural banks in the Bono Region and the world at large, especially for various stakeholders in the Banking industry.

To academicians, this research will add to the body of literature on corporate governance and rural banking. This study, gives further details on a lot of relevant governance issues fundamental to the understanding of corporate governance in the rural banking industry particularly regarding, how board of directors are composed and structured in stimulating the effectiveness of corporate governance in rural banks among others. The researcher uses current data from secondary sources and conclusions drawn from the study could add to the body of knowledge to stimulate further research in the field of study.

Moreover, the readers of the findings and conclusions of this research, especially the rural folks and other stakeholders of rural banks can rely on them (the finding and conclusions) as guide to assessing the performance and the perpetual survival of the organizations under study and other rural banks in Ghana.

Scope of the Study

The study sought to assess the impact of corporate governance standards on the financial performance of rural banks in the Bono Region of Ghana. The researcher gathered data from all the eleven rural banks which operated in the Bono region during the period under review. A scorecard of major corporate governance standards from the securities and exchange commission of Ghana

(SEC) 2010, and the Bank of Ghana Corporate Governance Guidelines, 2018 were used for the purpose of this assessment. The scorecard measures various corporate governance standards, which are summarized into the following areas:

- Business strategy
- Board qualification and composition
- Board size and structure
- Directors Independence
- Board Secretary
- Separation of powers
- Other engagement of Directors
- Board Sub-Committees

Moreover, the financial performance of rural banks was measured using some key financial indicators such as the:

- Altman's Z-Score.
- Return on Asset (ROA)
- Return on Equity (ROE)

Limitations of the Study

The researcher gathered primary data from respondents using close ended questionnaires designed with some predetermined variables. The questionnaires failed to give allowance for respondents' views or comments outside the predetermined questions and optional responses provided.

Also, there are about one hundred and thirty-five registered rural banks in Ghana with board members spread across all the sixteen regions. The sample of eleven rural banks with five respondents from each bank, restricted to only

Bono region is not true representative for generalization. The findings may not be reliable enough for decision making.

Delimitations of the Study

The study covered rural banks in the Bono Region. This is because the region has a good number of rural banks. The region also dominates production of arable crops in Ghana. Most of the farmers dwell in the rural areas and they save their money in rural banks as well. Therefore, the rural banks need to exhibit higher levels of accountability.

Notwithstanding, the study did not cover any rural bank which is outside the Bono region. However, Bono region is also dominated by other financial institutions such as savings and loan, as well credit unions which are equally making impact on the lives of the rural dwellers. The study was only limited to the rural banks leaving the credit unions and savings and loans firms.

Again, the study focused on measuring performance based on only financial indicators but there are other non-financial performance indicators which could be used to measure the performance of rural banks. Financial records could be manipulated by management through income smoothing techniques.

Organization of the Study

The chapters in this study are organized as follows: Chapter one, comprises the introduction to the research, background information, problem statement, purpose of the study, research questions, objectives of the study, significance of the study, and limitations as well as delimitation of the study. Chapter two fundamentally comprises the conceptual, theoretical and empirical review related to corporate governance. Chapter three presents comprehensive

depiction of methods which was used in the study which involves: the research design, study population, sampling techniques, sample size, techniques and tools for data collection, data analysis well as ethical consideration. Chapter four presents analysis and discussion of results. Finally, chapter five makes conclusions and recommendations of the study.

CHAPTER TWO

LITERATURE REVIEW

Introduction

Literature related to corporate governance and banking is reviewed in this chapter. The literature basically comprises concepts of corporate governance, theories related to corporate governance, as well as empirical studies of previous research on corporate governance and performance of rural banks in Ghana and the world as a whole. The theories discussed in this study include Stakeholder Theory, Agency Theory, Stewardship Theory, and Resource Dependence Theory. Return on Assets, Return on Equity and Altman Z-Score comprised the financial performance indicators. Moreover, the study reviewed literature on corporate governance standards such as Board Size, Board Qualification and Composition, Board Sub-Committees, Audit Committee, Remuneration Committee, Nominations Committees and Risk Committee

Definition of Corporate Governance

Corporate governance has been defined by various bodies and authors. Cadbury (1992) defined corporate governance as means by which organisations are controlled and directed. The Cadbury Committee in UK further mentioned that organisations' directors are responsible for the proper leadership and control of those establishments. Corporate governance denotes the means by which firms are managed (International Federation of Accountants, 2001; Adnan et al., 2011), Corporate governance is supported by the principles of accountability, integrity and openness (Rao & Desta, 2016). It involves set of laws, policies, customs, processes, and institutions having an effect on the

manner in which a company is controlled, administered or directed (Chhikara, 2001). Corporate governance performs shareholders, and other stakeholders' needs, by controlling and directing management activities towards good business practices, integrity and objectivity so as to fulfil the company's objectives (Adnan et al., 2011). Good corporate governance is progressively recognized as an important driver of long-term investment and has become an important subject in financial circles. Such governance has become indispensable for any business serious about improving its performance (Oteng-Abayie et al., 2018). In governance, the responsibility of shareholders is to engage the appropriate people to the board and to make certain that the governance structure which has been set up is sufficient and fitting (Rao & Desta, 2016).

Given the responsibility of controlling and directing corporations and carrying out corporate governance system, the directors are looked forward to proficiently carry out the following general roles as provided by the framework of corporate governance: succession planning comprising training, appointing and replacement of senior management; risk detection and executing schemes to manage, comprising internal control systems; supervising the management and the business conduct; making sure the strategic guidance of the corporate body is in consistent with its business goals; as well as maintaining the corporate body's communications and information distribution policy (Fidanoski et al., 2014).

According to the Organization for Economic Corporation and Development (OECD, 2001), Corporate governance refers to the private and public institutions, including laws, regulations and accepted business practices,

which together govern the relationship, in a market economy, between corporate managers and entrepreneurs (corporate insiders) on one hand, and those who invest resources in corporations on the other hand.

From the definitions, above certain terms and principles run through. All the above definitions highlighted that corporate governance implies how firms are controlled, directed and managed with laws, policies, customs, and processes, supported by the principles of accountability, integrity and openness. For the purpose of this study corporate governance could be defined as the set of processes, policies, laws, and institutions affecting the way in which an entity is directed, administered or controlled, to ensure constant growth and the perpetuity of the business entity. It involves all best practices to be adopted by various organizations to ensure efficient and effective management of the business entities in the interest of owners or shareholders and other stakeholders, thereby achieving the overall goal of the organization.

Corporate governance compliance will be measured based on various corporate governance standards as outlined by the Securities and Exchange Commission of Ghana in 2010 and the bank of Ghana Corporate Governance Guidelines 2018. These standards include: Business Strategy, Board Qualification and Composition, Board Size and Structure, Directors' Independence, Board Secretary, Separation of Powers, Board Sub-Committees and Other Engagement of Directors,

Corporate Governance and Regulatory Bodies of Rural Banks

Formerly, corporate governance scheme was primarily a Rational Western Model suggested by the World Bank and accepted and executed by the Central Bank of Ghana. Under this model, corporate governance was

anticipated to be maintained internally through the Board of Directors and externally through regulatory agencies (ARB Apex Bank, 2018).

The ARB Apex Bank was given banking license in 2001 by the Central Bank of Ghana, and started commercial operations in 2002. It was assigned to offer specialized services crucial to enhancing the scope and quality of services provided by Community and Rural Banks, and also to carry out essential supervisory roles assigned by the Central Bank of Ghana, on a fee basis. The other roles comprise: audit, training and inspection, information and communication technology, international and domestic money transfers, loan fund mobilization, treasury management, specie supply, and clearing of checks. The ARB Apex Bank represents the Association of Rural Banks and serves as the central bank of all Rural and Community Banks (RCBs) in Ghana. The ARB Apex Bank being the mother banks of all Rural and Community Banks is also supported in diverse ways and is being regulated by Bank of Ghana (Asiedu-Mante, 2011).

Corporate governance in financial institutions has been regulated through the provision of two major guidelines. The first is the Ghana corporate governance guidelines on the best practices, published by the Securities and Exchange Commission (SEC) in 2010. Subsequently, the Bank of Ghana, in December 2018 released the new Corporate Governance Directive, to regulate management of Banks, Finance Houses and Financial Holding Corporations registered or licensed under Act 930. It supersedes any other corporate governance guidelines or framework which regulated the banking business, hitherto (Bank of Ghana, 2018; Oteng-Abayie et al., 2018).

Corporate Governance Theories

Several theories have been proposed to describe corporate governance. Major among them include Stewardship Theory, Stakeholder Theory, Resource Dependence Theory, and Agency Theory.

Stakeholder Theory

Stakeholders are a set of people who have the capacity to have an effect on, or can be concerned by, the actions of the firm/company in accomplishing the objectives of the firm (Freeman, 1984). Other aims aside stakeholders' wealth maximization may come up due to stakeholder group presence within the company. These groups of stakeholders, comprising lenders, clients, employees and the immediate community will have differing views on what the goals of the organisation should be. The stakeholder theory assumes the stance that the interests of different stakeholders of a company are not the same, and the company must make the attempt of fulfilling these different stakeholder's needs (Watson & Head, 2007).

According to Pinget al. (2011), the advocates of the stakeholder theory believe that the representatives of the various stakeholders on the board of companies will fulfil their claims successfully. Representatives are to perform in their respective groups interest, thus corporate governance is enhanced as the board come together to meet the demands of all stakeholders, as well as the primary aim of shareholders wealth maximisation (Ping et al., 2011).

Those who criticise stakeholder theory draw attention to the difficulty of discovering who the actual stakeholders of an organisation are and that an attempt to meet every stakeholder's demands may possibly be a way for

corruption, since it may perhaps be an only way to channel the wealth which is in for the investors in another place (Smallman, 2004).

Given that corporate governance is built on the stakeholder assumptions and principles, it is expected that organization acknowledges the various stakeholders and diverse interests they have in the firm and ensure fair representation of various stakeholders on the board in order to satisfy their expectations. It is a common knowledge that all the various stakeholders of the organisation are interested in the general performance and perpetual survival of the firm so that their various expectations are always met. Hence, the stakeholder theory supports performance of the firm.

Agency Theory

Agency theory is a theory that explains how officials employed to run the company (agents) and shareholders of the organisation (principals) within the corporate environment interact with each other (Eisenhardt, 1989). Agency theory also aims to help with finding way out to issues that can exist in the relationships between agents and principals (Investopedia, 2015).

To a large extent, this theory is rooted in the work of Berle and Means (1932). Berle and Means (1932) stated that the separation between ownership and control of big companies gives managers the chance to follow their own selfish interests before the interests of the owners. This problem faced by shareholders or owners is what is known as the agency problem. An underlying concept of the agency problem is that there is a great propensity for people to be more passionate on fulfilling their own desires and aspirations, and will be unwilling to sacrifice those personal interests for the desires of other people (Daily et al., 2003).

Some possible sources of agency problem are earnings retention, risk aversion and moral hazard. Moral hazard takes place when people engage in projects which have greater risk for the reason that the liabilities created by those undertakings are assumed by another party (Shleifer & Vishny, 1989). Choe and Yin (2004) stressed that stock-based and option-based contracts are helpful tools to minimise the problem of moral hazard.

In risk aversion, usually, managers are perceived to be risk averse, and will have a preference to take an undertaking with a lower risk and pay-off when presented with uncertainty of the after effect. Nonetheless, this risk aversion may perhaps be in conflict with some stakeholders who may possibly want to take on higher risk with the hope that they will be pay off sufficiently by getting higher returns.

Supporters of this theory determine an agreement which meets the shareholders and managers as a principal-agent relationship. Per this agreement, directors have one main objective which is to serve and fulfill the interests of the owners. Therefore, anything contrary may result in contractual relations is an agency problem (Ngoungo, 2012). According to Al Mamun et al. (2013), supporters of the agency theory trust that generally, agents may not act to the greatest advantage of their principals.

Ideally, agents (managers) are to have fiduciary relationship with the principals (board). This relationship seems not realized due to the Agency problem posed by the reluctance of the agents (managers) to work in the utmost interest of the principal (board). Since the board of directors are appointed by shareholders as their trustees are have been charged with responsibilities to ensure effective management of the firms' resources, it is important that

managers who have been appointed to act on behalf of the board are closely monitored in discharge of their (managers) duties. Thus, the existence of the board is to address the agency problem, in order to protect the shareholders' interest. This is better achieved through the enforcement and compliance to corporate governance standards. Since corporate governance provides mechanisms to address the agency problem, all things being equal it is believed that compliance to corporate governance standards will have positive impact on the performance of the organizations.

Stewardship Theory

An opposing theory to the agency theory is the stewardship theory. This theory contends that the executives or managers of a firm are stewards of the owners and both groups share common interests (Donaldson & Davis, 1991; Davis et al., 1997). Hence, the board should not be too controlling as suggested by agency theory. Shen (2003) mentioned that the board should play a supportive function by giving power to executives, in order to increase the possibility of higher performance. Stewardship theory suggests relationships between executives and board that involve shared decision making, mentoring and training (Hendry, 2002; Sundaramurphy & Lewis, 2003).

By the stewardship theory, since it is assumed that executives have common interests with the board, and the board also has common interests with the shareholders, it is believed that when good relationships is established between executives and board through shared decision making, mentoring and training as suggested by Hendry (2002) and Sundaramurphy and Lewis (2003), it could promote good governance and yield expected results. In this way it

could be said that an improved relationship through corporate governance will have positive impact on the financial performance of the organization.

Resource Dependence Theory

In resource dependency theory, the board exists as resources providers to executives so as to aid them accomplish organizational goals (Hillman *et al.*, 2000). Resource dependence theory proposes intervention by the board while encouraging strong human, monetary and intangible assistance to the executives. For instance, board members who are professionals can make use of their skills to mentor and train executives in a way that enhances organizational performance. Board members can also take advantage of their support network to get resources to the company. Resources dependence theory proposes that the largest part of the decisions should be made by the executives with the approval of the board (Hillman & Daziel, 2003).

The resource dependence theory is thus of the view that if executives are well resourced by the board, they (executives) will make good use of the resources at their disposal in the most efficient and effective manner, in the interest of the board. Corporate governance built on this assumption means that all things being equal executives are willing when resourced and empowered by the board to deliver to increase performance. For the purpose of this study therefore, it is expected that under the resource dependence theory corporate governance will have positive impact on the performance of rural banks in the Bono Region of Ghana.

Corporate Governance Standards

Corporate governance comprises the set of market and institutional standards that induce self-interested managers to increase the value of the

residual cash flows of the corporation to optimal levels in the best interests of the owners of the corporation. To have the needed effect, a governance standard should bridge the gap between the interests of shareholders and management, and must have a positive and considerable effect on corporate value and performance (Denis, 2001; Bank of Ghana 2018).

According to the "Sound Corporate Governance Standards" as contained in the part III of the Bank of Ghana Corporate Governance Directives (2018), a good number of standards are set up with the view to eventually improve the company's performance and increase wealth of shareholders. Some of the standards relevant for this study include the following:

Board Size

The ideal size for the board of a company has been talked about with researchers having varying opinions. According to Jensen (1993), the size of the board should be limited, for the reason that a large board size is probable to have a lot of inactive members (or free-riding). With the occurrence of this, the board becomes more of mere formality and less efficient in its duties as part of the management process. Nonetheless, a board size with small number of people may possibly lack diversity of experience, skills and knowledge that may aid the board to be effective. This is in line with the United Kingdom combined code states that the board should be sizable enough such that the business requirements and changes in the board would be met. According to Bank of Ghana Corporate Governance Directive (2018), the board shall have no less than five members, including the chairperson, and not more than thirteen members, with most of them being non-executive and ordinary Ghanaian resident. Again, a study by (Chang & Chingliang 2009) revealed that there is a

positive correlation between board size and financial distress. Boards with more outside directors are less likely to fall into financial distress compared to boards with less outside directors

Therefore, with respect to the board size, the board should not be too small as it will lack diversified skills required to make major decisions. It should however not be too big, since too large boards do not necessarily yield the desired results. In line with the findings of (Chang & Chingliang, 2009) which revealed that there is a positive correlation between board size and financial distress, it is the expectation of the researcher that suitable board size could positively impact on the performance of Rural Banks.

Board Qualification and Composition

Board composition denotes the manner in which non-executive and executive directors, including independent non-executive directors are represented on the board (Arthur, 2015).

According to the Bank of Ghana Corporate Governance Directives (2018), there shall be a proper balance of authority and power on the Board between the non-executive and executive directors such that no group or person shall dominate the decision-making process of the Board. Nationals of Ghana, ordinarily resident in Ghana, shall form no less than 30% of the composition of the board of a Regulated Financial Institution. Independent Directors shall form no less than 30% of the Board composition of a Regulated Financial Institution (Bank of Ghana, 2018).

Board members shall be and remain qualified, including through training, for their positions. Board members shall possess a strong understanding of their duties in corporate governance and be capable to apply

objective and sound judgment concerning the Regulated Financial Institution affairs. They shall also have, collectively and individually, fitting experience, personal qualities and competencies, including integrity and professionalism.

The Boards competencies shall be diverse to enable effective management and shall preferably cover a mix of the following areas: Corporate Governance, Strategic planning, Risk Management, Entrepreneurship, Financial Analysis, Business Administration, Information Technology, Accounting, Economics, Finance, Law and Banking. Collectively, the Board shall possess a practical knowhow and understanding of regional, local and where applicable, international economic market forces in addition to regulatory and legal environment in which the Regulated Financial Institution and its subsidiaries work (Bank of Ghana, 2018).

According to Weir & Laing (2001), executive directors' presence on the board is very crucial since they put forth their knowledge in specific fields and an enormous amount of skills to the corporation. Dalton et al. (1998) reported that the greater part of a well-functioning board should consist of non-executive directors who are required to offer better performance due to their independence from the management of the corporation.

Research carried out by Fama and Jensen (1983) underscored that non-executive directors are more inclined to defend the interest of the corporation's owners, due to the necessity to uphold their repute within the corporate circles. This assertion was supported by Weisbach (1988), who mentioned that non-executive directors are more effective at monitoring than executive directors due to their concern for preserving their reputation.

While some studies have revealed that there is a positive relation between board composition with more independent non-executive directors and firm performance (Petra, (2007) other research works have concluded that there is an inverse relationship between a high proportion of outside directors on the Board and a company's performance Weir & Laing, 2001).

Board Sub-Committees

Board committees, as part of the way in which boards are structured, play important functions by executing objective and non-biased supervisory and consultancy services to the corporation with the purpose of preserving shareholders interest (Harrison, 1987). In a lot of areas, it is now obligatory for the Boards of corporations to have committees carrying out certain fundamental roles.

The Bank of Ghana Corporate Governance Directive (2018) demands that the Board of Directors of regulated financial institutions assign committees from within its membership to be responsible for carrying out a thorough analysis of certain business-related issues before making recommendations to be acted upon by the full board as part of satisfying its supervisory duties. According to the directive, the board remains responsible for every action it takes which was informed by the work of its committees.

It is becoming generally accepted that well governed corporations should have nominations, remuneration and audit committees of the board in place to help in delivering a scheme for objective monitoring of the activities of the corporations. This will improve the degree to which the corporation remains responsible and continues to perform in the corporation's owners' best interests.

Other committees include risk committee and Ethics/compliance committee (Arthur, 2015; Bank of Ghana, 2018).

Keong (2002) reported that board committees may be rendered ineffective and useless unless their members are impartial and objective, well informed, and have accessibility to professional advice. According to Arthur (2015) therefore, an effective board committee with diversified expertise will impact positively on the general performance of the board, which could enhance the general performance of the organization.

Audit Committee*:* The Board audit committee shall be made of solely non-executive directors, most of which shall be Independent Directors. The committee members must be expert in finance, auditing and accounting and the committee shall have control of the Regulated Financial Institution's external and internal audit roles, among others as may be prescribed by the Board. The Audit Committee is among others, to appraise and supervise the effectiveness and independence of both external and internal auditors, appraise the corporation's internal financial controls and to ensure that the corporation's accounting records are correct. (Bank of Ghana Corporate Governance Directive, 2018).

Remuneration Committee: The remuneration committee should be comprised of two or more independent non-executive directors and should be given the authorities to determine the incentives and compensation level that are to be offered to the chairman and executive directors. The incentive and compensation packages given to senior management and board members must be at a level that will be pleasing enough to entice and maintain those with the required knowhow and qualification. Hence, the scheme should be such that

board and management members would be deterred from performing in their own selfish interest instead of the corporation's, and faulty board members would not be remunerated for their ineffectiveness upon their appointment termination. The remuneration committee supervise the design and process of the compensation system, and makes sure that compensation is suitable and in line with the risk strategy, long-term corporate interest and culture of the Regulated Financial Institution (Bank of Ghana Corporate Governance Directive, 2018). According to Brennan (1995) financial packages are not enough to guarantee complete harmony between the interests of the corporation's owners and hired executives.

Nominations Committees: The Nominations/human resources/governance committee suggest new members of Senior Management or the Board and to embark on valuation of Senior Management and Board. The role of the nominations committee is to evaluate the mix of independence, experience and expertise on the board, and on the basis of this valuation, reveal the competencies and responsibilities connecting to a specific appointment (Bank of Ghana Corporate Governance Directive, 2018).

Risk Committee: The Risk Committee should be in charge for advising the Board on the Regulated Financial Institution's overall future and current risk tolerance/appetite and strategy of the Regulated Financial Institution for various risks and for supervising Senior Management's execution of the risk strategy. The committee shall be led by a knowledgeable independent director who is experienced in Economics, Accounting, and Finance and Risk Management. The risk committee shall have no less than 30% of its members being Ghanaians

who are ordinarily resident in Ghana (Bank of Ghana Corporate Governance Directive, 2018).

Weir and Laing (2001) discovered that the audit committee structure had no consequence on company performance. Klein (1998) did a study on this subject and underlines that the presence of board committees had a positive relationship with firm's performance, but the relationship was weak.

On the contrary, research by Petra (2007) on board structures observed that the existence of board committees did not have any relationship with the performance of companies. The earlier findings of Weir and Laing (2001) seem to be confirmed by that of Petra (2007) because in both studies there was actually no effect of audit committee on performance of their organizations under study.

Measuring the Compliance of Corporate Governance Standards (CGS)

Compliance is defined by the Macmillan English Dictionary for Advanced learners as the practice of obeying a law, rule or request. Compliance as used in this context refers to the level of submission and observation of the Corporate Governance Standards.

Mulili and Wong (2011) reported that corporate governance in developing countries is weak, and this is attributed to the absence of professional management strategies, human resources and investor confidence, in addition to weak judicial and legal systems. In most emerging countries, there are no controls and standards for business stewardship, legitimate and administrative frameworks to make sure the commitments and rights of investors and punishments for violators.

However, Donaldson (2012) and Mande et al. (2014) stated that the issue lies in the absence of checking and usage of these principles, laws, frameworks, and controls and the selection of a suitable process for keeping the viable implementation of corporate governance. In this manner, the administrative and legitimate frameworks ought to integrate the selection of directions and guidelines, in addition to the foundation of a system for actualizing these controls and principles, and a decent level of consistency with standards and control directions.

Okpara and Kabongo (2010) mentioned that there is a lawful structure in emerging countries for successful corporate governance, nonetheless, consistency and requirement is weak or not enough. Practitioners have shown that law authorization might be more essential than the law on the part of emerging countries (Trivun & Mrgud, 2012)

According to Arthur, (2015) questionnaire in a form of scorecard was used to measure the rural banks' adherence to Corporate Governance Standard. Scorecard is a quantitative tool used to assess observance level of a standard and/or code of corporate governance. This mode of measurement was described as the most useful and effective way of assessing corporate governance practices.(Arthur, 2015).

Also, the International Finance Corporation, (2014) stated that shareholders, policy makers, directors, and market analysts might be aided by scorecards to measure the general level of corporate governance that banks had attained. Out of these scores, grading or ranking may be generated to indicate or determine a banks' position in comparison to other banks. The International Finance Corporation (2014) further stated that measuring Corporate

Governance Standards enabled banks to know their position and aids them to improve their performance through better risk management, decision making, strategy, organization, and control.

The International Finance Corporation toolkit for designing Corporate Governance scorecards proposes the following stages in designing a corporate governance scorecard:

a. Agree on broad indicator categories;
b. Choose specific indicators;
c. Set the performance scale;
d. Decide whether weightings are needed; and if so,
e. Select weightings.

Measuring the Performance of Rural Banks

In order to measure the performance of Rural Banks, it is important to identify some pre-determined variables or performance indicators. Several researchers have identified various variables for measuring the performance of financial institutions, especially banks.

Kiel and Nicholson (2013) stated that financial measures used in empirical research in corporate governance fit into two broad categories, namely accounting-based measures and market-based measures. They also identified Return on Assets (ROA) is the most commonly used accounting-based measure. Moreover, a study conducted by Baysinger and Butler (2005) identified that the most widely used accounting-based measure of performance is the Return on Equity (ROE).

Review of literature from studies conducted on the relationship between measures of a company's performance as depicted by accounting and market-

based performance indicators, and corporate governance mechanism show different results. A further review of literature on corporate governance mechanisms and performance seems to reveal a lack of consensus with respect to the dependability of one measure over the other (Dalton et al, 1998).

Return on Assets

Return on Asset is a performance measure widely used in measuring the performance of financial institutions Kiel and Nicholson 2013; Weir and Laing 2001). According to Weir and Laing (2001), ROA is calculated as net income divided by total assets and is an indicator of short-term performance. It is a measure which assesses the efficiency of assets employed (Bonn et al., 2004).

According to Epps and Cereola (2008), ROA shows investors the earnings that have been generated by funds which have been channelled into capital assets. Efficient use of an organisation's assets is best shown by rate of return on its assets. Since an entity's management is responsible for the activities of the firm and deployment of the company's assets, ROA is a measure that allows users to ascertain how well an organisation's corporate governance system is functioning so far as enhancing the level to which the entity's management is running efficiently is concerned (Epps & Cereola 2008).

Return on Assets (ROA) shows how efficient firm's management is using its assets to generate earnings (Samad and Hassan 2000). It is evaluated as:

$$ROA = \frac{Net\ Profit\ after\ Tax}{Total\ Assets}$$

In order to interpret the firm's Return on Asset, the level of performance is determined by comparing it with the industry average performance within same period, as a benchmark. The higher the Return on Asset (ROA) of a firm,

the better the performance of the firm. However, percentage below the industry average benchmark is described as weak performance, whereas the Return on Asset, above the industry average benchmark is described as desirable based on its magnitude.

Return on Equity

This is another key accounting-based measure of an entity's performance which is used in researching on corporate governance practices (Baysinger and Butler, 1985; Dehaene et al., 2010). Epps and Cereola (2008) assert that one of the principal reasons for which companies operate is to make profits which will reward its shareholders. As such, ROE is a measure which shows shareholders, as well as other stakeholders, the earnings which have resulted from the money put in by investors. It is arrived at by dividing net income by common equity.

Return on Equity (ROE) shows the profitability to stakeholders of the institution after all expenses and taxes (Van Horne & Wachowicz, 2005). It determines how much the institution is earning after tax for each money spent in the institution. It is evaluated as:

$$ROE = \frac{Net\ Profit\ after\ Tax}{Shareholders' funds}$$

In order to interpret the firm's Return on Equity, the level of performance is determined by comparing it with the industry average performance within same period, as a benchmark. The higher the Return on Equity (ROE) of a firm, the better the performance of the firm. However, percentage below the industry average benchmark is described as weak performance, whereas the Return on Equity, above the industry average benchmark is described as desirable based on its magnitude.

Popularity and Reliability of ROA and ROE

According to Rappaport (1986) and Ogindo (2006), Return on assets (ROA), along with return on equity (ROE), is one of the all-time favourites and perhaps most widely employed overall measure of corporate financial performance. This was confirmed by Monteiro (2006) who stated that ROE is perhaps the most important ratio an investor should consider. The fact that ROE represents the end result of structured financial ratio analysis, also called Du Pont analysis (Stowe et al., 2002; Firer et al., 2004) contributes towards its popularity among analysts, financial managers and shareholders alike.

Cornett et al. (1999) detects that evaluating financial statement using ratio analysis is one approach of identifying problem areas and weaknesses of firms. Ratio analysis is a commonly used tool in the estimation of financial performance. Brigham and Ehrhardt (2005) point out on analysis of financial statements; notice that financial statement analysis encompasses comparing the institution's performance with that of other institution in the same sector and appraising trends in the institution's financial position in due course. They observe that financial ratios offer a suitable tool to estimate financial statements and identify return on equity (ROE) as the principal accounting ratio.

Athanasoglou et al. (2005) in their studies used two procedures to denote firms' profitability: return on assets (ROA) and return on equity (ROE). They observed that ROA reveals the capacity of a firms' management to make profits from firm's assets. Alternatively, ROE designates the return to shareholders or owners on their equity and equals ROA multiply by the overall assets-to-equity ratio. Moreover, they noticed that firms with lower leverage (higher equity) will mostly report lower ROE, but higher ROA. They contended that since an

analysis of ROE ignores the greater risks linked with high leverage, ROA appears as the significant ratio for the estimation of firm profitability.

The authors made a vital qualification by mentioning that both ROE and ROA are quantified as running averages. This implies that in evaluating these ratios, not the end-year values are used but instead the average worth of assets (or equity) of two consecutive years, as profits are a flow variable produced in the course of the year. In the same way, the explanatory variables that will be employed in this study will be quantified as running averages instead of end-year values to indicate the fact that performance is a flow variable produced for the period of the year.

Athanasoglou et al. (2005) uses both ROA and ROE to estimate profitability. They noticed that ROA reveals the capacity of a firm's management to produce profits from firms' assets while ROE designates the return to shareholders or owners on their equity and equals ROA multiply by the overall asset-to-equity ratio. The latter is normally denoted to as the firm's equity multiplier, which quantifies leverage.

Ahmad (2011) examined the fiscal performance of some Jordanian commercial banks; he employed ROA as a criterion for measuring the banks' fiscal performance and the asset management, operational efficiency and bank size as three independent variables influencing the financial performance. The outcomes of the study revealed a strong positive correlation between ROA and asset management ratio, a negative weak correlation between ROA and operational efficiency and a strong negative correlation between ROA and banks' size.

Khizer at el. (2011) also investigated banks' profitability in Pakistan, and discovered that capital and economic growth, and asset management ratios are significant with the ROA. Asset management, economic growth and the operating efficiency are significant with the ROE. Alternatively, domestic banks are determined to have not as much capital adequacy ratio as foreign banks.

Abdus et al. (2006) assessed the inter-temporal performance of commercial banks; they categorized the study into three bank size; small, medium and large banks in the Utah State for the duration of 5 years from 2000 to 2004, by employing two criteria for measuring performance –quality of loans and profits. In order to decide whether there were significant differences in performance among the three categories of banks, they applied Kruskal-Wallis tests and T-tests to range of standard bank operations. The criteria for measuring performance employed were return on equity (ROE) and return on assets (ROA). The results of the study disclosed that, no significant difference in performance between large and small banks between the years 2000 and 2004. Nonetheless, there was a significant difference between medium and small banks, and large and medium banks in their ROA; the ROA of medium banks was significantly greater than that of large and small banks.

In Ghana, Nyarko (2008), Adusei (2008) and Sallah (2008) studied financial performance of Camelot Ghana Ltd, Selected credit unions and Ecobank Ghana Ltd respectively. The performance of these institutions was assessed in terms of capital adequacy, risk and solvency, liquidity, profitability, and the likes. The results of their studies highlighted that the institutions have sound and commendable financial status as far as their asset quality, capital

adequacy, liquidity and management capability are concerned. The studies revealed that the higher the ROA, the better the profitability or financial performance of the firms.

Measuring Distress Levels of Rural Banks

The financial distress level of Rural Banks will be determined using the Altman Z-score. This model was developed by Professor Edward Altman in the United States of America in 1967 and was published in 1968, with an updated version released in 2012. The Altman Z-Score is the output of a credit strength test that gauges firm's likelihood of bankruptcy. The Z-Score equation consists of five ratios and each ratio is given weighings. The weighings and the ratios are derived from empirical study of American Enterprises and were the ratio and weighings which best discriminated between failed and successful enterprises. The Altman Z-Score uses profitability, leverage, liquidity, solvency and activity to predict whether a firm has a high probability of becoming insolvent or not. A Z-Score below 1.8 means the firm is heading bankruptcy while a z-score of above 3 are not likely to go bankrupt.

The Altman Z-Score uses profitability, leverage, liquidity, solvency and activity ratios to predict whether a firm has a high probability of becoming insolvent or not. A Z-Score below 1.8 means the firm is heading for bankruptcy, while a z-score of above 3 means the firms are not likely to go bankrupt. It is evaluated as:

$Z = 1.2X_1 + 1.4X_2 + 3.3X_3 + 0.6X_4 + 1.0X_5$. Where,

$$X_1 = \frac{Working\ Capital}{Total\ Assets}$$

$$X_2 = \frac{Retained\ Earnings}{Total\ Assets}$$

$$X_3 = \frac{Profit\ before\ Interest\ and\ Tax}{Total\ Assets}$$

$$X_4 = \frac{Current\ Assets}{Current\ Liabilities}$$

$$X_5 = \frac{Turnover}{Total\ Assets}$$

The importance of the Altman Z-Score has been highlighted by a number of studies. A 2002 study conducted by PricewaterhouseCoopers (PwC) concluded that the Altman Z-Score remains a viable measure of financial distress. Besides the Altman Z-Score has been used to predict viability in a number of sectors such as telecommunications (Permatasari, 2006), wood industry (Muhammed, 2008), and Pharmaceuticals (Ambarsari, 2009). Fortunately, in all situations it was found that the respective industries were in distress, financial situation, which was later proven correct by further study using different measurement techniques.

Also, Odipo and Sitati (2011) concluded that the model is a powerful diagnostic tool that deals with financial health and forecast the probability of company entering into bankruptcy within a period of the next two year and measured the model's reliability of ninety-five percent (95%). According to Fich and Slezak (2008), corporate governance can have a significant effect on the probability of a troubled company to go bankrupt, given a measured extent of distress. This effect can be expressed in two ways. First of all, there are some recent cases that can be pointed out as examples of corporate governance failures; for example, the Enron and WorldCom scandals in October, 2001 provide clear evidence that financial and accounting data can be manipulated to disguise poor performance. So, corporate governance can potentially influence the accuracy of the financial and accounting disclosures used to measure the true condition of the firm.

Secondly, Fich & Slezak (2008), explained that the effectiveness of management's response to distress will likely depend upon the characteristics of the firm's governance structure. So, the likelihood of avoiding bankruptcy will also depend on the capabilities of the management to respond to a given level of distress, which in turn depends upon the firm's governance structure.

Empirical Literature of Previous Studies

The empirical literature section involves review of previous studies conducted by various researchers; their results obtained; conclusions drawn and recommendations on Corporate Governance Standards and performance of rural banks, especially in Ghana.

Performance and Distress Level of Rural Banks in Ghana

Owusu-Ansah (2017) conducted research on the financial performance of selected rural banks in the Western region of Ghana. The study used secondary data from the financial statements of ten rural banks. Through the use of ratio analysis the researcher computed three main ratios- Return on Asset, Return On Equity and Current Ratio from 2006 to 2016. Common size and trend analysis was done using Microsoft Excel. The results showed an upward trend representing a general appreciable increase in financial performance. Owusu-Ansah, 2017 however observed that the magnitude of change varied from rural banks and but the rural banks were found to be less likely to face liquidity and solvency challenges. This meant that rural banks in the western region recorded an improvement in profitability, liquidity and solvency from 2006 to 2016.

Oteng-Abayie et al. (2018) investigated Corporate Governance and efficiency of Rural and Community Banks (RCBs) in Ghana. Their study sought to examine the level of technical efficiency and productivity growth of rural and

community banks (RCBs) and the impact of corporate governance indicators on the RCBs' performance in Ghana. A sample of 70 out of 140 RCBs was selected based on the ARB apex bank's performance ratings and data availability. Data envelopment analysis (DEA) was used to determine the technical efficiency scores of the selected RCBs. The findings from the DEA approach showed that 11% to 20% of the sampled RCBs in Ghana operate close to the efficiency frontier, whereas the majority of about 65% to 81% underperformed within the years (2007 to 2013) study period. This result contradicts the earlier findings of Owusu-Ansah (2017) who discovered an increase in performance of rural banks in the western region from 2006 to 2016.

However, a more recent study was conducted by Awo, J.P and Akotey, J.O. (2019), on the financial performance of rural banks in Ghana: the generalized method of moment's approach, with the purpose of examining performance through a case-specific evaluation of a small bank situated in the northern part of Ghana. The researchers employed a triangulation method comprising relative ratio analysis, bivariate and generalized method of moments (GMM) techniques for the evaluation of the audited annual financial statements of the bank covering a period of fifteen years, from 2004 to 2018. The relative ratio analysis showed that the banks' financial performance had generally been above the average of the rural banking industry. The banks studied were described as being free from financial distress. The observations of Awo, J.P and Akotey, J.O. (2019), are similar to the previous findings of Owusu-Ansah (2017).

Impact of Compliance with Corporate Governance Standards on Financial Performance of Rural Banks

According to Bird (2007), performance refers to the ability (both physical and psychological) to execute a specific task in a specific manner that can be measured as high, medium or low in scale. The word performance can be used to describe different aspects such as societal performance, organizational performance, employee performance, and individual performance (Bird, 2007).

Al-Hussein and Johnson (2009) explored the relationship between corporate governance efficiency and Saudi banks' performance. The findings, whilst establishing a strong relationship between the efficiency of corporate governance structure and bank performance, which was explained to reflect a positive effect of corporate governance practices on performance, also concluded that the relationships between the efficiency of corporate governance structure and bank performance of government and local ownership groups are not significant.

Chalhoub (2009) also studied the relations between dimensions of corporate governance and corporate performance of Lebanese banks. The results produced a significant relationship between performance and five dimensions of corporate governance encompassing governance as daily practice: code of ethics, shareholder participation in governance, transparency, accountability, and governance literacy. Nonetheless, the study discovered insignificant association between performance and three dimensions of corporate governance, comprising: shareholder input in decisions, transparency, and governance training.

Huang (2010) studied the effects of board structure and ownership on bank performance using a sample of forty-one banks in Taiwan. Findings from the study showed that family owned shares, board size and number of outside directors are positively linked with bank performance, although the number of supervisory directors has a negative impact on performance.

Ibrahim et al. (2010) also examined the relationship between firm performance and total corporate governance. Findings revealed a significant impact of corporate governance on Return on Equity (ROE), while having an insignificant influence on Return on Asset (ROA). The authors posited that, whatever the effect is, the study conclusively shows a bond between corporate governance and firm performance.

Zubaidah et al. (2014) studied the association between board structure and corporate performance and noted that the size and composition of the board had a positive impact on firm performance. In Nigeria, Onakoya et al. (2014) used a sample of nine banks to examine the impact of board structure on banks' performance and detected that the size and structure of the board positively affect banks assets, while business governance indicator had a negative effect on bank assets.

Kyereboah-Coleman and Biekpe (2006) in Ghana discovered a significant and positive relationship between board size and firm performance but a significant and negative relationship between bank performance and non-executive directors. The corporate governance structure in Ghana has emphasized upon board size.

Opoku-Debra et al. (2012) conducted study on the effectiveness of corporate governance in the rural banking industry: A case study of Atwima

Kwawoma Rural Bank Ltd and revealed that poor performance of the rural bank was due to the non-existence of corporate governance. It is, however, not clear to what extent findings from researchers with respect to board size and performance will be applicable for the rural banking sector in Ghana.

Moreover, Gyabaah et al. (2018) conducted a study on corporate governance, firms' profitability and sustainability in rural community banks: evidence from Ghana. It was discovered that board characteristics made up of board qualification and board size showed mixed relationships with the dependent variables. Board qualification showed strong positive correlation with bank size (0.608) and average positive correlation with profitability (0.406). There was weak positive relationship between board qualification and sustainability and liquidity. The relationship between board size and all the dependent variables were negative and weak apart from liquidity, which was positive but still a weak correlation. Gyabaah et al. (2018) further revealed that 72% of changes in rural bank size are attributable to corporate governance practices. The regression confirmed that corporate governance explained bank profitability. It was discovered that 81% of variations in bank profitability (measured by ROA) is accounted for by corporate governance practices and principles. The model showed that corporate governance accounted for 35% of variations in bank sustainability.

Sackey et al. (2019) studied the impact of board structure on the performance of rural and community banks in the emerging economy context. They discovered that previous year's ROA and ROE have a positive and significant relationship with their current their board structure. They further noticed that board size was positive and significant in all the two fixed effects

regressions (ROA and ROE). Their findings denote that board size influences the firm performance of the sampled rural banks. About board diversity, Sackey et al. (2019) discovered that board diversity did not have any significant on ROA; however, board diversity had a negative and significant impact on ROE of rural banks. This shows that an increase in board diversity brings about a decrease in profitability.

Chapter Summary

Most literature concerning corporate governance revolves around big companies in Asia and thus, only little attention has been given to firms in Ghana, especially in the rural banking sector (Opoku-Debra et al., 2012; Gyabaah et al., 2018; Sackey et al., 2019). Again, a number of researchers in corporate governance have limited their studies to the relationship between board composition and company performance (Al-Shammari & Al-Sultan, 2013). While empirical literature exists on the structure and composition of banking industry globally, there is inadequate literature on this topic in Ghana, particularly in the rural banks, which usually support the rural folks (Berger et al., 2005; Bokpin, 2013; Oteng-Abayie, 2017; Gyabaah et al., 2018).

In an attempt to fill the identified gap, this study seeks to investigate the impact of Corporate Governance Standards on the financial performance of Rural Banks in the Bono Region, by assessing compliance with the corporate governance guidelines by the Bank of Ghana and assessing the financial performance of Rural Banks in the Bono Region, and examining the influence of Corporate Governance Standards on the performance of Rural Banks in the Bono Region of Ghana.

CHAPTER THREE

RESEARCH METHODS

Introduction

This section of the study describes the methods used for the research. The chapter is divided into ten (10) sections. The first and second sections depict the design and type of the research. The third section describes the study population, while the fourth section deals with sample size. The fifth section captures the research technique employed in this study, and details the sampling procedures employed in the research. The sixth section presents the data collection techniques of the study. The seventh section and eight examine corporate governance practices and banks' performance. Section nine of the research points out the data analysis procedure employed in this research. The detailed research and statistical approaches employed to address the objectives of the study is described. Ethical consideration is explained in the last section.

Research Design

The research design denotes the general approach that you choose to integrate the different parts of the research in a logical and coherent manner, to successfully deal with the study problem. It situates the framework or structure that is employed to tackle the main research problem. It comprises the blueprint for data gathering, measurement, and analysis (Mugenda & Mugenda, 2003).

Bryman (2008) underlined five research designs and it includes comparative design, experimental design, longitudinal design, cross-sectional also denoted as survey design, and case study design.

Again, Blumberg et al., (2008) identified descriptive study which is undertaken to ascertain, explain and describe characteristics of variables

associated with a subject population. Descriptive design requires researchers to gather, present and interpret information for purposes of clarification. Descriptive research involves collecting data in order to test hypotheses or answer questions regarding the participants of the study. This research is a case study of rural banks and makes use of descriptive research design.

Type of Research

Creswell (2009) differentiated between qualitative, quantitative and mixed research approaches asserting that, quantitative method is one in which the investigator mainly makes use of postpositive claims for developing knowledge (that is, cause and effect thinking, using observation and measurement, reduction to specific variables and questions and hypotheses, and testing theories), employs approaches of investigation like surveys and experiments, and gather data on predetermined instruments that yield statistical figures.

Conversely, qualitative research involves the thorough collection of descriptive perceptions, opinions, reasons and processes. Qualitative study concentrates on collecting generally verbal information rather than measurements. Collected data is later analyzed in an impressionistic, subjective, interpretative, or even diagnostic manner (Tuli, 2010). Mixed research approach combined the qualitative and quantitative research approaches.

This research employs quantitative research techniques with the aim of providing comprehensive and reliable answers to the research questions by the use of questionnaires administration.

Population

Usually, population can be of any size and is normally denoted as the target population which an investigator would like to simplify (Neuman &Vidler, 2006). The target population for this study was all the eleven (11) Rural Banks in the Bono Region of Ghana. These were: Baduman Rural Bank, Bomosadu Rural Bank, Capital Rural Bank, Drobo Community Bank, Kaaseman Rural Bank, Nafana Rural Bank, Nkoranman Rural Bank, Nkrankwanta Area Rural Bank, Nsoatreman Rural Bank, Suma Rural Bank, and Wamfie Rural Bank. The eleven banks have a total of ninety-two (92) board members, representing the total population for the study.

Sample Selection and Size

Three criteria were adopted in selecting the sample size for the study.

1. Licensed rural banks which were operating in the Bono region from 2015 to 2019
2. Licensed Rural banks in the Bono region operating from 2015 to 2019 which had their annual report available whether on their websites or at the banking hall, during the time the researcher was gathering data.
3. Random selection of board members from each rural bank.

All the eleven rural banks which operated in the Bono region during the period 2015 to 2019 could furnish the researcher with all the relevant data for the study. In each bank, five board members were randomly selected to respond to the questionnaires, giving a total sample size of fifty-five (55) respondents out of the total population of ninety-two (92) board members for all the eleven rural banks.

Data Collection

This study used primary and secondary sources of data. The financial performance of the banks was sourced from the Banks' annual reports from 2015 to 2019. Annual reports are designed to give stakeholders and investors information concerning the banks' operations and financial performance over a period in question (Arthur, 2005). Again, as a guide, scorecard questionnaires were used to gather data on the practice of Corporate Governance Standards in each bank throughout the period under review.

Data Analysis

The total scores per the questionnaires for Corporate Governance Standards are recorded in percentages for the five years (2015-2019), while the financial performance of the banks and distress levels are computed from the financial statements using accounting ratios. The results were presented in tabular and graphical forms using Ms Excel. The data were analysed using STATA Software. Both correlation and simple regression analyses were also employed to analyse and test the hypotheses. Specifically, the panel regression analysis was used.

Both Fixed effect (fe) and Random (re) models were run for Return On Asset (ROA) and Return On Equity (ROE) to find the impact of Corporate Governance Standards (CGS) on financial performance. A Hausman's test was conducted to assess whether the unique errors (ui) are correlated with the regressors or not and to assess the significance levels using the p-value. The Hausman's test helped to choose between the fixed effect and the random effect estimations.

Ethical Consideration

According to Creswell (2013), it is vital that researchers protect their study respondents, uphold the research integrity, protect against indecency and wrongdoings that may perhaps reflect on their institution or society, and deal with challenges.

Ethical practice that controls a study of this kind was applicably followed.

First of all, an introductory letter was taken from the Department of Accounting and Finance, Catholic University College of Ghana, to seek permission from the Rural Banks before the study was carried out. Moreover, consent was sought from the respondents, and their confidentiality was guaranteed. All intellectual data referred was acknowledged in reference as applicable. Copyright laws stated in the Catholic University College of Ghana guidelines for research were strictly adhered to.

CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

In this chapter, the researcher summarized the findings of this study, using tables and graphs. This chapter is divided into three main parts according to the three specific objectives of the study. The first part summarized and analyzed the data gathered on the compliance of the Corporate Governance Standards by the rural banks. The second part summarized and analyzed data on the distress level of the rural banks in the Bono Region with tables and graphs. The distress level of rural banks was measured by a Z-Score.

The third part summarized and analyzed data on the financial performance of rural banks, using the Return on Asset (ROA) and Return on Equity (ROE) as the indicators. The data was summarized using tables and graphs. The impact of Corporate Governance Standards on the performance of rural banks was assessed through regression analysis, using STATA analytical software.

After each analysis however, a detailed discussion of the results was done by comparing and contrasting the results with reviewed literature on every objective, and tried to justify the results in the context of the study.

Compliance Level with the Corporate Governance Standards by Rural Banks

One of the objectives of the study was to examine the extent at which rural banks in the Bono Region complied with the Corporate Governance Standards. Using a scorecard in the form of questionnaire to assess rural banks' compliance to the Corporate Governance Standards, a score of 5 was given for

every ‘yes’ answer; score of 2 for part; whiles a score of 0 was given for every ‘no’ answer, as demonstrated with appendix I. The average scores obtained for every year determined the measure of percentage compliance to the Corporate Governance Standards, as presented by appendix II. The results are presented in the Table 1 and illustrated graphically in the Figures 1 and 2

Table 1: Level of Compliance with the Corporate Governance Standards (CGS)

S/N	Rural Bank	2015	2016	2017	2018	2019	Average
1	Baduman	72	76	70	78	78	74.80
2	Bomosadu	64	66	62	68	70	66.00
3	Capital	50	54	60	66	64	58.80
4	Drobo	64	66	66	68	72	67.20
5	Kaaseman	70	74	76	80	82	76.40
6	Nafana	56	62	68	70	74	66.00
7	Nkoranman	60	62	74	76	80	70.40
8	Nkrankwanta	84	88	78	80	90	84.00
9	Nsoatreman	56	58	62	66	70	62.40
10	Suma	72	74	70	78	76	74.00
11	Wamfie	68	72	74	74	78	73.20
YEARLY AVERAGE		65.9	68.4	69.1	73.1	75.8	

Source: Field survey (2020)

The results presented in the Table 1 above represents the compliance level of rural banks to the Corporate Governance Standards for each of the five years under review, from 2015 to 2019. It also outlines the yearly average

compliance levels of each bank as well as the general average compliance levels of all the banks collectively. All scores are recorded in percentages.

According to the Table 4.1, in terms of the individual banks annual averages, Nkoranman had the highest score of 84% followed respectively by Kaaseman (76.40%), Baduman (74.80%), Suma (74.00%), Wamfie (73.20%), Nkoranman (70.40%), Drobo (67.20%), Bomosadu (66%), Nafana (66%), Nsoatreman (62.40%), and Capital (58.80%), in order of performance. These individual and collective annual average performances of rural banks have been depicted graphically by the Figure 1 below.

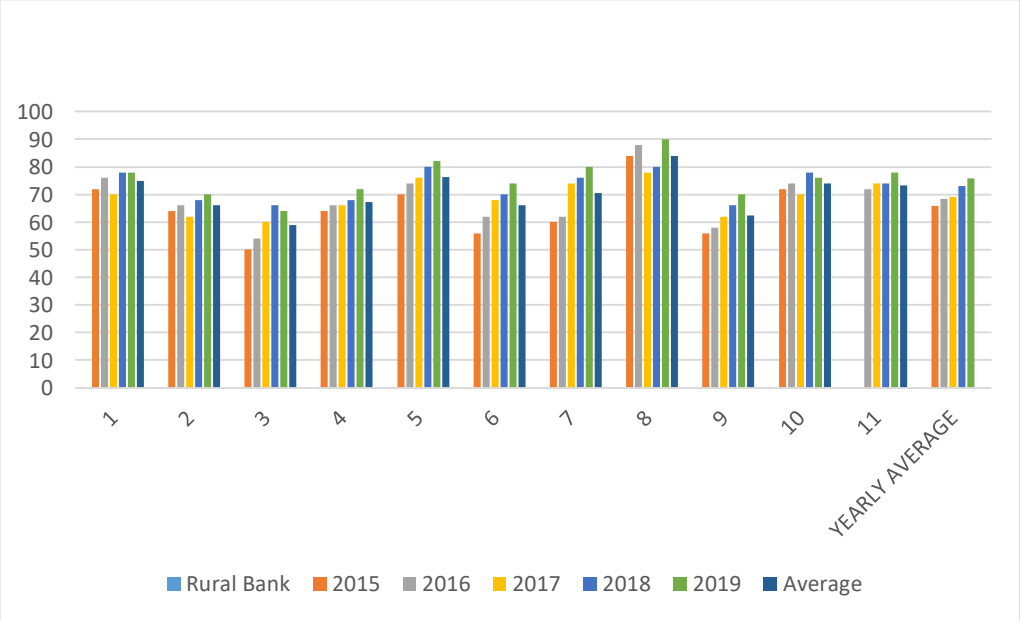

Figure 1: Individual rural bank's compliance with corporate governance standards (CGS)

Source: Field survey (2020)

While the colours represent the various years, the numbers on the x-axis represent banks as follow: Baduman (1), Bomosadu (2), Capital (3), Drobo (4), Kaaseman (5), Nafana (6), Nkoranman (7), Nkrankwanta (8), Nsoatreman (9), Suma (10), Wamfie (11)

Again, in terms of collective yearly average, banks' compliance with the Corporate Governance Standards appeared to rise marginally from 2015 (65.90%), 2016 (68.40%), 2017 (69.10%), 2018 (73.10%), and 2019 (75.8%).

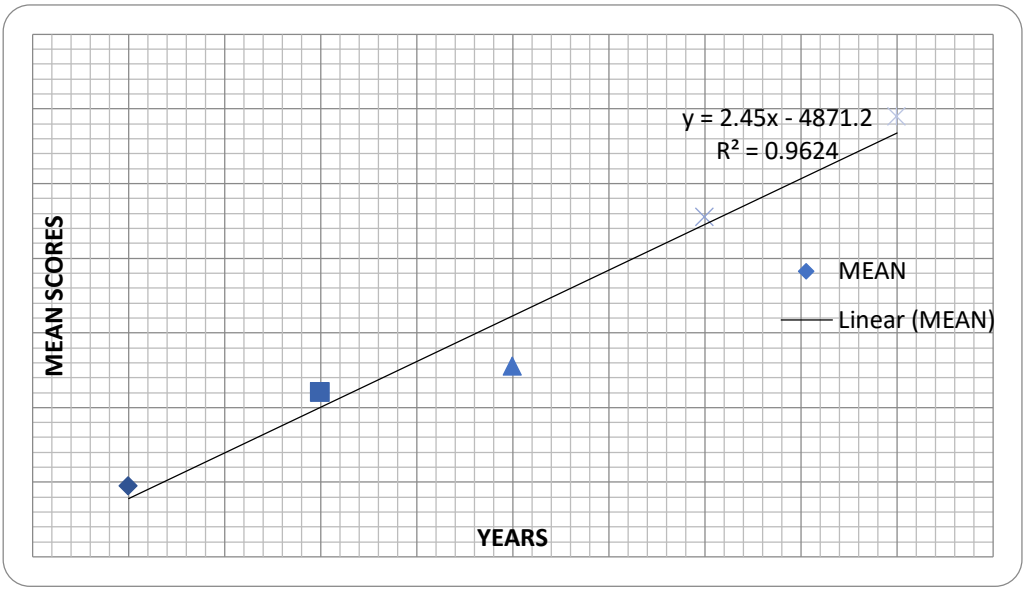

Figure 2: Trend analysis of general average compliance level of corporate governance standards

Source: Field survey (2020)

Figure 2 above shows graphically, the constant surge in the collective annual averages with 2015 recording the average minimum score of 65.90% and maximum of 75.8% in 2019. The trend appears that as years go by rural banks in the Bono region turn to intensify their effort to comply with the Corporate Governance Standards as shown in the Figure 2 above. It is apparent from the result of this study that generally rural banks in the Bono region observed the corporate governance standards to a very large extent from 2015 to 2019.

The findings in this study contradicts with the findings of Opoku-Debra et al. (2012) who conducted a study on the effectiveness of corporate governance in the rural banking industry, using the Atwima Kwawoma Rural

Bank Ltd as a case study. They concluded that poor performance of the rural banks was due to non-existence and non-compliance with corporate governance standards. This entire variation was perhaps due to the fact their findings and generalization was based solely on Atwima Kwawoma Rural Bank Ltd, as compared with this study which studied as many as eleven different rural banks. Again, the variation could also due to the differences in locations and periods, as economic conditions and corporate practices may vary with location and time.

On the contrary, Okpara and Kabongo (2010); Mulili and Wong (2011); Donaldson (2012); and Mande et al. (2014) reported that corporate governance existed in developing countries but compliance was weak, due to the absence of professional management strategies, as well as weak judicial and legal systems.

Though the earlier observations by researchers confirm the findings of this study since they all agree on the existence of corporate governance standards, to a very large extend this study disagrees with the earlier observations that there is low or no compliance to Corporate Governance Standards.

This is because the Figure 2 above shows a consistent increase in the compliance level of rural banks from 2015 to 2019. However, considering the fact that the earlier studies were conducted about six to ten year ago, it may be justifiable to state that corporate practices might have improved over the periods.

Distress Level of Rural Banks

The second objective of the study was to assess the financial distress level of rural banks in the Bono Region from 2015 to 2019. The results have

been presented in the Table 2 below and graphically illustrated in the Figures 3 and 4 below:

Table 2: Financial Distress Level of Rural Banks (Z-Score)

S/N	Rural Bank	2015	2016	2017	2018	2019	Average
1	Baduman	2.27	2.32	2.79	2.51	2.88	2.55
2	Bomosadu	2.31	2.43	2.56	2.22	2.67	2.43
3	Capital	2.77	2.93	3.16	2.91	3.11	2.97
4	Drobo	2.21	2.36	2.41	2.53	2.47	2.39
5	Kaaseman	2.51	2.58	2.69	2.94	3.18	2.78
6	Nafana	1.21	1.26	1.24	2.34	2.65	1.74
7	Nkoranman	2.11	2.32	2.46	2.50	2.28	2.33
8	Nkrankwanta	2.13	2.22	2.44	2.65	2.57	2.40
9	Nsoatreman	2.14	2.14	2.34	2.46	2.31	2.27
10	Suma	2.66	2.74	2.83	3.17	2.99	2.87
11	Wamfie	2.34	2.22	2.83	2.94	3.11	2.68
YEARLY AVERAGE		2.24	2.32	2.52	2.65	2.54	

Source: Field survey (2020)

The results presented in the Table 2 above represents the distress levels of rural banks in the Bono Region. The table shows the individual bank's score in terms of distress for each of the five years under review, from 2015 to 2019. It also outlines the yearly average distress levels of each bank as well as the general average distress levels of all the banks collectively.

According to the table, in terms of the individual banks annual averages, Capital Rural Bank had the highest score of 2.97 followed by Suma (2.87), Kaaseman (2.78), Wamfie (2.68), Baduman (2.55), Bomosadu (2.43),

Nkrankwanta (2.40), Drobo (2.39), Nkoranman (2.33), Nsoatreman (2.27) and Nafana (1.74), in order of performance. These individual annual average distress levels of rural banks have been depicted graphically by the Figure 3 below.

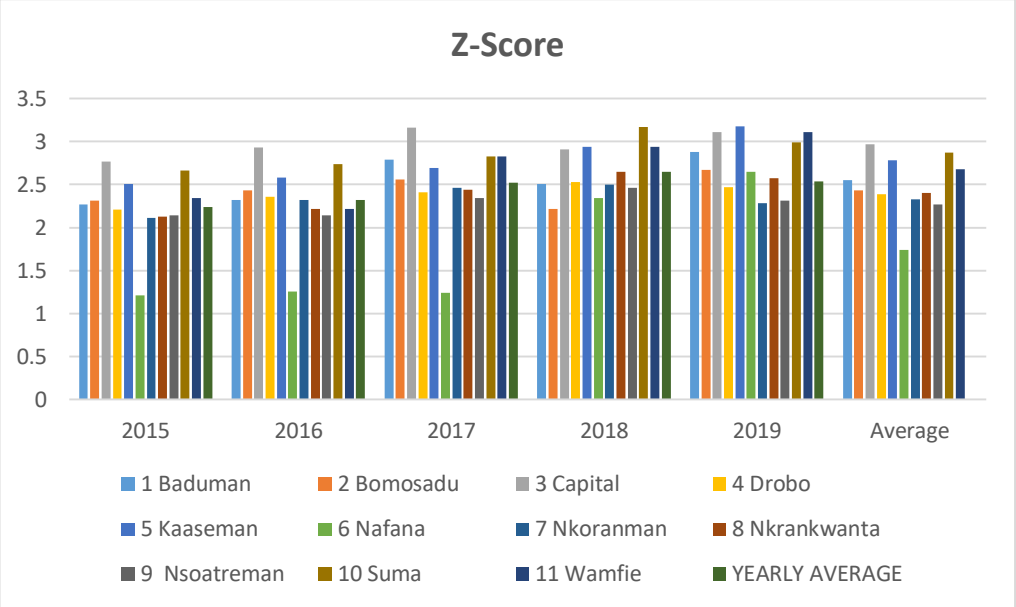

Figure 3: Annual average distress levels of individual rural banks in the bono region.

Source: Field survey (2020)

Again, in terms of collective annual averages, banks' distress levels appeared to rise marginally from 2015 (2.24), 2016 (2.32), 2017 (2.52), 2018 (2.65), and 2019 (2.54).

Figure 4 below shows graphically, the constant surge in the collective annual averages with 2015 recording the lowest and 2018 recording the highest mean. The trend appears that as years go by rural banks in the Bono region turn to put in place mechanisms to improve on their going concern, as shown in the Figure 4 below.

Figure 4: Trend analysis of general average distress level of rural banks

Source: Field survey (2020)

As shown by figure 4 above, the banks collectively recorded a general average rise in the Z-Scores through 2015, 2016, 2017, and 2018 but reduced sharply in 2019. According to Professor Edward Altman's Z-Score latest version published in 2012, A Z-Score below 1.8 means the firm is in financial distress while a Z-Score from 1.80 to 2.99 is not likely to go bankrupt, while a Z-Score of 3 and above means the firm is outside the distress zone. It could be referred from the results in Table 2 above that out of the total of eleven rural banks under study, only Nafana Rural Bank consistently low recorded annual scores within the distress zones in 2015 (1.21), 2016 (1.24), and 2017 (1.26), but fortunately showed a swift recovery as it registered the following scores: 2018 (2.34), and 2019 (2.65). In terms of general annual averages, the rural banks recorded the followingscores: 2015 (2.24), 2016 (2.32), 2017 (2.52), 2018 (2.65), and 2019 (2.54).

All data provided on the distress levels of rural banks could be referred to Appendix III below. Given the reliability and prominence of the use of the Z-

Score in predicting corporate failure, as declared by researchers in various industries such as (Permatasari, 2006 Muhammed, 2008; Ambarsari, 2009), it is evident from the data that generally rural banks in the Bono region are not financially distressed. The findings from this study regarding the financial distress levels show that all rural banks in the Bono region may be part of the nineteen (19) rural banks which were recognized by ARB Apex Bank as 'mediocre' banks, in 2017. It could however be said that none of the rural banks in the Bono region might be part of the distressed banks identified by the ARB Apex Bank in November, 2018.

Table 3: Measurement of Financial Performance-Return on Asset (ROA)

S/N	Rural Bank	2015	2016	2017	2018	2019	Average
1	Baduman	0.045	0.046	0.039	0.044	0.048	0.044
2	Bomosadu	0.032	0.033	0.029	0.035	0.036	0.033
3	Capital	0.037	0.041	0.041	0.043	0.042	0.040
4	Drobo	0.038	0.044	0.040	0.045	0.048	0.043
5	Kaaseman	0.064	0.072	0.071	0.072	0.076	0.071
6	Nafana	0.023	0.029	0.031	0.034	0.036	0.030
7	Nkoranman	0.039	0.040	0.042	0.043	0.045	0.041
8	Nkrankwanta	0.041	0.044	0.038	0.042	0.051	0.043
9	Nsoatreman	0.033	0.036	0.043	0.045	0.047	0.040
10	Suma	0.049	0.053	0.051	0.056	0.054	0.052
11	Wamfie	0.063	0.066	0.070	0.069	0.074	0.068
YEARLY AVERAGE		0.042	0.046	0.047	0.048	0.051	

Source: Field survey (2020)

Table 3 above represents a summary of data gathered on the financial performance of rural banks in the Bono Region, especially measured by their Return on Asset (ROA) from 2015 to 2019 accounting year. It shows the individual bank's average performance according to the return on asset (ROA) for the five years under review.

Again Table 3 presents the collective annual averages of the banks' Return on Asset for each of the years under study. According to the results presented in the table, generally the banks registered a consistent surge in their profitability, measured by their Return on Assets from 2015 to 2019 as follow: 2015 (0.042), 2016 (0.046), 2017 (0.47), 2018 (0.048) and 2019 (0.051).

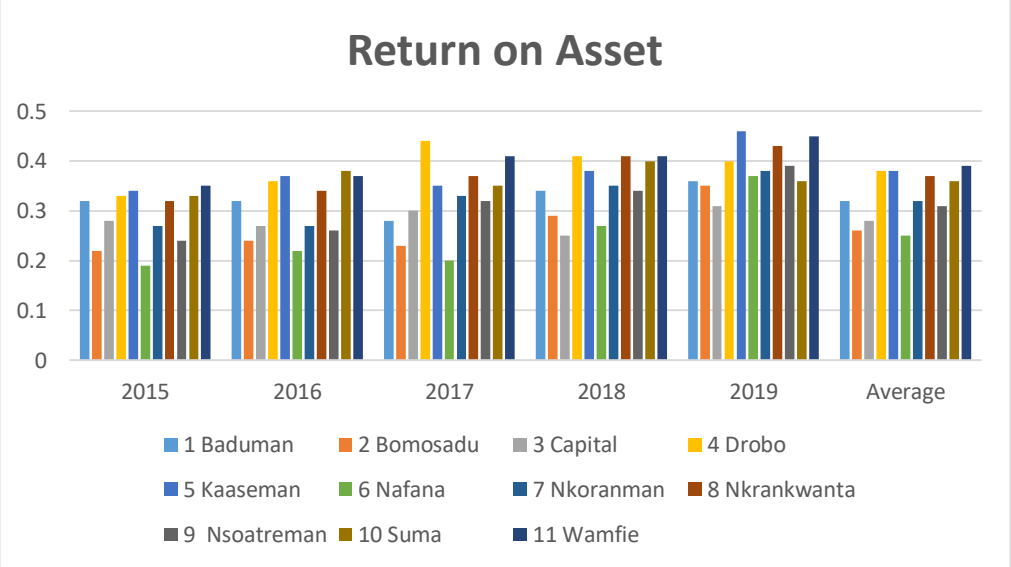

Figure 5: Measurement of financial performance-return on asset (ROA)

Source: Field survey (2020)

According to the results, Kaaseman Rural Bank recorded the highest average of 0.071, followed by Wamfie (0.068), Suma (0.052), Baduman (0.044), Drobo (0.043), Nkrankwanta (0.043), Nkoranman (0.041), Capital (0.040), Nsoatreman (0.040), Bomosadu (0.033) and lastly Nafana 0.030. This

average performance of individual banks over the five years (2015-2019) is graphical illustrated in figure 5 above.

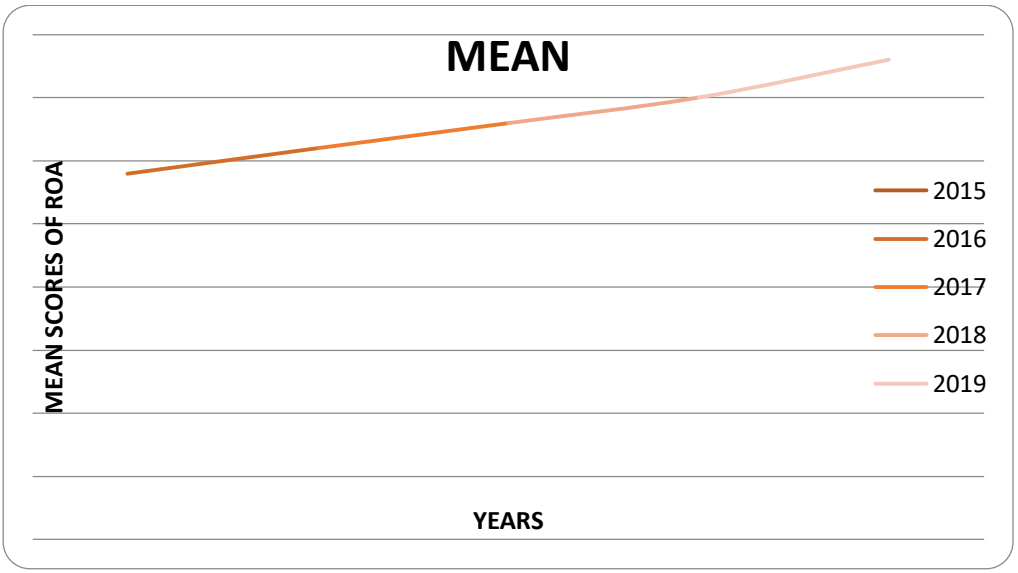

Figure 6: Trend analysis of general average return on asset (ROA)

Source: Field survey (2020)

Again Table 3 presents the collective annual averages of the banks' Return on Asset (ROA) for each of the years under study (2015-2019). According to the table, the banks recorded a steady improvement in their Return on Asset (ROA) as the following annual averages were recorded for all the banks for all the five years as follow: 2015 (0.042), 2016 (0.046), 2017 (0.045), 2018 (0.048), and 2019 (0.051). It could be seen from the results that generally; the banks recorded a slight drop in performance in 2017 but showed a quick recovery in 2018 and 2019. All these data were derived from the computations by the researcher based on the financial reports of the respective banks, and could be referred to Appendix IV below.

Figure 6 above shows a graphical trend of the data of the banks' general annual mean of ROA from 2015 to 2019 accounting years.

Table 4: Measurement of Financial Performance-Return on Equity (ROE)

S/N	Rural Bank	2015	2016	2017	2018	2019	Average
1	Baduman	0.32	0.32	0.28	0.34	0.36	0.32
2	Bomosadu	0.22	0.24	0.23	0.29	0.35	0.26
3	Capital	0.28	0.27	0.30	0.25	0.31	0.28
4	Drobo	0.33	0.36	0.44	0.41	0.40	0.38
5	Kaaseman	0.34	0.37	0.35	0.38	0.46	0.38
6	Nafana	0.19	0.22	0.20	0.27	0.37	0.25
7	Nkoranman	0.27	0.27	0.33	0.35	0.38	0.32
8	Nkrankwanta	0.32	0.34	0.37	0.41	0.43	0.37
9	Nsoatreman	0.24	0.26	0.32	0.34	0.39	0.31
10	Suma	0.33	0.38	0.35	0.40	0.36	0.36
11	Wamfie	0.35	0.37	0.41	0.41	0.45	0.39
YEARLY AVERAGE		0.29	0.31	0.33	0.35	0.39	

Source: Field survey (2020)

Table 4 above represents a summary of data gathered on the financial performance of rural banks in the Bono Region, especially measured by their Return on Equity (ROE) from 2015 to 2019 accounting period. The table also shows the individual bank's average performance per their Return on Equity (ROE) for the five years under review.

Again Table 4 presents the collective annual averages of the banks' Return on Equity for each of the years under study.

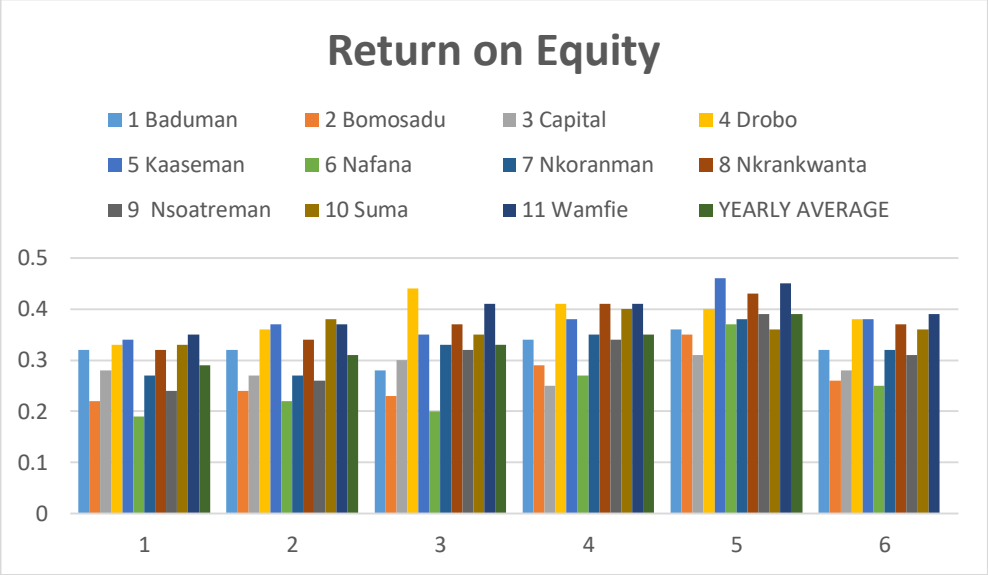

Figure 7: Measurement of financial performance-return on equity (ROE)

Source: Field survey (2020)

According to the results, Wamfie Rural Bank recorded the highest average of 0.39, followed by Drobo (0.38), Kaaseman (0.38), Nkrankwanta (0.37), Suma (0.36), Baduman (0.32), Nkoranman (0.32), Nsoatreman (0.31), Capital (0.28), Bomosadu (0.26) and lastly Nafana 0.25. This average performance of individual banks over the five years

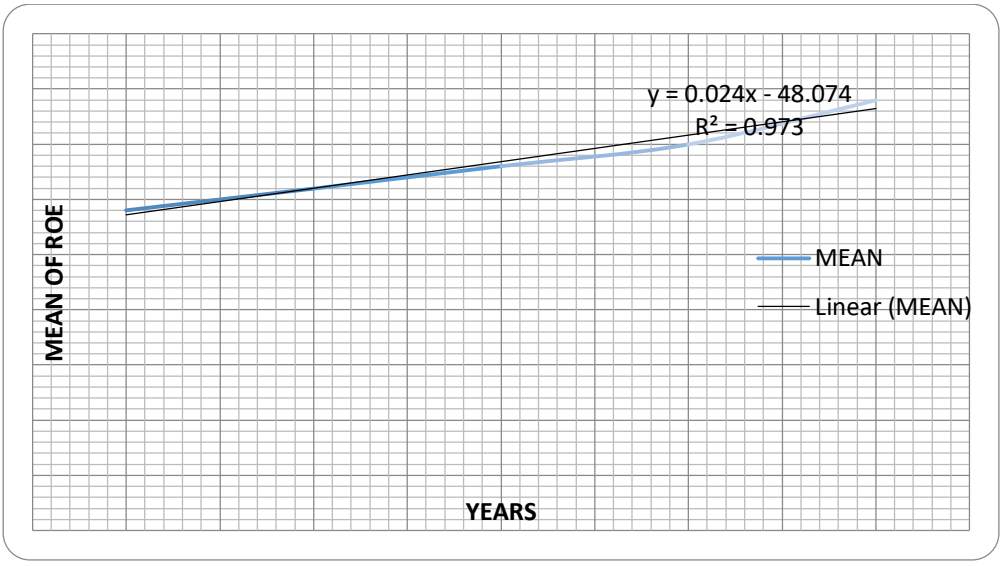

Figure 8: Trend analysis of average return on equity (ROE)

Source: Author's construct (2020)

Again Table 4 presents the collective annual averages of the banks' Return on Equity (ROE) for each of the years under study (2015-2019). According to the table, the banks recorded a steady improvement in their Return on Equity (ROE) as the following annual averages were recorded for all the banks for all the five years as follow: 2015 (0.29), 2016 (0.31), 2017 (0.33), 2018 (0.35), and 2019 (0.39). It could be seen from the results that generally, the banks recorded a remarkably constant surge in the Return on Equity, which is quite commendable. Figure 8 above shows a graphical trend of the data of the banks' general annual mean of ROE from 2015 to 2019 financial years.

All these data were derived from the computations by the researcher based on the financial reports of the respective banks, and could be referred to Appendix V below.

Impact of Compliance with Corporate Governance Standards (CGS) on the Financial Performance of Rural Banks

The third objective of the study was to evaluate the impact of compliance with Corporate Governance Standards (CGS) on the financial performance of rural banks in the Bono Region from 2015 to 2019. Data for assessing the impact was derived from computations from by the researcher, using the rural banks' financial reports as evidenced by appendix VI below. To achieve this objective, a fixed effect and random effect estimations models were formulated. A Hausman test was run to determine the choice between the fixed effect estimation and random effect estimation based on the significance of the variants based on the p-values.

Table 5: Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
ROA	55	.0463273	.0129315	.023	.076
ROE	55	.3323636	.0655451	.19	.46
CGS	55	70.29091	8.374725	50	90
ZSCORE	55	2.496727	.4262544	1.21	3.18

Source: Field survey (2020)

The Table 5 above is a summary statistics of the four variables (ROA, ROE, CGS and ZSCORE) that were employed in the study. It shows the number of observations, the mean scores, standard deviations, minimum scores, and the maximum scores in a set of data for each variable. Fifty-five (55) responses or observations were recorded for each of the variables used in the study from 2015 to 2019.

With respect to Return on Asset (ROA), out of the fifty-five (55) observations the mean score was 0.046, with the standard deviation of 0.13. The minimum and maximum scores recorded were 0.023 and 0.076 respectively. In relation to Return on Equity (ROE), the mean score was 0.33, with the standard deviation of 0.066. The minimum and maximum were 0.19 and 0.46 respectively. Regarding compliance to the Corporate Governance Standards (CGS), from the total responses the mean was 70.29% while the standard deviation was 8.37%. The minimum and maximum scores were 50% and 90% respectively. Lastly, Table 5 above again presents a summary of data gathered from the annual financial statements of all eleven rural banks over the previous five years (2015-2019) regarding the levels of financial distress (ZSCORE) of the various rural banks in the Bono region. According to the table the mean

score was 2.50, with standard deviation of 0.42. The minimum score was 1.21 whereas the maximum was 3.18.

Table 6: Pearson Correlation Analysis

	ROA	ROE	CGS	ZSCORE
ROA	1.0000			
ROE	0.6993	1.0000		
	0.0000			
CGS	0.4984	0.6546	1.0000	
	0.0001	0.0000		
ZSCORE	0.5376	0.5449	0.2588	1.0000
	0.0000	0.0000	0.0564	

Source: Field survey (2020)

The Table 6 shows the relationship between the dependent variables (ROA and ROE) and the independent variables by displaying the correlation coefficients and the p-values below each. The results indicates that there is a moderate significant positve correlation between bank's performance measured by ROA and corporate governance standards (R = 0.4984, p-value = 0.0001) as well as banks distress level measured by the ZSCORE (R = 0.5376, p-value = 0.0000) at the 1% significance level. Similarly, the result showed a strong positive significant relationship between banks performance measure ROE and corporate governance standards (R = 0.6546, p-value = 0.0000) but moderate relationship with the banks distress level (R = 0.5449, p-value = 0.0000).

Fixed Effect Estimation (FE)

FE explores the relationship between predictor and outcome variables within an entity such as different Rural Banks. Each entity has its own

individual characteristics that may or may not influence the predictor variables. When using FE, it is assumed that something within the individual entities may impact or bias the predictor or outcome variables and so, the need to control for this. This is the rationale behind the assumption of the correlation between entity's error term and predictor variables. FE removes the effect of those time-invariant characteristics so we can assess the net effect of the predictors on the outcome variable.

Another important assumption of the FE model is that those time-invariant characteristics are unique to the individual entities and should not be correlated with other individual characteristics. Each entity is different therefore the entity's error term and the constant (which captures individual characteristics) should not be correlated with the others. If the error terms are correlated, then FE is no suitable since inferences may not be correct and you need to model that relationship (probably using random-effects), this is the main rationale for the Hausman Test. The equation for the fixed effects model becomes: $Y_{it} = \beta_{1t}X_{it} + \alpha_i + \mu_{1t}$, (1)**,** where, αi (i=1….n) is the unknown intercept for each entity (bank-specific intercepts); Y_{it} is the dependent variable where i = bank and t = time; X_{it} represents one independent variable; β_1 is the slope coefficient for the independent variable(s) and μ_{1t} is the error term. The key insight is that if the unobserved variable does not change over time, then any changes in the dependent variable must be due to influences other than these fixed characteristics." (Stock & Watson, 2007, p.289-290).

Random Effect Estimation

The rationale behind random effects model is that, unlike the fixed effects model, the variation across entities is assumed to be random and

uncorrelated with the predictor or independent variables included in the model. According to Green (2008), "…the crucial distinction between fixed and random effects is whether the unobserved individual effect embodies elements that are correlated with the regressors in the model, not whether these effects are stochastic or not" (p.183). If you have reason to believe that differences across entities have some influence on your dependent variable then you should use random effects. An advantage of random effects is that you can include time invariant variables. In the fixed effects model these variables are absorbed by the intercept.

The random effects model is: $Y_{it} = \beta_{1t}X_{it} + \alpha + \mu_{1t} + \varepsilon_{1t}$……. (2), where μ_{1t} is the between-entity error and ε_{1t} is the within-entity error. Random effect assumes that the entity's error term is not correlated with the predictors which allows for time-invariant variables to play a role as explanatory variables. In random-effect there is the need to specify those individual characteristics that may or may not influence the predictor variables. The problem with this is that some variables may not be available therefore leading to omitted variable bias in the model (Stock & Watson, 2007).

Hausman Test

To decide between fixed or random effects, you run a Hausman test where the null hypothesis is that the preferred model is random effects vs. the alternative the fixed effects (Green, 2008). It basically tests whether the unique errors (ui) are correlated with the regressors, the null hypothesis is they are not. If the p – value < 0.05 (i.e. significant) use fixed effects otherwise, you use the random effects estimation.

Table 4.6; Panel Regression Results Using ROE on CGS and ZSCORE

Fixed-effects (within) regression			Number of obs =	55
Group variable: BANKCODE			Number of groups =	11
R-sq:	within =	0.6282	Obs per group: min =	5
	between=	0.5295	avg	5.0
	overall=	0.5749	max	5
			F (2, 42)	37.05
Corr (u_i, Xb)		-0.0448	Prob > F	0.0000

ROE	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
CGS	.0039992	.0009617	4.16	0.000	.0020585	.0059399
ZSCORE	.0728607	.0169902	4.29	0.000	.0385732	.1071483
_cons	-.1306598	.0583986	-2.24	0.031	-.2485129	-.0128068
Sigma_u	.03561005					
Sigma_e	.02901168					
rho	.60105407	(fraction of variance due to u_i)				

F test that all u_i = 0 F (10, 42) = 7.39 Prob > F = 0.000

Random-effects GLS regression			Number of obs =	55
Group variable: BANKCODE			Number of groups =	11
R-sq:	within =	0.6380	Obs per group: min =	5
	between=	0.5341	avg	5.0
	overall=	0.5774	max	5
			Wald chi2 (2)	86.37
Corr (u_i, X) = 0 (assumed)			Prob > chi2	0.0000

ROE	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
CGS	.0041237	.0008192	5.03	0.000	.0025181	.0057293
ZSCORE	.0696566	.0148645	4.69	0.000	.0405226	.0987905
_cons	-.1314084	.0537856	-2.44	0.015	-.2368262	-.0259907
Sigma_u	.03705716					
Sigma_e	.02901168					
rho	.61999477	(fraction of variance due to u_i)				

Source: Field survey (2020)

Hausman Test

	coefficients			
	(b) Fixed	(B) random	(b-B) Difference	Sqrt(diag(V_b-V_B)) S.E.
CGS	.0039992	.0041237	-.0001245	.0005037
ZSCORE	.0728607	.0696566	.0032041	.0082287

b = consistent under Ho and Ha; obtained from xtreg

B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Text: Ho: difference in coefficients not systematic

$$Chi2(2) = (b-B)'[(V\_b-V\_B)^{(-1)}](b-B)$$

$$= 0.15$$

$$Prob>chi2 = 0.9261$$

Source: Field survey (2020)

The Hausman's test for the ROE model chooses in favour of the random effect estimation. This means that the results of the random effect estimation should be estimated. The results for the ROE indicate that a positive relationship exists between the banks' performance and Corporate Governance Standards. This implies that as Corporate Governance Standards (CGS) improve so do the performance of the banks. Specifically, a 1% improvement in CGS is associated with a 0.41% increase in profit measured by the Return on Equity (ROE). The p-value of 0.000 is an indication that CGS significantly affects the banks' performance.

Similarly, regarding the banks' performance and their distress level measured by the Altman's Z-Score, the results again shows a positive significant relationship between the performance of the banks and their level of distress. It indicates that for every 1% increase in the Z-score, the performance

of the banks increases by 6.96%. In fact, the higher the Z-score, the more likely the banks move outside the distress zone. The significance of the Wald Chi2 test indicates the joint significance of the two independent variables. With a p-value of 0.000, it means that model is good

Table 7: Panel Regression Results Using ROA on CGS and ZSCORE

Fixed-effects (within) regression			Number of obs =	55
Group variable: BANKCODE			Number of groups =	11
R-sq:	within =	0.7115	Obs per group: min =	5
	between=	0.3151	avg	5.0
	overall=	0.3255	max	5
			F (2, 42)	51.78
corr (u_i, Xb)		0.2236	Prob > F	0.0000

ROA	Coef.	Std. Err.	t	P>|t|	[95% Conf.	Interval]
CGS	.0005531	.0000736	7.62	0.000	.0004066	.0006996
ZSCORE	.0023303	.0012824	1.82	0.076	-.0002577	.0049184
_cons	.0016329	.0044079	0.37	0.713	-.0072627	.0105285
sigma_u	.01113477					
Sigma_e	.00218981					
rho	.96276349	(fraction of variance due to u_i)				

F test that all u_i = 0 F (10, 42) = 103.64 Prob > F = 0.000

Random-effects GLS regression			Number of obs	= 55
Group variable: BANKCODE			Number of groups	= 11
R-sq:	within =	0.6380	Obs per group: min	= 5
	between=	0.5341	avg	= 5.0
	overall=	0.5774	max	= 5
			Wald chi2 (2)	= 86.37
Corr (u_i, X) = 0 (assumed)			Prob > chi2	= 0.0000

ROE	Coef.	Std. Err.	z	P>|z|	[95% Conf.	Interval]
CGS	.0005502	.000073	7.53	0.000	.000407	.0006933
ZSCORE	.0026131	.0012939	2.02	0.043	.0000772	.0051491
_cons	.0011324	.0054239	0.21	0.835	-.0094982	.011763
Sigma_u	.01002257					
Sigma_e	.00218981					
rho	.9544381	(fraction of variance due to u_i)				

Source: Field survey (2020)

Hausman Test

	coefficients			
	(b) fixed	(B) random	(b-B) Difference	Sqrt(diag(V_b-V_B)) S.E.
CGS	.0005531	.0005502	2.92e-06	
ZSCORE	.0023303	.0026131	-.0002828	

b = consistent under Ho and Ha; obtained from xtreg

B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Text: Ho: difference in coefficients not systematic

$$Chi2(2) = (b-B)'[(V\_b-V\_B)^{(-1)}](b-B)$$

$$= -2.77$$

Chi < 0 ==> model fitted on these

Source: Field survey (2020)

The Hausman's test for the ROA model chooses in favour of the random effect estimation. The result for the ROA indicates that a positive relationship exists between the banks' performance and Corporate Governance Standards. This implies that as Corporate Governance Standards (CGS) improve so do the performance of the banks. Specifically, a 1% improvement in CGS is associated with a 0.05% increase in profit measured by the Return On Assets (ROA). The p-value of 0.000 is an indication that CGS significantly affects the banks' performance.

Similarly, regarding the banks' performance and their distress level measured by the Altman's Z-Score, the results again shows a positive significant relationship between the performance of the banks and their level of distress. It indicates that for every 1% increase in the Z-score, the performance of the banks increase by 0.26%. In fact, the higher the Z-score, the more likely

the banks move outside the distress zone. The significance of the Wald Chi2 test indicates the joint significance of the two independent variables. With a p-value of 0.000, it means that model is good.

This result is in line with the findings of Gyabaah et al. (2018) on corporate governance, firms' profitability and sustainability in Rural Community Banks which discovered that 81% of variations in banks profitability (measured by ROA and ROE) was accounted for by corporate governance practices and principles. Moreover, Sackey et al. (2019), discovered that previous year's ROA and ROE had a positive and significant relationship with Corporate Governance Standards. Both studies by Gyabaah et al. (2018) and Sackey et al. (2019) were conducted recently in Ghanaian rural banks and it is therefore not surprising that their findings are confirming the results of this study. This is because the economic conditions and corporate practices may not have changed significantly over the few months.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

In this chapter, the findings of this study are summarized, and conclusions are drawn based on the findings. The chapter ends with recommendations which will impact positively on corporate governance practices and financial performance particularly in rural banks in Ghana.

Summary of Findings

The study examined the compliance level of rural banks to the Corporate Governance Standards. It also examined the distress level of rural banks in the Bono Region. The study again assessed the impact of Corporate Governance Standards on financial performance of rural banks in the Bono Region.

Secondary data was collected through the use of banks' annual financial statements from 2015 to 2019, to assess their performance using Return on Asset (ROA) and Return on Equity (ROE). The distress levels of the rural banks were also assessed with ratios computed from the bank's financial statements over the previous five years (2015-2019). Primary data was collected from fifty-five (55) respondents out of ninety-two (92) total board members for all the eleven rural banks for five years (2015-2019), through the use of questionnaires to assess their level of compliance to the Corporate Governance Standards.

Microsoft Excel was used to produce tables and graphs to illustrate the results, while Stata Analytical Software was used to analyze the impact of compliance with Corporate Governance Standards on the financial performance of the rural banks.

Regarding the first objective which sought to assess the rural banks' compliance level to the Corporate Governance Standards, the results showed that over the five years, rural banks in the Bono Region complied with the Corporate Governance Standards at acceptable levels. In terms of collective yearly average, rural banks' compliance with the Corporate Governance Standards appeared to rise marginally and consistently from 2015 (65.90%), 2016 (68.40%), 2017 (69.10%), 2018 (73.10%), and 2019 (75.8%). It could therefore be said that according to the findings of the study rural banks in the Bono Region complied with the Corporate Governance Standards at an average of 70.46% from 2015-2019, which is quite appreciable.

In terms of the second objective which sought to assess the distress levels, the rural banks recorded the following general annual average scores: 2015 (2.24), 2016 (2.32), 2017 (2.52), 2018 (2.65), and 2019 (2.54). Only Nafana rural bank was found distressed in 2015, 2016 and 2017, as shown by Table 2. Generally, with overall average of 2.5 for 2015-2019, it may be said that rural banks in the Bono region are less likely to be financially distressed. This is because according to the Altman's ZScore model, a score from 1.80 to 2.99 shows that the firm(s) is/are not likely to go bankrupt.

With respect to the third objective which sought to evaluate the impact of Corporate Governance Standards on financial performance, the Hausman's test chose the random estimation over the fixed estimation. It was further revealed that compliance with Corporate Governance Standards had positive impact on both Return on Asset and Return on Equity. Both models were significant at $p = 0.000$. This means that Compliance to corporate governance

standards has significant negative influence on the financial performance of rural banks in the Bono Region.

Conclusions

Rural banks in the Bono Region complied with the Corporate Governance Standards (CGS) at acceptable levels, and a consistent accelerating pace from 2015-2019.

Rural banks in the Bono Region were less likely to be distressed since they had average Z Scores between the range of 1.8 and 2.99 from 2015 to 2019. The study revealed that compliance with the Corporate Governance Standards had a significant positive impact on the financial performance of rural banks in the Bono region, which confirms the alternate hypothesis. Generally, rural banks in the Bono region are performing at an acceptable level. However, there is still more room to improve on their governance practices to ensure the sustainability of their businesses.

Recommendations

Though the rural banks in the Bono Region are complying with the Corporate Governance Standards at acceptable levels, yet they are prone to find themselves in financial distress and face critical liquidity and solvency challenges. It is recommended that the Bank of Ghana intensifies its supervisory roles over rural banks especially those in the Bono Region.

Furthermore, it is recommended to board of directors to institute strategies to improve upon the solvency and liquidity of their rural banks. This could properly be achieved by putting in place effective internal control mechanisms, and at the same time ensuring effective supervision of management activities.

Lastly, it is suggested that a further study be conducted on 'the impact of Corporate Governance Standards on the performance of commercial banks in Ghana'.

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APPENDIX A

Questionnaire Used for Gathering Data on the Corporate Governance Standards

Dear Respondent,

I am a student of Catholic University College of Ghana Fiapre, offering Master of Business Administration in Accounting. As part of my studies, I am required to undertake a study on the impact of Corporate Governance Standards on the financial performance of Rural Banks in the Bono region. You have been seen as one of the persons to help me complete the study. You are assured of your utmost confidentiality. The questionnaire is designed to collect data to be used purely for academic purpose. I wish to assure you that all responses to these questions will be strictly confidential. Thank you

Please tick (√) as applicable the alternate options provided against the standards

2015 2016 2017 2018 2019

Corporate Governance Standards	Yes 5	Part 2	No 0	Yes 5	Part 2	No 0	Yes 5	Part 2	No 0	Yes 5	Part 2	No 0	Yes 5	Part 2	No 0	SUM
1.There was overall risk strategy regarding risk tolerance and appetite																
2.Effective risk management and internal control systems existed																
3.Corporate governance framework, principles, values were in place																
4.Board members were experienced and qualified from diverse fields																
5.Ghanaians resident in Ghana constituted at least 30% of the board																
6.Independent directors constituted 30% of the board composition																
7.Board had a minimum of five (5) members including chairperson, and a maximum of thirteen (13) members.																
8.Majority of board were non-executive and ordinary residents in Ghana																

9.There was appropriate balance of power and authority on the board among directors																
YEAR		*2015*			*2016*			*2017*			*2018*			*2019*		
Corporate Governance Standards	YES	PART	NO	YES	PART	NO	YES	PART	NO	YES	PART	NO	YES	PART	NO	SUM
10.Most of the members of the audit committee were non-executive directors who had a finance/accounting knowledge																
11.Board had secretary who served as an interface between the board and the management by supporting the board chairperson.																
12.There was at least four (4) board meetings in the year																
13. The position of the board chair and the managing director/CEO were separate. No one combined the two top position at a time.																
14. No director held more than five (5) directorship positions at a time																
15.Directors' other engagements were disclosed in the annual accounts																

16.No independent director had more than five percent (5%) equity interest directly or indirectly in the bank or in its related companies																
17. No independent director had been employed in an executive position in the bank or its related company at least two years before appointment																
18. No independent director had relatives employed by the bank or any of its related entities as key management personnel in the last (2) years																
19. No independent director had been engaged in any transactions within two (2) years with the bank on terms that are less favourable to the bank than those normally offered to other persons																
20. No independent director had served as a director in the bank for more than two terms than two (2) terms																

APPENDIX II

Corporate Governance Scorecard (All scores in percentages)

2015						
BANK	R1	R2	R3	R4	R5	M
BADUMAN	75	74	77	69	65	72
BOMOSADU	68	62	60	66	64	64
CAPITAL	50	52	48	46	54	50
DROBO	68	60	62	60	70	64
KAASEMAN	58	78	74	68	72	70
NAFANA	60	46	52	62	60	56
NKORANMA	62	58	60	64	56	60
NKRANKW	78	90	80	84	88	84
NSOATREM	62	50	58	54	56	56
SUMA	76	74	70	78	62	72
WAMFIE	68	72	60	66	74	68
2016						
BANK	R1	R2	R3	R4	R5	M
BADUMAN	78	74	82	68	78	76
BOMOSADU	62	68	72	72	56	66
CAPITAL	52	62	58	48	50	54
DROBO	66	60	72	64	68	66
KAASEMAN	80	74	70	74	72	74
NAFANA	64	68	58	58	62	62
NKORANMA	66	70	54	62	58	62
NKRANKW	86	94	84	86	90	88
NSOATREM	58	66	62	50	54	58
SUMA	72	76	66	78	78	74
WAMFIE	74	70	70	68	78	72
2017						
BANK	R1	R2	R3	R4	R5	M
BADUMAN	74	68	72	66	70	70

BOMOSADU	64	62	60	62	62	62
CAPITAL	66	60	58	56	60	60
DROBO	62	64	70	68	66	66
KAASEMAN	78	80	74	76	72	76
NAFANA	64	66	66	74	70	68
NKORANMA	76	72	78	74	70	74
NKRANKWA	80	64	82	86	78	78
NSOATREM	60	72	66	58	54	62
SUMA	70	64	68	72	76	70
WAMFIE	76	70	72	74	78	74
2018						
BANK	R1	R2	R3	R4	R5	M
BADUMAN	76	86	80	76	72	78
BOMOSADU	70	66	66	74	64	68
CAPITAL	68	64	70	66	62	66
DROBO	72	74	64	58	72	68
KAASEMAN	86	76	74	80	84	80
NAFANA	72	78	74	68	58	70
NKORANMA	80	78	74	76	72	76
NKRANKWA	76	86	72	85	81	80
NSOATREM	63	68	72	72	55	66
SUMA	86	64	82	80	78	78
WAMFIE	73	75	67	77	78	74
2019						
BANK	R1	R2	R3	R4	R5	M
BADUMAN	82	64	80	86	78	78
BOMOSADU	70	78	74	68	60	70
CAPITAL	60	63	67	62	68	64
DROBO	79	74	70	75	62	72
KAASEMAN	78	88	80	87	77	82
NAFANA	70	76	66	78	80	74

NKORANMA	86	76	70	82	86	80
NKRANKWA	89	84	93	90	94	90
NSOATREM	69	65	68	74	74	70
SUMA	82	76	74	76	72	76
WAMFIE	80	64	78	86	82	78

APPENDIX III

Computation of Distress Levels (2015-2019)

2015

BANK	**1.2X1**	**1.4X2**	**3.3X3**	**0.6X4**	**1.0X5**	**Z**
BADUMAN	0.24	0.12	0.25	1.07	0.59	**2.27**
BOMOSADU	0.21	0.11	0.31	1.21	0.47	**2.31**
CAPITAL	0.32	0.14	0.41	1.34	0.56	**2.77**
DROBO	0.22	0.12	0.29	1.24	0.34	**2.21**
KAASEMAN	0.31	0.08	0.32	1.54	0.26	**2.51**
NAFANA	0.05	0.03	0.08	1.02	0.03	**1.21**
NKORANMAN	0.13	0.08	0.13	1.29	0.48	***2.11***
NKRANKWANTA	0.11	0.13	0.21	1.25	0.43	**2.13**
NSOATREMAN	0.12	0.15	0.19	1.27	0.41	**2.14**
SUMA	0.23	0.05	0.32	1.51	0.55	**2.66**
WAMFIE	0.18	0.17	0.13	1.52	0.34	**2.34**

2016

BANK	**1.2X1**	**1.4X2**	**3.3X3**	**0.6X4**	**1.0X5**	**Z**
BADUMAN	0.21	0.13	0.19	1.44	0.35	**2.32**
BOMOSADU	0.23	0.14	0.28	1.51	0.27	**2.43**
CAPITAL	0.32	0.15	0.39	1.62	0.45	**2.93**
DROBO	0.24	0.14	0.31	1.36	0.31	**2.36**
KAASEMAN	0.26	0.08	0.34	1.58	0.32	**2.58**
NAFANA	0.07	0.05	0.09	1.01	0.04	**1.26**

NKORANMAN	0.25	0.05	0.16	1.41	0.45	**2.32**
NKRANKWANTA	0.13	0.16	0.19	1.32	0.42	**2.22**
NSOATREMAN	0.14	0.17	0.21	1.31	0.31	**2.14**
SUMA	0.21	0.07	0.31	1.68	0.47	**2.74**
WAMFIE	0.17	0.14	0.11	1.51	0.29	**2.22**

2017

BANK	**1.2X1**	**1.4X2**	**3.3X3**	**0.6X4**	**1.0X5**	**Z**
BADUMAN	0.25	0.15	0.29	1.66	0.44	**2.79**
BOMOSADU	0.24	0.17	0.28	1.51	0.36	**2.56**
CAPITAL	0.27	0.16	0.38	1.82	0.53	**3.16**
DROBO	0.26	0.15	0.32	1.35	0.33	**2.41**
KAASEMAN	0.28	0.09	0.31	1.59	0.42	**2.69**
NAFANA	0.03	0.06	0.08	1.03	0.04	**1.24**
NKORANMAN	0.27	0.04	0.12	1.57	0.46	**2.46**
NKRANKWANTA	0.09	0.18	0.24	1.44	0.49	**2.44**
NSOATREMAN	0.17	0.12	0.25	1.44	0.36	**2.34**
SUMA	0.24	0.11	0.33	1.67	0.48	**2.83**
WAMFIE	0.19	0.18	0.31	1.68	0.47	**2.83**

2018

BANK	**1.2X1**	**1.4X2**	**3.3X3**	**0.6X4**	**1.0X5**	**Z**
BADUMAN	0.18	0.11	0.25	1.63	0.34	**2.51**
BOMOSADU	0.14	0.13	0.21	1.41	0.33	**2.22**
CAPITAL	0.21	0.12	0.29	1.86	0.43	**2.91**

DROBO	0.28	0.17	0.35	1.37	0.36	**2.53**
KAASEMAN	0.18	0.19	0.31	1.85	0.41	**2.94**
NAFANA	0.19	0.14	0.34	1.43	0.24	**2.34**
NKORANMAN	0.27	0.04	0.12	1.58	0.49	**2.50**
NKRANKWANTA	0.11	0.21	0.34	1.55	0.44	**2.65**
NSOATREMAN	0.15	0.28	0.25	1.54	0.24	**2.46**
SUMA	0.24	0.28	0.36	1.82	0.47	**3.17**
WAMFIE	0.26	0.15	0.31	1.78	0.44	**2.94**

2019

BANK	**1.2X1**	**1.4X2**	**3.3X3**	**0.6X4**	**1.0X5**	**Z**
BADUMAN	0.24	0.18	0.39	1.68	0.39	**2.88**
BOMOSADU	0.27	0.19	0.25	1.58	0.38	**2.67**
CAPITAL	0.23	0.22	0.29	1.84	0.53	**3.11**
DROBO	0.29	0.15	0.35	1.36	0.32	**2.47**
KAASEMAN	0.18	0.29	0.35	1.95	0.41	**3.18**
NAFANA	0.19	0.15	0.34	1.53	0.44	**2.65**
NKORANMAN	0.21	0.08	0.12	1.48	0.39	**2.28**
NKRANKWANTA	0.11	0.21	0.33	1.51	0.41	**2.57**
NSOATREMAN	0.15	0.24	0.25	1.43	0.24	**2.31**
SUMA	0.22	0.27	0.26	1.82	0.42	**2.99**
WAMFIE	0.33	0.25	0.31	1.78	0.44	**3.11**

APPENDIX IV

Computation of Return on Asset (2015-2019)

2015

BANK	ASSET (GHC)	PAT (GHC)	ROA
BADUMAN	14,828,911.11	667,301.00	**0.045**
BOMOSADU	10,348,250.00	331,144.00	**0.032**
CAPITAL	12,704,567.57	470,069.00	**0.037**
DROBO	11,970,421.05	454,876.00	**0.038**
KAASEMAN	20,084,828.13	1,285,429.00	**0.064**
NAFANA	17,871,059.57	411,034.37	**0.023**
NKORANMAN	10,278,588.21	400,864.94	**0.039**
NKRANKWANTA	16,688,576.10	684,231.62	**0.041**
NSOATREMAN	15,588,090.30	514,406.98	**0.033**
SUMA	11,024,907.14	540,220.45	**0.049**
WAMFIE	18,096,088.89	1,140,053.60	**0.063**
2016			
BANK	**ASSET (GHC)**	**PAT (GHC)**	**ROA**
BADUMAN	14,243,173.91	655,186.00	**0.046**
BOMOSADU	10,734,693.94	354,244.90	**0.033**
CAPITAL	12,276,073.17	503,319.00	**0.041**
DROBO	11,087,732.27	487,860.22	**0.044**
KAASEMAN	17,010,583.33	1,224,762.00	**0.072**
NAFANA	14,956,376.90	433,734.93	**0.029**
NKORANMAN	10,775,873.50	431,034.94	**0.040**
NKRANKWANTA	16,558,228.18	728,562.04	**0.044**
NSOATREMAN	14,716,865.28	529,807.15	**0.036**
SUMA	10,573,970.75	560,420.45	**0.053**
WAMFIE	16,686,413.03	1,101,303.26	**0.066**
2017			
BANK	**ASSET (GHC)**	**PAT (GHC)**	**ROA**
BADUMAN	16,511,172.05	643,935.71	**0.039**

BOMOSADU	12,561,556.21	364,285.13	**0.029**
CAPITAL	11,666,295.37	478,318.11	**0.041**
DROBO	11,346,500.75	453,860.03	**0.040**
KAASEMAN	16,941,683.66	1,202,859.54	**0.071**
NAFANA	14,475,320.32	448,734.93	**0.031**
NKORANMAN	10,786,549.05	453,035.06	**0.042**
NKRANKWANTA	18,434,257.37	700,501.78	**0.038**
NSOATREMAN	12,753,657.21	548,407.26	**0.043**
SUMA	11,211,199.61	571,771.18	**0.051**
WAMFIE	14,990,040.43	1,049,302.83	**0.070**

2018

BANK	**ASSET (GHC)**	**PAT (GHC)**	**ROA**
BADUMAN	14,648,023.41	644,513.03	**0.044**
BOMOSADU	10,479,860.00	366,795.10	**0.035**
CAPITAL	11,635,452.09	500,324.44	**0.043**
DROBO	10,368,195.11	466,568.78	**0.045**
KAASEMAN	17,049,234.31	1,227,544.87	**0.072**
NAFANA	13,858,393.53	471,185.38	**0.034**
NKORANMAN	11,618,975.35	499,615.94	**0.043**
NKRANKWANTA	15,915,155.95	668,436.55	**0.042**
NSOATREMAN	12,687,623.11	570,943.04	**0.045**
SUMA	10,808,424.11	605,271.75	**0.056**
WAMFIE	16,864,282.46	1,163,635.49	**0.069**

2019

BANK	**ASSET (GHC)**	**PAT (GHC)**	**ROA**
BADUMAN	13,876,313.13	666,063.03	**0.048**
BOMOSADU	11,254,963.61	405,178.69	**0.036**
CAPITAL	12,161,835.95	510,797.11	**0.042**
DROBO	10,330,677.71	495,872.53	**0.048**
KAASEMAN	16,392,868.42	1,245,858.00	**0.076**
NAFANA	13,133,083.33	472,791.00	**0.036**

NKORANMAN	10,787,535.56	485,439.10	**0.045**
NKRANKWANTA	14,835,590.20	756,615.10	**0.051**
NSOATREMAN	12,213,409.79	574,030.26	**0.047**
SUMA	9,798,225.56	529,104.18	**0.054**
WAMFIE	14,622,578.78	1,082,070.83	**0.074**

APPENDIX V

Computation of Return on Equity (2015-2019)

2015

BANK	EQUITY (GHC)	PAT (GHC)	ROE
BADUMAN	2,085,315.63	667,301.00	**0.32**
BOMOSADU	1,505,200.00	331,144.00	**0.22**
CAPITAL	1,678,817.86	470,069.00	**0.28**
DROBO	1,378,412.12	454,876.00	**0.33**
KAASEMAN	3,780,673.53	1,285,429.00	**0.34**
NAFANA	2,163,338.79	411,034.37	**0.19**
NKORANMAN	1,484,684.96	400,864.94	**0.27**
NKRANKWANTA	2,138,223.81	684,231.62	**0.32**
NSOATREMAN	2,143,362.42	514,406.98	**0.24**
SUMA	1,637,031.67	540,220.45	**0.33**
WAMFIE	3,257,296.00	1,140,053.60	**0.35**
2016			
BANK	**EQUITY (GHC)**	**PAT (GHC)**	**ROE**
BADUMAN	2,047,456.25	655,186.00	**0.32**
BOMOSADU	1,476,020.42	354,244.90	**0.24**
CAPITAL	1,864,144.44	503,319.00	**0.27**
DROBO	1,355,167.28	487,860.22	**0.36**
KAASEMAN	3,310,167.57	1,224,762.00	**0.37**
NAFANA	1,971,522.41	433,734.93	**0.22**

NKORANMAN	1,596,425.70	431,034.94	**0.27**
NKRANKWANTA	2,142,829.53	728,562.04	**0.34**
NSOATREMAN	2,037,719.81	529,807.15	**0.26**
SUMA	1,474,790.66	560,420.45	**0.38**
WAMFIE	2,976,495.30	1,101,303.26	**0.37**

2017

BANK	**EQUITY (GHC)**	**PAT (GHC)**	**ROE**
BADUMAN	2,299,770.39	643,935.71	**0.28**
BOMOSADU	1,583,848.39	364,285.13	**0.23**
CAPITAL	1,594,393.70	478,318.11	**0.3**
DROBO	1,031,500.07	453,860.03	**0.44**
KAASEMAN	3,436,741.54	1,202,859.54	**0.35**
NAFANA	2,243,674.65	448,734.93	**0.2**
NKORANMAN	1,372,833.52	453,035.06	**0.33**
NKRANKWANTA	1,893,248.05	700,501.78	**0.37**
NSOATREMAN	1,713,772.69	548,407.26	**0.32**
SUMA	1,633,631.94	571,771.18	**0.35**
WAMFIE	2,559,275.20	1,049,302.83	**0.41**
	2018		
BANK	**EQUITY (GHC)**	**PAT (GHC)**	**ROE**
BADUMAN	1,895,626.56	644,513.03	**0.34**
BOMOSADU	1,264,810.69	366,795.10	**0.29**
CAPITAL	2,001,297.76	500,324.44	**0.25**

DROBO	1,137,972.63	466,568.78	**0.41**
KAASEMAN	3,230,381.24	1,227,544.87	**0.38**
NAFANA	1,745,131.04	471,185.38	**0.27**
NKORANMAN	1,427,474.11	499,615.94	**0.35**
NKRANKWANTA	1,630,333.05	668,436.55	**0.41**
NSOATREMAN	1,679,244.24	570,943.04	**0.34**
SUMA	1,513,179.38	605,271.75	**0.4**
WAMFIE	2,838,135.34	1,163,635.49	**0.41**

2019

BANK	**EQUITY (GHC)**	**PAT (GHC)**	**ROE**
BADUMAN	1,850,175.08	666,063.03	**0.36**
BOMOSADU	1,157,653.40	405,178.69	**0.35**
CAPITAL	1,647,732.61	510,797.11	**0.31**
DROBO	1,239,681.33	495,872.53	**0.40**
KAASEMAN	2,708,386.96	1,245,858.00	**0.46**
NAFANA	1,277,813.51	472,791.00	**0.37**
NKORANMAN	1,277,471.32	485,439.10	**0.38**
NKRANKWANTA	1,759,570.00	756,615.10	**0.43**
NSOATREMAN	1,471,872.46	574,030.26	**0.39**
SUMA	1,469,733.83	529,104.18	**0.36**
WAMFIE	2,404,601.84	1,082,070.83	**0.45**

APPENDIX VI

Data for Regression Analysis

BANK	YEAR	CGS	ROA	ROE	Z-SCORE
1	2015	72	0.045	0.32	2.27
1	2016	76	0.046	0.32	2.32
1	2017	70	0.039	0.28	2.79
1	2018	78	0.044	0.34	2.51
1	2019	78	0.048	0.36	2.88
2	2015	64	0.032	0.22	2.31
2	2016	66	0.033	0.24	2.43
2	2017	62	0.029	0.23	2.56
2	2018	68	0.035	0.29	2.22
2	2019	70	0.036	0.35	2.67
3	2015	50	0.037	0.28	2.77
3	2016	54	0.041	0.27	2.93
3	2017	60	0.041	0.3	3.16
3	2018	66	0.043	0.25	2.91
3	2019	64	0.042	0.31	3.11
4	2015	64	0.038	0.33	2.21
4	2016	66	0.044	0.36	2.36
4	2017	66	0.04	0.44	2.41
4	2018	68	0.045	0.41	2.53
4	2019	72	0.048	0.4	2.47

5	2015	70	0.064	0.34	2.51
5	2016	74	0.072	0.37	2.58
5	2017	76	0.071	0.35	2.69
5	2018	80	0.072	0.38	2.94
5	2019	82	0.076	0.46	3.18
6	2015	56	0.023	0.19	1.21
6	2016	62	0.029	0.22	1.26
6	2017	68	0.031	0.2	1.24
6	2018	70	0.034	0.27	2.34
6	2019	74	0.036	0.37	2.65
7	2015	60	0.039	0.27	2.11
7	2016	62	0.04	0.27	2.32
7	2017	74	0.042	0.33	2.46
7	2018	76	0.043	0.35	2.5
7	2019	80	0.045	0.38	2.28
8	2015	84	0.041	0.32	2.13
8	2016	88	0.044	0.34	2.22
8	2017	78	0.038	0.37	2.44
8	2018	80	0.042	0.41	2.65
8	2019	90	0.051	0.43	2.57
9	2015	56	0.033	0.24	2.14
9	2016	58	0.036	0.26	2.14
9	2017	62	0.043	0.32	2.34
9	2018	66	0.045	0.34	2.46

9	2019	70	0.047	0.39	2.31
10	2015	72	0.049	0.33	2.66
10	2016	74	0.053	0.38	2.74
10	2017	70	0.051	0.35	2.83
10	2018	78	0.056	0.4	3.17
10	2019	76	0.054	0.36	2.99
11	2015	68	0.063	0.35	2.34
11	2016	72	0.066	0.37	2.22
11	2017	74	0.07	0.41	2.83
11	2018	74	0.069	0.41	2.94
11	2019	78	0.074	0.45	3.11