

**THE IMPACT OF BOARD STRUCTURE ON PERFORMANCE. A CASE
STUDY OF SELECTED RURAL BANKS IN ASHANTI REGION**

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BY

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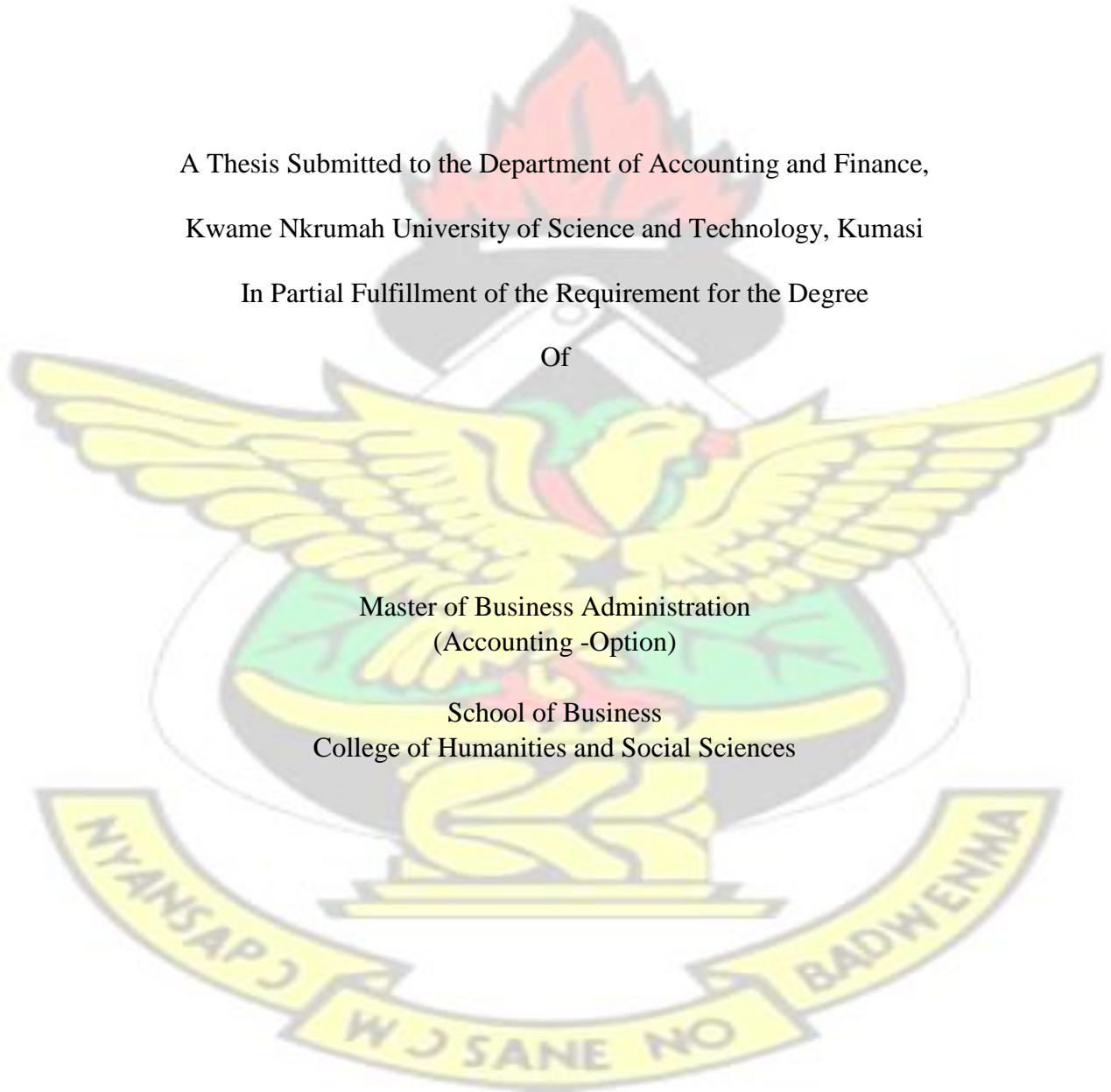
A Thesis Submitted to the Department of Accounting and Finance,
Kwame Nkrumah University of Science and Technology, Kumasi

In Partial Fulfillment of the Requirement for the Degree

Of

Master of Business Administration
(Accounting -Option)

School of Business
College of Humanities and Social Sciences



August, 2016

DECLARATION

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

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DEDICATION

This work is dedicated to wife Mrs. Jean Osei Boateng

ACKNOWLEDGEMENT

I would like to express my sincere gratitude to my supervisor Dr. Daniel Domeher (Head of Accounting Department) Business School of Kwame Nkrumah University Science and Technology for allowing me to undertake this work.

I am grateful to my supervisor Dr. Hadrat Yussif (Head of Economic Department) for his continuous guidance advice effort and invertible suggestion throughout the research.

My utmost gratitude to my wife Mrs. Jean Osei Boateng for her immersed support ,love and time during the course of my study without her continuous support this study would not have been possible.

I would also like to thank Mr. Owusu Afriyie of the Business School (Auditing and Taxation Lecturer) for encouraging me to carry out this research work.

I would also like to thank my friends of MBA 2 Accounting class 2016 batch for their help and support throughout the study especially Yaa Agyemang.

Lastly I would like to express my sincere appreciation to my parents especially my Mother and Siblings for their encouragement and support throughout my study.

ABSTRACT

This work studies the influence of board structure on performance of rural banks in Ghana. Five (5) rural banks in the Kumasi Metropolis were selected and their financial statements from 2010-2014 were used. The Ordinary least Square (OLS) method was applied to the data. It was found that the number of people on boards of rural banks negatively affects performance and non-executive directors on the board positively affect performance. The study recommends that an environment that encourages and brings out the positive contribution of female on boards of rural banks should be made.

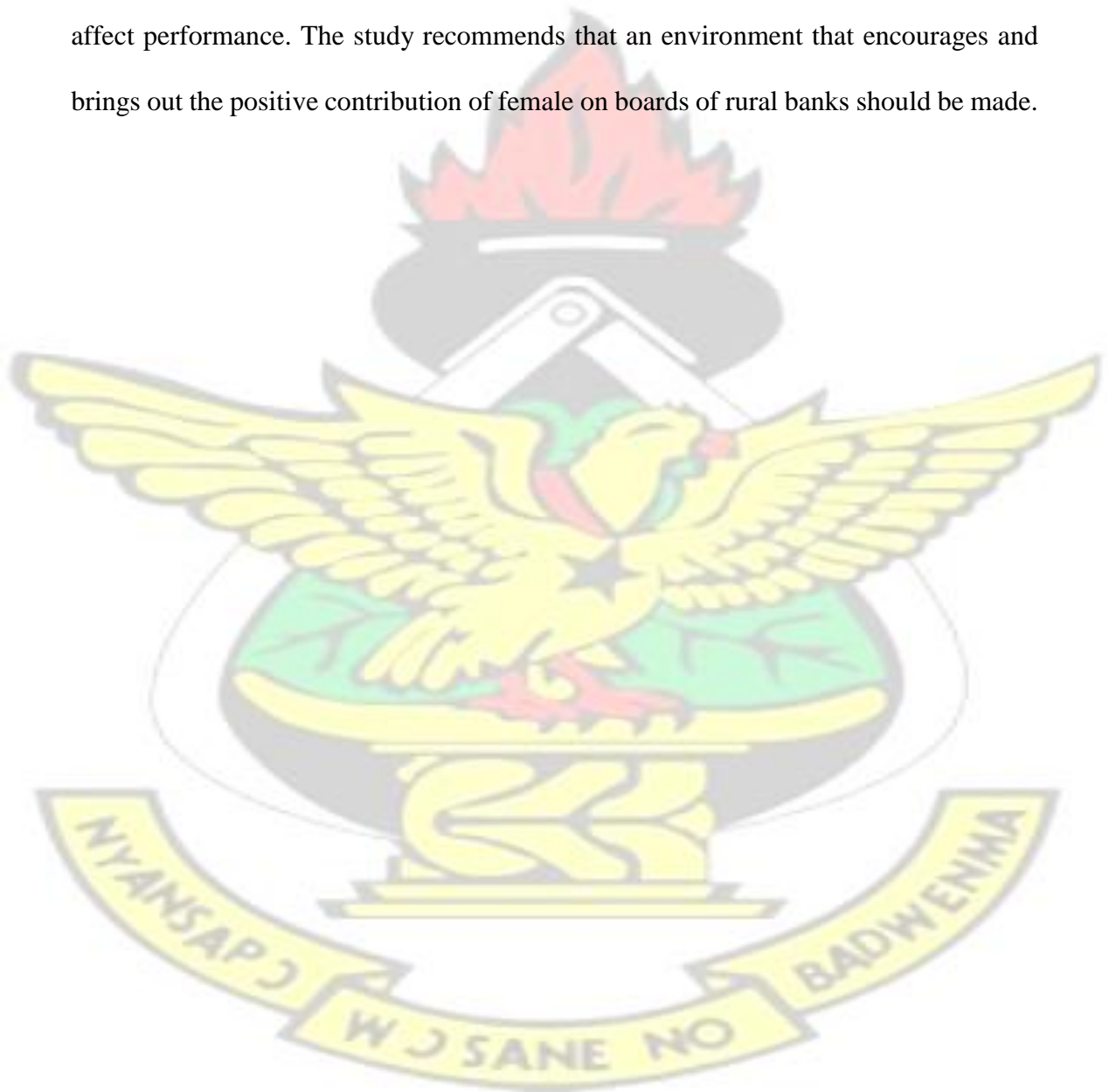


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Source: Wheelen and Hunger (2004)

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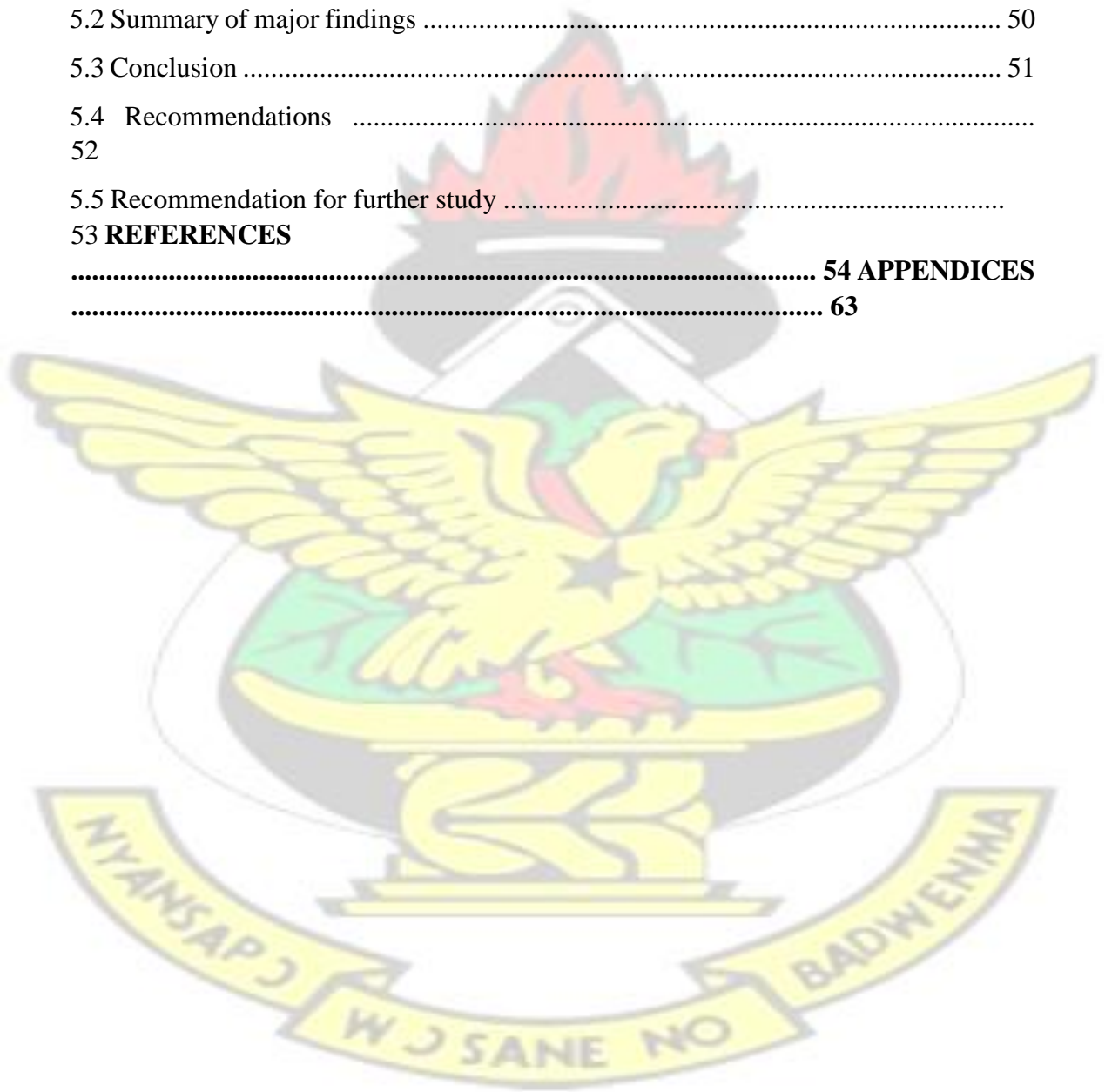
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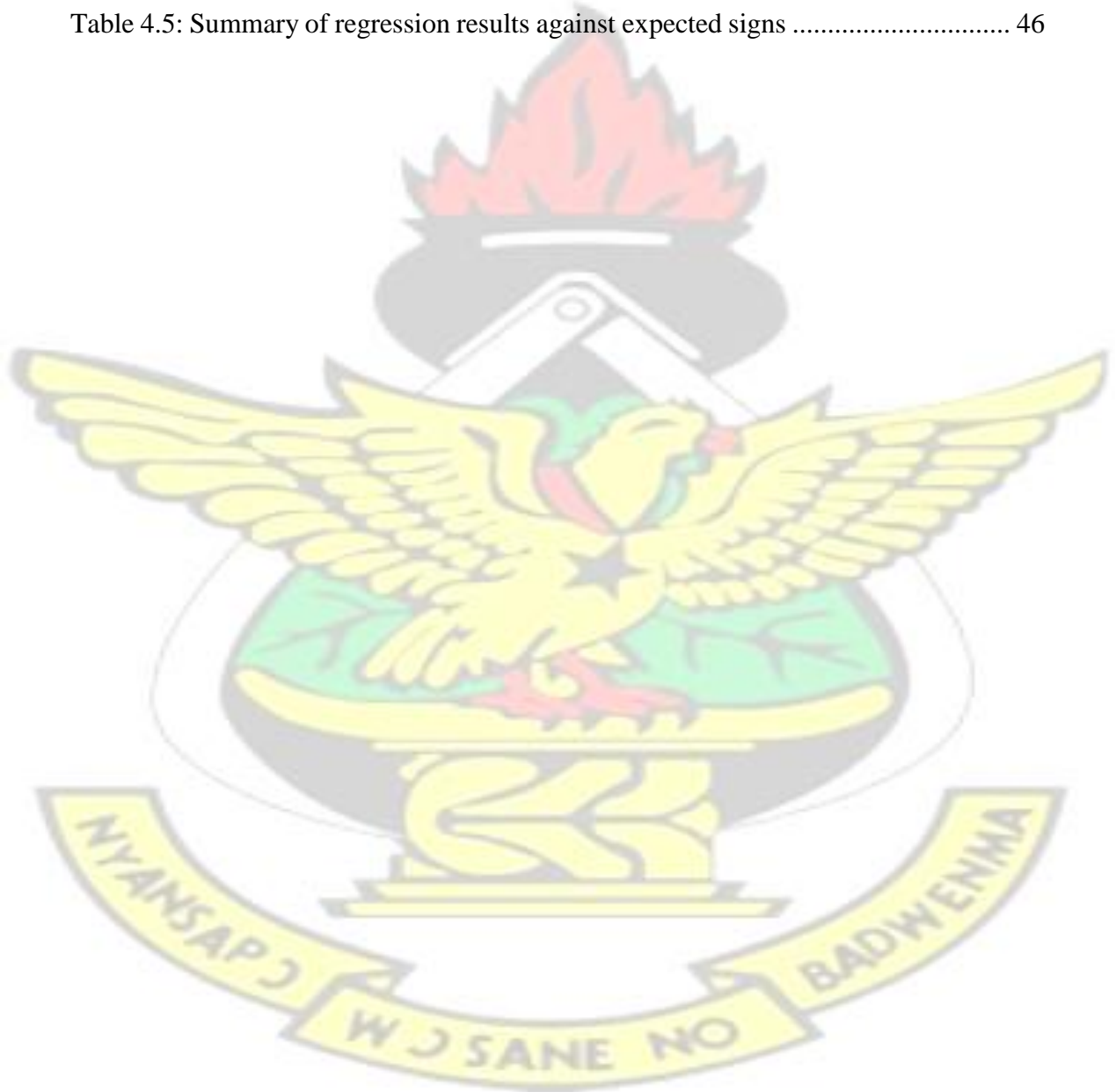
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CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

In recent years, the main thrust of board structure as a corporate governance tool has attracted considerable attention by financial analysts, managers, economists, and other financial organisations, whose activities one way or the other affect the general administration of an institution. It continues to receive attention because neither hypothesized nor non-hypothesized theories and models present pragmatic contribution as to the impact of board structure on the performance of institutions, while at the same time the empirical evidence remains inconclusive, (Dalton *et al.*, 1997).

The impact of board structure on firm performance has been a topical issue for most growing organizations. The structure of a board, which encompasses its size, composition, and leadership among others, is a key corporate governance issue that continues to linger in academia and practice. The existing literature on this phenomenon reveals that board size, its composition and leadership have diverse relationships on the performance of a firm.

Studies in various disciplines have dealt with the relationship between a group's size and its performance and of course, these are likely to vary depending on the legal and cultural environment in which these groups find themselves, (Zahra & Pearce (1989).

Performance can be variously defined and for instance it can be defined as achieving certain tasks when measured against standards. The standards can be measured in terms of cost, speed and others (Business directory, 2012).

Dalton *et al.*, (1997) recognize some factors that affect the performance of organisations. Performance of organisations is affected by the internal processes in organisations. The ability of the board to cope with change is also identified as a factor that influences performance of companies. Organisations also need to have in place internal processes to determine and track objectives. The quality of employees working in an organization and special attention to their training and development needs has also been identified to influence performance. Other factors influencing performance include effectiveness of communication done in the organization.

Going forward, the issue of a board's structure affecting performance is, to some extent, grounded on the agency theory. This explains the fact that managers act as agents on behalf of the shareholders of a firm. The shareholders therefore appoint board of directors to oversee the conduct of the managers. Traditionally, the central theme of analysing a board structure is to determine the level of independence of directors from the managers. In light of this, many literatures have tried to explore the dual role of the Chair of the Board and the Chief Executive Officer vested in one person.

Consistent with corporate governance theories, a Board Chairperson who doubles as the CEO of the same firm is less likely to be objective in his dealings, (Hillman & Dalziel, 2003).

In supporting the diverse views on the duality-performance relationship, a number of empirical studies showed various results. 15 out of the 30 studies representing 50% revealed mixed results with both significant and insignificant relationships. 10 of these studies representing 34% revealed no significant relationship between the duality and performance of a firm. 4 studies reported a significant negative relationship while the remaining 1 had a positive significant relationship (Kang & Zardkoohi, 2005).

Another issue that borders on board independence is the proportion of non-executive directors to executive directors. Many corporate governance theories suggest that boards consisting of a larger proportion of non-executive directors are more likely to be independent since they are less likely to have any substantive relationships with insider dealings.

Dalton *et al.*, (1999) however pointed out that the independence of boards may not be the only parameter that determines the profitability of a firm but the size, to a great extent, also matters. They further pointed out that there remained a scanty literature and inconsistent findings on the issue of board size and its impact on firm performance.

In another perspective, some researchers have also pointed out that the relationship between board structure and performance can be looked at using the resource dependence view in corporate governance. Hillman & Dalziel (2003) in their paper mentioned that the resource-dependence view perceived board of directors as providers of resources such as business knowledge, expertise, advice and counsel, etc. This is referred to as Board Capital.

Pfeffer (1972) observes that resource dependence concerns the relationship between a firm and the external environment. The composition of board is hence crucial to ensure that members capable of getting the firm the required resources are represented on the board. In practice however, boards do both monitoring and the provision of resources, and theoretically, both are related to firm performance as portrayed by the agency theory and resource-dependence view respectively. There is therefore a contention by many researchers that the agency theory and resource-dependence views should be integrated. Integration of the two can aid to overcome a current shortsightedness inside the two areas of study. Both resource dependence theorists and agency theorists have

assessed one board function (the provision of resources/ monitoring) at the expense of the other, and this contributes to the incompleteness of the understanding of what boards do and its effect on firm performance.

Bhagat & Black (1999) recognize that studies have been made on the relationship between board structure of companies and their performance under the assumption that performance of companies is affected by board structure. With respect to board structure and performance, distinction is made between people in management position and those serving on the board (Tricker, 1994). In the literature of corporate governance the various board structure characteristics used for study present mixed results in terms of relationship with performance. There is thus no definite conclusion as to the particular structure of boards that lead to performance (Heracleous, 2001).

This ambiguity leaves room for an empirical research on the subject matter in the banking industry domestically, specifically among five (5) selected rural banks in the Kumasi metropolis.

1.2 Problem Statement

Owing to the corporate scandals that have occurred in times past, there has been a substantial decrease in public confidence in company's executives. A survey conducted by Harris Interactive Incorporated showed that public confidence in major corporate executives and leaders had reduced by about 35% in the year 2002 from 2001. Another poll conducted by Mickinsey and Co. also revealed that out of an interview of a total of 200 corporate directors of close to 500 companies, approximately 69% of them supported the separation of the CEO role from that of the Board Chairman (Felton & Watson, 2002).

Following the debate on separation of CEO and Board Chairman, many other countries have incorporated this into their corporate governance practices. The Stock Exchange in Toronto, Canada, for example, have included as part of their listing requirements, the need for a split between the CEO and Chair of the Board of Directors. In France the „Nouvelles Régulations Economiques“ Law passed in 2001 has also demanded a split between the Board Chair and CEO roles. Yet, some researchers such as Agrawal & Knoeber (1996) support the combination of both roles by one person as their separation had little or no influence on the performance of the firm. In that regard, a preference for any of the two styles of leadership will have no difference in firm profitability.

The agency theory of corporate governance recognizes the monitoring role of boards of companies as a result of the agency problem. However this monitoring role is affected by factors such as the board structure which include board culture, board diversity, board size and others (Brennan, 2006). Studies concerning board structure and firm performance have gained currency in recent time, and these studies have come forth with mixed results (Jackling & Johl, 2009; Ranjdoost & Cherati, 2012).

Financial institutions provide critical services to the Ghanaian economy in the financial system and their improved or continued positive performance is required. As identified by Dalton *et al.*, (1999), one factor that influences the performance of firms is the ability of the board to adapt to change in the competing environment. It stands to reason therefore that board structure has probable impact on the performance of firms which financial institutions are not exceptions. Board structure can affect the board in its advisory or monitoring role.

The regulation of corporate governance of companies which largely concerns board structure in Ghana in recent times has improved in Ghana which companies listed on

the Ghana Stock Exchange are compelled to strictly follow. As recognized by Agyemang *et al.*, (2013), companies listed on the GSE comply with the regulatory framework of corporate governance in terms of board size, board composition, separating positions of CEO & board chairman and others.

Rural banks in Ghana are not listed on the Ghana Stock and the sort of compliance recognized by Agyemang *et al.*, (2013) with respect to listed companies cannot be said of them. There is a need therefore to examine the impact of board structure of an indispensable sector of the Ghanaian banking industry, the rural banking sector. This sector collaborates the contribution of the commercial banks in the country.

The literature in Ghana concerns corporate governance (board structure) and firm performance using companies listed on the Ghana stock Exchange. Researches done outside companies listed on the GSE focused on the large segment of Small and Medium Sized enterprises (SMEs) in the country (Abor & Biekpe, 2007). However no study has been solely devoted to examining the impact of board structure of rural banks on their performance and this study seeks to fill this gap.

1.3 Objectives of the Study

The main objective of the study was to examine the impact of board structure on performance of rural banks using five (5) selected rural banks.

The following specific objectives were set by the study:

1. To examine the impact of Board composition on performance of banks
2. To identify the relationship between size of the Board and performance of banks

3. To examine the effect of gender composition on the performance of banks

1.4 Hypothesis

These are the hypothesis that became relevant for the research objectives of the study:

H₁: There is a relationship between structures of rural bank board on performance.

H₀: There is no relationship between structures of rural bank board on performance.

1.5 Significance of the Study

The impact of Board structure is crucial for the success or otherwise of every business organization particularly in entities with huge working capital and debtors like a typical financial entity. It is in the light of the aforementioned grounds that the study was conducted. The significance of the study can be looked at from three main perspectives.

The study provides strategic directive, and it is expected to contribute significantly towards the improvement of the board structure of rural banks in relation to performance. The empirical result of the study is expected to make shareholders of these companies better placed to make more informed decisions concerning their board structure.

The study is also expected to make significant contribution to literature particularly for finance students on impact of board structure on performance of rural banks. It is also expected to serve as a reference point for further research study on the impact of board structure on performance of companies in the financial sector or other industries.

At the macro level, the expectation is that, an improvement in the board structure within the finance sector will lead to an improved composure and an increased performance and consequently in government revenue (corporation tax) and stability of the economy.

1.6 Scope of the Study

The research is limited to only the impact of board structure of rural banks in Ghana on their performance. The study focused on a multiple case study approach with only five (5) selected rural banks as the cases under study.

1.7 Methodology Overview

This research applies multiple case study approach using purely secondary data.

Financial reports from the five Rural Banks namely: Bosomtwe Rural Bank Limited, Asante Akyem Rural Bank Limited, Kwamanman Rural Bank Limited (KRBL), Odotobri Rural Bank Limited and Nwabiagya Rural Bank Limited represent the main source of data. Corporate governance or board structure data were picked from these reports as well as performance indicators. Data was collected over the years 2010-2014 for all the study banks. A panel data was formed and the Ordinary Least Square (OLS) regression was used to estimate results with the help of STATA 13.1.

1.8 Limitations of the Study

Typical of any research work, be it basic or applied, my research was not without some challenges.

The research focused mainly on the structure of board of the selected companies without recourse to the external parties such as shareholders and customers whose decisions and activities affect the overall performance of the selected companies.

The study is limited to the financial industry. Because of this limitation, it is inappropriate to extend the findings and conclusions to situations in other sectors whose board structure are influenced by the peculiar nature of their business.

The research notwithstanding above mentioned limitations was carefully conducted and organized in order to keep the impact of the identified limitations on the findings and recommendations at reasonably low level.

1.9 Organization of the study

This study on board structure and performance is organized into five separate chapters as follows.

The first chapter presents the background of the study, the statement of the problem, objectives , significance of the study, limitation of the study and the organisation of the study.

The chapter two entails an appraisal of related and relevant literature on the most important area of the topic under study.

The chapter three presents the information on the profile of case study institutions as well as the methodology of the study.

The chapter four looks at the analysis, organization and elucidation of the various data received from the selected institutions (Rural Banks).

The chapter five presents a summary of the findings of the research and possible recommendations to deal with the challenges recognized during the research. It will also give suggestions for potential research into the problem.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

The purpose of this chapter is to discuss and critically review researches and other documents related to the topic under study. In doing this, the researcher has duly and carefully studied various literature related to the effects of board structure on performance.

2.1 Theories of Board Structure

There are many theories that underpin Board structure, according to Letting *et al.*, (2012), to achieve a wider perspective of the board's function in effective decision making, there is a need to adapt different corporate governance theories rather than to consider a single theory. Different theories underlie corporate governance but as identified by Gravel & Periñan (2009) and Hendry & Kiel (2004), different researchers adopt a multi-theoretical lens in studies on corporate governance or board structure and performance.

The theories include; the resource dependency theory, stewardship theory, agency theory, and stakeholder theory.

2.1.1 Agency theory

Agency theory asserts that there is a conflict of interest between management and shareholders which causes agency problem (Jensen & Meckling, 1976). Consequently there is a need for a monitoring body to ensure that the management operates in a way that satisfies the interest of shareholders. In this regard, the board functions as a

monitoring body on management on behalf of the shareholders of the institution (Fama & Jensen, 1983). Since there is an inherent assumption that agency problem exists between management and shareholders since management are not honest but are interested in satisfying their interest at the expense of shareholders, there is a need to have a formidable board that can monitor effectively management. This means that companies can have strong boards that effectively monitor management by paying attention to the board structure. The agency theory makes recommendations with regard to board structure. Jensen & Meckling (1976) for instance recommends that effective boards need to pay attention to board size since many directors on boards add to operational costs of firms and this reduces performances. Also boards having many directors are slow in making decisions and some members because of the large size tend to loaf even though they are paid emoluments. CEO duality in general is prohibited by the agency theory since there is the belief that over-empowering management in this manner would increase the agency problem. Thus according to this theory having this feature of boards diminishes firm performance. The theory also concerns board composition and recommends the representation of outside directors on the board. This is expected to reduce the agency problem since outside directors do not have connection with the firm unlike inside directors who are in management position.

2.1.2 Resource dependency theory

This theory also asserts that the role of the board is to provide valuable external resources, necessary in achieving organizational set standards and objectives (Pfeffer, 1973). Pfeffer & Salancik (1978) recognize that firms seek to have control over the environment in which they operate so as to obtain the needed resources. The board in this regard has been identified as a connection between the firm and its environment.

The composition of the board becomes important so as to achieving this (Johnson *et al.*, 1996). Outside directors in the literature has been identified to connect firms well to the external environment (Muth & Donaldson (1998). Specifically information, skills and access to important players such as suppliers and buyers can be delivered by outside directors (Hilman *et al*, 2000). Representation of boards by outside directors is hence usually justified by this theory. Performance of firms has been linked to representation of outside directors. Inside directors are replaced with outside directors in instances when performance declines (Hermalin & Weishbach, 1988). This finding is also corroborated by Pearce & Zahra (1992) where it was observed that outside directors are appointed so as to turnaround companies when companies are not performing. However Kaplan & Minton (1994) observed that poor stock performance of firms leads to appointment of insiders such as financial directors.

2.1.2 Stakeholder theory

The stakeholder theory posits that the role of the board is to take into consideration the interests of those groups who are vital to the survival and success of the corporation (Freeman, 1984). The Board is seen as a representation of the various stakeholders of the company and hence policies from the Board are the very ones that satisfy the interests of all the stakeholders of the company. The Board hence becomes a point of conflict resolution among any decision of the company so that the various stakes are looked at before a final resolution is made. Stakeholder theory hence emphasizes importance of stakeholders such as customers, suppliers, employees, community and others other than the traditional focus on investors (Freeman, 1984;

Gibson, 2000). Proponents of this theory such as John & Senbet (1998) emphasize the role of non-market mechanisms such as having an optimal board size and also forming

specialized committees. The theory recognizes multiplicity of stakeholders a company has. It recognizes that certain actions of management can have conflicting effect on other stakeholders and hence management is therefore to optimize these conflicting interests. However because of the multiplicity of stakeholders a company has Jensen (1993) sees this as a weakness as rational organizations must have a single-valued objective to be pursued. As a consequence Jensen (1993) however proposes a modified form of the stakeholder theory which will consider a single valued objective satisfying all stakeholders, which is maximization of the long-run value of a company. Different stakeholders are connected to the firm and Freeman *et al.*, (2004) recognize that business operation concerns ensuring that there is an arrangement that creates a win-win situation for all stakeholders over time. The different stakeholders of the firm have divergent goals but managers have the responsibility to ensuring that this conflict of goals is resolved (Donaldson & Preston, 1995).

2.1.3 Stewardship theory

This theory finally suggests that it is the function of the board is to protect the returns of the shareholders, not of placing management under greater control by owners, but of empowering management to take autonomous executive action (Donaldson & Davis, 1991). Another theory shifts from the perspective of the agency theorists and does not see any agency problem existing between managers and owners. Managers are seen as “collaborators” rather than people who have opportunistic tendencies to pursue their interest at the expense of that of the shareholder. To these theorists, the Board for instance exists not to provide monitoring role but to cooperate with management for effective running of the company. Managers are delighted to have the company performing and that intrinsic feeling of management that the company is performing

deters them from pursuing any behavior that affects negatively the company's performance. Empowerment of managers for instance by having CEO doubling as the Board chairman is not prohibited contrary to the agency theory. Managers are motivated by the need to gain recognition from performance and hence are challenged to work towards achieving this rather than pursuing their own interest which can affect company performance (Donaldson & Davis 1991).

2.2 Integration of Different Theories

Each of the theories reviewed gives primacy to a particular view on how boards should deal with decisions. Table 2.1 presents a summary of the four major theories on board role namely: agency theory, stewardship theory, resource dependency theory and stakeholder theory discussed above (excluding managerial hegemony theory which is not emphasized like the others).

Table 2.1: Four theoretical perspectives and implications for boards

Theory	Role of board	Implication of board
Agency theory	Managerial control	Independent boards are a mechanism for shareholders to retain ownership control rights and monitor performance.
Stewardship theory	Managerial empowerment	The board controlled by management is empowered and manages corporate assets responsibly.
Resource dependency	Co-optation	Board with strong external links is a cooptation mechanism for firms to access external resources
Stakeholder theory	Uphold interests of all the stakeholders	Maximising the shareholder returns is not sole objective; interests of all stakeholders should be equally honoured.

Source: Wheelen and Hunger (2004)

There are differences in opinion with respect to the various theories. The agency theory sees conflicting interest between managers and the shareholders but stewardship theory sees managers as stewards. The stakeholder theory also recognizes the differing interests of different stakeholders of a company. The resource dependency however

recognizes a different role for the board in the form of linking the company to the external environment.

The agency theory seems to have been used most in academic literature concerning the role of the board in relation to management or company (Jensen & Meckling, 1976; Fama & Jensen, 1993). Most corporate governance codes such as the OECD (1999) have largely been influenced by the agency theory. In Ghana for instance the pronouncements by the Security Exchange Commission in 2010 that there should not be CEO duality, putting a limit on board size and other measures are largely motivated by the agency theory.

Other researchers have recommended an integrated approach in looking at the role of the board. The opposing perspective on agency and stewardship theory can be correct under different conditions. Hence the right perspective depends on the environment rather than this is absolutely correct (Boyd, 1995; Hillman & Dalziel, 2003). A contingent approach is hence recommended. When the two perspectives are integrated Hillman & Dalziel (2003), it was found that boards have capital that affects monitoring (agency perspective) and provision of resources (resource dependency theory). Hence other scholars have recommended that the choice of any of this perspective depends on contextual factors such as board power, environmental uncertainty and information asymmetry (Kiel, 2004). Daily *et al.*, 2003) however state that the agency theory is the foremost theory and all the other theories are substitutes.

Upon reviewing these differing views, the researcher hence took an integrated approach rather than a single perspective. This therefore affected the researcher's expectations in terms of hypothesis. No-directional hypotheses were hence specified concerning the influence of the various board characteristics on firm performance.

2.3 Strategic Role of the Board

The board is mandated with corporate governance of companies and has strategic role to play in the operations of the company. Strategic decisions are recognized as daily decisions organisations take rather than some infrequent decisions. The board is seen as a team put together to ensure that a company achieves its objectives (Langton & Robbins, 2007). As a result which people are on the board becomes a paramount issue as this has effect on competitive edge that a business can have over its competitors (Ljungquist, 2007; Hunt, 2000; Hamel & Prahalad, 1994).

The importance in playing out corporate governance in most corporate governance codes has not been underestimated in the literature. Kiel & Nicholson (2003) recognized the role of the board in corporate governance. Some definitions in the literature for instance see corporate governance as a link between relationship between the board, shareholders and management and how strategic decisions of the organization are arrived at (Monks & Minnow, 1995). As recognized by Carlson (2001), a central issue of most corporate governance codes is the presence of an independent board.

Other part of the literature predominantly in early researches identified that boards make little contribution to strategic decisions or roles made by companies. This is because strategic decisions are usually taken by the CEO rather than the board (Rosenstein, 1987; Monks & Minnow, 1991). The CEOs were seen as being powerful to the extent that boards exist to rubber stamp the decisions of CEO. This perspective echoes the position of managerial hegemony on the role of the board. The appointment of board is hence made with the comfort management has with the directors being appointed (Monks & Minnow, 1995).

A more active role of the board directors was recognized by Boulton (1978) and Andrews (1980). Under this perspective the board works together with management in devising strategies for the organization. A broader role of the board has been described by Tricker (1985) as formulating strategies, overseeing strategies, assessing and monitoring performance to ensure implementation. Boards assume guardianship position to achieve shareholders' interest. Firms survive and get sustained in the markets where they operate by having in place mission, vision, strategy and structures which have to be communicated throughout the firm (Garrett, 1993).

The companies code 1963 (Act 179) brings out the role of the board of directors of a company. The board is identified to stand in fiduciary role and hence exists to ensure that the interest of the shareholders who appointed them is maximized. The strategic direction of the company is handled by the board and also management of the company also falls in the hands of the board.

Risk management is also expected to be carried out by the board. It is the duty of the board to carry out risk assessment so as to identify all risks that threaten company's objectives. Appointment and remuneration of senior management is also done by the board. Lastly, the board has to ensure that communication and information dissemination policy of the corporation is maintained.

The board of directors is according to Wheelen & Hunger (2004) performs monitoring, evaluation, initiation and determination. The monitoring role concerns the board having oversight of development taking place both inside and outside the firm. Also when decisions are being taken, the board analyses proposals from individuals so as to make decisions on whether to agree or otherwise. The board is also identified with

the role of coming forth with mission, visions and the options management has to take in achieving the mission and the vision.

Strategic direction of firms is carried out by the Board and this is identified as a continuum process (Wheeler & Hunger, 2004). The table 2.2 below shows the role of the board in the strategic management process.

Table 2.2: Board of Directors' Involvement in Strategic Management

DEGREE OF INVOLVEMENT IN STRATEGIC MANAGEMENT					
Low (passive)			High (Active)		
Phantom	Rubber stamp	Minimal review	Nominal participation	Another Participation	Catalyst
The board has no idea of what to be done. Hence there is no degree of involvement.	Officers are allowed to make decisions and cast vote where necessary.	The board functions in a review capacity by reviewing decisions taken by officers.	Involved to a degree in the performance or review of selected key decisions, indicators, or programs of management.	Approves, questions, and makes final decisions on mission, strategy, policies and objectives. Performs fiscal and management audits.	Takes the leading role in establishing and modifying the mission, objectives, strategy, and policies. It has very active strategy committee.

Source: Wheelen and Hunger (2004)

2.4 Elements of Board Structure

Based on an extensive literature review, the board structure of an institution is basically perceived as consisting of the following elements: board size, board composition and board ownership.

□ Board size

This is considered to be a critical feature of the board structure. Larger boards could enact the diversity that would help institutions to secure critical resources and reduce

environmental uncertainties (Pfeffer, 1987; Pearce & Zahra, 1992; Goodstein *et al.*, 1994).

But, according to Yermack (1996), decision-making, coordination, and communication problems affect a company's overall performance when the number of board increases. Thus, as an extra member is added to the board, there exists a potential trade-off between coordination and diversity.

Lipton & Lorsch (1992) therefore recommended a number of board members necessary for any firm must be either seven or eight. However, board size recommendations tend to be industry-specific, since most financial institutions have board size significantly larger than those of manufacturing firms (Adams & Mehran, 2003).

Studies on corporate governance have shown contrasting results in terms of board size and performance. Some studies have shown positive relationship between board size and performance (Dehaene *et al.*, 2001). Measuring performance on different bases using book-based and market-based measures, board size shows contrasting results. Board size shows negative relationship with performance when performance is measured using accounting-based measure whiles positive relationship emerged when performance is measured using market-based measure (Haniffa *et al.*, 2006). Negative relationship between board size and firm performance was also observed by Yermack (1996). Performance was measured as profitability or operating efficiency. A no statistical relationship has also been found between board size and performance (Connelly & Limpaphayom, 2004).

□ Board composition

Board composition in the context of corporate governance studies concerns the representation of outside directors on the board. It thus measures the proportion of outside directors out of the total directors. Outside directors variously called as nonexecutive directors or independent directors are those who have no connection with the firm aside their position as directors (Clifford & Evans, 1997).

Outside directors according to agency theorists are able to better reduce the agency problem. Hence boards that are dominated by outside directors are expected to make better decisions than boards dominated by inside directors (Fama & Jensen, 1983). Even though the agency theory of board structure has this position concerning board composition, results on studies on corporate governance (board structure) have shown mixed results.

Dehaene *et al.*, (2001) found that there is a positive relationship between proportion of outside directors on the board and performance. The results agree with the expectations of the agency problem. A research by Connelly & Limpaphayom (2004) also corroborates that a positive relationship exists between board composition and profitability. Also risk of firms is reduced by the presence of outside directors in the case of life Insurance firms, in a research based in Thailand.

Positive response or reaction from the stock market has also been identified in the literature that marginal recruitment of outside directors leads to positive movement in the stock price (Rosentein & Wyatt, 1990).

Risk assessment of companies by credit rating agencies has also been identified to incorporate the representation of outside directors on the board. Companies having

greater proportion of outside directors on the board are rated higher or considered less risky and thus have less coupon rates attached to their bonds (Collins & Kinney, 2006; Bhojraj & Sengupta, 2003).

Quality of audit is also expected to improve at the presence of boards dominated by non-executive directors. This is because non-executive directors are able to insist on more intense audits as part of their monitoring role to reducing the agency costs. This was identified by O'Sullivan (2000) after examining this using sample of 402 UK listed companies.

Despite these studies indicating positive relationship between board composition and performance, other studies have also shown negative relationship between board composition and performance (Agrawal & Knoeber, 1996b; Yermack, 1996). A no statistical relationship has also been identified by Laing & McKnight (2002); Haniffa & Hudaib (2006) between board composition and performance when performance is measured on the basis of accounting-based measures.

Some level of dissatisfaction has however been registered with stakeholders of firms in relation to how non-executive directors operate. In a survey based in Netherland, Van Manen (2004) found that stakeholders of firms are no satisfied with the way nonexecutive directors operate. A result probably supporting the stakeholder theory which states that the board should be a platform for representation of the various stakeholders of the firm. Conflicts are hence resolved and decisions made by the board hence go through conflict-resolution and are expected to face least resistance.

Non-executive directors most especially serve the interest of shareholders and not necessarily that of the larger stakeholder group.

Instances where negative relationship has been determined between proportion of non-executive directors and performance have been explained in the literature with reasons such as the fact that non-executive directors are caught up in excessive monitoring and may stifle strategic actions of companies. As recognized by Demb & Neubauer (1992) and Goodstein *et al.*, (1994), non-executive directors sometimes lack the business expertise in order to contribute effectively on the board.

□ Board Ownership

Board ownership in the context of studies of board structure or corporate governance measures the proportion of stock ownership of firms attributed to management or inside directors. The literature identifies conflict of interest between management and shareholders and hence it is recognized that the agency problem can be reduced when the interest of management and that of shareholders are bonded. This is achieved through executive share ownership scheme (Jensen & Meckling, 1976).

The position expressed up with respect to the relationship between agency costs and board ownership suggests a negative relationship. However studies on board structure or corporate governance have yielded mixed results. Shleifer & Vishny (1988) found a non-linear relationship between management ownership and performance. The research found that when management ownership rises to 5%, performance increases in response. However performance falls when ownership rises to 25%. At higher levels of management ownership, performance of firms increases slightly. This nonlinear relationship between management ownership and firm performance is also corroborated by the findings of McConnell & Servaes (1990). Using Tobin's Q as a measure of performance, the research deduced a curvilinear relationship between performance and management ownership. Reasons for the non-linear relationship between management

ownership and firm performance have also been offered in the literature. Management ownership is identified to entrench the position of management and hence monitoring mechanisms such as corporate control market become less effective.

Other researches have also identified a no-statistical relationship between management ownership and firm performance suggesting that divergent of interests between management and ownership really does not exist (Demsetz & Lehn, 1985). Leech & Leahy (1991) also observed that there is no difference between performance of firms having management ownership and those without management ownership. Any difference in profitability is not significant economically.

2.5 Composition of Board of Directors and Shareholders Ownership

Demsetz (1983) has a contrary view on the fact that managers are not discouraged in pursuing shareholder maximization because they do not have shareholding in the companies in which they manage. Rather there is management consolidation at the existence of management shareholding there is reduced supervision externally, and failure to consider discipline and market regulations. All these together reduce the value of firms. This position is against the convergence of interest hypothesis by Jensen (1993) that management shareholding ensures the convergence of the interest of management of the company and that of shareholders. In summary the convergence of interest hypothesis observes a positive relationship between performance of companies and management shareholding whiles the position of Demsetz (1983) suggests a negative relationship between performance and management shareholding.

2.6 CEO-Chairman Duality and Corporate Financial Performance

CEO duality in corporate governance studies measures whether a company's board is chaired by the CEO or otherwise. The agency theory emphasizes the agency problem and it is believed that having the CEO also serving as the board chairman deepens the agency costs of corporations. As identified by Fama & Jensen (1983) and Rechner & Dalton (1991) non-separation of the two roles affects monitoring by the board on management since management assumes entrenched position. There is also contrasting opinion in the literature that espouses having a unified position of board chairman and the CEO position. Davis *et al.*, (1997) assert that when there is CEO duality, companies are able to avoid the situation where there are two spokespersons and conflicts that are likely to ensue between board chairman and CEO are avoided.

Empirical evidence in the literature has yielded mixed results in respect of these two positions discussed above. Cannella & Lubatkin (1993) found a positive relationship between CEO duality and performance. This finding agrees with the position of the stewardship theory that having the two positions handled by one person creates a unified position and effective decisions can be taken by management. Having the two positions merged is also identified in the literature by Simpson & Gleason (1999) to cause less financial distress to companies. That is companies where the positions of CEO and board chairman are merged; financial distress is less likely to occur. However Brickley *et al.*, (1997) found a negative relationship between performance and CEO duality. This finding also supports the position of the agency theory stating that CEO duality increases agency costs of companies and hence reduces performance. Other studies have also shown no relationship between CEO duality and performance measures. Using abnormal returns on the stock exchange as a measure of performance,

Dedman & Lin (2002) found that there is no significant relationship between abnormal returns of companies after splitting the two positions following the Cadbury report that recommended separation of the two roles.

2.7 Gender composition and its Impact on Firm's Performance

The composition of the board aside the basis of whether the directors are executive or non-executive, the literature identifies also composition with respect to gender. This board feature is usually identified in the literature to find out whether the existence of gender diversity or a board that is not one sex -biased, has any influence on performance. In a research based in Spain, Campbell & Minguez-Vera (2007) found that the proportion of women on Spanish board has positive relationship on performance using the Tobin's Q. This finding suggests that when many women are on the board, a company improves more in performance.

Other researches have also found a negative relationship between gender-diversity and non-attendance of board meetings. The rate of non-attendance of board meetings reduces when there is gender-diversity. Adams & Ferreira (2009) also found that representation of females on a board positively affects performance but this effect disappears when firm-specific effects are controlled for in a regression. This means that taking into consideration individuality of firms, gender diversity has no influence on firms' performance. In a research based in US, it was found that gender diversity has no influence on firms' performance. However when there is a decrease in the number of female on the board it is found that institutional investors react negatively to it (Dobbin & Jung, 2010).

2.8 Performance

Performance of companies is measured predominantly using financial parameters.

The financial parameters are measured through financial statements. According to the International Accounting Standard Board, IASB (2012) performance of companies is measured by identifying companies' total comprehensive income which comprises the yearly profit and other comprehensive income. Measuring performance of companies on absolute basis such as the raw profit figures has been criticized as obscuring companies' performance. Comparison for instance is not made with resources injected into the company before arriving at the profit figure. In this regard financial ratios have gained popularity in assessing companies' performance (Ross *et al.*, 2010).

Ratios are relative measures of performance unlike raw profit figures disclosed by the statement of profit or loss and other comprehensive income. Ratios help analysts to take the performance of companies from different angles while wearing different stakeholders' "spectacle". Consequently five major financial ratios that measure performance of companies identified are: profitability, liquidity, efficiency, gearing and Investment ratios (Brigham & Erhardt, 2012). Profitability ratios measure the ability of companies to generate profit and it is measured by ratios such as return on assets, return on equity and net profit margin. Return on assets measure performance of companies by relating profit made for the year to the total assets invested. Profit for the year used in assessing profitability can be before interest and tax or after tax. Return on assets and return on equity have been predominantly used in the literature to measure performance (Ehikioya, 2009; Nadeem *et al.*, 2013; Florackis *et al.*, 2009) While profitability is paramount to a company, its ability to settle short term obligations is also important. A company's ability to settle its short term obligations using the current

assets is known as liquidity. To determine whether companies are liquid or not, ratios such as current ratio, acid test ratio are used. The current ratio measures the ability of the current assets of a company to cover the current liabilities and still leaves a remainder. A ratio of 2:1 as a convention is deemed as standard though market or industry benchmark exists. The ratio means that current assets size should be twice of the current liabilities for a company to be deemed as liquid or more.

IASB (2012) asserts that companies whose operations fall within a working capital cycle has to use the current assets/current liabilities distinction and for such companies liquidity ratios are very important. Financial institutions do not have a clear working capital cycle like manufacturing companies, but for these companies liquidity is a paramount issue. Hence the statement of financial position of these companies is prepared on the liquidity basis. With financial institutions, similar ratios such as short-term assets to volatile funds ratio can be measured. Volatile funds comprise demand deposits such as current accounts.

Efficiency ratios measure how well companies are using their resources. Debt collection, creditors payment, inventory turnover management are checked to find out the waste management has prevented in using the resources. Have monies due from credit sales been recovered on time? Has longer duration been secured in paying creditors? Are inventory sold within a short time? If the answer is yes, then the company has been doing well (Ross *et al.*, 2010)

Gearing also measures the debt contracted by companies. Total debt can be measured as only interest-bearing liabilities. Debt carries financial risk and hence companies are deemed to be performing when proportion of a company's total assets or the capital

structure is financed less by debt. If the result is to the contrary, the company is deemed as not performing well in most instances (Brigham & Erhardt, 2012)

Investment ratios measure performance of companies by strictly looking at the performance of the equity shares in terms of returns attributable to that class of shares. Price-earnings ratio, earnings per share, and dividend cover are some of the examples of investment ratios. The Tobin's Q is also another financial ratio that has gained popularity in the literature. This ratio compares the market value of a company to its book value. That is the sum of the market value of total assets of a business which is in turn the sum of market value of equity shares and market value of liabilities divided by the book value of equity and liability. It is also measured as market value of equity divided by book value of equity. Tobin's Q has been used by different researchers in the literature. Ehikioya (2009) in a research based in Nigeria for companies listed on the Nigerian stock exchange used this ratio as a robustness check on the results of book-value ratios: return on assets and return on equity.

2.9 Empirical Literature Review

This section presents a review of findings on studies of board structure and performance. Studies have been done in Ghana, Africa and the world at large to point out the association between board structure or corporate governance and performance.

In Ghana researches such as Abor & Biekpe (2007) have been done in the SMEs to examine the impact of corporate governance on performance. The study found interesting results such as positive relationship between performance and CEO duality, a result that highly contrasts the position of the agency theory.

In a research based in South Africa, a positive relationship was found between the proportion of non-executive directors on the board and performance. This suggests that companies increase in performance at the addition of non-executive directors on the board. This finding was arrived at by Ntim & Osei (2011) using sampled firms of 169 on the Johannesburg stock exchange over a five year time span of 2002-2007. Performance was measured using return on assets.

Also in Nigeria, a negative relationship was observed by Ehikioya (2009) for firms on the Nigerian Stock exchange in terms of CEO duality and firm performance. This result supports the expectation of the agency theory. Positive relationship was also deduced between board composition and firm performance.

A no-statistical relationship has also been found by Kumalo (2011) between board size and performance using sample size of twenty-eight companies of dual listing in a research that sought the relationship between corporate governance and performance. Performance was measured using purely accounting-based measure, return-on-equity and also a market-based measure, the Tobin's Q. the proportion of non-executive directors on performance was also identified to have negative relationship on performance. This result contradicts the expectations of the agency theory that suggests that agency cost is reduced at the inclusion of non-executive directors on the board and hence positive performance expected.

The results in Kumalo (2011) are however accepted within the limitations of the fact that companies used as the sample which is defined to have listing in South Africa and also other countries can have variations in board structure to suit regulatory requirements in the outside countries. These variations required by other countries can

affect results as foreign requirements might not actually reflect the board structure of South African companies.

Also in a research based in South Africa using sampled five companies engaged in platinum mining listed on the Johannesburg Stock Exchange, Semosa (2012) assessed the effect of board size and board composition on the performance of firms. Firm performance was variously measured as return-on-assets, return-on-equity and Tobin's Q. Another measure of performance from the viewpoint of the Economists known as the Economic Value Added (EVA) was deployed in the study. Specifically the study found that the number of people on company's boards positively relates to performance measured using the EVA. The proportion of outside directors on the board is also identified to have a positive relationship between performance and the EVA.

2.10 Conceptual framework

This section presents the conceptual framework underlying the study. After reviewing the literature the study formulates relationship between board structure and firm performance. Board structure is identified using board size, non-executive directors, gender composition. Performance is measured using return on assets and return on equity. Other factors also influence performance and some are also identified in figure 2.1 below.

Independent variables

Dependent variables

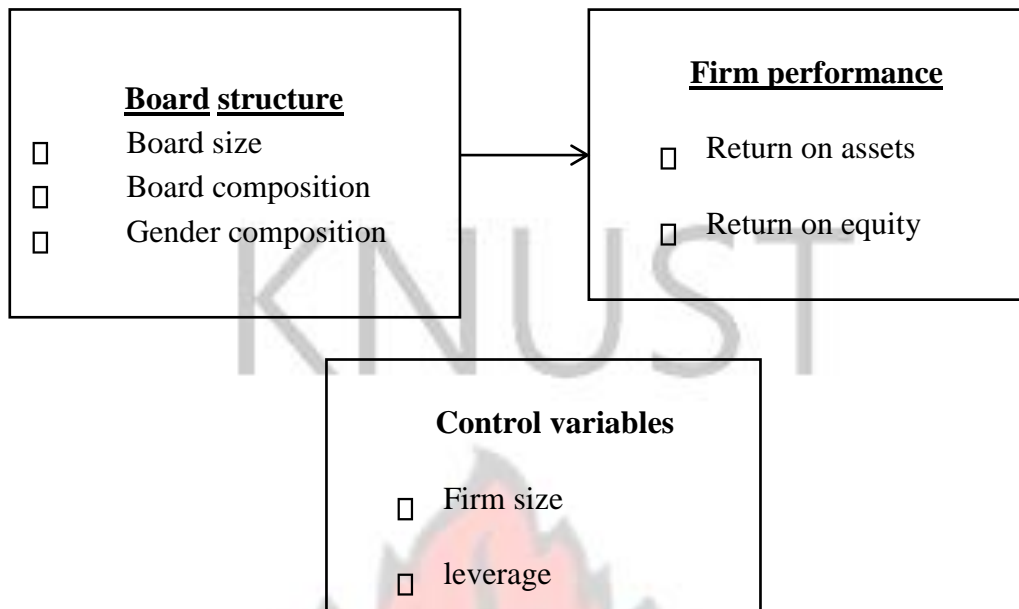


Figure 2.1 : Conceptual framework



CHAPTER THREE

METHODOLOGY OF THE STUDY

3.0 Introduction

This chapter covers the methods used in conducting the study, how questions of the research were answered, the targeted population, the sample size and technique used. It also shows the various sources of data and how the data were collected. The method used in analyzing or estimating the data and finally, the profile of the selected case study companies, are also covered in the chapter.

3.1 Research Design

Research design shows the blue print of the research and shows whatever strategy the researcher adopts in answering the research questions. The study used the deterministic research design as the study sought to examine impact of board structures of rural banks on their performance. As put forth by Saunders et al.,(2007), this research design is used when a study wants to assess the impact of some variables on other variables.

3.2 Research Population

Population of a study can be described as the full set of the cases of interest (Saunders *et al.*, 2007).For this study that seeks to evaluate the general board structure within the five (5) selected rural banks on performance, all the rural banks in the Kumasi metropolis represent the research population.

3.3 Sampling Techniques and Sample Size

As identified by Saunders *et al.*, (2007), there is a need for a method to be used to select sample out of the population so as to collect data to represent the whole population. The study developed the purposive sampling approach where even though there are many rural banks in the Kumasi Metropolis only those that data required for the research was easy to obtain and represent fully the characteristics of rural banks needed for the study were used. Though the population for the study consists of all rural banks in the Kumasi Metropolis, however five (5) Rural Banks were purposively selected for the study; Bosomtwe Rural Bank, Asante Akyem Rural Bank, Kwamanman Rural Bank Limited (KRBL), Odotobri Rural Bank and Nwabiagya Rural Bank Ltd were used for analysis of the objectives of the study.

3.4 Sources of Data Collection

The researcher used purely secondary source of data in carrying out the research. Secondary data is one type of quantitative data that has already been collected by someone else for a different purpose. For example, this could mean using: data collected by a bank on its performance or customers. For this work, secondary data has been sourced from the five banks' annual reports.

3.5 Data Analysis

Data analysis refers to a process which entails an effort to formally identify themes and to construct hypothesis as are suggested by data and an attempt to demonstrate support for those themes and hypothesis (Saunders *et al.*, 2007). After the data was collected, it was organised and analysed using both Excel 2013 and STATA 13.1.

3.6 Regression Model Specification

The study uses panel data by applying the Ordinary Least Square (OLS). Panel data combines the use of time series and cross-sectional data.(Gujarati & Porter, 2010).

3.7 Empirical models

The study sets two models using two measures of performance: return on assets and return on equity. Board structure is measured using the proxies: board size, board composition and gender composition. To control for omitted variable bias, control variables namely leverage and size of the banks are used. Below are the empirical models of the study.

$$ROA_{it} = \beta_0 + \beta_1 BS_{it} + \beta_2 BoardCOM_{it} + \beta_3 Gender_{it} + \beta_4 LEV_{it} + \beta_5 SIZE_{it}$$

$$ROE_{it} = \beta_0 + \beta_1 BS_{it} + \beta_2 BoardCOM_{it} + \beta_3 Gender_{it} + \beta_4 LEV_{it} + \beta_5 SIZE_{it}$$

The dependent variables measure performance and the study uses two performance measures: return on assets (ROA) and return on equity (ROE). The independent variable of interest is board structure and this is operationalized in the study using board size (BS), board composition (BoardCOM) and gender composition of the board. Control variables leverage (LEV) and size are also incorporated in the model. The betas represent the marginal change of the independent variables on the dependent variables. The use of „i“ and „t“ shows that the study combines time series and cross sectional data of the study organisations.

3.8 Measurement of variables

3.8.1 Dependent variables

The study deploys two accounting based measures as a proxy of performance. Specifically return-on-assets (ROA) and Return-on-Equity are used to represent performance. In line with the works of Abor & Biekpe (2007), Ehikioya (2009) and others, performance is measured using these accounting ratios. Return on assets measures performance from the perspective of all investors (Ross *et al.*, 2010) while Return on equity measures performance from the perspective of only equity shareholders. The two have been jointly used so as to cover the limitation in the biasedness of the perspectives of measuring performance.

3.8.2 Independent Variables

Board size

Board size measures the number of people on the board of a company. It is hence measured as the head count of board members of the rural banks used for the study.

This has been measured in line with extant researches on corporate governance (Abor & Biekpe, 2007; Ehikioya, 2009). The agency theory expects negative relationship between board size and performance because of the belief that as boards become crowded, there is an adverse effect on their monitoring role on management (Fama & Jensen, 1983). Other theories such as the resource dependency view are however of different view asserting that boards of companies consist of pool of expertise which the firm can deploy. Hence the size of the board also represents the size of the expertise (resources) available to the firms (Pfeffer, 1972). A positive relationship in this regard is however expected. Empirical studies have yielded contrasting results on the

relationship between board size and performance. Kumalo (2011) found no relationship between board size and performance. Ehikioya (2009) found a negative relationship between board size and performance and Mashayekhi & Bazaz (2008) also found a negative relationship between performance and board size. The study hence makes this hypothesis that board size has negative influence on performance

Board composition

This measures the proportion of non-executive directors on the board. The agency theory is of the view that the inclusion of non-executive directors on the board reduces agency cost and hence increases performance. Inside directors are likely to pursue their own interest at the expense of shareholders (Fama & Jensen, 1983). Studies on corporate governance have yielded contrasting results. Ehikioya (2009) found a positive relationship between performance and the presence of non-executive directors. Ntim & Osei (2011) however found a negative relationship between performance and non-executive directors. The study hence makes the hypothesis that board composition has positive influence on performance

Gender composition

This represents the proportion of females on the boards of rural banks. It is thus measured as the number of females as a proportion of the total number of people on the board. Adams & Ferreira (2009) found that the proportion of female on the boards of companies leads to positive performance. This suggests that marginal increase in female representation on the board of companies also leads to increase in profits of firms. Dobbin & Jung (2010) however found that gender composition has no influence on

performance but when there is a decline in female representation, stock prices experience a nose-dive as a result of negative reaction of institutional investors.

The study against this background makes the following hypothesis that gender composition has positive influence on performance

Leverage

Leverage measures the total debt as a proportion of the total assets of firms. Leverage introduces financial risk to companies through interest payments, and hence reduces performance. Long-term debt comes with interest and thus reduces profits in this regard (Ross *et al*, 2010). There have been mixed results in terms of the relationship between leverage and performance. Ehikioya (2009) found a negative relationship between performance and leverage. The study expects therefore a negative relationship between leverage and performance.

Firm size

Size of firms has also been identified to have mixed relationship with performance. Ehikioya (2009) found positive relationship between performance and size of firms. Size is measured by the study using the natural logarithm of the total assets of the rural banks. Size has also been linked with agency costs and it is believed to increase agency costs (Jensen & Meckling, 1976). The study expects a positive association between firm size and performance.

3.9 Summary of measurement of variables

Table 3.1 below gives meaning of the various dependent and independent variables used by the study as well as their formulae for computing them.

Table 3.1: Measurement of variables

Variables	Definition	Formula	Symbol
Dependent variables			
Return on assets	Measures the profit made by the banks on their investment in assets	$\frac{\text{Profit}}{\text{Assets}}$	ROA_{it}
Return on equity	Measures the profit earned by the banks for their equity shareholders	$\frac{\text{Profit}}{\text{Equity}}$	ROE_{it}
Independent variables			
Board size	Measures the number of people on the boards of rural banks	Head count (numerical value) of directors on the board	BS_{it}
Board composition	Measures the number of outside directors on boards of rural banks	$\frac{\text{no. of non - executive}}{\text{Board size}}$	$BoardCOM_{it}$
Gender composition	Measures the proportion of females on boards of rural banks	$\frac{\text{no. of females}}{\text{Board size}}$	$\beta_3 \text{ Gender}_{it}$
Control variables			
Leverage	Measures the financial structure of banks	$\frac{\text{Debt}}{\text{Equity}}$	LEV_{it}
Size	Measures the size of the rural banks	Natural logarithm of total assets	$SIZE_{it}$

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND DISCUSSION

4.1 Introduction

This chapter presents presentation, analysis and discussion of findings of the study. Discussion of the results is made in the context of relevant literature and financial theories. The statistical package, STATA 13.1 was used to analyse the results of the study. There are two sections in this chapter; The first section covers the descriptive statistics while the other section concerns the inferential statistics.

4.2 Descriptive statistics

Table 4.1 below gives summary statistics of board characteristics namely board size, board composition and gender composition. Also performance measures namely Return on Assets (ROA) and Return on Equity (ROE) and other factors influencing performance such as leverage and size.

Table 4.1: Descriptive statistics

Variable	Mean	Std. Dev	Minimum	Maximum
Boardsize	8	0.645	7	9
Board composition	1	0	1	1
Gender	0.05	0.0625	0	0.125
ROA	0.033	0.022	-0.031	0.059
ROE	0.230	0.145	-0.210	0.424
Leverage	0.819	0.117	0.444	0.924
Size	17.20	0.445	16.31	18.17

The table 4.1 shows that on average rural banks have board size of eight members and there are variations among the various rural banks used for the study as indicated by the minimum and maximum values as well as the standard deviation.

Board composition measures the number of outside or non-executive directors on the board. The table shows that the board members of rural banks used had no executive representation. The boards consists entirely non-executive members.

Gender composition measures the proportion of female representation on the boards. The table 4.1 shows that females are less represented on the boards of rural banks as indicated by an average representation of 5 percent.

The performance measures: return on assets and return on equity for the rural banks indicate that on average the rural banks made a profit of approximately GHS 0.23 for all investors on every cedi investment. However the average returns available to only equity shareholders over the selected years is only GHS 0.3 on every cedi investment. There are however variations in performance among the banks as indicated by the standard deviation.

Summary statistics on other performance measures namely size and leverage show that the various rural banks used for the study differ in terms of size, measured by the total assets. The rural banks used for the study on average over the period for the study had assets worth GHS 29,464,891.68 (antilog of 17.19871). Also the rural banks on average had approximately 82 percent of their assets financed by debt claims.

4.3 Correlation of dependent and independent variables

The correlation table below shows the relationship between the dependent and independent variables precisely board characteristics and performance measures.

Table 4.2: Correlation of independent and dependent variables

	ROA	ROE	Boardsize	Boardcom	gender	Lev	size
ROA	1.0000						
ROE	0.8277	1.0000					
	-						
Board size	(0.2321) 0.0643	0.0020 0.0925	1.0000				
board composition	0.1072 0.6100	(0.3046) 0.1387	(0.0213) 0.9197	1.0000			
gender	(0.3697) 0.0689	(0.3842) 0.0579	(0.6455) 0.0005	(0.3120) 0.1290	1.0000		
leverage	0.0745 0.7234	0.4964 0.0116	0.1578 0.4512	0.8736 -	0.0723 0.7312	1.0000	
size	0.2440 0.2397	0.1146 0.5853	0.2750 0.1834	0.6047 0.0014	(0.5318) 0.0062	(0.2210) 0.2883	1.0000

The table shows that there is a negative relationship between board size and performance and this is statistically significant. There is a positive relationship between board composition and board size but this is not significant. Gender composition also has negative relationship with both return on assets and return on equity. There is a positive relationship with size of rural banks and size of boards of rural banks suggesting that larger boards tend to have more people on their boards and vice versa.

This is however not significant. There is also a positive relationship between proportion of non-executive directors on boards of rural banks and their assets size but this relationship is not significant. The correlation co-efficient between return on assets and return on equity confirms the high relationship between the two performance measures. The correlation co-efficient between the independent variables show figures less than 0.7 and this suggests the absence of multicollinearity, a situation where there is interdependence between two independent variables (Cerbioni & Parboneti, 2007).

4.4 Analysis of results of the Models

4.4.1 Results of Model 1

The ordinary least square (OLS) regression was performed to determine the impact of board characteristics on rural banks' performance. Performance was measured in two ways firstly using return on assets (ROA) and secondly using Return on Equity (ROE). Table 4.3 below presents results on regression where performance is measured using return on assets (ROA).

Table 4.3: Regression results using Return on Assets (ROA) as dependent variable

Return on Assets	Co-efficient	Std. Err.	P>t	
Board size	-0.031	0.0066	0.000***	significant
Board composition	0.256	0.0088	0.022**	significant
Gender	-0.334	0.0757	0.000***	significant
Leverage	0.056	0.0283	0.062*	significant
Size	0.002	0.00856	0.749	
Constant	0.204	0.165	0.231	
F-statistics	7.36		0.0008***	
Adjusted Rsquared	0.5145			

Note: * significant at 10%, ** significant at 5%, *** significant at 1%

Results in table 4.3 show that board size, board composition and gender composition significantly influence performance of rural banks. The leverage of rural banks also impacts performance but the size of the banks has no significant impact on performance. The F-statistic is a joint hypothesis statistic and shows that all the board characteristics used and the control variables jointly have statistical significance in influencing performance of the rural banks.

Both the R-squared and the adjusted R-squared show that more than fifty percent of the variations in performance of rural banks can be explained by board characteristics and the control variables.

4.4.2 Results of Model 2

Table 4.4 below shows results on the regression of return on equity, an important measure of performance to equity shareholders, on the same proxies of board characteristics used in table 4.3 and the control variables.

Table 4.4: Regression results using Return Equity (ROE) as dependent variable

ROE	Co-efficient	Std. Err.	P>t	
board size	-0.148	0.040	0.002***	significant
Board composition	0.156	0.066	0.000***	significant
Gender	-2.01	0.460	0.000***	significant
Leverage	0.814	0.172	0.0902*	significant
Size	-0.007	0.05	0.352	
Constant	0.955	1.003		
F-statistics	9.51		0.002***	significant
Adjusted Rsquared	0.5864			

Note: * significant at 10%, ** significant at 5%, *** significant at 1%

Results in table 4.4 are consistent with results in table 4.3 confirming that board characteristics have statistically significant impact on performance. The F-statistics is also highly significant in this regression and both the R-squared and the adjusted

Rsquared also show that board characteristics together with size and leverage explain more than fifty percent variation in performance of rural banks.

The two regression results in both table 4.3 and 4.4 show that board composition has positive influence on performance of rural banks and this relationship is also statistically significant. The results specifically mean that the rural banks having boards composed of non-executive directors perform well and a unit increase in proportion of non-executive directors, proportionally increases performance by 0.25 and 0.16 units for return on assets and return on equity respectively.

The size of the boards of rural banks also has negative relationship with performance regardless of whether the measure looks at all investors' interest (return on assets) or only that of equity shareholders (return on equity). A negative relationship suggests that as boards increase in the number of directors, it creates an adverse effect on the performance of the banks. The table 4.3 and 4.4 both indicate that a unit change in board size of rural banks causes a corresponding change in the opposite direction of 0.15 units (in terms of returns on equity) and 0.03 (in terms of return on assets). There is a statistically significant impact of size of boards of rural banks on their performance.

The representation of both female and male on boards of rural banks was also identified to have statistically significant relationship with performance as measured by both return on assets and return on equity. In both performance measures, female representation on the board has adverse impact on performance. Specifically the mean impact shows that a unit change in the proportion of female on boards of rural banks reduces performance of the banks by 0.33 units (return on assets) and 2 units (return on equity).

4.5 Regression results against hypothesized signs

Table 4.5: Summary of regression results against expected signs

Variable	Regression results	Expected signs	Comment
Board size	-	-	Satisfied
Board composition	+	+	Satisfied
Gender composition	-	+	Not satisfied
Leverage	+	-	Not satisfied
Size	+	+	Not significant

The table 4.5 above shows that the study expected negative relationship between board size and performance and this was satisfied by the regression results. Also the study hypothesized that board composition has positive relationship with performance in line with the agency theory and this was satisfied by the regression results. A diversified board in terms of gender was also expected to have positive impact on performance. This was however not satisfied by the regression results as proportion of gender on board had negative relationship with performance.

The financial structure of rural banks was also expected to have negative relationship with performance of banks, but this was not met. The size of the banks as measured by their assets worth was also expected to have positive relationship with performance but this was not significant.

4.6 Discussion of Results

The results of the regression reveal that board composition has statistically significant relationship with performance for rural banks and this relationship is positive. The implication of this finding is boards having non-executive directors have the tendency

to positively affect the performance of their related rural banks. This result is consistent with the findings in extant literature. Board composition in the literature is usually used to represent board independence (Brown & Caylor, 2004). The researchers found that companies with board independence are able to give higher returns on equity to their shareholders. The positive relationship identified between non-executive directors and performance of rural banks can be explained from the fact that these directors are independent from management (Malin, 2007). There is recommendation by corporate governance codes such as Cadbury (1992) stating that non-executive directors serving on boards of companies should be independent from management. This is to ensure that they bring to bear impartiality when decisions concerning the corporation are being made. The strength of boards in the literature has thus been linked to the independence of its directors (Kyereboah-Coleman & Biekpe). The result identified in respect of non-executive directors and performance in relation to rural banks in Ghana is however inconsistent with results such as Baysinger & Butler (1985), where a negative relationship was found between non-executive directors and performance. The agency theory paints a picture of conflict of interest between the shareholders and the management and hence there is a need for a monitoring body to ensure that management does the right thing to satisfy shareholders' goals (Jensen & Meckling, 1976). The effective performance of the monitoring body (the board) is hence important and this effectiveness is partially achieved when the board is independent by having outside directors on the board.

This is because outside directors do not have any attachment with the company unlike inside directors who are in management position and hence have the tendency of deepening the agency problem as effective monitoring is impaired. Positive impact on performance through the characteristic board independence therefore means that

effective monitoring is achieved by the boards on the rural banks, and these directors bring to the boards unbiasedness in tackling issues of the banks. The descriptive statistics shown on board composition indicate that boards of rural banks used were entirely consisted by outside directors. This result on the relationship between board composition and performance is consistent with the agency theory that explains board structure or corporate governance.

The study also reveals that the size of boards has negative relationship with banks. The result suggests that as boards increase in number, performance of rural banks is affected. This result is consistent with the findings of Lipton & Lorsch, 1992; Yermack, 1996 where they found that smaller boards are linked to high value compared to larger boards. This finding is explained also by the agency theory which suggests that large boards are not effective in providing monitoring on management activities. This is because some members in larger boards loaf and are not able to perform as expected but still adds to the cost of the company. The agency theory hence recommends smaller board size for effective monitoring to be executed so as to reduce the agency problem, and hence increase performance of companies.

The maximum board size for the banks used is 9, a figure far below the maximum board size of 16 recommended by the Security Exchange Commission (SEC) for companies listed on the stock exchange, suggesting that rural banks have smaller board sizes.

Gender composition or gender diversity as it is variously called in the literature is also identified to have a significant negative relationship with performance.

The result suggests that the presence of female on boards of rural banks detracts from performance. The result in relation to rural banks in the Ashanti region is inconsistent

with the positive relationship found between women composition on the board and performance in a research based in Spain (Campbell & Minguez-Vera, 2007). Positive relationship between gender composition and performance was also found by Adams & Ferreira (2009). The statistically significant relationship between performance and gender composition however disappears when firm-specific effects are controlled for in the research done by Adams & Ferreira (2009). The literature also identifies a nonstatistical relationship between firm performance and gender composition (Dung & Jung, 2011).

Leverage measures the financial structure of the listed companies used for study. The results show that there is a positive relationship between leverage and performance, a result contrary to the usual expectations of most theories on debt, that debt reduces profits and consequently constrains cash flows. This also introduces financial risk to the risk profile of the companies using financing. The positive relationship between financial structure and performance can be explained by the control debt exerts on management. Debt has to be serviced and sometimes comes with covenant and this constrains management to perform well.

Size has no significant relationship for rural banks in influencing performance. The results hence suggest that the asset base of rural banks in operating in the financial industry does not have effect on performance.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter summarizes significant findings, conclusion and recommendations of the study. Recommendations are also made for further study.

5.2 Summary of major findings

The study shows that board size has negative relationship with performance suggesting that larger board size of rural banks adversely affect performance. Both return on assets and return on equity have negative relationship with board size.

Board composition measures the proportion of outside directors on boards of companies. The study reveals that board composition has statistically significant positive relationship with performance. The inclusion of non-executive directors on the boards of companies positively affects performance, a finding which agrees with the agency theory underlying board structure.

Gender composition measures the fact that boards of rural banks have gender diversity and whether this affects performance. The result shows that gender composition adversely affects performance. The study reveals further that there is a relatively lesser representation of females on the boards of rural banks as most of the banks used for the study had no female over the years utilized for the study.

Control variables used for the study: leverage and size of firms showed mixed results. The study reveals that the leverage (financial structure) of rural banks has positive impact on performance.

Assets of rural banks used for the study on average are financed at a greater proportion by total debt. The size of rural banks measured by asset base however indicates that this

variation has no effect on their performance. Whether performance is measured from shareholders' perspective (return on equity) or an all-investor inclusive measure, return on assets is used; performance is not affected by asset base of rural banks.

5.3 Conclusion

This study focused on examining the impact of board characteristics on performance of rural banks in the Kumasi Metropolis. The purposive sampling approach was used in selecting the banks for the study and five (5) banks specifically were used for the study. The study sought to examine the influence of board size, gender composition and board composition on performance of the rural banks. Two accounting based measures were purposively chosen: return on assets and return on equity so as to have all-inclusive-investor measure of performance and one targeted at only the decision makers (equity investors) of the rural banks. The OLS regression was used deploying data for the years 2010-2014 for five rural banks selected in the Kumasi Metropolis. The study reveals that the number of directors serving on boards of rural banks has negative significant influence on performance meaning that larger board size reduces performance all other things being equal, and vice versa. Board composition also has positive impact on performance whiles gender composition was determined by the study to have negative impact on performance. In conclusion, the structure of board as measured by the study using board size, board composition and gender composition affects performance. The agency theory explaining board structure explains the link of board structure and performance of rural banks in the context of rural banks in the Kumasi Metropolis.

5.4 Recommendations

Based on the major findings, the following recommendations are made:

The negative influence of gender diversity on performance on rural banks suggests the fact that the necessary conditions for the female presence to positively affect performance might not be present. There is a low representation of females on the boards of rural banks as indicated by a figure of 5% with many banks having no female representation over the years used for the study. It is hence recommended that an environment that encourages and brings out the positive contribution of female on boards of rural banks should be made.

The inclusion of outside directors on the performance of rural banks has been identified by the study to be positive. It is recommended that since these are outside directors the necessary information pertaining to companies in terms of financial performance have to be accurately furnished to them for a continued positive performance. The study reveals full representation of the boards of the rural banks by outside directors and it is recommended that inclusion of the managing directors of the rural banks on the boards should be made. This would create a mix of executive and non-executive directors recommended by the regulations governing corporate governance in Ghana (Agyemang et al., 2013). This helps to get the Board informed fully all other things being equal to help bring out the full positive impact of outside directors and the board at large on companies.

The number of people on the boards of rural banks has been identified to have negative relationship with performance. For companies listed on the Ghana Stock Exchange, there is a clear ceiling set out by the Security Exchange Commission (SEC) in terms of board size to the effect that directors should not exceed fifteen. Regulators of the rural banking industry thus have to come clear on the ceiling of board size for the rural banks.

5.5 Recommendation for further study

It is recommended that future studies should be extended to other rural banks in other metropolis to establish the impact of board characteristics on performance of rural banks.

It is also recommended that other characteristics of boards of rural banks should be used and its impact examined on performance of boards of rural banks.



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APPENDICES

Variable	Obs	Mean	Std. Dev.	Min	Max
boardsize	25	8	.6454972	7	9
boardcompo~n	25	1	0	1	1
gender	25	.05	.0625	0	.125
roa	25	.0333287	.0221059	-.0314053	.0591365
roe	25	.2295569	.1454414	-.2103808	.4236189
leverage	25	.8193193	.1175543	.4446225	.9238594
size	25	17.19871	.4447254	16.31291	18.16951

Source	SS	df	MS	Number of obs = 25	
Model	.0069831	4	.001745775	F(4, 20) =	7.36
Residual	.004744998	20	.00023725	Prob > F =	0.0008
				R-squared =	0.5954
				Adj R-squared =	0.5145
				Root MSE =	.0154
Total	.011728098	24	.000488671		

roa	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
boardsize	-.0309883	.0066289	-4.67	0.000	-.044816	-.0171606
boardcompo~n	0	(omitted)				
gender	-.3344569	.0756977	-4.42	0.000	-.4923595	-.1765543
leverage	.0560506	.0283894	1.97	0.062	-.0031686	.1152697
size	.0027784	.0085612	0.32	0.749	-.0150801	.0206368
_cons	.2042502	.1652039	1.24	0.231	-.1403591	.5488595

Source	SS	df	MS	Number of obs = 25	
Model	.332708108	4	.083177027	F(4, 20) =	9.51
Residual	.174968621	20	.008748431	Prob > F =	0.0002
				R-squared =	0.6554
				Adj R-squared =	0.5864
				Root MSE =	.09353
Total	.507676728	24	.021153197		

roe	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
boardsize	-.1475222	.0402537	-3.66	0.002	-.23149	-.0635544
boardcompo~n	0	(omitted)				
gender	-2.012924	.4596684	-4.38	0.000	-2.971775	-1.054073
leverage	.8139836	.1723922	4.72	0.000	.4543798	1.173587
size	-.0065106	.0519875	-0.13	0.902	-.1149546	.1019335
_cons	.9554418	1.003188	0.95	0.352	-1.137172	3.048055