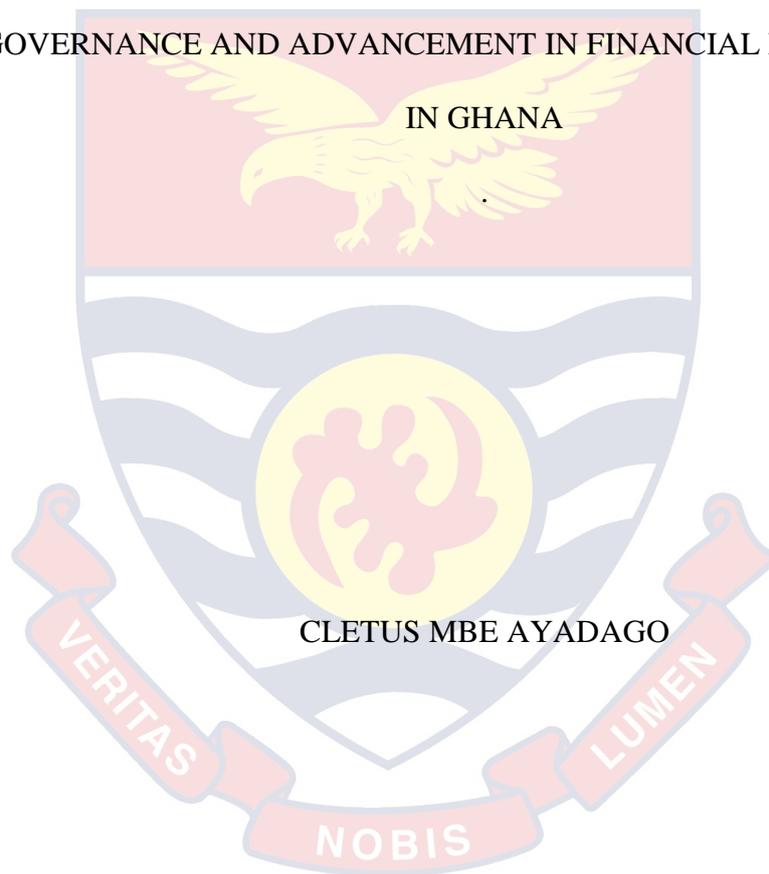


UNIVERSITY OF CAPE COAST

GOVERNANCE AND ADVANCEMENT IN FINANCIAL INSTITUTIONS



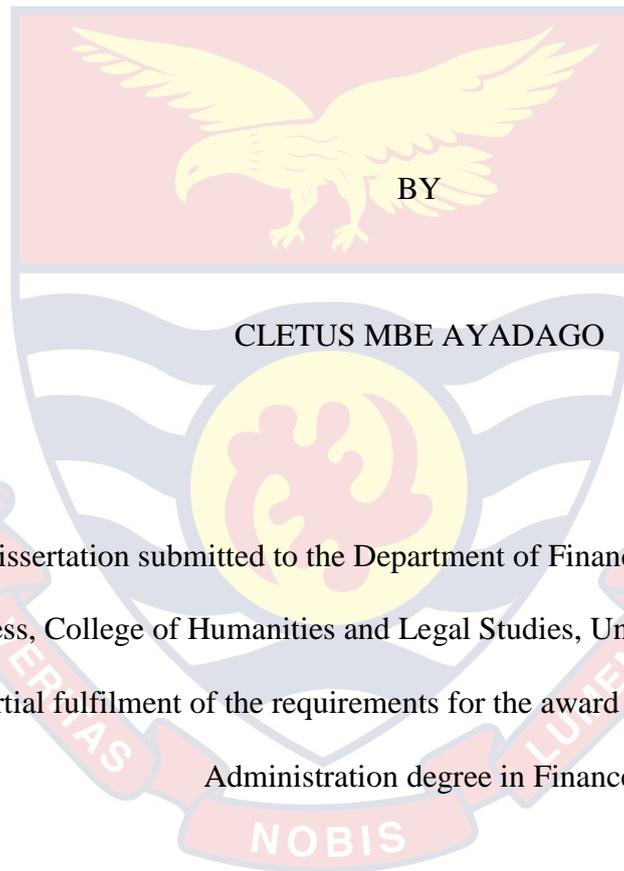
CLETUS MBE AYADAGO

2021

UNIVERSITY OF CAPE COAST

GOVERNANCE AND ADVANCEMENT IN FINANCIAL INSTITUTIONS

IN GHANA



Dissertation submitted to the Department of Finance of the School of  
Business, College of Humanities and Legal Studies, University of Cape Coast,  
in partial fulfilment of the requirements for the award of Master of Business  
Administration degree in Finance

SEPTEMBER 2021

## DECLARATION

### Candidate's Declaration

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

Candidate's Signature: ..... Date: .....

Name: Cletus Mbe Ayadago

### Supervisor's Declaration

I hereby declare that the preparation and presentation of the dissertation was supervised in accordance with the guidelines on supervision of dissertation laid down by the University of Cape Coast

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

Name: Professor John Gartchie Gatsi

## ABSTRACT

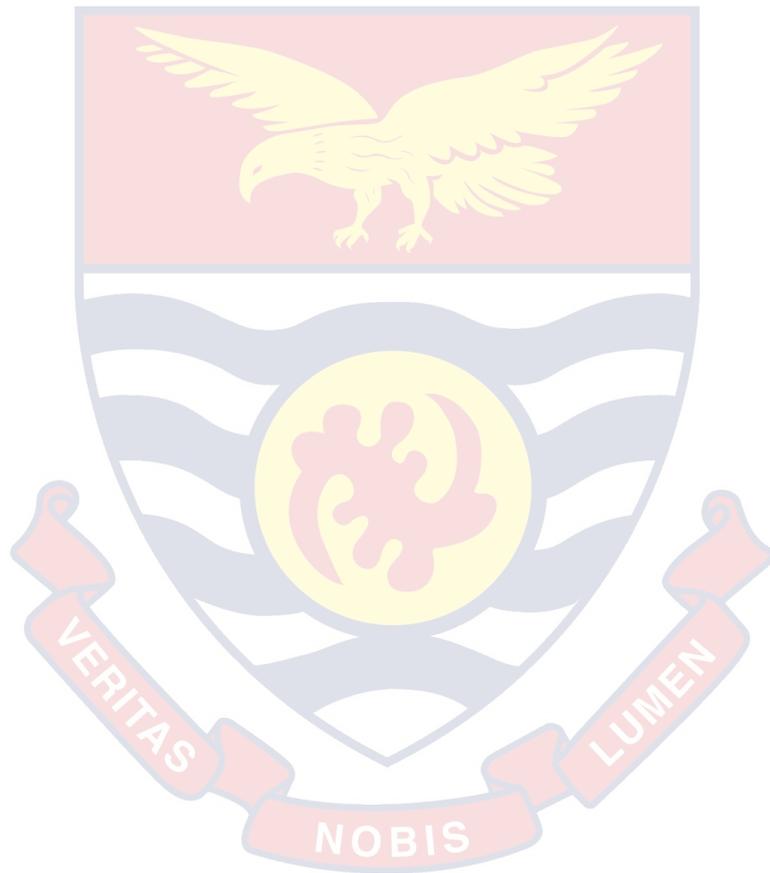
This study examined the effect of governance on financial institutions in Ghana. This is because studies done so far on this topic have failed to elicit the unique features of the governance on financial institutions in Ghana into consideration. The study was guided by endowment and new institution theory. The study adopted Autoregressive Distributed Lag (ARDL) Bound testing cointegration by Pesaran, Shin and Smith (2001) technique. The findings of the study are as follows: there is no long run relationship between governance and domestic credit to private sector in Ghana, there is no long run relationship between governance and broad money in Ghana, there is short run relationship between governance and domestic credit to private sector in Ghana there is short run relationship between governance and broad money in Ghana. Guided by the findings obtained from the study, the following recommendations were put forward to the leader of Ghana should help enhance governance so that it would translate into a better financial institution. Governance policies should be directed into vibrant monitoring, capital assistant and training for the financial institutions in Ghana, in order to have sound financial institutions in Ghana.

## KEY WORDS

Governance

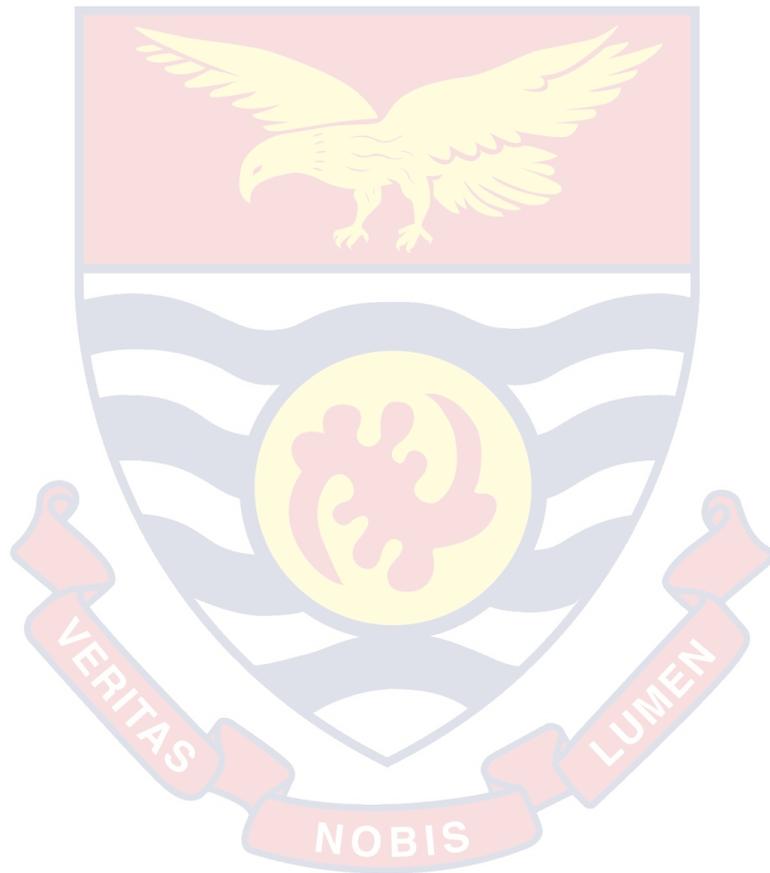
Financial Institutions

Ghana



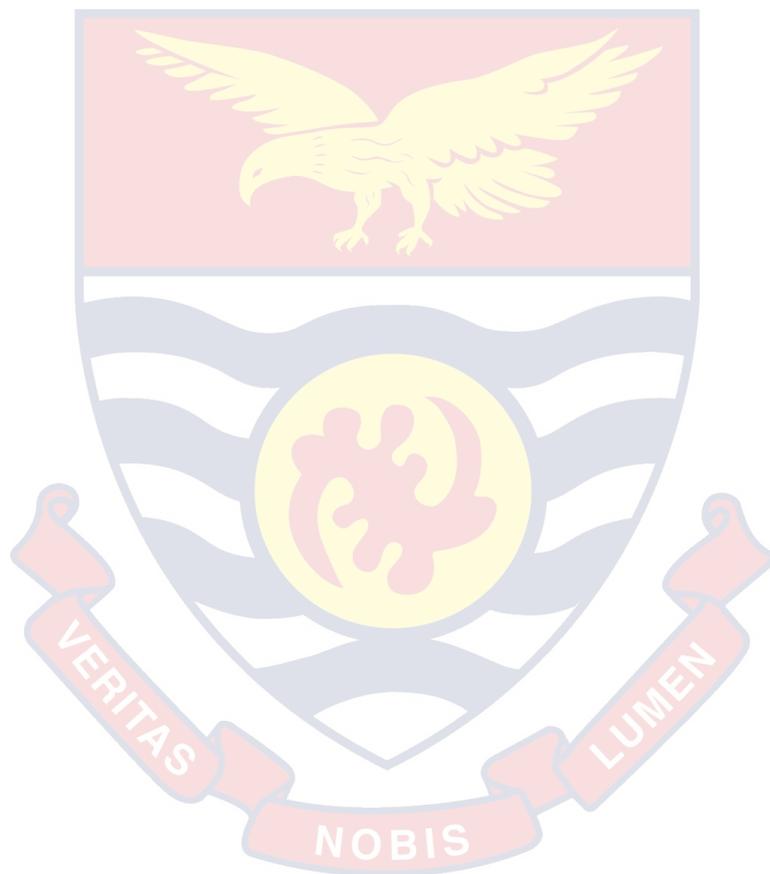
## ACKNOWLEDGEMENTS

I am immensely grateful to my Supervisor, Professor John Gartchie Gatsi for his suggestions and corrections that helped shape this work. Special thanks to all those who helped in during the work.



## DEDICATION

To my wife for her prayers and support.

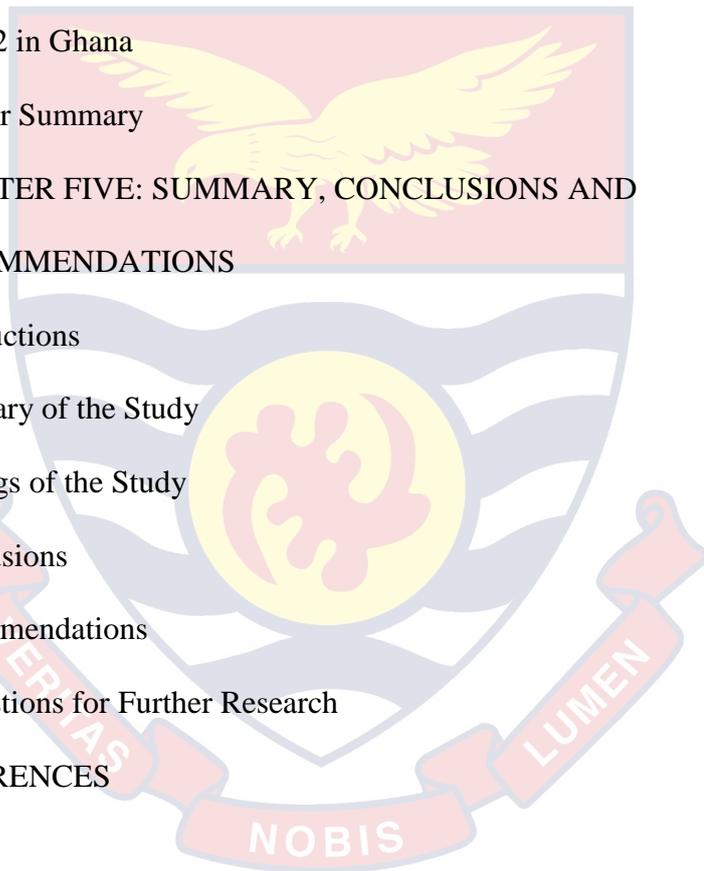


## TABLE OF CONTENTS

	Page
DECLARATION	ii
ABSTRACT	iii
KEY WORDS	iv
ACKNOWLEDGEMENTS	v
DEDICATION	vi
TABLE OF CONTENTS	vii
LIST OF TABLES	x
LIST OF FIGURES	xi
CHAPTER ONE: INTRODUCTION	
Background to the Study	1
Statement of the Problem	3
Purpose of the Study	4
Hypotheses	4
Significance of the Study	5
Delimitation of the Study	5
Organization of the Study	6
CHAPTER TWO: LITERATURE REVIEW	
Introduction	7
Literature Review	7
Theoretical review	7
New Institutional Economics Theory	8
Empirical Review	8
Other related study	14

Conceptual Framework	18
Chapter Summary	19
<b>CHAPTER THREE: RESEARCH METHODS</b>	
Introduction	20
Research Design	20
Research Approach	20
Model Specification	21
Measurement of Variables	22
Dependent variable	22
Financial development	22
Independent variable	22
Gross domestic product per capita growth (GDPCG)	23
Inflation (INFL)	24
Trade Openness (TO)	24
Foreign direct investment	25
Sources of Data	25
Data Analysis	26
Model Diagnostics	26
Chapter Summary	27
<b>CHAPTER FOUR: RESULTS AND DISCUSSION</b>	
Introduction	28
Descriptive Statistics	28
Correlation Analysis	30
Unit Root Tests	32
Lag length tests	34

ARDL test	34
Objective 1	35
Objective 2	40
Model Diagnostics	46
CUSUM and CUSUM of Square test for the relationship between GOV and DCPS in Ghana.	48
CUSUM and CUSUM of Square test for the relationship between governance and M2 in Ghana	51
Chapter Summary	52
CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS	
Introductions	53
Summary of the Study	53
Findings of the Study	54
Conclusions	54
Recommendations	55
Suggestions for Further Research	55
REFERENCES	56

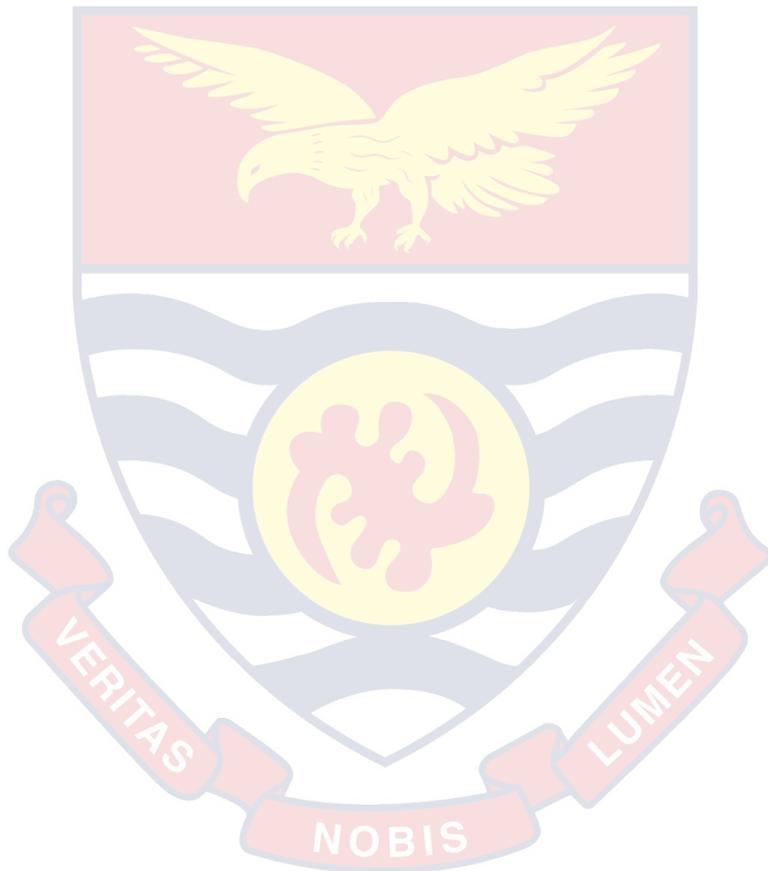


## LIST OF TABLES

Table		Page
1	Descriptive Statistics of the dependent, independents and control variables	29
2	Correlation Analysis	31
3	Results of Unit Root Test with constant and trend: ADF Test	33
4	VAR Lag Order Selection Criteria	34
5	ARDL Bound test	35
6	Long-Run Coefficients Estimates using the ARDL Approach	36
7	ARDL Bound test	38
8	Long-Run Coefficients Estimates using the ARDL Approach	39
9	Estimated Short-Run Error Correction Model using the ARDL Approach	41
10	Estimated Short-Run Error Correction Model using the ARDL Approach	44
11	Diagnostics for relationship between GOV and DCPS in Ghana	47
12	Diagnostics for relationship between GOV and M2	50

## LIST OF FIGURES

Figure		Page
1	Conceptual framework	19
2	CUSUM test	48
3	CUSUM of Square test	49
4	CUSUM test	51
5	CUSUM of Square test	51



## CHAPTER ONE

### INTRODUCTION

This study intends investigating the role governance play in the forwardness of the financial institutions in Ghana after the crises of the financial sector the economy. From earlier studies such as Law and Azman-Saini (2012) this study sought to find the difference governance would make in the betterment of the financial occurrences in the economy of Ghana. This would be the first of its kind in Ghana, the earlier studies were done in other countries and African economies together.

#### **Background to the Study**

Financial institution in any economy is more than presence of banking institutions, but other institutional actors such as pension funds, insurance companies, hedge funds, and mutual funds (Bank of Ghana, 2019). Therefore, despite the aggregate size of the financial sector certainly provides useful information, it should be integrated with specific information about the relative importance of sub-sectors. In the Handbook on Financial Sector Assessment, the International Monetary Fund stresses that a correct assessment of the development of the financial structure should cover all the different players engaging in financial intermediation: commercial and merchant banks, savings and loan institutions, development finance institutions, insurance companies, mortgage entities, and pension funds. Moreover, in order to take into account, the different activities they perform, money, foreign exchange, and capital markets (including bonds, equities, and derivative and structured finance products) should also be covered in the assessment (International Monetary Fund ,2005).

The relevance of these financial institutions in the economic growth of a country like Ghana can never be understated (Agyemang, Gatsi & Ansong, 2018). This is because the financial sector encourages domestic savings, provide credit to the citizen, attract of foreign capital and provide employment (Nutassey, 2018).

Yet, the financial atmosphere in Ghana in recent time has been very discouraging because many financial institutions have collapsed leading to huge sum of money being lost by customers of the affected financial institutions. Some of the affected financial institutions were UT Bank, Capital Banks, The Sovereign Bank, The Beige Bank, Premium Bank, The Royal Bank, Heritage Bank, Construction Bank, UniBank, GN Savings and Loans Company, Unicredit Savings and Loans, Adom Savings and Loans, Midland Savings and Loans, Ideal Finance and Dream Finance Company (Bank of Ghana, 2019; Government of Ghana, 2018). The government of Ghana came out with explanation that led to the collapsed of the affected financial institutions to be insolvency, liquidity, fraudulent licenses acquisition and new capital requirement.

This means that domestic savings, credit provision to citizen, foreign investment and employment will reduce, all other thing being held constant. This is because most of the financial institutions that is supposed to provide them have collapsed. This would eventually cause a huge damage to the economic growth of Ghana. Thus, it is impediment to find a way to bring the financial institutions of Ghana back on track.

One-way Ghanaians can bring our financial institution back is by working on the governance structure of the economy. This because previous

studies have emphasized the role of governance in the wellbeing of financial institutions (Agyemang, Gatsi & Ansong 2018; Law & Azman- Saini, 2012). That is, when the governance of an economy is sound and reliable; the financial institutions would do better, all other things being held constant. This study intends investigating the role governance played in the collapsed of the financial institutions. This is necessitated because no study has looked at the unique effect of governance in wellbeing of financial institutions in Ghana.

To be more specific, governance ensure an adequate enforcement of the rights, contracts and law. It also addresses moral hazard and adverse selection problems arising from imperfect information (Agyemang et al., 2018). When these are ensured, the financial institutions are affected positively.

#### **Statement of the Problem**

The economy of Ghana is currently faced with a serious financial sector crisis that has led to collapsed of major banks and other financial institutions. It all started in 2017 when Bank of Ghana (BoG) decided to strengthen financial sector in Ghana for a more resilient financial operation. For various reasons such as insolvency, liquidity, fraudulent licenses acquisition and new capital requirement, numerous financial institutions were merged, taken over and collapsed (Bank of Ghana Report, 2017).

It began with the closed down of UT and Capital Banks in 2017. And went further to consolidation of seven (7) banks namely; The Sovereign Bank, The Beige Bank, Premium Bank, The Royal Bank, Heritage Bank, Construction Bank and UniBank were taken over by bank of Ghana due to liquidity challenge in 2018. As if that was not enough in 2019, Bank of Ghana

(BoG) revoked the licences of twenty- three (23) insolvent savings and loans companies and finance house companies. Some of the affected institutions include GN Savings and Loans Company, Unicredit Savings and Loans, Adom Savings and Loans, Midland Savings and Loans, Ideal Finance and Dream Finance Company (Bank of Ghana, 2019; Government of Ghana, 2018). This has led to reduction in the number of banks in Ghana.

As the crises unveil, major stakeholders have blamed it on the nature of governance in Ghana. This is not surprising because previous studies have established relationship between governance and financial market development (Agyemang, Gatsi & Ansong 2018; Law & Azman- Saini, 2012), yet, none of them has narrowed it down to the unique features of Ghana. Researchers in Ghana have rather concentrated on corporate governance and financial institutions (Tetteh, 2019; Srem- Sai, 2018; Arthur, 2016).

It is against this backdrop, that this study seeks to examine the relationship between governance and financial institution in Ghana.

### **Purpose of the Study**

The main objective of the study is to examine the effect of governance and financial institutions in Ghana.

Specifically, the study seeks to:

1. analyse the long run relationship between governance and financial institutions in Ghana.
2. examine the short run relationship between governance and financial institutions in Ghana.

### **Hypotheses**

In relation to the objectives the following hypothesis will be tested

1. H<sub>0</sub>: There is no long run relationship between governance and financial institutions in Ghana.
2. H<sub>0</sub>: There is no short run relationship between governance and financial institutions in Ghana.

### **Significance of the Study**

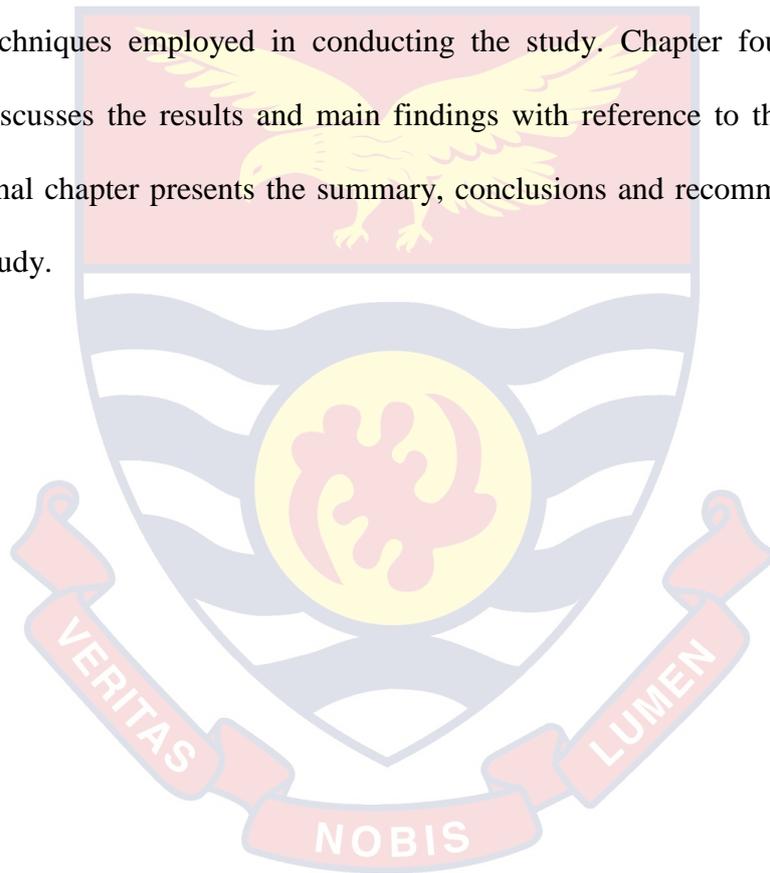
This study in the view of the researcher could be useful for the policy makers in Ghana to provide appropriate policies that will help enhance financial institutions in the country. In addition, there exist no studies using time-series analysis on governance and financial institutions nexus in Ghana, thus, it will add to literature. Finally, this study will close the obvious research gap that already exists in the literature. It will also serve as a point of departure for further research in addition to providing information to future researchers who may be interested in studying these variables in Ghana.

### **Delimitation of the Study**

This study examines the relationship between governance and financial institution in Ghana using annual time series data set on governance and financial institutions from 1996 to 2017 from World Development Indicators. The study adopted Autoregressive Distributed Lag (ARDL) Bound testing cointegration by Pesaran, Shin and Smith (2001) technique because the data size. The study employs the following variables: governance as the independent variable and financial institutions as the dependent variable and control variables (GDP per capital growth, inflation, trade openness and foreign direct investment).

## Organization of the Study

This study is organized into five chapters. Chapter one, which is the introductory chapter, presents a background to the study, statement of the problem, purpose of the study, the hypotheses, significance, and delimitation of the study as well as organization of the study. Chapter two contains the review of relevant literature; both theoretical and empirical literature that underpins the study. Chapter three presents the methodological framework and techniques employed in conducting the study. Chapter four examines and discusses the results and main findings with reference to the literature. The final chapter presents the summary, conclusions and recommendations of the study.



## CHAPTER TWO

### LITERATURE REVIEW

#### Introduction

The general purpose of this chapter is to present the review of related literature on the effect of financial development on employment rate in Ghana. That is, getting related theory and empirical review for the study. This chapter is organized into two main sections. The first deliberates on theoretical literature on the effect of governance on financial institutions in Ghana. The second section in this chapter presents a review of empirical literature on the effect of governance on financial institutions in Ghana.

#### Literature Review

##### Theoretical review

##### Endowment theory

According to endowment theory, governance enhances the financial sector of every economy (Acemoglu, Johnson & Robinson, 2001). In other words, improvement in governance would lead to a more developed financial atmosphere in Sub – Saharan Africa. Governance explained as how a country is directed and controlled (Nutassey, 2018) has a relevant effect on the development of the financial happenings in Sub – Saharan Africa (Law & Azman- Saini, 2012; Asiana & Mobolaji, 2011). Meaning, when law and contract are not enforced in an economy, the financial sector suffers. Huang (2010a) also said, that the supply side of financial sector depends much on the quality of governance in an economy. Again, Filippidis and Katrakilidis (2014) established that, vibrant governance cause an increase in the efficiency of financial sector because it lowers the transaction cost bore by economic

agents. Again, when legal systems in an economy places high emphasis on creditor's rights and effective contract enforcement has better developed financial sector (Levine,1998; La Porta, Rafael, Lopez-de-Silanes, Shleifer & Vishny, 1997).

Therefore, endowment theory underpins this study because it poises that sound governance influence the development of financial institutions.

### **New Institutional Economics Theory**

The New Institutional Economics theory put forth by North (1986) and later advanced by Bardhan (1989) explains that institutions (which are social and legal norms) underlie economic and financial activities. This study, therefore argues that strong institutions will be required to foster the efficiency of financial institution in Ghana. The New Institutional Economics (NIE) theory provides a multidisciplinary thinking that comprises aspects of history, sociology, political science, economics, business organization and law to explain the entire environment for the financial sector. This new direction of economics deliberates that the cost of transacting is determined by institutions and institutional arrangements are key to financial performance. It was then argued that the institutions of a country such as its political, legal, and social systems determine its financial performance (Gatsi and Kyeraa, 2016). Therefore, governance indicators such as political, legal, and social systems, then, country governance have effect on financial institutions improvement.

### **Empirical Review**

This section present overviews of previous studies that are related to this study and indicate how this study differ from them. This was done based on the above objective.

Chinoda and Kwenda (2019) specified that institutional quality and governance are important elements in enhancing financial inclusion. This study investigated the impact of institutional quality and governance on financial inclusion in Africa. The significance of how governance and institutions affect access to finance has mostly been ignored in previous research. Thus, the principal objective of this study is to address this research gap. A system generalized method of moments technique for a panel data of 49 countries for the period 2004–2016 was employed. The results obtained suggest a positive impact of institutional quality and governance on financial inclusion within the region. The study also found a significant positive effect of the lagged value of the banking sector size and financial inclusion on financial inclusion for African countries. However, natural resources and rural to total population negatively influenced financial inclusion in Africa. The study suggest that policymakers should facilitate the existence of a transparent legal framework, removal of corruption and enhancing fair administration and judicial proceedings so as to enhance the prospects of financial inclusion. In addition, improving economic governance and governance levels minifies the informality levels in the financial markets. This study adds value and knowledge to the current body on governance and financial inclusion issues in Africa, which has not received much attention in developing economies.

Secondly, Agyemang, Gatsi and Ansong (2018) examines that the relationship between institutional structures and the level of financial markets development in Africa. The study contributes to the extant literature by using other financial market development indicators venture capital availability and

ease of access to loans that have not before been used to analyzed how institutional structures influence the level of financial markets development in the context of Africa. The work employed generalized method of moment estimator with corrected standard errors to examine this. It demonstrated that a high-quality institutional environment is relevant in explaining venture capital availability and ease of access to loans in Africa. Based on these results, it argues that good institutional structures could help stimulate the level of financial markets development in Africa. However, to attain this feat, African governments need to strengthen institutions through effective enforcement of laws to foster compliance in a specifically definite manner-by fashioning out costs for non-compliance.

Again, Li, Maung and Wilson (2018) provide a wide-ranging cross-country scrutiny of financial development. The study proposed that anti-director rights (ADRs) and creditor rights could act in concert, or as substitutes, for the development of both equity and debt markets. For equity market development, the study found mixed results regarding the effect of ADRs that are consistent with previous research. It also find some support that creditor rights have a positive influence on equity market development. For credit market development, it distinguishes between credit provided by deposit-taking banks and that provided by non-bank financial institutions (NBFIs). Bank credit is mainly determined by creditor rights, whereas non-bank credit is mainly determined by anti-director rights. Results from ADRs and creditor rights suggest that NBFIs are more concerned with rights that protect investors from insider expropriation and are less concerned with rights that protect creditors when a firm is bankrupt.

Also, Bayar (2017) conducted a study on interaction between public governance and the development of financial sector. Financial development has been accepted as an important component of economic growth together with the considerable improvements and expansions in financial sector during the recent years. Therefore, the determinants of financial development have gained importance. This study researches the interaction between public governance and the development of financial sector in 15 Central and Eastern European countries over the 2002-2015 period employing panel regression. The results of the study revealed that most elements of the public governance are important factors for the development of financial sector.

Moreso, Hechmy (2016) since the 1990s, the promotion of good governance has been a priority for major international organizations such as the International Monetary Fund and the World Bank. This article aims to estimate the effect of institutional development on financial development in MENA countries during the period 1996 to 2013. Drawing on Demetriades and Luintel (1996) and Ito (2006), the econometric approach used is based on the GMM, the autocorrelation test for errors of Arellano and Bond (1991), and the over-identification test of Sargan for dynamic panel data. The results derived from this study show a considerable delay in financial development in MENA countries compared to several other emerging countries in Asia and Latin America. Furthermore, it shows a negative effect of institutional development on financial development. This unexpected relationship between these two variables has two explanations. First, the delusory level of institutional development of some countries in the region actually remains under the threshold beyond which it begins to positively affect the financial

sector. Second, the political unrest experienced by the region during the study period has encouraged the informal financial sector to the detriment of the formal sector.

Furthermore, Abedin and Arif, (2015) stated that corporate governance in modern times is a rising hot-cake concept that is being introduced worldwide almost in all corporations. The primary purpose of corporate governance is to ensure transparency and equality between a corporation and its shareholders. The intention of their study was to assess the overall concept of corporate governance, and its practices present in financial institutions. Corporate governance right now is a rising concern all-inclusive, and its streak is beginning to be seen nowadays in our country as well. In their study, they interviewed executive personnel from financial institutions to find out how much of corporate governance practices are followed in the corporate financial sector. Subsequently, they tried to identify the benefits of it in financial institutions and the correlation with organizational development.

In addition, Gazdar and Cherif, (2014) conducted a study on the influence of institutional quality of financial development. Its purpose was to provide new evidence that sheds light on the influence of institutional quality on financial development using data from Middle East and North African (MENA) countries over the period of 1984-2007. To measure institutional quality they construct a yearly composite index (INST) using the International Country Risk Guide's (ICRG). The results of both panel data and IV techniques of estimation show that the institutional quality is more relevant for the banking sector than for stock market development. Examining the impact of five sub-indicators of the composite ICRG index on the financial sector

development, the study found that some institutional aspects matter more than others do. While law and order are the most relevant determinant of banking sector development, corruption and investment profile are of secondary importance for banking sector development. The study also found that, investment profile is the most relevant determinant of stock market development. It has a positive significant effect on market index and stock market liquidity.

Moreover, Law and Azman-Saini (2012), undertook a study on institutional quality, governance, and financial development. Using banking sector and stock market development indicators, the study examined the effect of institutional quality on financial development in developed and developing countries. Empirical results were based on dynamic system generalized method of moments estimations which demonstrated that a high-quality institutional environment is important in explaining financial development, specifically for the banking sector. However, the stock market development-institution relationship was contingent one, characterized by a non-monotonic pattern. The results are robust to two measurements of institutions and governance indicators, as well as estimation methods.

Finally, Karikari (2010) analyzed the roles of governance and financial liberalization in the financial development of 37 Sub-Saharan Africa (SSA) countries yields several interesting results using data from 1996 to 2008. Contrary to previous studies, financial liberalization did not have a favorable independent impact on financial development; overall, financial liberalization efforts reduced financial development, particularly from 1996 to 2002. But, good governance has improved financial development over time, especially

due to reduced political instability. The effect of the origin of legal systems suggests that civil laws are less favorable to financial development than mixed legal systems that include both civil and common laws. From 1996 to 2002, the impact of financial liberalization was reduced with good governance, probably due to governments' forbearance of weak state-owned banks; but, since 2003 good governance has increased the impact of financial liberalization on financial development. Finally, the banking crises that affected a large number of countries about two decades ago may have had protracted effects on financial development, particularly, liquid liabilities.

From the literature review, it can be seen that none of the study above has exhibited the unique feature of Ghanaians' governance and financial institution. Thus, this study is need to be able to come out with the need policy that would help the financial institutions in Ghana.

#### **Other related study**

In Ghana researcher have concentrated on corporate governance and financial institution. Thus, this study would throw more light on the corporate governance and financial institution in Ghana:

Tetteh (2019), assessed the impact of governance variables on asset quality of Ghanaian banks. Using thirty-two banks operating in Ghana from 2006 to 2016, the study investigated how corporate governance can influence the quality of asset among banks. The study employed random estimation technique strategy. The findings for the study indicated that non-executive board member ratio has a significant inverse nexus on non- performing loans (NPLs). The results suggested that the presence of outside directors tend to reduce the rate at which loan defaults. The regression results also indicated

that board gender has a significant and a direct relationship on NPLs. It also established that as a board is composed of more female directors, loans tend to underperform leading to increase in NPLs. Meanwhile board size and board duality are not statistically significant even though both had negative relationship on NPLs. The size of a bank is also directly proportional to NPLs. Inflation variable is significant and has a positive relationship to NPLs of banks in Ghana. It is recommended that non-executive directors and gender diversity which are governance variables should be given much attention since it can and structure in a way that can help reduce the rate at which loan default. It is also recommended that larger banks put in the necessary credit risk assessment measure to reduce the cost that comes with adverse selection and moral hazards. Finally, the government must ensure that, there is a moderate check on how goods and services prices persistently increase overtime as it positively impacts on non-performing loans in banks in Ghana.

Fobi (2019) too examined the relationship between corporate governance and performance of the microfinance industry in Ghana. The study used fixed effect panel data regression analysis. The specific objectives were to identify the key corporate governance components within the microfinance sector, analyse the effect of recognised corporate governance practices on Tobin's Q of MFIs, and also to analyse the effect of recognised corporate governance practices on ROA of MFIs. The corporate governance characteristics were board size, CEO duality, board composition, and board diversity. According to the results, the mean ratio of Tobin's Q is 0.682, implying that on the average a lot of the microfinance firms are not doing well at all. The suggestion here is that these firms are barely breaking even. The

maximum Tobin's Q indicating performance is shown to be 156% and the minimum as low as 13%. The Return on Assets (ROA) shows a wide variation between firms. The mean performance of MFIs relative to ROA is shown to be 21%, with the minimum being -75%, with the maximum being 78%. The regression analysis also found that board size and board diversity had a positive impact on firm performance, while CEO duality and board composition had a negative impact on firm performance. There was evidence to show that most of the MFIs in Ghana adopted the two-tier board structure, where different people occupied the CEO and chairmanship positions. The study also found most of the MFIs to be relying more on debt financing and that the debt structure impacted positively on firm performance. The study found mixed results with regards to corporate governance characteristics and the performance of MFIs in Ghana, but it is undoubtedly clear that corporate governance structures have impact on the performance of MFIs in Ghana

Dwumah (2017) studied on the Ghana stock exchange failed to consider the effect of management skills on the performance of banking institutions and how corporate governance affects the market share of financial institutions. The study also examined the nature of board structure of the banking institutions for the period under investigations. Five banks (5) out of total number of twenty-eight (28), on the Ghana Stock Exchange were used for the periods 2010 to 2014 based on the availability of data. Secondary data on meeting frequency, audit committee, management skills and board composition were obtained from the annual reports of firms and the Ghana Stock Exchange facts book. The fixed effect regression technique was used to examine the effect of corporate governance on banking performance. A

positive and significant relationship was found in the case of audit committee and management skills. Meeting frequency and board composition also register negative relationships with bank performance. Firm size, inflation and debt ratio recorded no significant relationships with banking performance. The result suggests that weak practices in the governance of selected banks in the Ghana Stock Exchange. These include but not limited to: failure to reduce the number of meetings held, and the dominance of the outside directors without the requisite skills related to banks. To address the challenges enumerated, it is recommended that banks should review the role and contribution of non-executive directors to ensure that all directors have a sound understanding of the bank's operations. It is also important to ensure that directors have access to all the information required to function effectively. Auditing of financial statements must be tightened to meet the agreed International Accounting Standards.

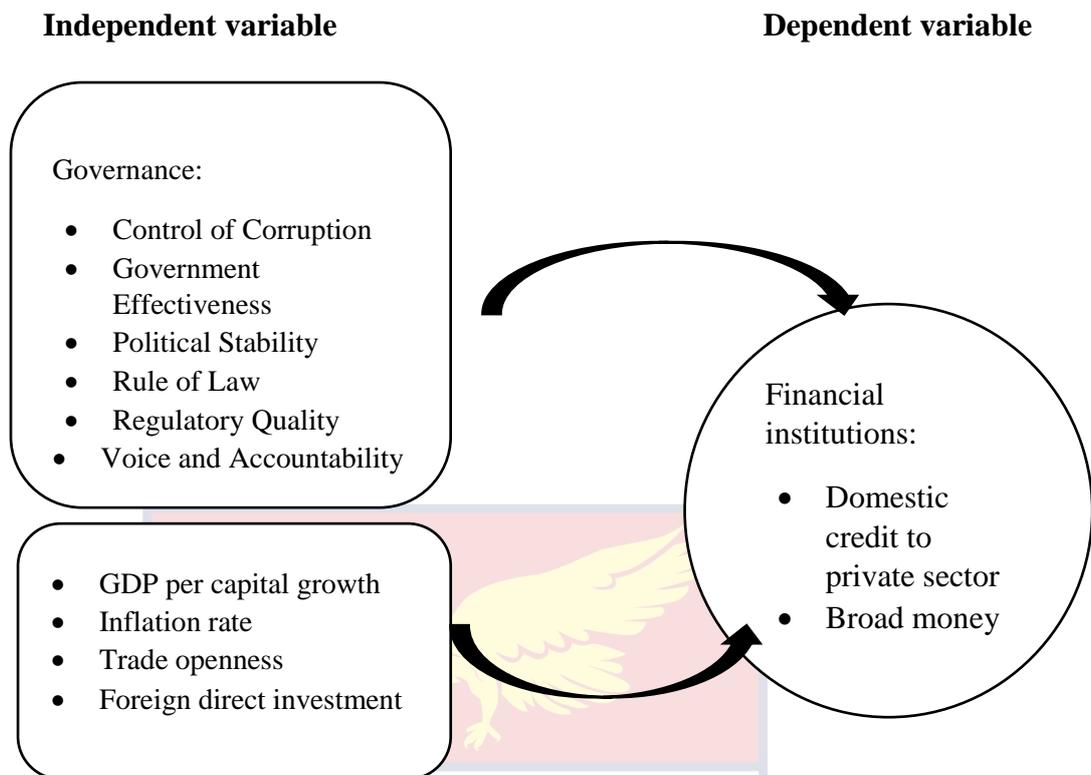
Arthur (2016) also purported to identify whether there was a relationship between corporate governance practices and performance of banks in Ghana. This study also sought to examine the level of compliance with the corporate governance code by banks in Ghana and again compare the corporate governance practices of banks which are listed on the Ghana Stock Exchange with those which are not, and ascertain whether there were notable differences in compliance levels. Nine (9) out of the twenty-eight (28) banks currently operating in the country were involved in this study. Data were gathered mainly from their annual reports over a four-year period. A scorecard approach was used to assess the corporate governance practices of the banks. Return on equity, return on assets, and earnings per share were selected as the

performance indicators of the banks. The results of the study showed a general improvement in the corporate governance practices of the banks over the period. Higher levels of corporate governance were found with banks listed on the Ghana Stock Exchange, as compared to those which are not. Further analysis of the results revealed a weak, positive correlation between corporate governance and both return on equity and earnings per share. However, a weak negative correlation was found between corporate governance and return on assets. Recommendations were made that regulations which will compel banks to adhere to corporate governance principles be instituted by the Bank of Ghana.

It is therefore relevant that this study differential itself by assess the relationship between governance and financial institutions in Ghana.

### **Conceptual Framework**

This framework indicate relationship between governance and financial institution rate in Ghana. Precisely, it demonstrates that governance in Ghana predict its financial institution. Base on literature the study suspect that other variables join with the independent variable, governance to predict financial institutions in Ghana.



*Figure 1: Conceptual framework*  
Source: Author's Construct, Mamadu (2020)

### Chapter Summary

This chapter started by reviewing theories that underpins the relationship between financial market development and employment rate. Specifically, the study reviewed the new institutional economics theory explained how governance influences financial institutions. The second section also concentrated on empirical review that is studies related to this study which were conducted earlier. After reviewing the studies above, it was realized that no study has yet been conducted in Ghana on the effect of governance on financial institution. Thus, this study intends contributing to literature by conducting this topic in the context of Ghana.

## CHAPTER THREE

### RESEARCH METHODS

#### Introduction

This part gives detailed information of the research methods to be used in the study. Specifically, research design, research approach, specification of the model, definition and measurement of variables in the model, sources of the data in the study, estimation techniques, tools for data analysis and chapter summary.

#### Research Design

The research design employed in this work was both explanatory and descriptive. The explanatory research is used since the study looks at how one variable predicts the other. That is, how independent(s) (one or more variables) predict the dependent in a model developed. Explanatory research design is deployed in this study because of objectives two and three which state: to analyse the long run relationship between governance and financial institution in Ghana and to examine the short run relationship between governance and financial institution in Ghana. Since, the two objectives necessitated the test of hypothesis which reads, there is no long run relationship between governance and financial institution in Ghana and there is no short run relationship between governance and financial institution in Ghana.

#### Research Approach

There are two key methods in research; quantitative and qualitative. In some cases, mixed method is added. Quantitative methods lend itself to objective and numeric analysis as well as generalization of finding (Crowther

& Lancaster, 2008). Hence, quantitative approach is suitable for this study since it would develop a mathematical model and objective analysis. This because implementing a quantitative method gives results that could be condensed to statistics; allowing statistical comparison between entities; findings are specific, definitive and standardize (Nutassey, 2018; Sukamolson, 2005).

### Model Specification

There are two widely used model, namely, time series and panel model. These models are developed owing to the features of the data collected (time series). This study is considering a number of variables over a period of time. According to Adams and Owusu (2015) time series data combine the features of cross-sectional data and time series data. In other words, when a number of variables is considered a unit over a period of time, then time series is deemed appropriate for that study. Therefore, following Shabbir, Anwar, Hussain & Imran, 2012, the time series model specifically, Autoregressive Distributed Lag (ARDL) model is stated as:

$$FI = f(GV, GDPCG, INFL, TO, FDI, \varepsilon) \quad (1)$$

$$\begin{aligned} \Delta FI_t = & \alpha_0 + \sum_{i=1}^n \beta_i \Delta FI_{t-i} + \sum_{i=0}^n \phi_i \Delta GV_{t-i} + \sum_{i=0}^n \Phi_i \Delta GDPCG_{t-i} \\ & + \sum_{i=0}^n \Phi_i \Delta INFL_{t-i} + \sum_{i=0}^n \Phi_i \Delta TO_{t-i} + \sum_{i=0}^n \Phi_i \Delta FDI_{t-i} \\ & + \partial_1 FI_{t-1} + \partial_2 GV_{t-1} + \partial_3 GDPCG_{t-1} + \partial_4 INFL_{t-1} \\ & + \partial_5 TO_{t-1} + \partial_6 FDI_{t-1} + \varepsilon_t \end{aligned} \quad (2)$$

Where *FI* is financial institution, *GV* is governance, *GDPCG* is gross domestic production per capita growth, *INFL* is inflation, *TO* is trade openness and *FDI* is foreign direct investment.

### **Measurement of Variables**

For the objectives of this work, the following measurement was used for the variables being examined. These variables were guided by literature and theories.

#### **Dependent variable**

##### **Financial development**

Financial institutions was proxied with domestic private sector to GDP and broad money as percentage of GDP. Domestic private sector to GDP which denote as financial resources given to the private sector by financial organizations, this includes credit, purchases of bond, and credit buying and others, which requires repayment while broad money as percentage of GDP is explained the sum of currency outside banks; demand deposits other than those of the central government; the time, savings, and foreign currency deposits of resident sectors other than the central government; bank and traveler's checks; and other securities such as certificates of deposit and commercial paper (World Bank, 2020).

#### **Independent variable**

The study employs governance indicators from world development indicator which are: Control of Corruption explain the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests ;Government Effectiveness describe as the quality of public services, the

quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies ; Political Stability and Absence of Violence/Terrorism captured as perceptions of the likelihood of political instability and/or politically-motivated violence, including terrorism ; Rule of Law captured as perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police, and the courts, as well as the likelihood of crime and violence ; Regulatory Quality explain as the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development ; Voice and Accountability describe the extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media. All these governance indicators explained above have been used in literature (Chinoda & Kwenda, 2019; Agyemang, Fantini & Ansong, 2016). But because the correlation among the governance indicator is high and above 7, the composite, which is the average the six indicators would be use to run the analysis. This study expects positive effect of the independent variable on financial institutions.

### **Control variables**

This section present other variables studies have established effect of governance on financial institutions. Specifically:

#### **Gross domestic product per capita growth (GDPCG)**

Gross Domestic Product (GDP) is explained to be the worth the entire market and some nonmarket goods and services produced in a given country.

Yearly increase of GDP per capita based on constant local currency (World Bank, 2019). It is used to measure a country's economic output. Intuitively, when an economy grows, it should cause positive increase in the financial institutions of that economy. Therefore, this study expects positive effect of gross domestic product per capita growth on employment.

### **Inflation (INFL)**

Inflation is defined as a sustained increase in the general level of prices for goods and services. It is measured as a percentage change in the cost to the average consumer of acquiring a fixed basket of goods and services at specified intervals, such as yearly, monthly, daily etc (WDI, 2020). Rapid increases in the general price level of the economy may result in uncertainty about the future profitability of financial institution. This is because, higher prices of consumer goods and services may dampen demand for goods and services in the economy and for this reason, the income in the economy would eventually affect the activities of financial institutions. The study expects a negative effect of inflation on financial institution.

### **Trade Openness (TO)**

According to Pradhan, Arvin, Hall and Norman (2017), Le, Kim and Lee (2016) and Das and Rishi (2010), their results show that trade openness is one of the main influencers that boost financial institution. Trade openness is proxied by trade as a percentage of gross domestic products which is explained by World Bank (2017) as the summation of imports and exports of services and goods measured as a share of gross domestic product. This study is expecting positive relationship between trade openness and financial

institution. Therefore, this study expects positive association between trade openness and financial institutions in Ghana.

### **Foreign direct investment**

Foreign direct investment is the net inflows of investment made to acquire lasting interest in enterprises operating outside the economy of the investor. Thus, FDI represents the flow of capital into a country. It consists of a package of capital, knowledge, skills and so on. Following Gebrehiwot, Esfahani, & Sayim, 2016 and Abdul Malik & Amjad, 2013 who concluded that foreign direct investment influences financial development, foreign direct investment was proxied with foreign direct investment as a percentage of gross domestic production.

### **Sources of Data**

This study is considered secondary because of the variables of interest: financial development, governance and the control variables (gross domestic product per capita, inflation, trade openness and foreign direct investment). These variables are labeled secondary because they are already in existence. These variables adopted in the models were guided by existing literature reviewed on the topic, financial theory, and whether they are statistically good to be used in the models. The time span covered in the study was from 1992 to 2019 and quarterly time series data was used. The period chosen was guided by the date currently available and the current state of affairs in the countries under consideration. All data was obtained from World Bank's Development indicators (WDI), 2019.

## Data Analysis

The study adopted Autoregressive Distributed Lag (ARDL) Bound testing cointegration by Pesaran, Shin and Smith (2001) technique because the data size is small and also based on literature the study suspecting that for the unit root test, some of the variables adopted will be stationary at level while others will be stationary at 1st difference. Before the study used Autoregressive Distributed Lag (ARDL) Bound testing cointegration by Pesaran, Shin and Smith (2001) technique, unit roots tests were tested on all the variables using the Augmented Dickey-Fuller (ADF) to ascertain their order of integration. This was done in order to avoid spurious regression. Also, Lag length was tested in order to know how many quarters back the independent variables influence the dependent variable.

## Model Diagnostics

In order to check for the estimated ARDL model, the significance of the variables and other diagnostic tests such as serial correlation, functional form, normality, heteroskedasticity and structural stability of the model are considered. The diagnostic test should show that there is no evidence of autocorrelation and the model passes the normality test indicating that the error is normally distributed. Additionally, the model passes the white test for heteroskedasticity as well as the RESET test for correct specification based on the probability values in parentheses. Precisely, the probability value (P-value) of the F- statistic should be greater than 0.05, that is, the study fails to reject the null hypothesis of no serial correlation, then the model is reliable; the P- value of the F- statistic should be more than 0.05, which implies, this study fails to reject the hypothesis that there is no heteroscedasticity, guaranteeing reliability; the p-

value of the F-statistic should be more than 0.05. This fail to reject the null hypothesis of “the restricted model is correctly specified which stresses on the model reliability; the Durbin – Watson stat value should be close to 2. Which implies, the is absence of autocorrelation.

### **Chapter Summary**

This chapter presents the research methods involved in undertaking this study. This study was purely quantitative in its approach. It also employed the explanatory research design because the independents variables predicted the dependent variables. Again. The time span covered in the study was from 1992 to 2016 and quarterly time series data will be used. In addition, the model developed in the study sought to test four hypotheses. The study adopted Autoregressive Distributed Lag (ARDL) Bound testing cointegration by Pesaran, Shin and Smith (2001) technique because the data size is small and also based on literature the study suspecting that for the unit root test, some of the variables adopted will stationery at level while others will be stationery at 1st difference. The tool used to run the analysis was Eviews.

## CHAPTER FOUR

### RESULTS AND DISCUSSION

#### Introduction

This chapter presents the results of the study as well as the discussion of the results. The results are presented in figures and tables. This chapter outlines the results in line with the researcher's questions and the hypotheses to be tested. Specifically, the descriptive statistics, then correlation analysis, unit root test, lag length test and finally, ARDL test for the study which was presented based on hypotheses.

#### Descriptive Statistics

The variables employed with their descriptive statistics were presented in Table 1. These descriptive captures 7 variable with a time period of twenty-nine (29) years quarterly data. It gives report on the standard deviation, mean, maximum and minimum values and the observation for the variables of the study. The mean measures the average values of the variable but standard deviation measures the dispersion. The maximum and minimum values capture the range of variables. The total number of observations is 72.

The dependent variables domestic credit to private sector (DCPS) has a standard deviation of -1.7328 which is lower than the central tendencies, mean 13.9471 which means there is high fluctuation around the mean between a range of 6.0051 to 15.8820 whereas broad money (M2) has a standard deviation of 0.1311 which is lower than the central tendencies, mean 27.6792 which means there is lower fluctuation around the mean between a range of 20.5961 to 34.1082. Also, the independent variable governance (Gov) has a standard deviation of -1.3505 which is lesser than it means 52.7923. This

means there is low fluctuation around the mean of governance between a range of 43.9747 to 56.0547.

Again, the descriptive statistics of control variables were presented as follow: Foreign direct investment (FDI) has a standard deviation of -0.1818 which is lower than the mean of 5.2867, this show a low fluctuation around the mean between a range of 0.9557 to 9.5170. Gross domestic product per capita (GDPC) with in the range of -0.1139 to 11.3155 shows a standard deviation of 0.9684 which is lesser than its means 3.7531 which demonstrate low fluctuation around its mean. Inflation (INFL) has a standard deviation of 2.5125 and a mean of 14.2054; thus, these variables also indicate a low fluctuation around the mean between a range of 7.1264 to 46.5610. Trade openness (TO) also with in a range of 61.6872– 116. 0484 has a standard deviation of 0.8714 which is lower than its mean of 78.4577 indicating lower variation around the mean.

**Table 1- Descriptive Statistics of the dependent, independents and control variables**

	DCPS	M2	GOV	FDI	GDPCG	INFL	TO
Mean	13.9471	27.6792	52.7923	5.2867	3.7531	14.2054	78.4577
Med.	14.3949	26.8790	53.5543	5.7206	3.3234	13.6350	72.8228
Max	15.8820	34.1082	56.0547	9.5170	11.3155	46.5610	116.0484
Min	6.0051	20.5961	43.9747	0.9557	-0.1139	7.1264	61.6872
SD	-1.7328	0.1311	-1.3505	-0.1818	0.9684	2.5125	0.8714
Obs	72	72	72	72	72	72	72

Note: SD=Standard Deviation, Min=Minimum, Max=Maximum, Obs.=Number of Observations

Source: Field Survey, Ayadago (2020)

## Correlation Analysis

The correlation among the indicator employed in this work is given in Table 2. Correlation analysis was tested in order to identify variables that are multi-collinearity based on the cross -section data of the panel data. The correlation coefficient between first dependence variable (domestic credit to private sector) and governance is positive and significant (0.5802). The correlation coefficient between second dependence variable (broad money) and governance is negative and significant (-0.2347). This means that these two dependent variables and governance are related and relationship can be tested between them.

For control variables table 2 indicated positive correlation between domestic credit to private sector (DCPS) and foreign direct investment (FDI) with the coefficient of 0.6813. Furthermore, the correlation matrix indicated positive relationship between domestic credit to private sector (DCPS) and gross domestic product capita (GDPC) with the coefficient of 0.1757. Again, the correlation matrix indicated negative relationship between domestic credit to private sector (DCPS) and inflation with the coefficient of -0.3035. Finally, the correlation matrix indicated a negative correlation between domestic credit to private sector (DCPS) and foreign direct investment with the coefficient of -0.0487. Therefore, the variable employed as the control variable are related to the dependent variable, domestic credit to private sector and hence, it is appropriate to employed control variables used here for the first measure for DCPS.

For the second dependent variable indicated negative correlation between broad money (M2) and foreign direct investment (FDI) with the

coefficient of -0.2208. Furthermore, the correlation matrix indicated positive relationship between broad money (M2) and gross domestic product capita (GDPC) with the coefficient of 0.2429. Again, the correlation matrix indicated negative relationship between broad money (M2) and inflation with the coefficient of -0.0181. Finally, the correlation matrix indicated a positive correlation between broad money (M2) and foreign direct investment with the coefficient of 0.6251. Therefore, the variable employed as the control variable are related to the second measure for the dependent variable, broad money (M2) and therefore, the employed as control variables are appropriate too for the second measure of financial institution.

Since, the coefficient of the correlation matrix between the financial institutions and governance was below 0.7 thus, it therefore avoids multi-collinearity. Again, the correlation between the independent variable and the control variable were below 0.7 this mean there is no multi-collinearity between the independent variables and control variables as well as among the control variable.

**Table 2- Correlation Analysis**

	DCPS	M2	GOV	FDI	GDPC	INFL	TO
DCPS	1.0000						
M2	0.2722	1.0000					
GOV	0.5802	-0.2347	1.0000				
FDI	0.6813	-0.2208	0.7547	1.0000			
GDPC	0.1757	0.2429	0.5117	0.3908	1.0000		
INFL	-0.3035	-0.0181	-0.6229	-0.2635	-0.4956	1.0000	
TO	-0.0487	0.6251	-0.4731	-0.5081	0.1020	0.1955	1.0000

Source: Field Survey, Ayadago (2020)

## Unit Root Tests

Here, it is vital to perform these tests to verify that the variables are not integrated of an order higher than one (absence of  $I(2)$ ) in order to avoid spurious correlation. For this reason, before adopting the ARDL Bounds test, unit root tests were conducted in order to investigate the stationarity properties of the data. As a result, all the variables were examined using the ADF to all variables in levels and in first difference in order to formally establish their order of integration. In order to be sure of the order of integration of the variables, the test was conducted with intercept and time in the models. The study used the P-values in the parenthesis to make the unit root decision, (that is, rejection or fail to reject the null hypothesis that the series contain unit root) which arrived at similar conclusion with the critical values.

The results of ADF test for unit root with intercept in the model for all the variables are presented in Table 3. The null hypothesis is that the series is non-stationary, or contains a unit root. The rejection of the null hypothesis for the test is based on the MacKinnon (1991) critical values as well as the probability values.

**Table 3- Results of Unit Root Test with constant and trend: ADF Test**

Levels			First Difference			
Variables	ADF-Statistic	Lag	Variables	ADF-Statistic	Lag	<i>I</i> (0)
DCPS	-2.5920 [0.2850]	5	DCPS	-3.5920 [0.0363]**	4	<i>I</i> (1)
M2	-3.2289 [0.0854]*	1	DM2	-3.6809 [0.0287]**	0	<i>I</i> (1)
GOV	0.3458 [0.7819]	5	DGOV	-2.3808 [0.0174]**	0	<i>I</i> (1)
FDI	-0.9896 [0.2868]	1	DFDI	-2.9038 [0.0041]***	0	<i>I</i> (1)
GDPCG	-2.9614 [0.0426]**	5	DGDPC	-3.44 [0.0235]**	4	<i>I</i> (1)
INFL		5	DGDPC	-3.4414 [0.0526]	4	<i>I</i> (0)
TO	-4.2255 [0.0063]***	1	DFDI		0	<i>I</i> (1)
	-3.6817 [0.0286]**		DTO	-3.7643 [0.0230]**		

Note: \*\*\*, \*\* and \* indicate the rejection of the null hypothesis of non-stationary at 1%, 5% and 10% level of significance respectively, D denotes first difference, and *I*(0) is the order of integration. The values in parenthesis are the P-values.

Source: Field Survey, Ayadago (2020)

From table 3, the null hypothesis of the presence of unit root for all the variables in their levels were rejected since the P-values of the ADF statistic are statistically significant at 1% and 5% conventional levels of significance. This is because, at levels, gross domestic product per capita growth, inflation and trade openness (TO) were stationary while domestic credit to private sector, broad money, governance and foreign direct investment are stationery at first difference. Therefore, as per the unit root test (variables are stationery at levels and 1<sup>st</sup> difference), ARDL bounds testing cointegration is appropriate for this study (Nkoro & Uko, 2016).

**Lag length tests**

Lag length was tested in order to know how many quarter back the regressors influence the dependent variable.

**Table 4- VAR Lag Order Selection Criteria**

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-856.46	NA	1893.570	27.41	27.65	27.51
1	-230.61	1092.74	2.13e-05	9.10	11.00	9.85
2	-33.99	299.61	2.08e-07	4.41	7.98	5.83
3	-2.49	41.010	4.20e-07	4.97	10.21	7.03
4	35.27	40.76	8.18e-07	5.32	12.23	8.04
5	308.70	234.36*	1.17e-09	-1.80	6.77*	1.57
6	407.44	62.69	6.69e-10*	-3.38*	6.86	0.65*

\* indicates lag order selected by the criterion

Source: Field Survey, Ayadago (2020)

Having done the unit root test, the Vector Autoregressive (VAR) was used to determine the optimal lag length for the ARDL model. Based on the Schwarz information criterion (SC), the optimal lag length chosen was 5 as presented in Table 4.

**ARDL test**

This section presents the ARDL tests as per hypothesis stated above. Since there are two separate measures for financial development in this study, both the long run and the short run hypothesis would be tested based on the measures (governance and financial institution). This section would start with the testing of long run hypothesis for the relationship between governance and domestic credit to private sector in Ghana as well as governance and broad money. It would continue with the testing of short run hypothesis for the

relationship between governance and domestic credit to private sector in Ghana in addition to the short run relationship between governance and broad money in Ghana.

**Objective 1: Analyze the long run relationship between governance and financial institutions in Ghana.**

**H0<sub>1</sub>: There is no long run relationship between governance and domestic credit to private sector in Ghana.**

This section presents the long-run estimation results from ARDL bounds test between governance and domestic credit to private sector in Ghana with the null hypothesis that no long run relationship exists.

**Table 5 - ARDL Bound test**

Test Statistic	Value	K
F-statistic	9.2654	5
Critical Value Bounds		
Significance	I0 Bound	I1 Bound
10%	2.08	3
5%	2.39	3.38
2.5%	2.7	3.73
1%	3.06	4.15

\* indicates lag order selected by the criterion  
Source: Field Survey, Ayadago (2020)

This study rejects the null hypothesis that there is no long run relationship between governance and domestic credit to private sectors because the F- statistics figure 9.2654 is greater than both lower bounds critical value and the upper bounds critical value at 1%. Therefore, there is a long run relationship between governance and domestic credit to private sector at 1% critical value of lower bounds and upper bounds.

**Table 6- Long-Run Coefficients Estimates using the ARDL Approach**

ARDL				Dependent variable:
(5,5,5,5,4,5)				DCPS
Regressors	Coefficient	Std. Error	T- Stat	P- Value
Constant	-46.9100	115.8281	-0.4050	0.6885
GOV	-0.08262	1.3549	-0.0610	0.9518
FDI	0.8919	0.9367	0.9522	0.3489
GDPC	0.3301	1.3164	0.2507	0.8038
INFL	1.4033	2.3590	0.5949	0.5565
TO	0.5463	0.6794	0.8041	0.4279

Source: Field Survey, Ayadago (2020)

As shown in Table 6: governance (the variable of interest) is not statistically significant. Thus, improve in governance structure in Ghana are not substantial enough to affect the domestic credit to private sector as a measure of financial institution in Ghana in the long run. Hence, this study failed to reject the null hypothesis that there is no long run relationship between governance (Gov) and domestic credit to private sector. Hence, there is no long run relationship between governance and domestic credit to private sector in Ghana. This is quite surprising because intuitively, improvement in governance should improve the financial institutions in a country. The likely explanation could be that the governance structure in Ghana is not good enough to enhancement financial institution as measure by domestic credit to private sector in Ghana in the long run. Hechmy (2016) explained that the level of governance of some nations is under the threshold beyond which it begins to positively affect the financial sector. This is contradicted by

endowment theory because it states that governance enhances the financial sector of every economy (Acemoglu et al., 2001).

Again, foreign direct investment has no significant relationship with domestic credit to private sector in Ghana. Meaning, it fails to reject the null hypothesis that there is no long run relation between foreign direct investment and financial institutions in Ghana.

Furthermore, the coefficient of GDP per capita growth is not statistically significant, indicating that in Ghana, economic growth does not affect domestic credit to private sector in the long run. It failed to reject the null hypothesis that there is no long run relationship between GDP per capita growth and financial institutions in Ghana.

Moreover, inflation, it has no significant relationship with domestic credit to private sector in Ghana. Meaning, it fails to reject the null hypothesis that there is no long run relationship between inflation and financial institutions in Ghana.

Finally, trade openness has no significant relationship with domestic credit to private sector in Ghana. Meaning, it fails to reject the null hypothesis that there is no long run relationship between trade openness and financial institutions in Ghana.

Having established the existence of long-run relationship between domestic credit to private sectors and the regressors (see table 5), the ARDL cointegration method is then used to estimate long-run parameters. The long-run results indicate that any instability in the system as a result of a shock can be corrected in the long-run by the error correction term. Hence, the error

correction term that estimated the short-run adjustments to stability is generated as follows:

$$\text{Cointeq} = \text{DCPS} - (-0.0826*\text{Gov} + 0.8919*\text{FDI} + 0.3301*\text{GDPCG} + 1.4033*\text{INFL} - 0.5463*\text{TO} - 46.9100).$$

**H0<sub>2</sub>: There is no long run relationship between governance and broad money in Ghana.**

This section presents the long-run estimation results from ARDL bounds test between governance and broad money in Ghana with the null hypothesis that no long run relationship exists.

**Table 7 - ARDL Bound test**

Test Statistic	Value	K
F-statistic	4.4475	5
<b>Critical Value Bounds</b>		
Significance	I0 Bound	I1 Bound
10%	2.08	3
5%	2.39	3.38
2.5%	2.7	3.73
1%	3.06	4.15

Source: Field Survey, Ayadago (2020)

This study rejects the null hypothesis that there is no long run relationship between governance and broad money because the F- statistics figure 4.4475 is greater than both lower bounds critical value and the upper bounds critical value at 1%. Therefore, there is a long run relationship between governance and broad money at 1% critical value of lower bounds and upper bounds.

**Table 8 - Long-Run Coefficients Estimates using the ARDL Approach**

ARDL				Dependent
(5,5,5,5,5,5)				variable: M2
Regressors	Coefficient	Std. Error	T- Stat	P- Value
Constant	-135.8598	120.1880	-1.13040	0.2679
GOV	2.3263	2.0305	1.1457	0.2616
FDI	0.5254	0.5768	0.9110	0.3701
GDPCG	0.0692	0.4129	0.1675	0.8682
INFL	0.5706	0.4232	1.3472	0.1887
TO	0.3503	0.0982	3.5675	0.0013

Note: \*\*\* and \*\* denote significance level at 1% and 5%, respectively.  $\Delta$  denotes first difference.

Source: Field Survey, Ayadago (2020)

Table 8 depict that there is a long run relationship between governance (GOV) and broad money in Ghana. From the results, the coefficient of governance is statistically insignificant. This result is contradicted by works such as Gazdar et al. (2014) and Bayar (2017). This is because they concluded in their studies that governance play significant role in the development of financial institutions. Therefore, this study failed to rejects the null hypothesis that there is no long run relationship between governance and broad money.

Foreign direct investment has no significant relationship with broad money. Meaning, it fails to reject the null hypothesis that there is no long run relation between foreign direct investment and broad money.

Similarly, GDP per capita growth is no statistically significant, indicating that in Ghana, a unit increase in economic growth does not affect financial institutions in Ghana in the long run. It failed to reject the null

hypothesis that there is no long run relation between GDP per capital growth and broad money.

Again, inflation has no significant relationship with broad money. Meaning, it fails to reject the null hypothesis that there is no long run relationship between inflation and broad money.

Finally, trade openness has significant relationship with broad money. Meaning, it reject the null hypothesis that there is no long run relation between trade openness and financial institution in Ghana at 1% significant level.

Having established the existence of long-run relationship between employment rate and the regressor, the ARDL cointegration method is then used to estimate long-run parameters. The long-run results indicate that any instability in the system as a result of a shock can be corrected in the long-run by the error correction term. Hence, the error correction term that estimated the short-run adjustments to stability is generated as follows:

$$\text{Cointeq} = \text{M2} - (2.3263*\text{GOV} - 0.5254*\text{FDI} + 0.0692*\text{GDPCG} + 0.5706*\text{INFL} + 0.3503*\text{TO} - 135.8598).$$

**Objective 2: Examine the short run relationship between governance and financial institutions in Ghana.**

**$H_{01}$ : There is no short run relationship between governance and domestic credit to private sector in Ghana.**

This section also presents the short-run estimation results which addressed the second null hypothesis to be tested between governance and domestic credit to private sector in Ghana. The lagged value of all level variables presented here. A linear combination is denoted by the error-correction term,  $ECT_{t-1}$  which is retained in the ARDL model. Table 9,

presents the results of the estimated error-correction model of domestic credit to private sector in Ghana using the ARDL technique.

**Table 9- Estimated Short-Run Error Correction Model using the ARDL Approach**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D (DCPS(-4))	-1.2374	0.2600	-4.7586	0.0000***
D(DCPS(-5))	1.1112	0.2200	5.0506	0.0000***
C	-1.6313	2.6872	-0.6070	0.5485
D (GOV(-1))	0.3269	0.1031	3.1716	0.0036***
D (GOV(-4))	-0.3887	0.1716	-2.2642	0.0312**
D (GOV(-5))	0.3549	0.1524	2.3293	0.0270**
D(FDI(-1))	-0.5107	0.2175	-2.3479	0.0259**
D(FDI(-5))	-0.2008	0.0693	-2.8982	0.0071***
D(GDPC(-4))	-0.1969	0.0437	-4.5061	0.0001***
D(GDPC(-5))	0.2018	0.0313	6.4551	0.0000***
D (INFL(-1))	-0.1178	0.0392	-3.0076	0.0054***
D (INFL(-4))	0.0366	0.0191	1.9123	0.0658*
D(TO_(-1))	-0.1107	0.0238	-4.6454	0.0001***
D (TO_(-4))	-0.1309	0.0355	-3.6853	0.0009***
D (TO(-5))	-0.1029	0.0287	-3.5924	0.0012**
ECT(-1)	-0.7414	0.1621	-4.6248	0.0003***

Note: \*\*\*, \*\*, and \* denote significance level at 1%, 5% and 10% respectively. D denotes first difference.

Source: Field Survey, Ayadago (2020)

The results from Table 9 indicated that the first different of the fourth lag of domestic credit to private sector have statistically significant negative relationship with domestic credit to private sector at 1 percent significant level

while the first different of the fifth lag of domestic credit to private sector have statistically significant positive relationship with domestic credit to private sector at 1percent significant level. Which suggest that the ultimate effect of fourth and fifth previous quarter value of DCSP on current values of DCSP in the short-run is negative and positive, respectively at 99 percent confidence level in Ghana.

Also, the first difference of first, fourth and fifth lag governance indicated that there is a significant relationship with domestic credit to private sector in the short-run in Ghana at. Both the first difference of first and fifth lag governance have positive relationship with DCPS in Ghana but the first difference of fourth lag governance have negative linkage to DCPS. Meaning that a unit increase in previous and fifth quarter of difference causes a rise in DCPS by 0.3269 and 0.3549. Meanwhile a unit increase in fourth quarter of difference causes reduction in DCPS by 0.3887. Therefore, it rejects the null hypothesis that there is no short run relationship between governance and domestic credit to private sector in Ghana. This is supported by Chinoda et al., 2019 and Agyemang et al., 2016.

Again, the first difference of the first and fifth lag direct foreign investment is statistically significant and negative with DSCP at 5% and 1% significant level. From the results, a unit increase in the first difference of the first lag FDI will decrease by approximately 0.5107 and in the short-run in Ghana. Also, a unit increase in the first difference and fifth lag FDI would lead to 0.2008 reduction in DSCP.

In addition, at 1% significant level the coefficient of the first difference of fourth lag of gross domestic production per capital has negative impact on

DCSP in Ghana in the short-run, respectively. The mean, a unit increase in the first difference of the fourth lag GDPC would reduce DCPS by approximately 0.1969. Whereas that of the first difference of the fifth lag GDPC has a positive association with DCPS at 1%. This means the first difference of the fifth lag GDPC would increase by 0.2018 at 1%.

Furthermore, the first difference of the first lag of inflation has a negative influence on DCPS in Ghana in the short-run at 1 percent significant level. Whereas the first difference of the fifth lag of inflation has a positive significant effect on DCPS in Ghana in the short-run at 10% significant level. Finally, the first difference of the first, fourth and fifth lag of trade openness has a negative influence on DCPS in Ghana. Thus, the immediate, fourth and fifth quarter of trade openness is a significant but negative influencer of DCPS in Ghana.

The results also showed the expected negative sign of the error correction term lagged one period ( $ECT_{t-1}$ ) and it is highly significant at 1 percent significant level. This endorses the existence of the cointegration relationship among the variables in the model again. The ECT stands for the rate of adjustment to restore stability in the dynamic model following a disturbance. The coefficient of the ECT is -0.7414. In other words, the significant ECT suggests that a deviation from the long-run equilibrium subsequent to a short-run shock is corrected by about 74.14% at the end of each quarter in a year. The law is that, the larger the ECT in absolute terms, the faster the variables stabilize in the long-run when shocked.

**$H0_2$ : There is no short run relationship between governance and broad money in Ghana.**

This section also presents the short-run estimation results which addressed the second null hypothesis to be tested between stock market development and employment rate in Ghana. The lagged value of all level variables is presented in the table below. A linear combination is denoted by the error-correction term, ECTt-1 which is retained in the ARDL model. Again, table 10 presents the results of the estimated error-correction model of employment for Ghana using the ARDL technique.

**Table 10 - Estimated Short-Run Error Correction Model using the ARDL Approach**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D (M2(-4))	0.8744	0.2521	3.4679	0.0018***
D(M2(-5))	-0.8183	0.1662	-4.9245	0.0000***
D (GOV (-1))	0.3291	0.1006	3.2724	0.0029***
D (GOV(-4))	1.0574	0.1681	6.2892	0.0000***
D (GOV(-5))	-1.1159	0.1241	-8.9944	0.0000***
D(FDI(-5))	0.1287	0.0553	2.3283	0.0273**
D(GDPC(-4))	0.1274	0.0507	0.6333	0.0331**
D(GDPC(-5))	-0.1576	0.0217	-7.2453	0.0000***
D (INFL(-1))	-0.2693	0.0402	-6.6947	0.0000***
D(INFL(-3))	-0.1299	0.0220	-5.9041	0.0000***
D(INFL(-4))	-0.1238	0.0253	-4.8902	0.0000***
D (TO(-1))	-0.3119	0.0216	-14.3852	0.0000***
D (TO(-2))	0.0233	0.0345	0.6761	0.5045
ECT(-1)	-0.8512	0.2824	-3.0412	0.0024***

Note: \*\*\* and \*\* denote significance level at 1% and 5%. D denotes first difference.

Source: Field Survey, Ayadago (2020)

Table 10 indicated that the first different of the fourth lag of broad money have statistically significant positive relationship with broad money at

1percent significant level while the first different of the fifth lag of broad have statistically significant negative relationship with broad money at 1percent significant level. Which suggest that the ultimate effect of fourth and fifth previous quarter value of broad money on current values of M2 in the short-run is positive and negative, respectively at 99 percent confidence level in Ghana.

Also, the first difference of first, fourth and fifth lag governance indicated a significant relationship with broad money in the short-run in Ghana at 1 percent significant level. Both the first difference of first and fourth lag governance have positive relationship with M2 in Ghana but the first difference of fifth lag governance have negative association with M2. Meaning that a unit increase in previous and fourth quarter of difference causes a rise in M2 by 0.3291 and 1.0574. Meanwhile a unit increase in fifth quarter of difference causes reduction in M2 by -1.1159. Therefore, it rejects the null hypothesis that there is no short run relationship between governance and domestic credit to private sector in Ghana. The positive relationship between governance and financial institutions is supported by Gazdar et al. (2014).

Again, the first difference of the fifth direct foreign investment is statistically significant and negative with M2 at 5% significant level. From the results, a unit increase in the first difference of the first lag FDI will decrease M2 by approximately 0.1287 in the short-run in Ghana. In addition, at 5% significant level the coefficient of the first difference of fourth lag of gross domestic production per capital has positive impact on M2 in Ghana in the short-run. The mean, a unit increase in the first difference of the fourth lag

GDPC would increase M2 by approximately 0.1274. Whereas that of the first difference of the fifth lag GDPC have negative association with M2 at 1% significant level. This means first difference of the fifth lag GDPC would reduce M2 by 0.1576.

Furthermore, the first difference of the first, third and fourth lag of inflation has a negative influence on M2 in Ghana in the short-run at 1 percent significant level. This emphasizes the negative effect inflation has on financial institutions. Finally, the first difference of the first lag of trade openness have negative influence on M2 in Ghana. However, the first difference of the second lag of trade openness have no influence on M2 in Ghana. Thus, the immediate quarter of trade openness is a significant but negative influencer of M2 in Ghana.

The results also showed the expected negative sign of error correction term lagged one period ( $ECT_{t-1}$ ) and it is highly significant at 1 percent significant level. This endorses the existence of the cointegration relationship among the variables in the model again. The ECT stands for the rate of adjustment to restore stability in the dynamic model following a disturbance. The coefficient of the ECT is -0.8512. In other words, the significant ECT suggests that a deviation from the long-run equilibrium subsequent to a short-run shock is corrected by about 85.12% at the end of each quarter in a year. The law is that, the larger the ECT in absolute terms, the faster the variables stabilize in the long-run when shocked.

### **Model Diagnostics**

In order to check for the estimated ARDL model, the significance of the variables and other diagnostic tests such as serial correlation, functional

form, normality, heteroskedasticity and structural stability of the model are considered. As shown in Table 11 and 12, the model generally passes all diagnostic tests in the first stage. The diagnostic test shows that there is no evidence of autocorrelation and the model passes the normality test indicating that the error is normally distributed. Additionally, the model passes the white test for heteroskedasticity as well as the RESET test for correct specification based on the probability values in parentheses. Below are the details.

**Table 11 - Diagnostics for relationship between GOV and DCPS in Ghana**

Residual Test		F-statistic	P- value
Serial Correlation	LM	3.7466	0.0690
(Breush– Godfrey)			
Heteroskedasticity		1.0370	0.4636
<b>Reliability Test</b>			
Ramsey RESET		6.0549	0.0524
R-squared		0.9984	Mean dependent var 14.2695
Adjusted R-squared		0.9966	S.D. dependent var 1.31498
S.E. of regression		0.0765	Akaike info criterion -2.0010
Sum squared resid		0.1697	Schwarz criterion -0.8204
Log likelihood		99.0323	Hannan-Quinn criter. -1.5359
F-statistic		546.6998	Durbin-Watson stat 1.8037
Prob(F-statistic)		0.0000	

- The P- value of the F- statistic is 0.0690 which is greater than 0.0500. Thus, the study failed to reject null hypothesis of no serial correlation. This mean the model is reliable.

- The P- value of the F- statistic is 0.4636 which more than 0.0500. Hence, this study failed to reject the hypothesis that no heteroscedasticity. This mean the model is reliable.
- The p- value of the F-statistic is 0.0524 which more than 0.0500. This fail to reject the null hypothesis of “the restricted model is correctly specified”. This mean the model is reliable
- The Durbin – Watson stat value is 1.8037 which is close to 2. Therefore, the is absence of autocorrelation.

**CUSUM and CUSUM of Square test for the relationship between GOV and DCPS in Ghana.**

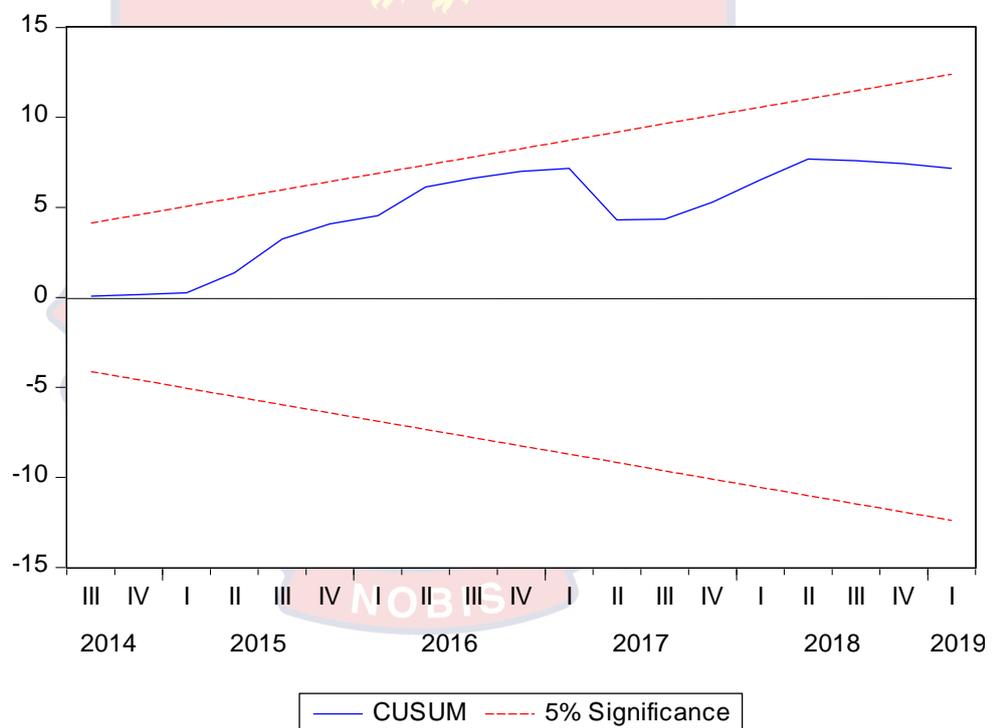


Figure 2: CUSUM test  
Source: Field Survey, Ayadago (2020)

It can also be observed from figure 1 that the plot of the CUSUM stay with the critical bounds ate 5 percent significance. This confirms the long – run

relationship between governance and domestic credit to private sector in Ghana.

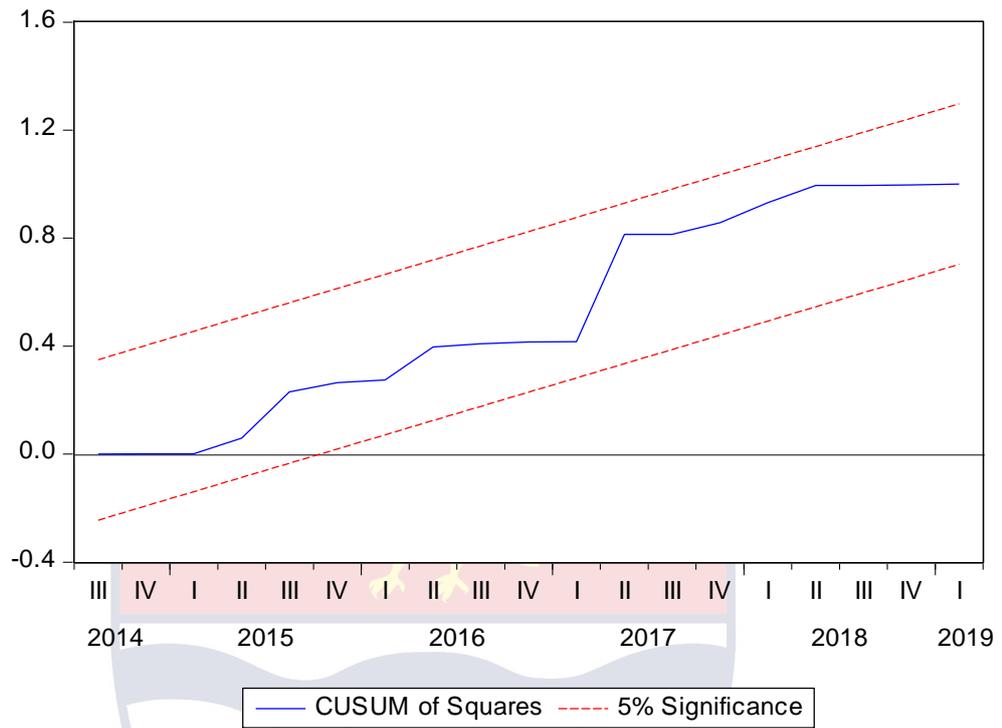


Figure 3: CUSUM of Square test  
Source: Field Survey, Ayadago (2020)

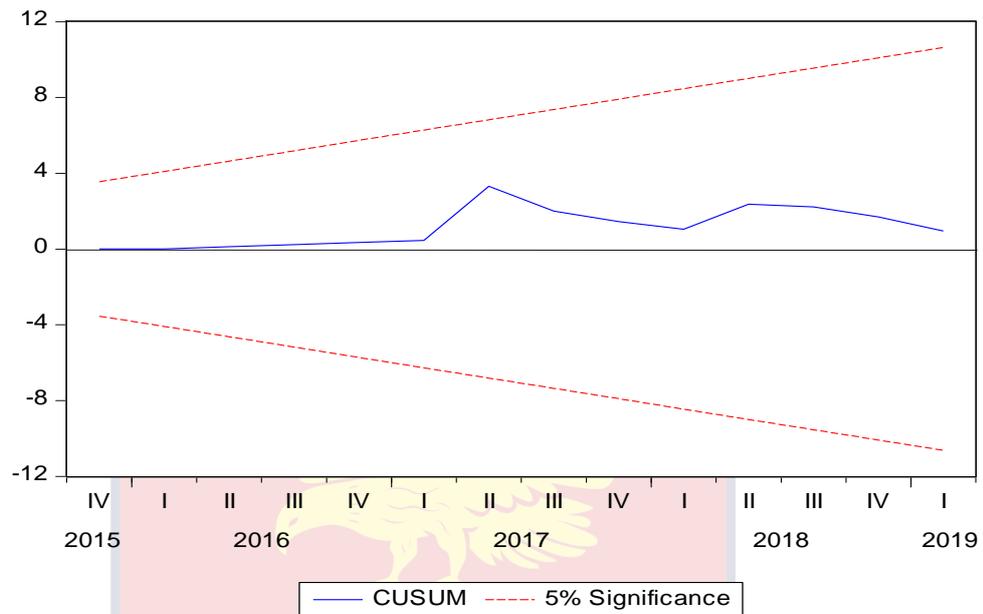
It can also be seen from figure 2 that of the CUSUM of Square test stay within the critical bounds at 5 percent significance. This indicate that the model is stable.

**Table 12 - Diagnostics for relationship between GOV and M2**

Residual Test		F-statistic	P- value
Serial Correlation	LM	50.0365	0.0680
(Breush– Godfrey)			
Heteroskedasticity		1.0877	0.4173
<b>Reliability Test</b>			
Ramsey RESET		0.0592	0.8097
R-squared		0.9999	Mean dependent var 27.4750
Adjusted R-squared		0.9998	S.D. dependent var 2.7352
S.E. of regression		0.0427	Akaike info criterion -3.1803
Sum squared resid		0.0475	Schwarz criterion -1.8984
Log likelihood		139.7682	Hannan-Quinn criter. -2.6753
F-statistic		6970.113	Durbin-Watson stat 1.9149
Prob(F-statistic)		0.0000	

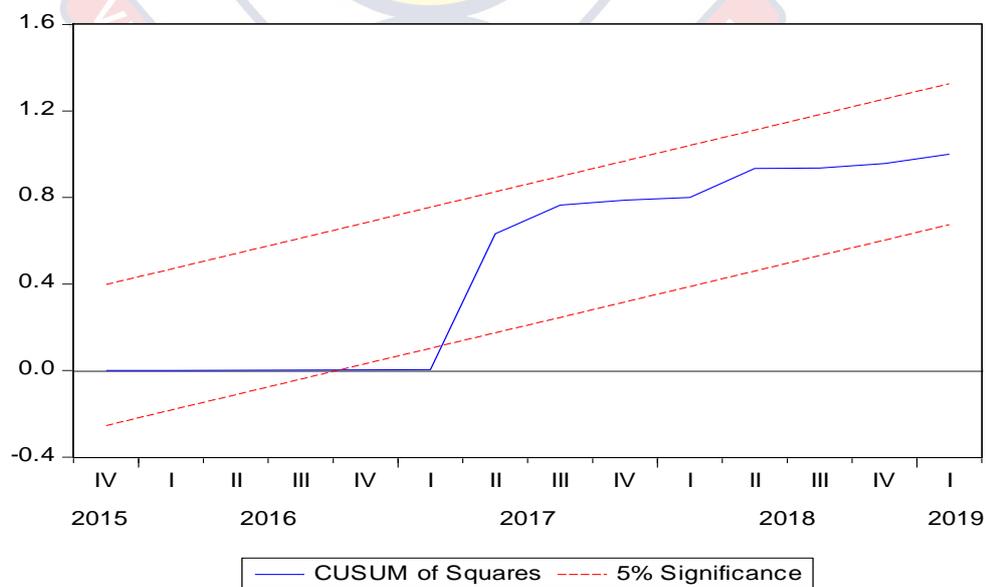
- The P- value of the F- statistic is 0.0680 which is greater than 0.0500. Thus, the study failed to reject null hypothesis of no serial correlation. This mean the model is reliable.
- The P- value of the F- statistic is 0.4173 which more than 0.0500. Hence, this study failed to reject the hypothesis that no heteroscedasticity. This mean the model is reliable.
- The p- value of the F-statistic is 0.8097 which more than 0.0500. This fail to reject the null hypothesis of “the restricted model is correctly specified”. This mean the model is reliable
- The Durbin – Watson stat value is 1.9149 which is close to 2. Therefore, the is absence of autocorrelation.

**CUSUM and CUSUM of Square test for the relationship between governance and M2 in Ghana.**



*Figure 4: CUSUM test*  
Source: Field Survey, Ayadago (2020)

It can also be observed from figure 3 too that the plot of the CUSUM stay with the critical bounds at 5 percent significance. This confirm the long – run relationship between governance and M2in Ghana.



*Figure 5: CUSUM of Square test*  
Source: Field Survey, Ayadago (2020)

It can again be seen from figure 4 that most part the plot of the CUSUM of Square test stay within the critical bounds at 5 percent significance. Even though there is some level of instability, the model is more stable.

### Chapter Summary

In light of the purpose of the study, the effect of governance on financial institutions in Ghana. This study addresses three specific objectives. It started with the first objective by assess long run relationship between governance and financial institutions in Ghana. Based on the ARDL bound test, t rejected the hypothesis there is no significant long run relationship between governance and both measures of financial institutions (DCPS and M2) in Ghana see table 5 and 8). However, when it came to the coefficient test for long run relationship; there was no significant long run relationship between the coefficient of governance and both measures of financial institutions used in this study see table 6 and 9 but there was a significant short run relationship between the coefficient of governance and both measures of financial institution (see table 7 and 10). The study pass all the diagnoses required by bound test ARDL (see table 11 and 12 as well as figure 1, 2, 3 and 4).

## CHAPTER FIVE

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### Introductions

This presents the final chapter of the work. It contains the major outcomes after running the analysis base on the specific objectives. The chapter also presents a summary of conclusions, recommendations as well as the suggestions for further research.

#### Summary of the Study

The study examined the effect of governance on financial institutions in Ghana using two measure for the financial institutions (domestic credit to private sector and broad money). The studies done so far had failed to elicit the unique features of the governance as well as financial institutions in Ghana into consideration. Researchers in Ghana has rather concentrated on corporate governance and financial institutions (Tetteh, 2019; Srem- Sai, 2018; Arthur, 2016). Yet, there was a need to study other factor which intuitively could affect financial institution in Ghana because the economy of Ghana is currently face with a serious financial sector crisis that has led to collapsed of major banks and other financial institutions. it started in 2017 when Bank of Ghana (BoG) decided to strengthen financial sector in Ghana for a more resilient financial operation. For various reasons such as insolvency, liquidity, fraudulent licenses acquisition and new capital requirement, numerous financial institutions were merged, taken over and collapsed (Bank of Ghana Report, 2017). Base on the purpose of the study explanatory research design was employed.

## Findings of the Study

With reference to the main purpose of this study, examine the effect of governance on financial institution in Ghana, specifically the study sought to:

1. analyse the long run relationship between governance and financial institutions in Ghana.
2. examine the short run relationship between governance and financial institutions in Ghana.

The first objective analyse the long run relationship between governance and financial institutions in Ghana with the hypothesis there is no significant relationship between governance and financial institutions in Ghana. Based on the ARDL bound test, the study rejected the hypothesis there is no significant long run relationship between governance and domestic credit to private sector as well there is no significant long run relationship between governance and broad money in Ghana (see table 6 and 8). However, when it came to the coefficient test for short run relationship; there was strong significant relationship between the coefficient of governance and domestic credit to private sector in Ghana and vibrant relationship between the coefficient of governance and broad money (see table 9 and 10).

## Conclusions

Based on the finding, the study concluded that governance has short run effect on financial institutions in Ghana. Below are the precise conclusions.

- There is no long run relationship between governance and domestic credit to private sector in Ghana.
- There is no long run relationship between governance and broad money in Ghana.

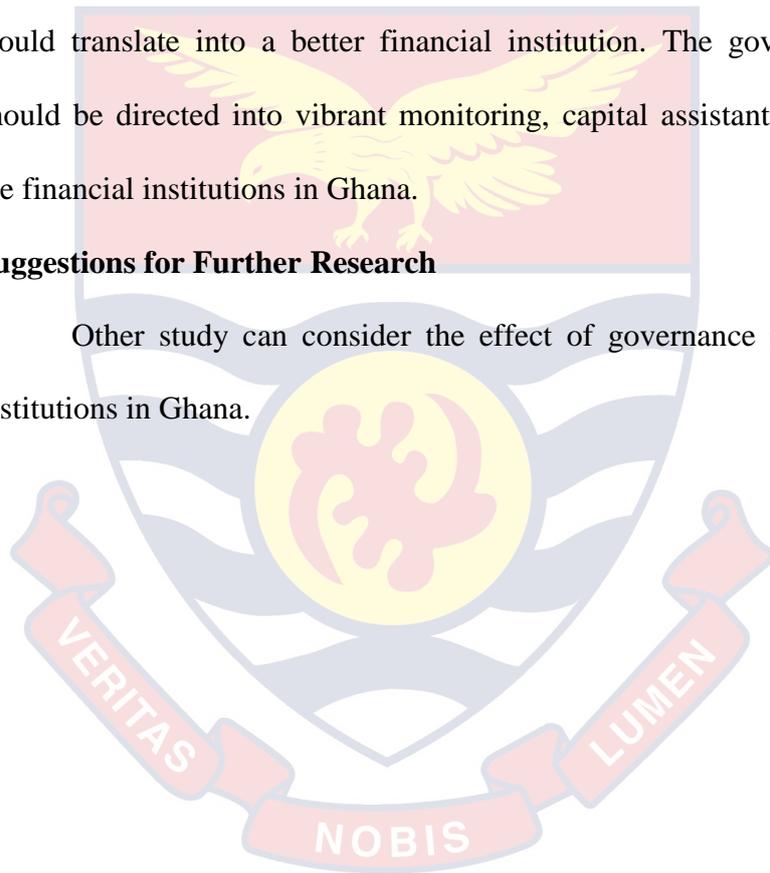
- There is short run relationship between governance and domestic credit to private sector in Ghana.
- There is short run relationship between governance and broad money in Ghana.

### **Recommendations**

Guided by the findings obtained from the study, the following recommendations were put forward to help enhance governance so that it would translate into a better financial institution. The governance policies should be directed into vibrant monitoring, capital assistant and training for the financial institutions in Ghana.

### **Suggestions for Further Research**

Other study can consider the effect of governance risk on financial institutions in Ghana.



## REFERENCES

- Agyemang, O. S., Gatsi, J. G., & Ansong, A. (2018). Institutional structures and financial market development in Africa. *Cogent Economics & Finance*, 6(1), 1488342.
- Acemoglu, D., Johnson, S. & Robinson, J.A (2001). The colonial origins of comparative development: an empirical investigation. *American Economic Reviews*, 91 (5), 1369 – 1401.
- Arellano, M., & Bond, S. (1991). Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations. *The review of economic studies*, 58(2), 277-297.
- Asiama, J.P., & Mobolaji, H. (2011). Trade and financial openness, institutional quality. And financial development in Sub – Saharan Africa. *International conference on international trade and investment*.
- Abedin, M. J., & Arif, S. (2015). Sound Corporate Governance and Its Benefits in Financial Institutions: Does It Really Matter for Organizational Development. *International Journal of Economics, Finance and Management Sciences*, 3(5), 507.
- Arthur, E. E. (2016). *Corporate governance and performance of banks in Ghana*. Unpublished  
Master's thesis, Kwame Nkrumah University of Science and Technology, Ghana.
- Bayar, Y. (2017). Public governance and financial development in Central and Eastern European Countries. *Ekonomске ideje i praksa*, (24), 53-65.
- Bank of Ghana (2019). Report on the banking industry.

- Crowther, D. & Lancaster, G. (2008). *Research methods: A concise introduction to research in management and business consultancy*. Butterworth-Heinemann. Retrieved from <https://www.abebooks.com/book-search/author/david-crowther-crowther-david-geoff-lancaster-lancaster-geoff/> on 27<sup>th</sup> January, 2020.
- Chinoda, T., & Kwenda, F. (2019). The impact of institutional quality and governance on financial inclusion in Africa: A two-step system generalised method of moments approach. *Journal of Economic and Financial Sciences*, 12(1), 9.
- Das, R. U., & Rishi, M. (2010). Are trade openness and financial development complementary?.
- Dwumah, M. (2017). *The Effects Of Corporate Governance on the Performance of Banking Institutions Listed On The Ghana Stock Exchange* (Doctoral dissertation).
- Fobi, D. O. (2019). *Corporate Governance Practices and Performance of Microfinance Institutions in Ghana* (Doctoral dissertation, University of Ghana).
- Government of Ghana (2018). Bank of Ghana revokes licenses of five, establishes new indigenous bank. Retrieved from [Ghana.gov.gh](http://Ghana.gov.gh) on 23<sup>rd</sup> December, 2019.
- Gazdar, K., & Cherif, M. (2014). The quality of institutions and financial development in mena countries: An empirical investigation. *Risk governance & control: financial markets & institutions*, 4 (4-1), 65-80.

- Gatsi, J. G., & Kyeraa, M. (2016). Effects of Non-macroeconomic Variables on Investor Protection in Africa. *Journal of Economics, Business and Management*, 4(6), 20-30.
- Hechmy, B. (2016). Governance and financial development: evidence from the Middle East and North Africa region. *Econometric Research in Finance*, 1(2), 115-127.
- Huang, Y. (2010). Political institutions and financial development: an empirical study. *World Development*, 38(12), 1667-1677.
- IMF (2005). Handbook on financial sector assessment. International Monetary Fund.
- Karikari, J. A. (2010). Governance, financial liberalization, and financial development in Sub-Saharan Africa. In *African Economic Conference, November*.
- Law, S. H., & Azman-Saini, W. N. W. (2012). Institutional quality, governance, and financial development. *Economics of Governance*, 13(3), 217–236.
- Le, T. H., Kim, J., & Lee, M. (2016). Institutional quality, trade openness, and financial sector development in Asia: An empirical investigation. *Emerging Markets Finance and Trade*, 52(5), 1047-1059.
- Li, J., Maung, M., & Wilson, C. (2018). Governance and financial development: A cross-country analysis. *Journal of International Financial Markets, Institutions and Money*, 52, 227-239.
- Levine, R. (1998). The legal environment, banks, and long-run economic growth. *Journal of money, credit and banking*, 596-613.

- La Porta, Rafael, Florencio Lopez-de-Silanes, Andrei Shleifer, and Robert Vishny, 1997, Legal determinants of external finance, *Journal of Finance* 52, 1131–1150.
- Mengistu, A. A., & Adhikary, B. K. (2011). Does good governance matter for FDI inflows? Evidence from Asian economies. *Asia Pacific business review*, 17(3), 281-299.
- North, D.C. (1986). “The New Institutional Economics”, in: Furubotn and Richter (1986), 230 –237.
- Nutassey, V. A. (2018). *Financial market development and foreign direct investment in sub-Saharan Africa: the role of country level governance* (Doctoral dissertation, University of Cape Coast).
- Otchere, I., Soumaré, I., & Yourougou, P. (2016). FDI and financial market development in Africa. *The World Economy*, 39(5), 651-678.
- Pradhan, R. P., Arvin, M. B., Hall, J. H., & Norman, N. R. (2017). ASEAN economic growth, trade openness and banking-sector depth: The nexus. *Economia*, 18(3), 359-379.
- Pasaran, H. M. Shin, Y & Smith, R. J. (2001). Bound Testing Approach to the Analysis of Level.
- Rachdi, H., & Mensi, S. (2012). Does institutions quality matter for financial development and economic growth nexus? Another look at the evidence from MENA countries. *Economic research forum*, 705.
- Srem – Sai, J. (2018). Corporate Governance and the Capital Market in Ghana: The Stymieing Role of the State. *African Journal of International and Comparative Law*, 26(3), 285- 308.

Sukamolson, S. (2005). Fundamentals of quantitative research language institute. Retrieved from <http://www.culi.chula.ac.th/e-Journal/bod/Suphat%20Sukamolson.pdf> on 20<sup>th</sup> January,2020.

Tetteh, E.O. (2019). *The impact of corporate governance on asset quality of banks.a case of the Ghanaian banking sector*. Unpublished Master's thesis, University of Ghana.

Wang, H. & Liu, H (2017). An empirical research of FDI spillovers and financial development threshold effects in different regions of China. Retrieved from <https://www.researchgate.net> on 26<sup>th</sup> March, 2019.

World Bank (2018). World development indicators. Retrieved from <https://datacatalog.worldbank.org/dataset/wdi-database-archiveson> 29th January, 2020.

