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FINANCIAL DEVELOPMENT AND GOVERNANCE NEXUS:

EVIDENCE FROM SUB-SAHARA AFRICA

BY

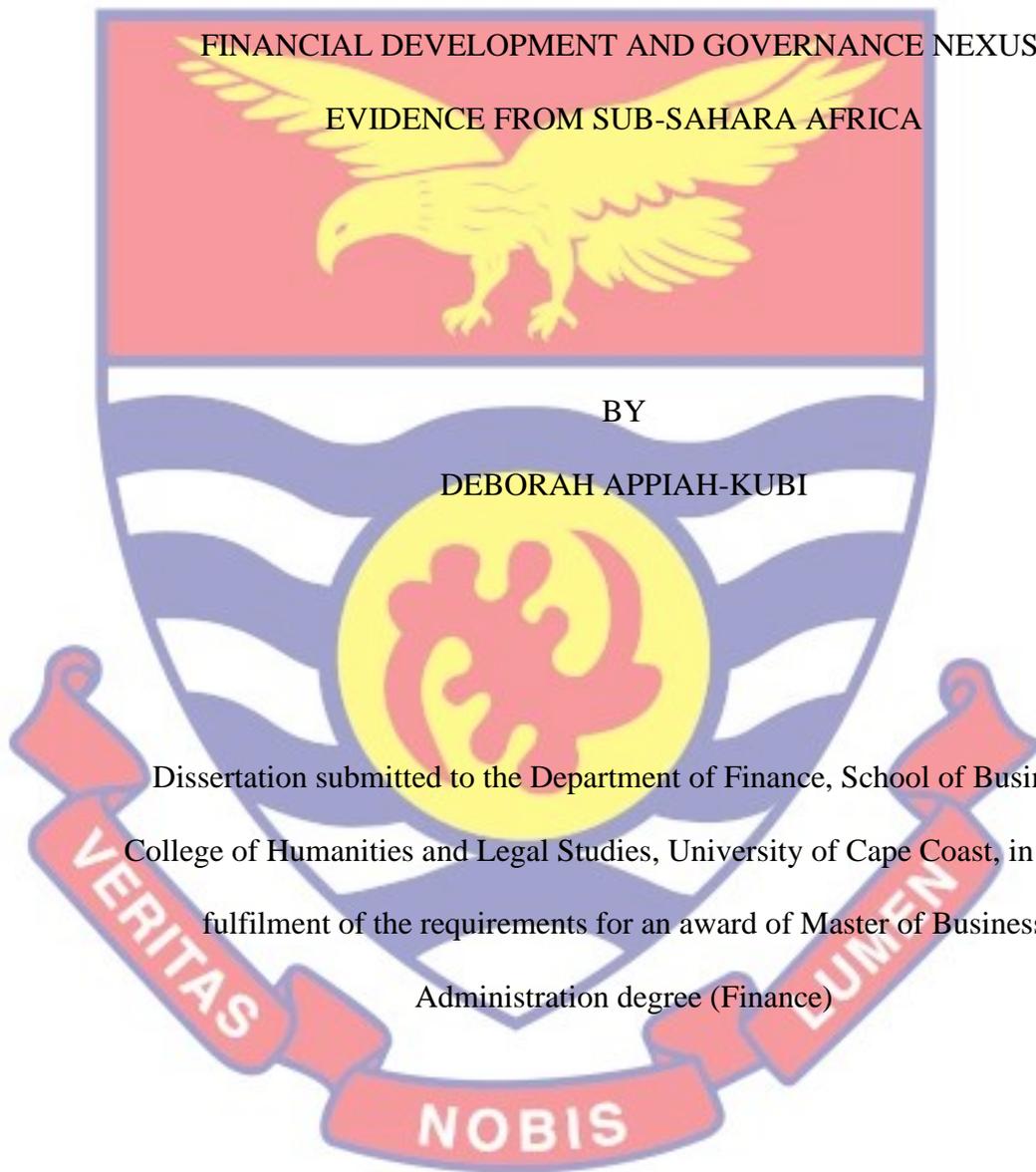
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Dissertation submitted to the Department of Finance, School of Business,

College of Humanities and Legal Studies, University of Cape Coast, in partial

fulfilment of the requirements for an award of Master of Business

Administration degree (Finance)



APRIL 2022

DECLARATION

Candidate's Declarations

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

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

Name: Deborah Appiah-Kubi

Supervisor's Declaration

I hereby declare that the preparation and presentation of this project was supervised by me in accordance with the guidelines on the supervision and procedures of the University of Cape Coast.

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

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ABSTRACT

Economies of Sub-Saharan Africa have been touted as possessing low levels of financial development with weaker institutional structures. The study examines the financial development and institutional quality nexus to examine whether the variables exhibit a bidirectional causality. An explanatory design was adopted for the quantitative study. This nexus was tested empirically on a panel data of 36 Sub-Saharan Africa countries from 2002 to 2017. Using an autoregressive distributed lag model based on the pooled mean group estimation (ARDL-PMG) and panel econometric methods, the study tested for cross-sectional dependence, heterogeneity and the existence of long-run relationship to provide a justification for the model. The Persaran CD test and Blomquist-Westerlund tests confirm the presence of cross-sectional dependence and heterogeneity respectively. Again, Persaran's CADF, Madala - Wu and Westerlund panel bootstrap cointegration tests also report that the variables are stationary and cointegrated. Regarding the PMG panel ARDL, the study documents a bidirectional causality between financial development and institutional quality in the long-run. The study recommends governments in SSA to minimize cost of borrowing and induce access to funding so as to instigate and make the cost of instituting governance structures bearable.

KEY WORDS

Financial Development

Governance

Institutional Quality



DEDICATION

To my family and friends who have provided unwavering support.



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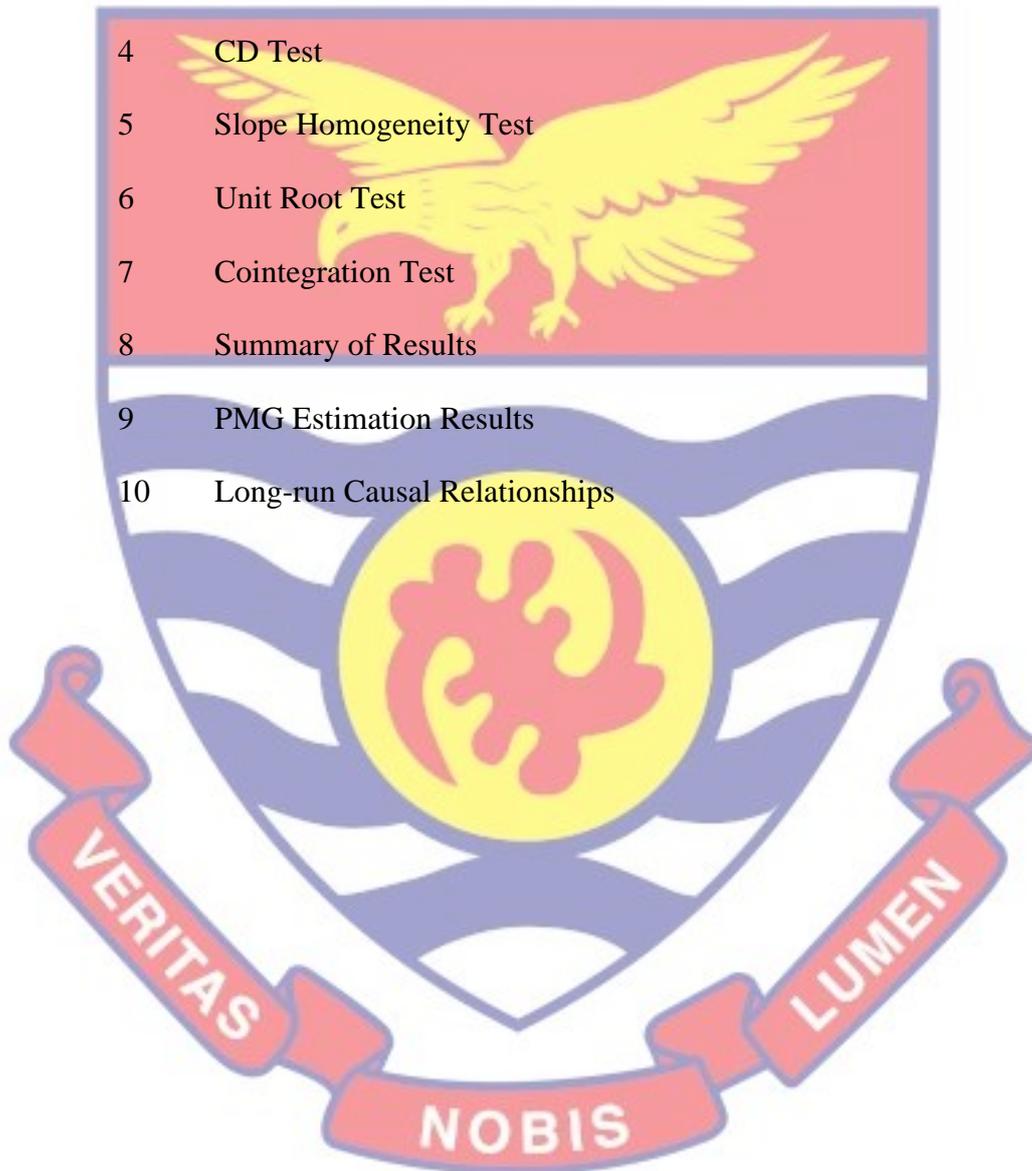
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LIST OF ACRONYMS

DCPS	Domestic Credit to Private Sector
CC	Control of Corruption
FD	Financial Development
GDPPC	GDP Per Capita
GLOB	Globalization
GOV	Governance
INST	Institutional Structures
PS	Political Stability
RL	Rule of Law
RQ	Regulatory Quality
VA	Voice and Accountability



CHAPTER ONE

INTRODUCTION

In light of the growing importance of the financial sector on economic growth, governance structures have been argued to be important for financial development. This means that strengthening country-level governance can be important for the financial sector and ultimately, economic growth. This study takes a different perspective and argues that the development of the financial sector can be an avenue for strengthening the quality of governance structures. Thus, there is a possibility of a bidirectional causality between governance and financial development. Known for having weaker institutions with a poorer developed financial sector, Sub-Sahara Africa (SSA) becomes a suitable testing ground for the study as there are enormous economic gains that can arise from strengthening financial development and governance structures. Due to policy spillovers, the study employs a methodology that handle the existence of cross-sectional dependency (CD). Thus, the study undertakes a causality analysis between governance and financial development in SSA.

Background of the Study

The empirical discussions and theoretical arguments on the factors that can stimulate growth in economies underscore the crucial roles finance and governance. The role of the financial sector is to channel resources from people or institutions with surplus funds to those with deficit funds into productive use, thereby increasing the overall efficiency in economies and consequently, economic growth (Khalid & Shafiullah, 2020). Schumpeter (1911) also suggested that because of the role of the banking system in allocating savings

to productive investments, the key to innovation and economic growth lies in an efficient banking system.

However, Khalid and Shafiullah (2020) proffers that a country's ability to optimize its economic and human development capacity will be constrained and paralyzed unless there exist a participatory, transparent, accountable, and institutions that manifests justice, including those that guarantee property rights. Therefore, governance is also vital. From an institutional quality perspective, innovation can also be supported when an impartial and efficient governance system enforces laws and regulations effectively, thereby creating an environment conducive for inclusive growth. Current literature has explored the role of governance in strengthening financial development and has documented a direct role (For example, see Khalid & Shafiullah, 2020; Abubakar, Mustapha & Ajiboye, 2020; Agyeman, Gatsi & Ansong, 2018; and Aghion, Howitt & Levine, 2018). Their findings suggest that the development of the financial sector necessitates the removal of bureaucracy (or at least a reduction in the amount of bureaucracy), strong law and order, and low levels of corruption (Karikari, 2010; Saylr, Doan, & Soud, 2018).

Despite the arguments that the quality of governance influence development of the financial sector in an economy, some studies rather support causality from financial development to governance structures. According to Beck, Lundberg, and Majnoni (2006), lower levels of financial development result in increased economic volatility, which leads to uncertainty, increases the possibility of political instability and results in a further decline of governance quality. Miletkov and Wintoki (2008) also agree that as financial growth occurs, so does financial liberalization and cross-border transaction frequency. Regular

contacts like these result in a more informed citizenry that is more conscious of its legal and political rights, as well as a demand for better government institutions (Khalid, 2017).

Another viewpoint is that when an economy's financial sector develops, it reduces or removes borrowing limits and improves access to finance for the majority of the population, increasing economic and political rivalry and forcing governments to reform governance systems. Similarly, trade liberalization, which frequently occurs in tandem with financial development, allows for the free flow of money, goods, and services, which contributes to improvements in governance structure quality (Khalid, 2017). Furthermore, Miletkov and Wintoki (2008) pointed out that frequent financial transactions, which are a feature of a developed financial sector, increase the incentive for people to acquire specific skills and knowledge that are better suited to administering and enforcing contracts, lowering the administrative and implementation costs of governance reforms.

The above discussion strongly supports the intuition that there may be a causal relationship between financial development and governance, necessitating further investigation to guide policy decisions. The relationship between governance and financial market growth in Africa has received little attention (Agyemang, 2018). This is due to the fact that most longitudinal studies have favored a causality that goes from governance to financial development rather than financial development to governance. Most Sub-Saharan African countries have seen some improvement in financial development but only a minor improvement in governance, according to Africa's most recent regional economic outlook (2019). According to Hammadi,

Mills, Sobrinho, Thakoor, and Velloso (2019), improving the low level of governance in Sub-Saharan Africa could yield significant benefits if there is a strong commitment to do so. To improve governance, most African countries will need to improve regulatory quality, government effectiveness, and fiscal and anti-corruption institutions. With this, there is the need to examine how financial sector development could compliment the development of strong governance structures in sub-Saharan Africa.

Statement of the Problem

A number of studies have explored the relationship between governance and financial development. The results of these studies have revealed that political instability, especially in non-democratic settings such as sub-Saharan African countries, hampers financial development. This therefore means that good governance structures could possibly improve financial development over time in Sub-Saharan African (SSA) countries (Karikari, 2010; Li, Maung, & Wilson, 2018). However, given the state of governance and financial development in SSA, there is the need to know how they could complement each other to improve each other.

Intuitively, financial development can also be a potential driver for improvements in governance (Khalid, 2017). Financial development creates access to finance, which in turn stimulates political and economic competition and thus leading to better governance structures and reforms. Access to finance also means that individuals have the financial ability to acquire specific skills and education relevant to administering and enforcing contracts which in turn reduces costs involved in administering and implementing governance structures.

Khalid and Shafiullah (2020) revealed the crucial role of financial development in bringing about good governance reforms and economic growth that, in turn, can further develop the financial sector in their study of the relationship between financial development and governance. The argues that there may exist a bidirectional causality between financial development and governance measures. The study, which employed panel data of 101 countries from 1984 to 2013 across the world failed to take into consideration the peculiar situation of African countries. Given the regional variation in the institutional arrangement and the recent relative stability of political dispensations in SSA countries, this study will shed light on the relationship between governance and financial development, focusing on only SSA countries.

Purpose of the Study

This study seeks to examine the bidirectional relationship between financial development and the governance measures in SSA.

Research Objectives

The general objective of the study is to examine the bidirectional causality between financial development and the governance measures. The following specific objectives will be achieved in order to attain the general objective:

1. To examine the long-run and short-run influence of financial development on governance structures
2. To assess the long-run and short-run influence of governance structures on financial development

Research Questions

1. What are the long-run and short-run influence of financial development on governance structures?
2. What are the long-run and short-run influence of governance structures on financial development

Significance of the Study

This study investigates the bidirectional relationship between financial development and governance metrics in Sub-Saharan Africa, and hence has both empirical and social implications. This study's empirical significance is that it will add to the body of knowledge on financial development and governance. If the findings are meaningful, the study will give significant impetus for policymakers to push openness and finance sector development in order to raise the standard of living, particularly in emerging economies.

Limitations of the Study

This analyses the causality behaviour among institutional structures and financial development in Sub-Saharan Africa. Due to this, the findings of study cannot be generalised across other regions. However, since the study tests some hypothesis, the arguments can be extended and tested in to other regional bloc

Delimitations of the Study

The study tests the causality relationships between governance structures and financial development in SSA for 2002 to 2017 only. The study employs the ARDL-PMG approach and does not use methodologies that examines the effect of one variable on the other.

Definition of Terms

Governance

The exercise of power or authority by political leaders for the benefit of their country's population or subjects is known as governance. It's a complicated process in which some members of society hold power and enact public policies that have a direct impact on human and institutional relations, including economic and social growth. In this study, institutional quality and governance quality are used interchangeably.

Financial Development

Financial development, according to the World Economic Forum (2012), refers to the elements, strategies, and institutions that are required to achieve successful financial intermediation and markets, as well as deep and broad access to capital and financial services. By improving the efficiency of the financial sector and the effectiveness of financial intermediation, financial growth promotes the financial stability of countries and provides widespread and significant ease of access to money and other financial services. A nation's long-term economic growth and performance are heavily influenced by its level of financial development, in addition to improvements in the financial sector (Inter-American Development Bank, 2015).

Organization of the Study

The research is divided into five sections. The first chapter of the study is primarily an introduction to the research. The background to this study, the problem statement, the study's aims and research questions, and the study's organization are all addressed in the introduction. The second chapter examines the research on financial development and institutional quality. It also lays out

the theoretical foundations for financial development and governance. The methodology that the study adopts is also presented in the third chapter. That chapter covers among others the research design and data collection procedures. Chapter Four deals with discussions from the data collected. It also covers the presentation of tables and results. Lastly, Chapter Five broadly deals with the conclusions and recommendations from the study.



CHAPTER TWO

LITERATURE REVIEW

Introduction

This chapter discusses and draws insight from the previous studies on governance and financial development. It mainly presents the theoretical and empirical justifications for the study. North's institutional change framework provides the theoretical justification that underpins this study. The chapter also presents a comprehensive review of empirical literature that supports the objectives of the study.

Theoretical Review

The New Institutional Economies

North's institutional change framework can be used to stimulate a causal relationship between financial progress and governance (North, 1971, 1981, 2005). The framework predicts that new institutional and governance structures will emerge when the social benefits of change outweigh the social costs. As a result, any technology shock or shift in relative prices alters the cost-benefit possibilities of new institutional and governance arrangements, functioning as a catalyst for new institutional and governance arrangements or modifications in current ones.

The costs and benefits of specific institutional arrangements are affected by changes in financial development (Miletkov & Wintoki, 2008). Improvements in financial development, in particular, act as a catalyst for the establishment of better institutional and governance systems. Improvements in governance boost the benefits of likely financial arrangements, and after a

certain point, the benefits of governance reforms will outweigh the cost of making those changes (Khalid & Shafiullah, 2020).

The Law and Finance theory

The law and finance theory was promulgated by Porta, Lopez-de-Silanes, Shleifer, and Vishny (1998). The basic premise of the theory is that governance structures themselves as well as their quality shapes financial development. Therefore, testing the Law and Finance theory, Beck et al. (2003) explained that governance structures can explain cross country differences in development of the financial sectors.

Relating Theories to the Study

The NIE proffers that new institutions emerge when the social benefits of change outweigh the social costs. As a result, any technology shock or shift in relative prices alters the cost-benefit possibilities of new institutional and governance arrangements, functioning as a catalyst for new institutional and governance arrangements or modifications in current ones. However, the costs and benefits of specific institutional arrangements are affected by changes in financial development (Miletkov & Wintoki, 2008). This means that financial development can alter governance structures.

In another vein, the law and finance theory argues that the quality of institutions smooth out information asymmetries and promote development of the financial sector.

Conceptual Review

Concept of Financial Development

Financial development, according to the World Economic Forum (2012), refers to the factors, laws, and institutions that enable successful

financial intermediation and markets, as well as deep and broad access to money and financial services. It includes a scenario in which the financial sector overcomes the costs incurred in the financial system, resulting in refinements and the facilitation of trade, mobilizing savings, allocating capital, monitoring firms, the smoothness of goods and service exchange, and risk diversification and management. By improving the efficiency of the financial sector and the effectiveness of financial intermediation, financial development promotes the financial stability of nations and gives widespread and significant access to money and other financial services.

In addition to the financial sector's improvement, the Inter-American Development Bank (2015) finds that a country's performance and long-term economic growth are heavily influenced by its level of financial development. To assess the degree of financial development, factors such as depth, size, access, and the efficiency and stability of a country's financial system, which includes its markets, intermediaries, range of assets, institutions, and judicial directives, can be used (La Porta et al., 1997). The development of these characteristics will allow risk diversification through increased availability of financial services. The development of these characteristics will allow risk diversification through increased availability of financial services. This diversification benefits producers and consumers who have access to financial services by increasing their interest and wealth (Beck & Levine, 2018).

In addition to financial stability, financial development implies increased efficacy in financial markets and intermediaries. According to economists, financial markets and intermediaries exist as a result of two market frictions (information costs and transaction costs). To decrease frictions, they

encourage risk trading, hedging, diversification, and pooling, as well as launching insurance services and mobilizing and allocating funds and resources to appropriate investment projects.

All of these roles, according to the World Economic Forum (2012), contribute to capital accumulation, technological innovation, and productivity increase, all of which help to promote economic growth and wellbeing. Consumers and businesses gain from financial development, particularly the financial market and intermediaries, in ways that are not directly related to economic growth. Financial inclusion can help people get out of poverty. Consumers' access to credit mitigates inadequacies in basic necessities over time and also maintains consumer welfare during transient shocks to earnings and income through borrowing and lending.

The concept of governance

The word "governance" comes from the Latin verb "gubernare," which means "to steer," or the Greek word "kubernaein," which means "to steer." Governance refers to the process of guiding or administering, or of organizing and controlling a group of people or a state, according to its etymology. Governance can also be defined as the action of political leaders exercising authority for the benefit of their citizens or subjects. It is a complicated framework in which a few sects of the general public use control and order, as well as publicly open techniques, to legitimately affect human and institutional relationships, as well as monetary and social occurrences. The general public's authority is generally for the advantage of all, as it is necessary for demanding cooperation and collaboration from people and the state. Governance, according to the United Nations Development Program (2011), is the exercise of

economic, political, and administrative authority needed to manage a country's affairs at all levels. It is made up of systems, processes, and institutions that allow residents and groups to express their desires, exercise their legal rights, fulfill their obligations, and speak out about their differences.

Despite the popularity of the concept of governance among policymakers and academics, no one definition of governance or institutional quality has yet to be agreed upon (Khalid & Shafiullah, 2020). Governance, according to (Kaufmann et al., 2008), encapsulates the country's customary and institutional textures. This encompasses the process by which governments are chosen, evaluated, and replaced; the administration's ability to create and implement compelling strategies; respect for inhabitants and the constitution; and the state of the institutions within which social and financial relationships manifest.

As a result, outstanding administration entails a strong government's capacity to maintain a stable bureaucratic framework, uphold strong law and order, reduce corruption, and strengthen the capital market and investment climate. Effective governance is a crucial contributor to a country's social integrity. It refers to the underlying social structures and processes of a community that serve as the foundation for all economic success. It improves budgetary and financial management, revenue mobilization efficiency, public spending efficiency, and transparency, accountability, and disclosures (Miningou, 2019).

The role of public authorities in establishing the framework in which economic operators operate and defining the distribution of advantages, as well as the connection between the ruler and the ruled, is referred to as good

governance. Predictable, open, and enlightened policymaking; a bureaucracy imbued with a professional ethos; an executive arm of government accountable for its actions; and a strong civil society participating in public affairs, all behaving under the rule of law, as detailed in the World Bank experience (1994).

Poor governance, on the other side, is marked by arbitrary policymaking, unaccountable bureaucracies, unenforced or unjust legal systems, executive power abuse, a disengaged civil society, and pervasive corruption. As a result, improved governance necessitates political renewal. This is a systematic attempt to eradicate/minimize corruption at all levels, from the highest to the lowest. Setting a good example, creating responsibility, stimulating public debate, and supporting a free press are all ways to accomplish this. It also includes boosting grassroots and non-governmental organizations like farmer's associations, co-ops, and women's organizations.

Empirical Review

This section reviews existing studies on the financial development and governance nexus.

The role of governance in promoting financial development

A growing strand of literature explores the relationship between governance and financial development, including institutional quality. Studies have shown that a legal and regulatory system that guarantees property rights protection and contract enforcement is vital for financial development. Example, La Porta et al. (1997, 1998) focused on whether differences in legal origins could explain developments in capital markets. Their findings suggest that less developed equity market, especially in countries with French civil law, are largely associated with poor shareholder rights.

Although it is unquestionable in literature the critical role property rights and the legal environment play in ensuring well-functioning financial sector, some researchers have also argued that the relevant role of country-level governance structures in fine-tuning policies towards the development of the financial sector cannot be overlooked (Beck & Levine, 2018; Gupta & Rao, 2018; Abubakar, Mustapha & Ajiboye, 2020; Agyeman, Gatsi and Ansong, 2018; and Aghion, Howitt & Levine, 2018). They argue that economies characterised by weak institutional structures (such as political stability, control of corruption, government effectiveness, rule of law, voice and accountability, and regulatory quality) tend to be also characterised by weak financial sectors. This inhibits access to credit by the private sector and banks profitability as well. Agyeman, Gatsi and Ansong (2018) studied the effect of institutional structures, particularly political stability on financial development.

Political stability is a significant factor of the level of financial development, according to recent studies on the impact of democracy qualities on financial development. According to Aluko et al. (2019), the quality of democracy and political stability are important influences on financial development. They found, like Girma and Shortland (2008), that political stability and improved democratic processes benefit the banking industry for the most part.

Political stability also impacts a country's ability and desire to reform and improve investment-protecting institutions and regulations (Arayssi & Fakih, 2017). As a result, a lack of political stability jeopardizes the efficient functioning of institutions, perhaps leading to a poorly developed financial sector (Abubakar, Mustapha & Ajiboye 2020; Agyeman, Gatsi & Ansong,

2018; and Roe & Siegel, 2008). Changes in political stability, on the other hand, lessen governments' opportunistic conduct and result in a larger, more competitive, more efficient banking sector, according to Aghion, Howitt, and Levine (2018).

Aside from political stability, research has shown that the rule of law has a substantial impact on financial development (Akisik, 2020; Agyeman, Gatsi and Ansong, 2018; and Horvath, Horvatova and Siranova, 2017). They say that where the rule of law prevails and there is a regulatory mechanism in place to protect property rights, contracts are enforced, which boosts financial sector confidence. Furthermore, domestic financing to the private sector by banks is influenced by the quality of police and the efficiency of courts (Abubakar, Mustapha & Ajiboye, 2020). This because banks become confident that loan agreements and covenants will be enforceable and thus, the private sector has more access to funds.

Regulatory quality has an impact on financial development as well. According to Agyeman, Gatsi, and Ansong (2018), a major difficulty for emerging economies is the financial sector's failure to effectively and efficiently transfer surplus resources to sectors and institutions that need them. They went on to say that the quality of the regulations was the cause for the issue. Quality regulations, according to Johnson (2011), help economies improve the efficiency of their financial systems. Quality financial sector laws inhibit anti-competitive behavior and foster healthy competition in the banking sector (Agyeman, Gatsi & Ansong, 2018). Banking competition encourages banks to offer competitive loan rates, making borrowing more appealing to the private sector.

Additionally, the ability of the financial sector to operate efficiently is also influenced by the level of corruption (Aljazeera, Sirop & Mouselli, 2016). A financial sector permeated with corrupt practices signifies that criminals may control the financial sector (Agyeman, Gatsi & Ansong, 2018). This can serve as a disincentive to savings in the banking sector and deter investors from investing in the system. This also reduces the funds available as credit to the private sector and makes the banking sector susceptible to banking crisis. Thus employing corruption-mitigation strategies through curbing the use of public power for private gain, controlling both petty and grand forms of corruption, as well as controlling the extent to which state or executive "capture" by elites and private interests occur enhances the level of financial development.

Furthermore, empiricists claim that the level of voice and accountability, as well as the effectiveness of government, influence the level of development in an economy's financial sector. Voice and accountability refers to the degree to which a country's citizens have a say in who governs them, as well as freedom of expression, association, and the press, as well as the power to demand accountability (World Governance Indicators, 2016). In an economy where media freedom is questioned, the information provided by the media to investors is likely to be untrustworthy, discouraging them from investing in the financial industry (Nadeem, Jiao, Nawaz & Younis, 2020).

As a result of the suppression of voice and accountability in the economy, investors and savers are unable to hold fund managers accountable. As a result, people tend to divert their funds away from the banking industry. The ability of governments to establish and implement appropriate policies has been shown to influence the level of financial development in the literature.

Effective governments can use monetary policy to increase access to funds and cut borrowing costs, preventing financial sector crises (especially in the banking sector) and promoting financial sector development.

The role of financial development in enhancing the governance structures

The impact of financial development on institutional arrangements is based on the Demsetz and North (1967) concept of institutional transformation (1971, 1981, 2005). The basic argument of the institutional change model is that when the social benefits of institutional reforms outweigh the costs, institutional structures get stronger. As a result, according to Miletkov and Wintoki (2008), changes in financial development produce new institutional institutions while strengthening existing ones. As a result, financial development may have an impact on the quality of regulatory oversight in a given country.

Financial development, on the one hand, assesses the amount of domestic credit that is directed to the private sector. Regulatory quality, on the other hand, assesses the government's ability to establish and enforce sound rules and regulations that enable and support private sector development (Kaufmann et al., 2000). This means that maintaining a high level of regulatory quality may incur significant fixed expenses. As a result, financial development may improve the government's ability to maintain a high degree of regulatory quality. Consider taking steps to ensure the development of the private sector, such as decreasing the monetary policy rate and establishing state institutions.

In an economy where the financial sector can produce more credit for private sector development, the government's efforts to develop the private sector are minimal. Financial development is one of the key drivers of strong institutions in capital economies like America.

Financial development, in addition to regulatory quality, has been shown in the literature to have an impact on the level of rule of law. The term "rule of law" refers to how much people trust and follow society's laws, particularly when it comes to contract enforcement and property rights (kaufmann et al., 2009). Despite the high costs of establishing property rights and other legal enforcement mechanisms, Miletkov and Wintoki (2008) argue that financial development offers a tipping point beyond which the benefits outweigh the costs. In this regard, a higher level of financial development could make rules and regulations more acceptable to the norms and conventions in the society. Also, incentives to invest in legal education and in the acquisition of skills to draft, administer and enforce rules and regulations may be triggered by increases in the number of financial transactions (Dam, 2006; Miletkov & Wintoki, 2008).

Furthermore, the push to expand the financial sector could have serious consequences for corruption control, as well as voice and accountability. Bank privatization is frequent in financial development (Berkowitz, Hoekstra, & Schoors, 2014), and it may encourage both domestic and foreign financial institutions to enter freely. As a result, increased competition as a result of the removal of entrance barriers will, in the long run, boost savings and investment (Henry, 2000). "Corruption is persistent in impoverished environments," according to McKinnon (2010), thus thinking that corruption will reduce in an underdeveloped financial industry is a mistake. Beck, Demirgüç-Kunt, and Levine (2006) anticipated that the expansion of financial markets will reduce corruption and bribery in the financial system by removing hurdles to which businesses seeking finance would have paid bribes to overcome.

Furthermore, increased competition resulting from financial development may put pressure on financial markets and institutions to become more efficient, provide low-cost services, and eliminate inefficiencies such as corruption (Jha, 2019). Furthermore, sophisticated financial systems may benefit voice and accountability by reducing information asymmetry, ensuring market discipline, and making financial system agents more accountable (Beck, Demirgüç-Kunt, and Levine, 2006). Because finance is a development engine, there may be some spillover effects in other areas of the economy, such as reduced corruption and increased voice and accountability.

Furthermore, the level of financial development influences political stability and government performance. Rajan and Zingales (2003) believe that allowing political enemies access to money is one way to lessen the dominance of a small elite in political decision-making. As a result, increasing financial development may lead to increased political competition, which may boost the political system's stability in the long run. A decline in financial development, on the other side, may increase economic volatility and uncertainty, perhaps leading to political instability (Beck, Lundberg, & Majnoni, 2006). Governments can help address market failures and support financial market development in most countries, according to the development view of government efficacy (Gerschenkron, 1962). As a result, an effective government is one that is capable of providing high-quality public and civil services while remaining politically neutral (Kaufmann et al., 2002). Governments with a high level of financial development may be more effective as a result.

Control Variables in the relationship between institutional structures and financial development

Globalization, according to Berhane (2018), is an important accelerator for institutional reforms and financial development in poor countries. Sound institutions are important for supporting financial development because they help to sustain strong property rights, an effective legal system, and efficient financial regulation. Furthermore, empirical evidence reveals that institutional frameworks and the evolution of the financial sector are shaped by the level of economic development (Khalid & Shafiullah, 2020). This is due to the fact that economic growth provides larger incentives for government investments in governance institutions (Dixit, 2003; Li, 2003). Also, drawing from the demand following hypothesis, financial development responds to changes in the level of economic development.

Chapter Summary

The chapter reviews literature relevant to the study of financial development and institutional structures. The law and finance and the new institutional theory provides the basic argument that support the governance and financial development nexus. The chapter further presented a review of the concepts of governance and financial development. Further, the study also presented a literature that supports causality from governance to financial development and causality from financial development to governance.

CHAPTER THREE

RESEARCH METHODS

Introduction

This chapter presents the methodology employed for this study. This chapter deals with the systematic procedure the researcher employs to explain the bidirectional causality between financial development and the governance measures in SSA. To be precise, this Chapter presents the research paradigm, research design, research approach, definition, source and measurement of variables, model specifications and justifications, and methods of data processing and analysis.

Research Paradigm

The research paradigm, according to Saunders et al. (2009), refers to the development of knowledge and the nature of knowledge. Simply said, a research paradigm is a set of assumptions about how researchers see the world, and these assumptions will drive the strategy's selected research strategy and methodologies. This research adheres to the positivist research paradigm. The positivist approach to scientific inquiry, according to proponents, is doing research into an observable social reality and then generating law-like generalizations, similar to what physical and natural scientists do (Saunders, Lewis & Thornhill, 2012).

Positivism is concerned with explaining social reality. The study is based on positivism, with the goal of determining the bidirectional causality between financial development and governance metrics in SSA. Individuals' subjective opinions are not taken into account in the research. As a result, the

mind that generates hypotheses, tests them using statistical programs, and generates explanations for laws corresponds to the positivist perspective.

Research Design

The study design might be descriptive, exploratory, or explanatory, depending on how researchers ask their questions, establish their hypothesis, and communicate their goal (Saunders et al., 2009). The explanatory research design is used in this study. Explanatory design is also known as "causal research design" in some books (Hair et al., 2011). The researcher's job is to distinguish such causes and determine how much they contribute to such consequences (Ghuri & Gronhaug, 2005). The goal of explanatory research, according to Saunders et al. (2009), is to explain the causal relationship between variables. This study uses an explanatory design to determine whether there is a bidirectional causal relationship between financial development and governance parameters in SSA.

Research Approach

Every study requires a specific research approach. According to Saunders et al. (2009), the research approach is the overall configuration of the research question/hypothesis and what types of subjects are obtained, from where and how to interpret them in order to produce a response or results to the hypothesis/questions. According to Creswell (2014), there are three main research methodologies. There are three types of approaches: quantitative, qualitative, and mixed. Variables on financial development and governance metrics are measured statistically in this study, therefore it takes a quantitative approach.

Data Collection Procedures

The study investigate how financial development and governance are linked in Sub-Saharan Africa. Secondary annual data on financial development and other macroeconomic indicators for 36 SSA nations were collected from the World Development Indicators datasets, while governance indicators will be obtained from the Worldwide Governance Indicators data set, based on that premise. The number of countries that would be used was determined by the availability of data.

Data source and Description

The study employed annual panel time series data for sample of 36 SSA from 2002 to 2017. The data on the variables and the chosen countries were based on full data availability. The dataset obtained from World Bank Development Indicators (WDI) dataset includes Domestic credit to private sector (% GDP) used as a proxy for financial development, and gross domestic product per capital used a proxy for economic development. The composite governance was measured by the simple average of the estimates of the six worldwide governance indicators, namely rule of law, regulatory quality, control of corruption, government effectiveness, political stability and absence of violence, and voice & accountability. The data on the governance variables was obtained from the World Governance Indicators Dataset. Finally, globalization as measured by the KOF overall globalization index (KOG).

Estimation Procedures

The objective of this study is to examine the dynamic causal relationships between governance structures and financial development. Thus, the study employs the Autoregressive Distributed Lag Pooled Mean Group

Estimator (ARDL-PMG) approach to examine the short- and long-run relationships among the variables. Generally, panel data estimations involve about four steps. These include unit root test, cointegration test, regression estimation, and causality analysis (Le & Ozturk, 2020). Although the traditional “first-generation” methods can be employed to execute these four steps, the traditional methods may suffer from cross section dependency and slope heterogeneity. Thus, the estimates from the traditional methods may be biased and unreliable when the data exhibits cross-sectional dependence and slope heterogeneity (Dogan and Seker, 2016). In such case, the “second-generation” econometric techniques should be applied to execute the four steps. However, the cross-sectional dependency test proposed by Pesaran (2004) and the slope homogeneity test proposed by Pesaran and Yamagata (2008) must precede the four steps.

Homogeneity and cross-sectional dependence tests are becoming increasingly blatant in the selection of further tests like stationarity and cointegration tests. This is because the wrong selection of stationarity or unit root test is likely to lead to poor selection of the co-integration tests and this will finally result in bias and unreliable estimates.

Cross-Sectional Dependence Test

The study employed the Pesaran (2015) CSD test, which is the robust version of the Pesaran (2004) CSD test. The Pesaran (2015) CSD test is particularly useful because it allows for any length of varlist (Wursten, 2017). The Pesaran (2015) CSD test statistic is specified as follows:

$$CSD_{it} = \left[\frac{IT(I-1)}{2} \right]^{1/2} \cdot \hat{\rho}_t$$

Where i is the cross-sectional dimension, t is the time series dimension and $\hat{\rho}_{it}$ is pairwise correlation coefficient. Usually, CD can exist in panel data analysis mainly due to the connections between countries that are integrated along economic and geographical lines and other unobserved factors (Chudik & Pesaran, 2013). Thus, it will be appropriate to test cross sectional dependency because SSA countries are integrated along economic and geographical lines. The CD test is based on the null hypothesis of cross-sectional independence.

Slope Homogeneity Test

The study performed a test of slope homogeneity based on Blomquist-Westerlund (2013). This type of homogeneity test is useful when in panels with a large number observations of the cross-sectional ($N=36$) and time ($T=15$) dimension. The null hypothesis of the test is that the slopes are homogeneous and the alternative is that slopes are heterogeneous.

Unit root Test

The Madala and Wu (1999) panel root test which is a non-parametric test and found to be more powerful and allows for heterogeneity across countries (Jaunky & Landmark, 2017). Like all the first-generation panel unit root tests, the Madala and Wu (1999) test may not be robust when cross-sectional dependency exists. In contrast, the second generation of panel unit root tests developed by Pesaran (2007) such as the CADF panel unit root test is robust and accounts for cross sectional dependence (Mensah et al., 2019). Therefore, in the midst of heterogeneity across countries and the existence of CD, the study utilizes both Madala and Wu (1999) and CADF developed by Pesaran (2007) tests. The study also considers the estimation with constant with trend in order to exploit potential hidden features.

Panel Cointegration Test

If CD and slope heterogeneity exists, the traditional cointegration tests such as Johansen or Kao generate unreliable estimates (Le & Ozturk, 2020). Instead, the Westerlund (2007) cointegration test can be applied. This test accommodates unit-specific short-run dynamics, unit-specific trend and slope parameters and cross-sectional dependence.

Regression Estimation- Pooled Mean Group Estimator

Finally, the study employed the pooled mean estimator (PMG), an econometric estimator which assumes homogeneity of long-term parameters but allows for variation in the short-term coefficients using the ARDL model, to estimate the short run and the long run relationships among the variables. Among other cointegration models, the ARDL model is preferred because it can be employed irrespective of whether the series is integrated of order 1 or order 0 and it also decomposes the structural relationship among the variables into long-run and short-run estimates simultaneously. Again, the ARDL model controls for any endogeneity problems because it includes lag length for both endogenous and strictly exogenous variables. However, the ARDL model cannot be employed when the series is integrated of order 2 [I(2)]. The ARDL (p, q) model for the long run relationships among the variables as proposed by Pesaran et al. (1999) is as follows:

$$\Delta Y_{k,it} = \alpha_{k,i} + \gamma_{k,i} Y_{k,it-1} + \sum_{k=2}^l \gamma_{k,i} X_{k,it-1} + \sum_{j=1}^{p-1} \delta_{k,ij} \Delta Y_{k,it-j} + \sum_{j=1}^{q-1} \sum_{k=2}^l \delta_{k,ij} \Delta X_{k,it-j} + \varepsilon_{k,it}$$

Where Y_k is the dependent variable and X_k is the independent variable, with $K = 1, 2, 3, 4 \dots n$. $\varepsilon_{k,it}$ represents the error term and ΔT is the difference operator.

This means that Y_k and X_k are vectors of dependent and independent variables respectively.

For instance, if institutional quality is the dependent variable, the ARDL long-run model is specified as follows:

$$\Delta INST_{it} = \alpha_{1i} + \gamma_{1,i} INST_{it-1} + \gamma_{2,i} FD_{it-1} + \gamma_{2,i} GLOB_{it-1} + \gamma_{3,i} GDPPC_{it-1} + \sum_{j=0}^p \delta_{1,i} \Delta INST_{it-j} + \sum_{i=0}^q \delta_{2,i} \Delta FD_{it-j} + \sum_{i=0}^q \delta_{3,i} \Delta GLOB_{it-j} + \sum_{i=0}^q \delta_{4,i} \Delta GDPPC_{it-j}$$

Where INST, FD, GLOB and GDPPC represent Institutional Quality, Financial development, Globalization and GDP Per capita respectively.

Also, when the financial development is the dependent variable, the ARDL long-run model is specified as follows

$$\Delta FD_{it} = \alpha_{1i} + \gamma_{1,i} FD_{it-1} + \gamma_{2,i} INST_{it-1} + \gamma_{2,i} GLOB_{it-1} + \gamma_{3,i} GDPPC_{it-1} + \sum_{j=0}^p \delta_{1,i} \Delta FD_{it-j} + \sum_{i=0}^q \delta_{2,i} \Delta INST_{it-j} + \sum_{i=0}^q \delta_{3,i} \Delta GLOB_{it-j} + \sum_{i=0}^q \delta_{4,i} \Delta GDPPC_{it-j}$$

Where INST, FD, GLOB and GDPPC represent Institutional Quality, Financial development, Globalization and GDP Per capita respectively.

The lag length of a variable is usually based on the SBC (Schwarz Bayesian Criterion) and the AIC (Akaike Information Criterion). The ARDL bounds test examine the existence of a long run relationship among the variables based on the null hypothesis that there is no long run relationship between the variables and an alternative hypothesis that there is a long run relationship between the variables. The null hypothesis is rejected when the Fisher statistic (F- statistic) or the Wald statistic is greater than both the upper and the lower bounds. The results become inclusive when the Fisher statistic (F- statistic) or the Wald statistic falls between the upper and the lower bounds. Finally, the null

hypothesis is not rejected when the Fisher statistic (F- statistic) or the Wald statistic falls below both the upper and the lower bounds.

After a long-run relationship has been established among the variables, Pesaran et al. (2001) proposes the estimation of the short run dynamic relationship using the error correction model. The error correction model is

specified as:

$$\Delta Y_{k,it} = \alpha_{k,i} + \sum_{j=1}^{p-1} \beta_{k,ij} \Delta Y_{k,it-j} + \sum_{j=1}^{q-1} \sum_{k=2}^l \beta_{k,ij} \Delta X_{k,it-j} + \mu_{ki} ECT_{k,it-1} + \varepsilon_{k,it}$$

Where the residuals $\varepsilon_{k,it}$ ($k=1,2,3,4$) are independent and normally distributed with zero mean and constant variance. The $ECT_{k,it-1}$ is the error correction term which must be negative and significant to affirm a long run relationship among the variables. Again, for example, of institutional quality is the dependent variable, the ECM is specified as follows:

$$\Delta INST_{it} = \alpha_{k,i} + \sum_{j=1}^{p-1} \beta_{k,ij} \Delta INST_{it-j} + \sum_{j=0}^{q-1} \beta_{2,ij} \Delta FDI_{it-j} + \sum_{j=0}^{q-1} \beta_{3,ij} \Delta GLOB_{it-j} + \sum_{j=0}^{q-1} \beta_{4,ij} \Delta GDPPC_{it-j} + \mu_{ki} ECT_{k,it-1} + \varepsilon_{k,it}$$

Where INST, FDI, GLOB and GDPPC represent Institutional Quality, Financial development, Globalization and GDP Per capita respectively.

Again, when the financial development is the dependent variable, the ARDL long-run model is specified as follows

$$\Delta FDI_{it} = \alpha_{k,i} + \sum_{j=1}^{p-1} \beta_{k,ij} \Delta FDI_{it-j} + \sum_{j=0}^{q-1} \beta_{2,ij} \Delta INST_{it-j} + \sum_{j=0}^{q-1} \beta_{3,ij} \Delta GLOB_{it-j} + \sum_{j=0}^{q-1} \beta_{4,ij} \Delta GDPPC_{it-j} + \mu_{ki} ECT_{k,it-1} + \varepsilon_{k,it}$$

Where INST, FDI, GLOB and GDPPC represent Institutional Quality, Financial development, Globalization and GDP Per capita respectively.

Finally, the study did the long run and the short run causality analysis by employing the results from the PMG estimator.

Data description, measurement and sources

Table 1: Description of Variables and Source of Data

Variable	Measurement	Data source
Financial development	Domestic credit to private sector (% of GDP)	World Development Indicators
Governance Structures	Voice and accountability, political stability and absence of violence, rule of law, regulatory quality, control of corruption, and government effectiveness. Measured on a scale of -2.5 to 2.5	World Governance Indicators
Globalisation	KOF Globalisation Index (0-100)	KOF Swiss Economic Institute
Economic Growth	GDP Per Capita	World Bank global financial development database

Source: Field Data (2021)

Chapter Summary

The chapter presented the methods the researcher employed in the study. This quantitative study is based on the positivist paradigm. This does not allow the study to explore the qualitative dynamics. The study employs the

explanatory design as it seeks to examine the bidirectional causality between governance and financial development. It is worth noting that this study included only 39 SSA countries due to availability of data. Finally, the study employed the Panel ARDL, PMG estimation technique.



CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

This chapter presents the results obtained from the empirical analysis. The Chapter begins by presenting the descriptive statistics on all the variables. This provides a first impression of the institutional structures and financial development in the sampled SSA economies. Next, the chapter presents a correlation matrix to examine the degree and direction of the association between the variables, and also to avoid issues of multicollinearity in the empirical specification. Finally, the chapter presents the results and the discussion of the results estimated from the various models specified in the Chapter three.

Summary Statistics

The summary statistics is presented on a sample of 36 SSA economies. The summary statistics provides a glance view of the state of the variables employed in the empirical analysis. The specifics summary statistics presented in this section is the mean, the standard deviation, the minimum and the maximum values for each variable.

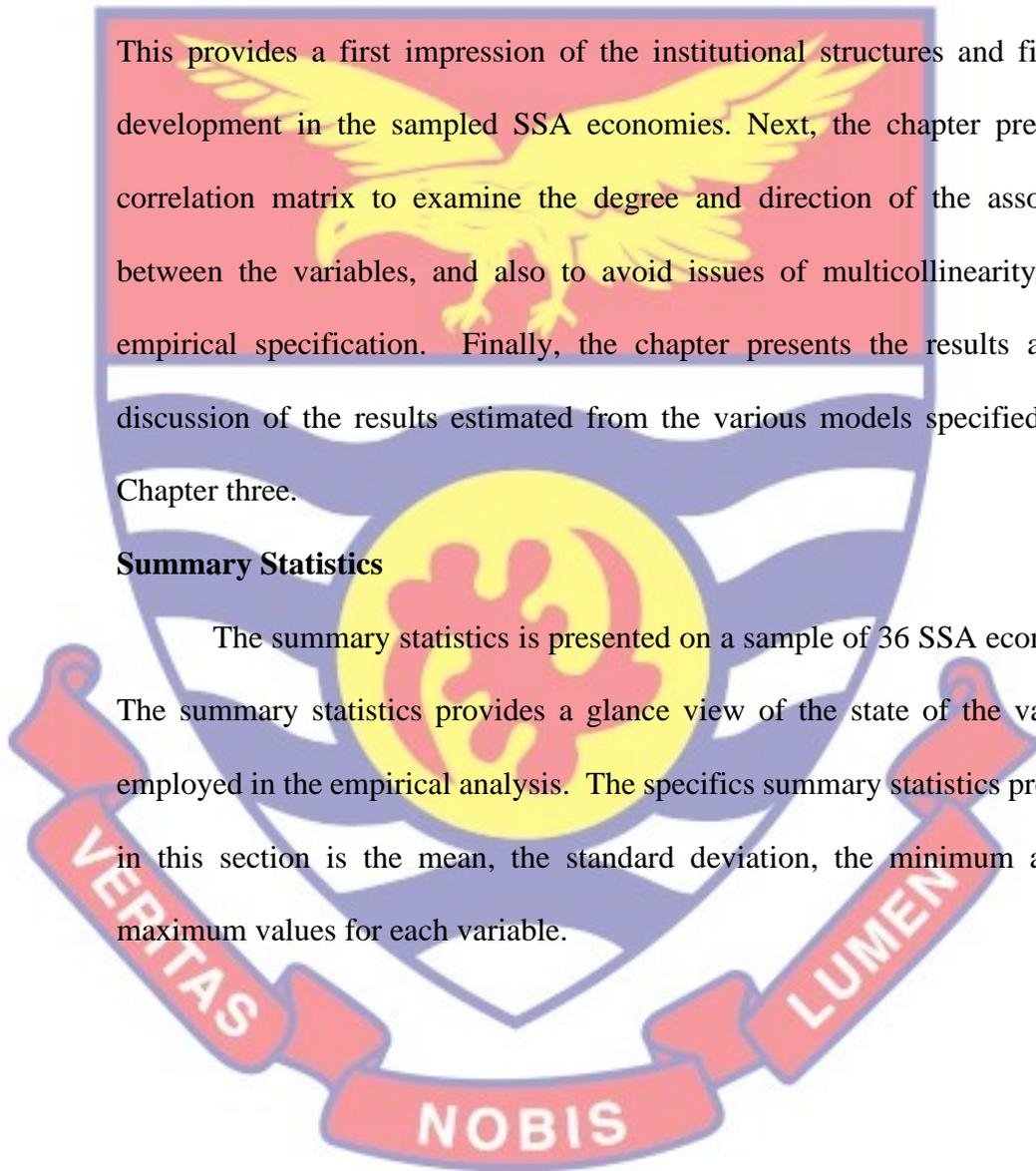


Table 2: Descriptive Statistics

Variable	Mean	Std. Dev.	Min	Max
DCPS	20.575	25.876	.491	160.125
KOFGI	47.842	8.632	26.593	72.661
GDPPCUR	2322.146	3519.519	113.567	22942.583
COC	-.581	.637	-1.826	1.217
GE	-.726	.629	-1.848	1.057
PS	-.494	.916	-2.699	1.118
RQ	-.619	.555	-1.858	1.127
RL	-.642	.631	-1.816	1.077
VA	-.468	.726	-2	.979
INST	-.588	.614	-1.719	.88

Time series range

2002 - 2017

Number of Countries: 36

Source: Field Data, Appiah-Kubi (2021)

Note: Financial Development, measured by domestic credit to private sector by banks as a percentage of GDP (DCPS). GDPPCUR represents GDP per Capita, Current US\$. KOFGI represents KOF Globalisation Index. INST represents aggregate Institutional Quality variable which is measured by the average of the six institutional indicators. The six institutional indicators include Control of Corruption (COC), Government Effectiveness (GE), Political Stability and Absence of Violence (PS), Regulatory Quality (RQ), Rule of Law (ROL) and Voice and Accountability (VA)

Table 2 presents the summary statistics for 36 Sub-Saharan African (SSA) Countries from 2002 to 2017. The table reveals that for all 36 SSA countries, Financial Development, measured by domestic credit to private sector by banks as a percentage of GDP (DCPS) has a mean of 20.575 and a standard deviation of 25.876. The coefficient of variation is 125.76%. DCPS also has a range of 159.634. Meanwhile the KOFGI has mean of 47.842 and fluctuates between 72.661 and 26.593. The coefficient of variation is about 18%. The table also reveals that the GDP per Capita, Current US\$ (GDPPCUR) has the highest mean of 2322.146 and a variation of 3519.519. The values

ranges between 22942.583 and 113.567 with a coefficient of variation of about 152%.

Table 2 also summarizes the data obtained for the governance indicators to enable in-depth understanding of the state of institutional quality in the sampled SSA countries. Control of Corruption (COC) and Government

Effectiveness (GE) average -.581 and -.726 respectively and within limits of -1.826 to 1.217 and -1.848 to 1.057 for COC and GE respectively. Meanwhile Political Stability (PS) and Regulatory Quality (RQ) average -.494 and -.619 respectively. These averages were based on limits of -2.699 to 1.118 and -1.858 to 1.127 for PS and RQ respectively. Finally, Rule of Law (RL) and Voice & Accountability (VA) average -.642 and -.468 respectively within limits of -1.816 to 1.077 and -2 to .979 for RL and VA respectively. The aggregate of these governance indicators (INST), computed as a simple average of these six governance indicators shows a mean of be -.588 within limits of -1.719 to .88.

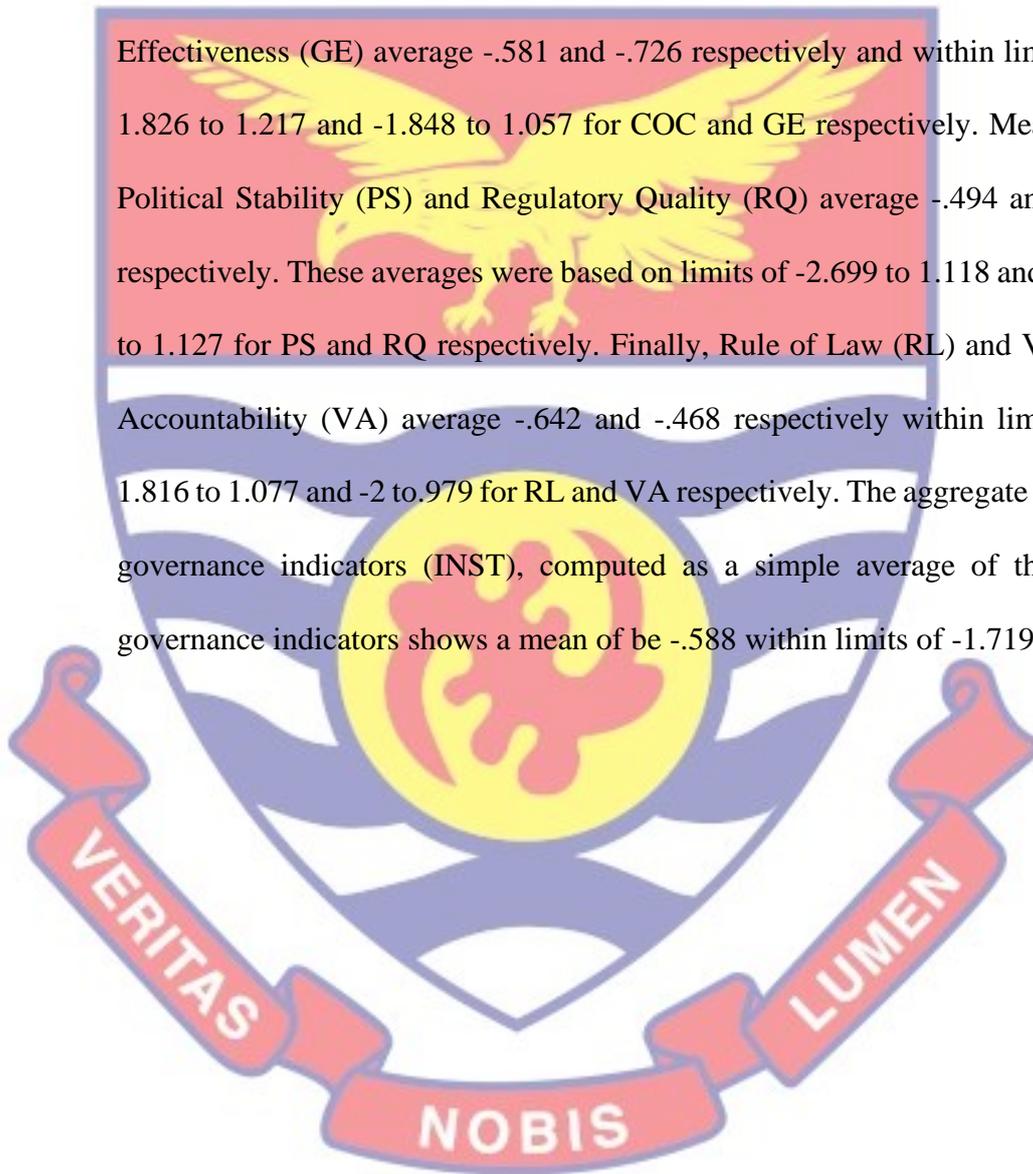


Table 3: Correlation Matrix

	lnDCPS	INST	COC	GE	PS	RQ	RL	VA	lnKOFGI	lnGDPPCUR
lnDCPS	1									
INST	0.656182	1								
COC	0.613836	0.918511	1							
GE	0.66581	0.929013	0.861736	1						
PS	0.416344	0.842733	0.705859	0.672422	1					
RQ	0.69561	0.896274	0.799122	0.91068	0.628915	1				
RL	0.647224	0.970796	0.897142	0.91534	0.781359	0.876989	1			
VA	0.591988	0.867296	0.751811	0.747671	0.649405	0.733945	0.81664	1		
lnKOFGI	0.66462	0.596806	0.478428	0.658127	0.391881	0.679542	0.59763	0.502636	1	
lnGDPPCUR	0.45229	0.436192	0.374966	0.45135	0.482176	0.380887	0.43355	0.215131	0.573928	1

Source: Field Data, Appiah-Kubi (2021)

Note: lnDCPS is the log of domestic credit to private sector by banks as a percentage of GDP, lnGDPPCUR is the log of GDP per Capita in Current US\$. lnKOFGI represents the log of KOF Globalisation Index. INST refers to Institutional Quality, COC is Control of Corruption, GE is Government Effectiveness, PS is Political Stability and Absence of Violence, RQ is Regulatory Quality, RL is Rule of Law, and VA is Voice and Accountability (VA).

Table 3 presents the pairwise correlation matrix of the variables for empirical analysis. The table reveals a strong positive relationship between the log of financial development (lnDCPS) and the following variables: overall measure for Institutional quality (INST) ($r=.656$); Control of Corruption (COC) ($r=.613$); Government Effectiveness ($r=.666$); Regulatory Quality (RQ) ($r=.696$); Voice and Accountability (VA) ($r=.591$); and the log of KOF overall globalization index (lnKOFGI) ($r=.664$). Meanwhile, the table also reveals a weak positive relationship between financial development (lnDCPS) between the following two variables: Political Stability (PS) ($r=.416$) and the log of GDP Per Capita in current US\$ (lnGDPPCUR) ($r=0.452$).

Predictably, the six governance indicators indicate a very strong positive correlation among each other. The aggregate of these governance indicators (INST), computed as a simple average of these six governance indicators exhibited a very high correlation among its constituents. The results however, do not raise any concern for multicollinearity as the indicators for governance will not be used in the same model. The table also reveals a weak positive relationship between the governance indicators and the log of GFD per capita. The relationship between the six governance indicators and the log of the KOF globalization index exhibit both a weak positive and a strong positive correlations. The relationship is weak for control of corruption and political stability but weak for the other four indicators and the overall measure for institutional quality too.

Cross sectional Dependency Test

As explained earlier, CD can exist in panel data analysis mainly due to the connections between countries that are integrated along economic and geographical lines and other unobserved factors. Thus the results of the cross sectional dependency test for the sample of 36 SSA economies is presented in

Table 4.

Table 4: CD Test

Variables	CD Test
lnDCPS	95.357 *** [0.000]
INST	40.734 *** [0.000]
COC	36.089 *** [0.000]
GE	46.704 *** [0.000]
PS	12.709 *** [0.000]
RQ	58.366 *** [0.000]
RL	41.711 *** [0.000]
VA	17.317 *** [0.000]
lnKOFGI	97.200 *** [0.000]
lnGDPPCUR	97.162 *** [0.000]

Source: Field Data, Appiah-Kubi (2020)

Note: lnDCPS is the log of domestic credit to private sector by banks as a percentage of GDP, lnGDPPCUR is the log of GDP per Capita in Current US\$. lnKOFGI represents the log of KOF Globalisation Index. INST refers to Institutional Quality, COC is Control of Corruption, GE is Government Effectiveness, PS is Political Stability and Absence of Violence, RQ is Regulatory Quality, ROL is Rule of Law, and VA is Voice and Accountability (VA). *, **, *** represents significance at 1%, 5% and 10% level respectively. The figures in the parentheses are the p-values.

Table 4 shows the findings for the cross sectional dependency test. The table reveals that cross-sectional dependence occurs with regard to all variables

as the null hypothesis that errors are weakly cross-sectional dependent is rejected at a level of significance of 1%. This implies that there exists sufficient cross-sectional dependency among variables across all countries in different panels. The policy implication is that domestic policies in SSA countries must inculcate heterogeneity and cross-sectional correlation during their formulation stages. This will ensure that potential external influences are factored in the policies. In the midst of cross-sectional dependency, the panel data method adopted for this study must cater for CD in order to provide more accurate and reliable results.

Slope Homogeneity Test

The study performed a test of slope homogeneity based on Blomquist-Westerlund (2013). The results are presented in Table 4.

Table 5: Slope Homogeneity Test

Variables	Delta	Adjusted Delta
lnDCPS	9.795*** [0.000]	11.814*** [0.000]
INST	7.685*** [0.000]	9.268*** [0.000]
COC	9.066*** [0.000]	10.934*** [0.000]
GE	6.566*** [0.000]	7.919*** [0.000]
PS	7.140*** [0.000]	8.611*** [0.000]
RQ	9.727*** [0.000]	11.732*** [0.000]
RL	10.528*** [0.000]	12.697*** [0.000]
VA	30.263*** [0.000]	36.499*** [0.000]

Source: Field Data, Appiah-Kubi (2021)

Note: lnDCPS is the log of domestic credit to private sector by banks as a percentage of GDP, lnGDPPCUR is the log of GDP per Capita in Current US\$. lnKOFGI represents the log of KOF Globalisation Index. INST refers to Institutional Quality, COC is Control of Corruption, GE is Government Effectiveness, PS is Political Stability and Absence of Violence, RQ is Regulatory Quality, ROL is Rule of Law, and VA is Voice and Accountability (VA). *, **, *** represents significance at 1%, 5% and 10% level respectively. The figures in the parentheses are the p-values.

The Table 5 reveals the results of the test of slope homogeneity. Based on the values of delta tilde and adjusted delta tilde together with their corresponding p-values, we reject the null hypothesis that the slope coefficients are homogenous and conclude in favour of the alternate hypothesis that the slope coefficients are heterogeneous in the various countries. Hence, the study must adopt heterogeneous panel methods in which parameters differ across individual cross-sections.

Unit Root Test

After the cross sectional dependency test and the slope homogeneity tests, the study presents two stationarity test, ie, the Covariate-augmented Dickey Fuller (CADF) test and the Madela and Wu (1996) tests, to access the stationarity property of the data employed in the empirical analysis. The results are presented in Table 6.

Table 6: Unit Root Test

Variable	At Levels		At First Difference	
	CADF	MW	CADF	MW
lnDCPS	-0.552 [0.290]	94.410** [0.039]	-9.151 *** [0.000]	362.286 *** [0.000]
INST	-1.277 [0.101]	201.336*** [0.000]	-8.357*** [0.000]	545.499*** [0.000]
COC	-0.043 [0.483]	163.447*** [0.000]	-7.966*** [0.000]	303.369*** [0.000]
GE	-3.093 *** [0.001]	172.147*** [0.000]	-10.802*** [0.000]	579.154*** [0.000]
PS	-1.278 [0.101]	135.656*** [0.000]	-9.860 *** [0.000]	598.307*** [0.000]
RQ	-3.305*** [0.000]	140.108*** [0.000]	-12.184 *** [0.000]	545.876 *** [0.000]
RL	-1.905** [0.028]	137.205*** [0.000]	-10.408*** [0.000]	457.820*** [0.000]
VA	-0.696 [0.243]	143.308*** [0.000]	-9.071 *** [0.000]	410.480*** [0.000]
lnKOFGI	-0.499 [0.309]	55.789 [0.921]	-7.277*** [0.000]	417.224*** [0.000]
lnGDPPCUR	-2.451 *** [0.007]	56.571 [0.909]	-6.627 *** [0.000]	313.936*** [0.000]

Source: Field Data, Appiah-Kubi (2020)

Note: lnDCPS is the log of domestic credit to private sector by banks as a percentage of GDP, lnGDPPCUR is the log of GDP per Capita in Current US\$. lnKOFGI represents the log of KOF Globalisation Index. INST refers to Institutional Quality, COC is Control of Corruption, GE is Government Effectiveness, PS

is Political Stability and Absence of Violence, RQ is Regulatory Quality, ROL is Rule of Law, and VA is Voice and Accountability (VA). *, **, *** represents significance at 1%, 5% and 10% level respectively. The figures in the parentheses are the p-values.

Having validated the occurrence of CD and slope heterogeneity, the CADF unit root test (Pesaran 2007) is more appropriate for assessing the stationarity of the variables. Table 6 shows the results for Madela and Wu (1996) and the CADF unit root test (Pesaran 2007). The Table reveals that all variables are stationary at first difference. This means that they are integrated at order 1.

Panel Cointegration Test

Having confirmed the existence of cross-sectional dependence, slope heterogeneity and that the variables are integrated at order level 1, the robust Westerlund (2007) cointegration test is employed to evaluate the existence of long-run relationships among the variables. The results are presented below:

Table 7: Cointegration Test

Statistic	Value	Robust P-value
Gt	-3.791**	0.049
Ga	-9.012***	0.000
Pt	-22.224**	0.020
Pa	-9.203***	0.000

Source: Field Data, Appiah-Kubi (2020)

*, ** and *** represents significance at 1%, 5% and 10% level respectively.

A summary of results from the Westerlund-Edgerton bootstrap panel cointegration test is shown in Table 7 above. The results indicate that all the variables per the robust p-values are cointegrated since the null hypothesis of no cointegration is rejected at 5% significance level in respect of Statistic Gt and Pt. Likewise the same null hypothesis is rejected at 1% significance level

in respect of Statistic Ga and Pa. Therefore the study concludes that the variables in the study exhibit a long-run relationship between them.

Estimation Results for Pooled Man Group (PMG)

As cointegration is confirmed and the data set is cross-sectionally dependent, the study employs the Pooled Mean Group estimator using ARDL

model. Findings from the PMG estimator are presented below:

Table 8: Summary of Results

Short-run Causality	Long-run Causality
DCPS \neq INST	DCPS \leftrightarrow INST
DCPS \neq COC	DCPS \leftrightarrow COC
DCPS \neq GE	DCPS \leftrightarrow GE
DCPS \neq PS	DCPS \leftrightarrow PS
DCPS \rightarrow RL	DCPS \leftarrow RL
DCPS \neq RQ	DCPS \leftarrow RQ
DCPS \neq VA	DCPS \leftrightarrow VA

Source: Field Data, Appiah-Kubi (2020)

Note: \leftrightarrow , \leftarrow or \rightarrow and \neq represent a two-way, a one-way and no causal relationship respectively

After confirming from the robust Westerlund (2007) that the variables are cointegrated in the long-run, the study presents the short-term and long-term estimates and also examines the causal relationships through the ARDL model using the PMG estimator. Table 8 above summarizes the key findings from the PMG estimation approach. A further detailed analysis of results is presented below:

PMG estimation with Financial Development as the Response Variable

Table 9 presents the long-run results to ascertain the effect of financial development on institutional quality.

Table 9: PMG Estimation Results

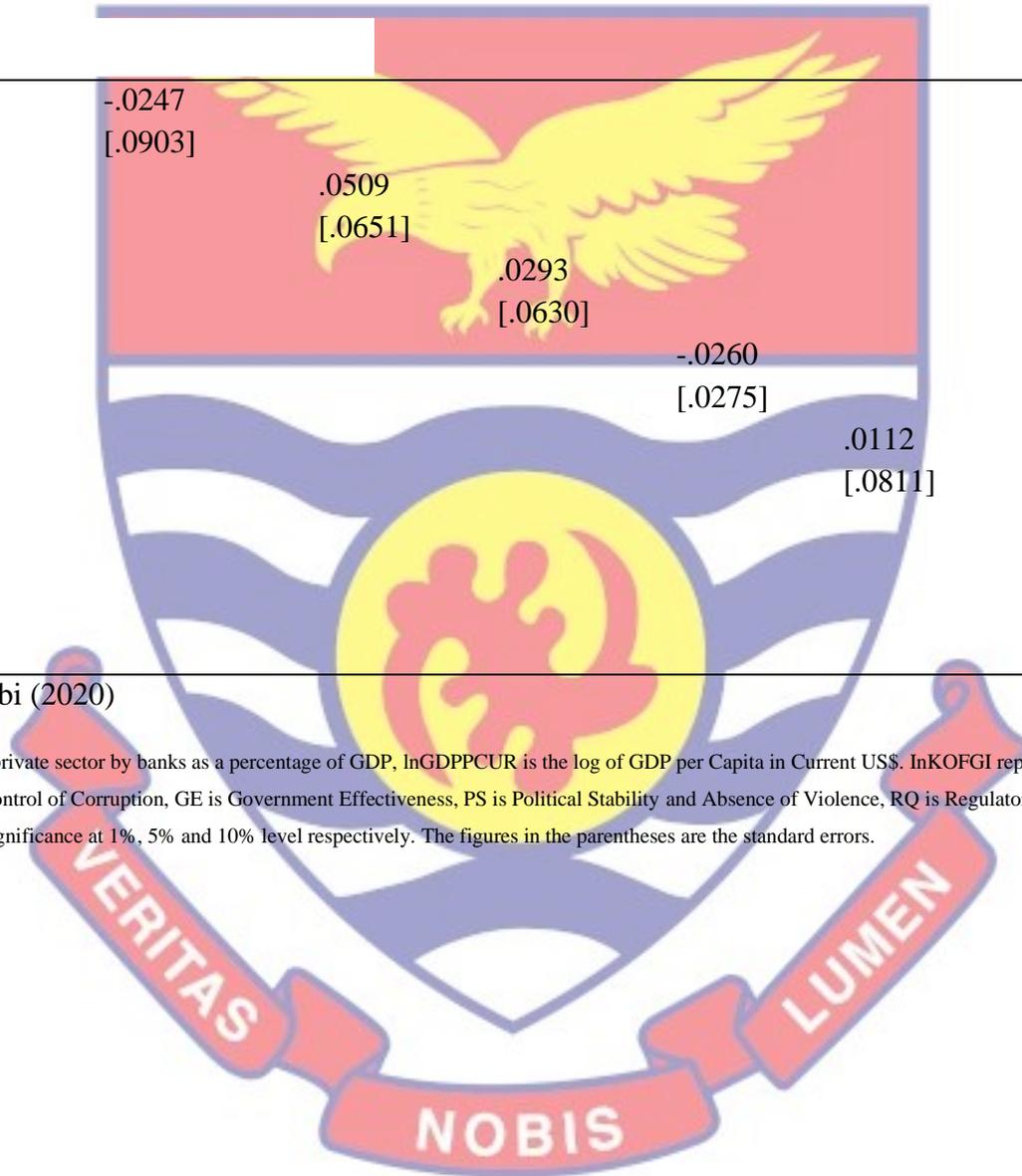
Dependent Variable	lnDCPS	lnDCPS	lnDCPS	lnDCPS	lnDCPS	lnDCPS	lnDCPS
Long-Run Coefficients							
INST	.7902*** [.1796]						
COC		.3115*** [.0710]					
GE			.3149*** [.0862]				
PS				.2353*** [.0738]			
RQ					.5045*** [.1015]		
RL						.5150*** [.0894]	
VA							.6530*** [.0946]
lnKOFGI	-.1249 [.2908]	.6979** [.2338]	-1.2056*** [.1892]	-.0926 [.2869]	.8347*** [.2306]	-.2920 [.2561]	-.3121 [.2496]
lnGDPPCUR	.0012 [.0470]	.0099 [.0349]	.7111*** [.0668]	.0919** [.0410]	-.0652 [.0491]	.1358*** [.0503]	.3079*** [.06114]
ECT	-.2450*** [.0340]	-.2856*** [.0323]	-.2345*** [.0385]	-.2627*** [.0379]	-.2631*** [.0319]	-.2617*** [.0399]	-.2737*** [.0445]
Short-Run Coefficients							

Table 9: Cont'D

INST	-.0247 [.0903]			
COC	.0509 [.0651]			
GE	.0293 [.0630]			
PS		-.0260 [.0275]		
RQ			.0112 [.0811]	
RL				-.0034 [.0756]
VA				-.0575 [.0889]

Source: Field Data, Appiah-Kubi (2020)

Note: lnDCPS is the log of domestic credit to private sector by banks as a percentage of GDP, lnGDPPCUR is the log of GDP per Capita in Current US\$. lnKOFGI represents the log of KOF Globalisation Index. INST refers to Institutional Quality, COC is Control of Corruption, GE is Government Effectiveness, PS is Political Stability and Absence of Violence, RQ is Regulatory Quality, ROL is Rule of Law, and VA is Voice and Accountability (VA). *, **, *** represents significance at 1%, 5% and 10% level respectively. The figures in the parentheses are the standard errors.



Long-run effect of Institutional structures on Financial Development

Findings from the study as shown in Table 8 illuminate a direct and significant role of institutional structures in enhancing financial development in the long run. Given that institutions and governance are deep factors and usually evolve slowly, it is predictable that its positive effects are realized in the long run. The results indicate that holding all other factors constant, a unit increase in institutional quality (computed as a simple average of all governance indicators) will lead to a 79% increase in the resources provided by other depository corporations in the long-run. Thus, enhanced domestic credit to private sector by banks as a percentage of GDP can be achieved in the long – run by employing corruption-mitigation strategies; allowing participatory governance and accountability; enhancing the quality of policy formulation and implementation; ensuring that rule of law prevails; and stimulating political stability in the sampled Sub Sahara African countries.

As a corollary to this, Agyeman, Gatsi and Ansong (2018) demonstrated that sound institutions helps people overcome impediments in their access to credit. Findings are also consistent with the studies of Khalid and Shafiullah (2020); Sayılır, Doğan and Soud (2018); and Talmaciu, (2014) who found a significant positive relationship between governance and financial development. Likewise Ahmed, Kousar, Pervaiz and Ramos-Requena (2020) also found a significant long-run symmetric and asymmetric association of institutional quality and financial development.

The composite institutional quality does little to reveal which aspects of institutions policy should be directed towards. The study thus presents a detailed

evaluation of the role each institutional variable plays in enhancing financial development in the sampled SSA countries.

The study documents a direct and significant role of control of corruption in enhancing domestic credit to private sector by banks in the long run. Thus, holding other factors constant, a unit change in control of corruption will lead to a 31.1% change in control of corruption. Intuitively, a financial sector permeated with corrupt practices can serve as a disincentive to savings in the banking sector and deter investors which in turn reduces the funds available as credit to the private sector. Findings reveal that employing corruption-mitigation strategies through curbing the use of public power for private gain, controlling both petty and grand forms of corruption, as well as controlling the extent to which state or executive "capture" by elites and private interests occur enhances the level of financial development in our sampled SSA countries. The findings are consistent with recent studies of Abubakar, Mustapha and Ajiboye (2020); Agyeman, Gatsi and Ansong (2018); and Mouselli, Aljazaerli and Sirop (2016).

Consistent with the studies of Agyeman, Gatsi and Ansong (2018) and Bazgir (2017), our findings illuminate a direct and significant role of government effectiveness in enhancing financial development in the long-run in our sampled SSA countries. Holding other factors constant, enhancing government's ability to formulate and institute sound policies will result in a 31.5% enhancement in financial development. Governments that are effective are able to increase access to funds and lower cost of long-term borrowing. This increases the domestic

Findings from the study also reveal a significant positive effect of political stability on financial development in the long-run. Thus, our results show that regime stability and democracy promote financial development. This may be because regime stability results in periods of uninterrupted planning and implementation of financial sector reforms. Thus Girma and Shortland (2008) and subsequently confirmed by Aluko et al. (2019) contended that political stability and improved democratic processes benefit the banking sector and thus banks profit from regime stability. The results are also consistent with the findings of Abubakar, Mustapha and Ajiboye (2020); Agyeman, Gatsi and Ansong (2018); and Roe and Siegel (2008) who also contended that financial instability impedes financial development. Conversely, Aghion, Howitt, and Levine (2018) found that changes in political stability reduce opportunistic behavior from governments and result in a larger, more competitive, and more efficient banking system.

Additionally, the study also finds a significant positive effect of regulatory quality on financial development in the long-run. As a corollary this this, economies characterized by quality regulations tend to enhance the efficiency of its financial system (Johnson, 2011). Quality regulations in the financial sector promote a well-functioning competition in the banking sector (Agyeman, Gatsi & Ansong, 2018) and this competition may lead to banks offering competitive rates on their lending. This may lead to a reduction in the cost of borrowing and in turn increase the amount of credit available to the private sector. Thus, the study reveals that a sound financial sector regulations are essential for facilitating financial deepening.

Predictably, the study also documents a direct and significant role of rule of law in enhancing domestic credit to private sector by banks in the long run. These findings are consistent with extant literature that reveal that investor and public confidence in the rules of the society, particularly the quality of contract enforcement, protection of property rights, the quality police, and the efficiency of courts, have a significant effect on financial development (see Abubakar, Mustapha and Ajiboye (2020); Akisik (2020); Agyeman, Gatsi and Ansong (2018); and Horvath, Horvatova and Siranova (2017)). The financial sector thrives significantly on enforcement of contracts. This creates a system filled with trust that loan agreements will be respected and covenants will be respected. Hence banks become comfortable giving out loans to the private sector.

Similarly, finds a significant positive influence of voice and accountability in enhancing financial development of our sampled SSA countries in the long-run. The study reveals that all other factors held constant, a unit increase in voice and accountability will enhance domestic credit to private sector to banks by 65%. We argue that if savers and investors are unable to hold managers of their funds accountable, they tend to channel their funds somewhere else outside the financial sector. Consequently, domestic credit to the private sector may negatively be affected. Consistent with the findings of Abubakar, Mustapha and Ajiboye (2020) and Agyeman, Gatsi and Ansong (2018), the study concludes that strengthening voice and accountability will enhance financial development.

Short-run effect of Institutional structures on Financial Development

As institutional structures evolve slowly and takes time to materialize, it is predictable that the study documents a no significant effect of institutional quality on financial development. This is contrary to the findings of Anwar et al. (2017) who proffered that at least in the short run, an improvement in institutional quality enhances financial development. The negative direction of the relationship can be attributable to institutional bottlenecks and poor institutions in the sampled Sub Sahara African Countries. A detailed analysis of short-run causality for each governance indicator is presented below:

Predictably, the study also documents a direct effect of control of corruption on financial development in the short-run. Thus in the short-run, a unit change in control of corruption will result in a 5% change in financial development. Like all institutional structures, measures taken to control corruption take time to materialize and hence they evolve slowly. This may explain the insignificant effect of control of corruption in the short-run as such institutions will not be fully functional in the short-run.

Consistent with the findings of Abubakar, Mustapha and Ajiboye (2020), the study documents an insignificant but direct role of government effectiveness in enhancing financial development in the short-run. Due to implementation challenges, Sound policies from the government, from formulation to implementation takes time for them to be effective, especially in Africa.

In the short-run, the study documents an inverse effect of political stability on financial development. This may be attributed to the significant number of armed conflicts and high risk of cross-border contamination that

exists as most African countries have conflict-torn neighbors. As a corollary this, Dumitru and Hayat (2015) revealed that stability is still fragile in SSA countries and risks are still high.

Again, the short-run impact of regulatory quality is positive but insignificant. We argue that the implementation of sound financial regulations are deep and usually evolve slowly. It is therefore predictable that their overall impacts in the financial sector are realized in the long-run.

In the short-run, the study also documents an inverse and insignificant effect of rule of law and financial development. The direction of the short-term relationship may be because of substantial barriers that still inhibit citizens' access to justice in most African countries (Fombad and Kibet, 2018). This is evident in the fact that existing governance reports reveal that six out of eleven countries with the worst scores for with the worst aggregate scores for political and civil liberties are from SSA (Fombad and Kibet, 2018).

Lastly, findings revealed an adverse influence of voice and accountability in enhancing domestic credit to private sector by banks in our sampled SSA countries in the short-run. The role was also insignificant in the short-run. This may be attributed to the fact that for the periods covered by this study, some sub-Saharan African countries experienced military coups which ousted the democratically elected presidents. Thus some countries were downgraded from free to partly free due to their presidents' increasing authoritarian tendencies.

PMG estimation with Governance as the Response Variable

Having ascertained that a long run causal relationship exist between institutional quality (predictor variable) and financial development, the study

further tests this same relationship with Institutional quality as the response variable in order to ascertain whether governance and financial development exhibit a bidirectional relationship. The results are presented in Table 10.



Table 10: Long-run Causal Relationships

Dependent Variable	COC	GE	PS	RQ	RL	VA	INST
Long-Run Coefficients							
lnDCPS	.0995*** [.0286]	.0532*** [.0135]	.1442*** [.0344]	.0482 [.0321]	.0068 [.0239]	.1601*** [.0256]	.3458*** [.0326]
lnKOFGI	-1.5560*** [.2133]	.1195 [.1209]	-.5273*** [.1367]	-1.6725*** [.2229]	-.2742 [.1827]	-.3647 [.1909]	-1.1937*** [.1838]
lnGDPPCUR	.1714*** [.0313]	-.0383 [.0258]	-.0078 [.0284]	.7472*** [.0504]	.1431*** [.0241]	.0527 [.0330]	.1109*** [.0212]
ECT	-.3359*** [.0515]	-.4782*** [.0567]	-.5564*** [.0669]	-.3485*** [.0616]	-.4177*** [.0499]	-.3976*** [.0497]	-.2737*** [.0517]
Short-Run Coeff							
lnDCPS	.0426 [.0492]	.0328 [.0536]	.1129 [.0802]	.0308 [.0529]	.0930** [.0416]	-.0171 [.0516]	-.0012 [.0313]
lnKOFGI	.2879 [.3624]	-.0907 [.1689]	1.0613* [.6238]	.6027* [.3122]	.4365** [.2222]	.1775 [.2831]	.3617** [.1682]
lnGDPPCUR	.0021 [.0771]	.1764** [.0558]	.2362* [.1296]	-.0910 [.0599]	.0605 [.0550]	.1232647* [.0745]	.1180*** [.0446]

Source: Field Data, Appiah-Kubi (2020)

Note: lnDCPS is the log of domestic credit to private sector by banks as a percentage of GDP, lnGDPPCUR is the log of GDP per Capita in Current US\$. lnKOFGI represents the log of KOF Globalisation Index.

INST refers to Institutional Quality, COC is Control of Corruption, GE is Government Effectiveness, PS is Political Stability and Absence of Violence, RQ is Regulatory Quality, RL is Rule of Law, and VA is Voice and Accountability (VA). *, **, *** represents significance at 1%, 5% and 10% level respectively. The figures in the parentheses are the standard errors.

Long Run effect of Financial Development on Institutional structures

The study finds a significant positive long run effect of financial development on institutional structures. This finding indicates that in the long run, a developed financial system plays important role in shaping institutional structures. This is evident for most of the individual components of institutions, as depicted in the results in Table 5. Specifically, the results from the long run estimations depicts a significant positive effect of financial development on control of corruption. This is in line with the earlier argument that financial development reduces the level of corruption by eliminating obstacles for firms seeking finance, making financial markets and institutions more efficient and eliminating any source of inefficiencies that could lead to corruption. Thus, this finding is in line with that of Beck et al. (2006) and Jha (2019).

Further, the study finds an overwhelming evidence that financial development has a positive long run effect on political stability. This means that as the financial sector develops, it provides funds for political competition which eventually propels governments to institute good structures. The resultant good structures minimizes agitation from citizenry which ultimately results a stable political climate. This finding is in line with that of Beck, Lundberg and Majnoni (2006). Further, the results depict a significant positive long run effect of financial development on government effectiveness. The intuition behind this result is a high level of financial development makes government more effective in providing quality public services and civil services, as well as resolving market failures. This is also in line with the development view of government effectiveness by Gerschenkron (1962).

In addition, the study documents a significant long run effect of financial development on voice and accountability. This is line with the argument of (Beck, Demirgüç-Kunt, and Levine, 2006) which posits that financial development enhances voice and accountability by reducing information asymmetry, ensuring market discipline and making agents in the financial system more accountable. However, the study does not find a significant long run effect of financial development on rule of law and regulatory quality. This is probably due to the regulatory inefficiencies in the sampled SSA countries. Finally, generally there is evidence of long run effects of both globalization and economic development on institutional structures.

Short-run effect of Financial Development on Institutional structures

Despite the long run benefits of financial development to institutional structures, generally the empirical results do not support a short run relationship. This is probably because although financial development may strengthen institutional structures in the short run, its impact may not be significant due to the persistent weak institutional setting of most SSA countries. Generally, both globalization and economic development seems to matter to institutional structures.

Chapter Summary

The chapter presented summary statistics of control of corruption, political stability, voice and accountability, government effectiveness, regulatory quality, domestic credit to private sector, globalization and GDP per capita. Predictably, GDP per capita had the highest average with the highest variation. The correlation analysis also revealed no cause for multicollinearity. The CD test and slope homogeneity tests revealed the existence of CD and slope

heterogeneity. Consequently, the study employed the Madela-Wu and CADF unit root tests. The results of the unit root tests also revealed that all the variables are stationary at first difference. The cointegration test also showed that a long-run relationship exist between the variables. Accordingly, the PMG estimator from the panel ARDL revealed a bidirectional causality between governance and institutional quality and an unidirectional relationship in the short-run.



CHAPTER FIVE

SUMMARY OF FINDINGS, RECOMMENDATIONS AND CONCLUSIONS

Introduction

The chapter presents the main findings obtained from the study. The chapter begins with a summary of the research. It then proceeds with summary of findings, recommendations, conclusions and lastly, suggestions for future research.

Summary of Research

The low level of financial development and institutional structures in Sub-Saharan Africa calls for a probe into the benefits strengthening these profess to economies in the region. However, studies are yet to examine the causal relationship between institutions and financial development. Review of literature provided supporting theories and findings from existing studies that stimulate the argument for bidirectional causality between governance and financial development. Specifically, the new institutional theory and the law and finance theory provided the theoretical justification that underpins the study. The empirical review revealed that a number of studies have explored the influence of governance on financial development. However, this study is the first attempt to evaluate the bidirectional causality between governance and financial development among SSA countries

The study is a quantitative research and it is based on the positivist paradigm. Explanatory research design was adopted to explain the models of the study. The study uses data spanning from 2002 to 2017 of 36 out of 48 SSA countries due to data availability. Finally, the study employed pooled mean

group using ARDL to estimate the bidirectional causality between governance and financial development.

Summary of Findings

The study reveals several findings that are significant and useful for policy. Findings from the study can be categorized into two, the effect of governance on financial development and the effect of financial development on governance.

Firstly, the study investigates the effect of governance on financial development. The composite institutional quality (computed as a simple average of the six governance indicators) illuminates a direct and significant effect of institutional quality in enhancing financial development in the long-run. Predictably, the study also finds that all governance indicators (control of corruption, government effectiveness, political stability, voice and accountability, rule of law and lastly regulatory quality) play a significant positive role in enhancing domestic credit to private sector by banks in the long-run. However, the composite index for institutional quality and all six governance indicators do not play any significant role in enhancing financial development in the short-run. This is predictably so as institutions are deep factors and take time to evolve.

The study also evaluates the role of financial development in enhancing institutional quality. Findings from the study divulge a significant positive effect of domestic credit to private sector by banks on enhancing institutional structures in the long-run. The study finds that financial development plays a significant positive role in influencing all indicators of institutional quality in the long-run. However, the short-run results revealed that financial development

only has a direct significant impact on rule of law. Thus, financial development does not play any significant role in enhancing control of corruption, voice and accountability, political stability, government effectiveness and regulatory quality.

Therefore, findings from the study reveal that institutional structures plays a significant role in enhancing development in the financial sector of SSA countries. However, development in the financial sector also accelerates governance reforms and improvements in institutional quality.

Conclusion

Based on the findings the study concludes that institutional quality plays a significant positive role in enhancing financial development and financial development also significantly enhances institutional quality in the long –run. Thus, the study concludes that there exist a long-run bidirectional causality between governance and financial development. Conversely, our study divulge that no bidirectional causality exists between financial development and institutional structures in the short-run.

Recommendations from the Study

Findings from the study underscore the crucial role the financial sector plays in instigating institutional reforms. Similarly, improvements in governance accelerate development in the financial sector. As such, there exist a bidirectional causality between governance and financial development in our sampled SSA countries. Our findings have significant policy implications and thus makes the following recommendations:

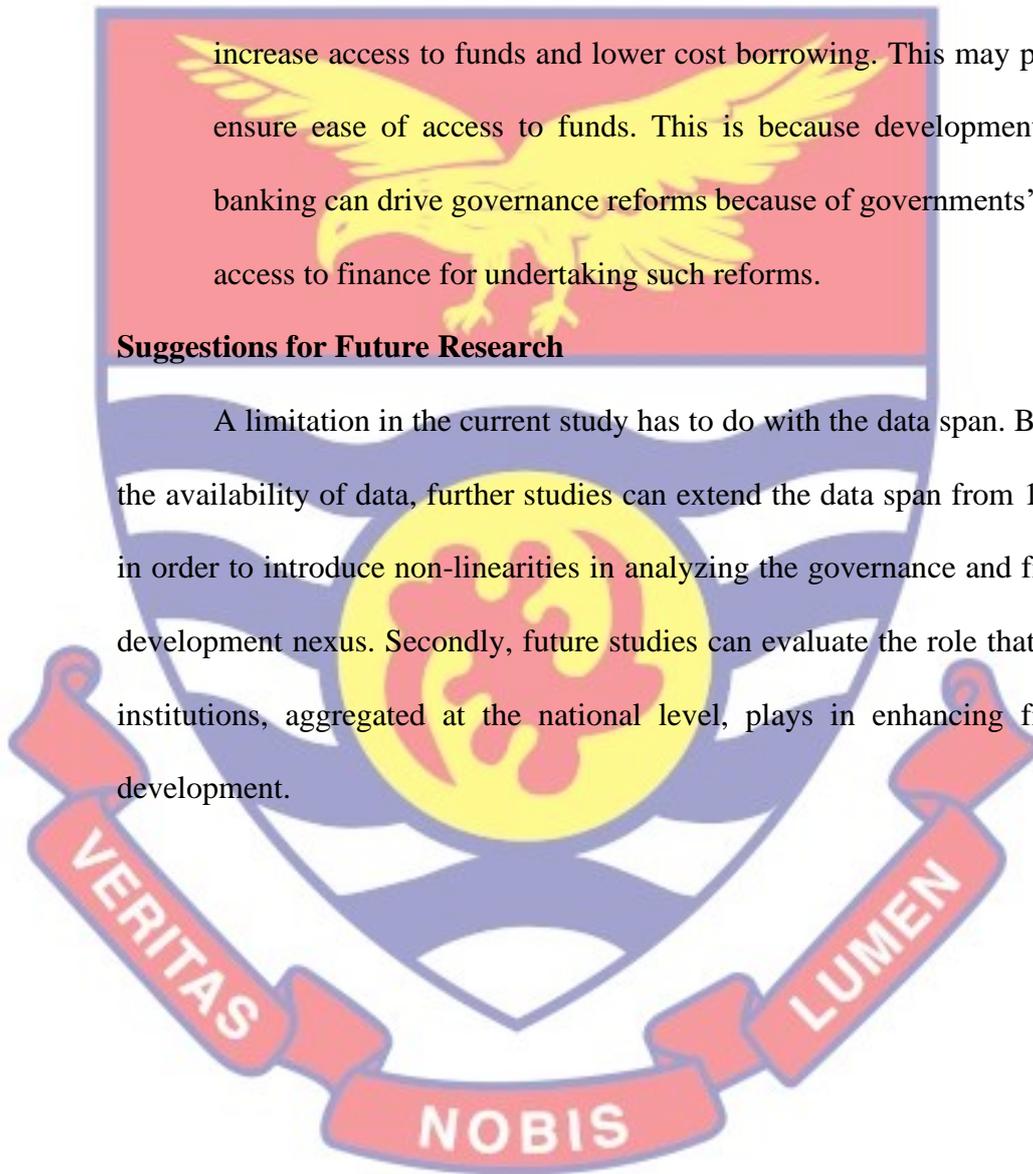
- The study recommends that African governments, especially governments in SSA must attempt to ensure the presence of good

institutions. As a region that is yet to fully realize its potentials, ensuring the presence of good institutions will not only enhance the development in the financial sector but will also attract FDIs and FPIs in the region. This will enhance growth in the region.

- Additionally, governments in the SSA countries must make attempts to increase access to funds and lower cost borrowing. This may probably ensure ease of access to funds. This is because development in the banking can drive governance reforms because of governments' ease of access to finance for undertaking such reforms.

Suggestions for Future Research

A limitation in the current study has to do with the data span. Based on the availability of data, further studies can extend the data span from 16 years in order to introduce non-linearities in analyzing the governance and financial development nexus. Secondly, future studies can evaluate the role that private institutions, aggregated at the national level, plays in enhancing financial development.



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