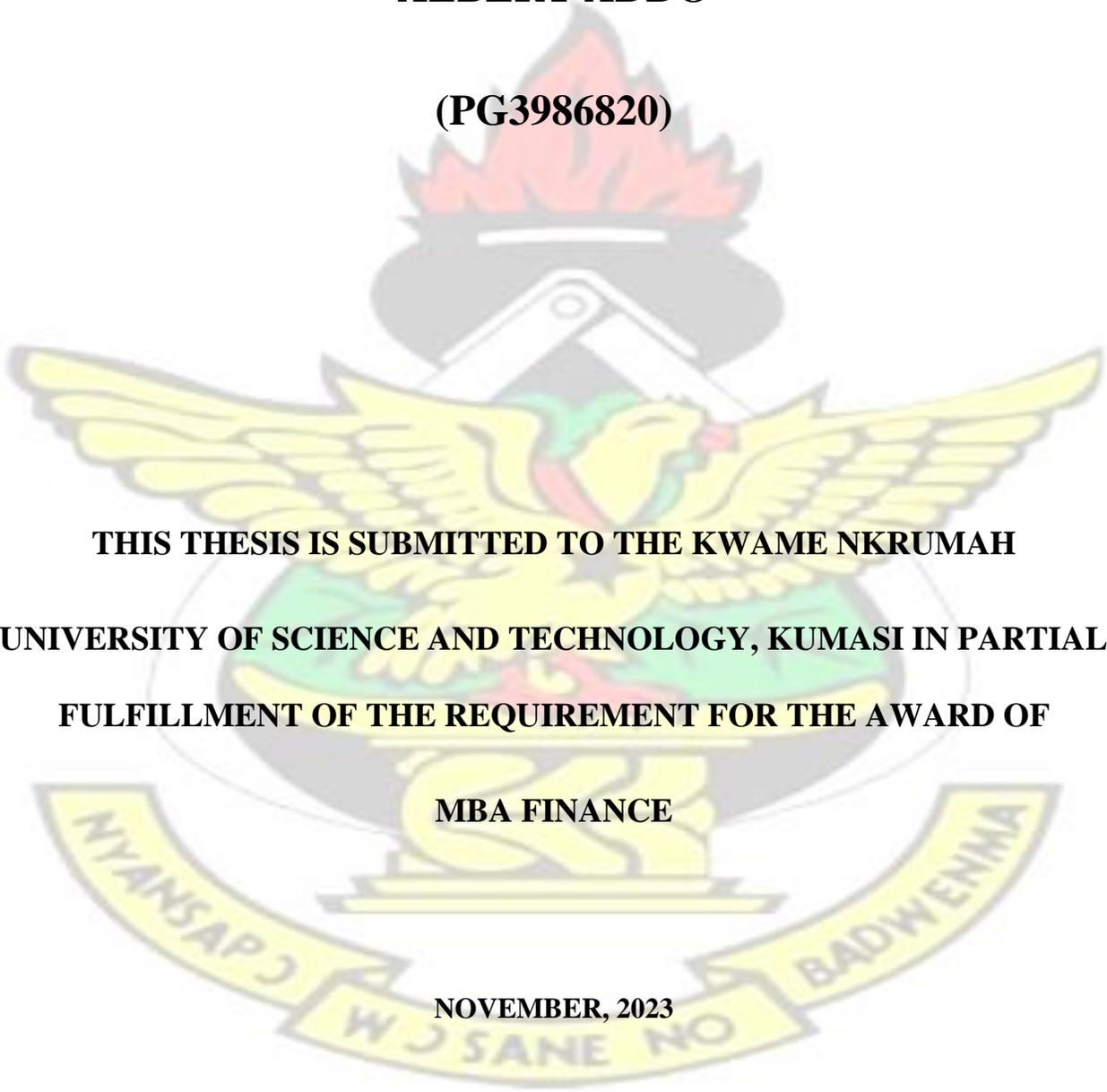


**FOREIGN DIRECT INVESTMENT, QUALITY GOVERNANCE AND  
ECONOMIC GROWTH IN GHANA**

**BY**  
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**THIS THESIS IS SUBMITTED TO THE KWAME NKRUMAH  
UNIVERSITY OF SCIENCE AND TECHNOLOGY, KUMASI IN PARTIAL  
FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF  
MBA FINANCE**

**NOVEMBER, 2023**

**DECLARATION**

I hereby declare that this submission is my own work for the award of MBA and that, to the best of my knowledge, it does not contain any material that was previously created by another person or material that was used to grant any other degree from the university, unless it has been specifically acknowledged in the text.

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## ABSTRACT

The role of quality governance in the globalization process has been recognized as a catalyst for the attraction of foreign capital to boost productivity and international trade for holistic economic development. In general, a country draws more foreign investment the better its institutional framework is. However, there is a limited understanding of how quality governance affects different types of foreign investment and how they do so. The study's main objective is to investigate the impact of FDI on Ghana's economic development. The study uses the ARDL model on a time series of data extending from 2000 to 2020 to accomplish this goal. To find out the existence of a long-run relationship among the variables, I run the Pesaran cointegration test and the finding confirms presence of long run relationship. According to the study, FDI has little long-term and short-term beneficial effects on economic growth. Additionally, the research notes that FDI-induced economic growth in Ghana is typically improved by the quality of governance. In the long run, the results indicate that all the governance quality-induced FDI indicators have significant impacts on GDP except FDI\*PS. Whereas FDI\*VA, FID\*GE, and FDI\*RQ significantly enhances economic growth, FDI\*CC significantly reduces GDP. Therefore, I recommend Ghana should take a keen interest in the development of the quality of governance or institutions to facilitate the efficient utilization of the inflow of funds from foreign direct investment to increase the nation's economic growth.

## DEDICATION

I commit this work to God, whose grace and love have enabled me to get this far, and to my mother,  
Maame Efua Nkuma.

# KNUST

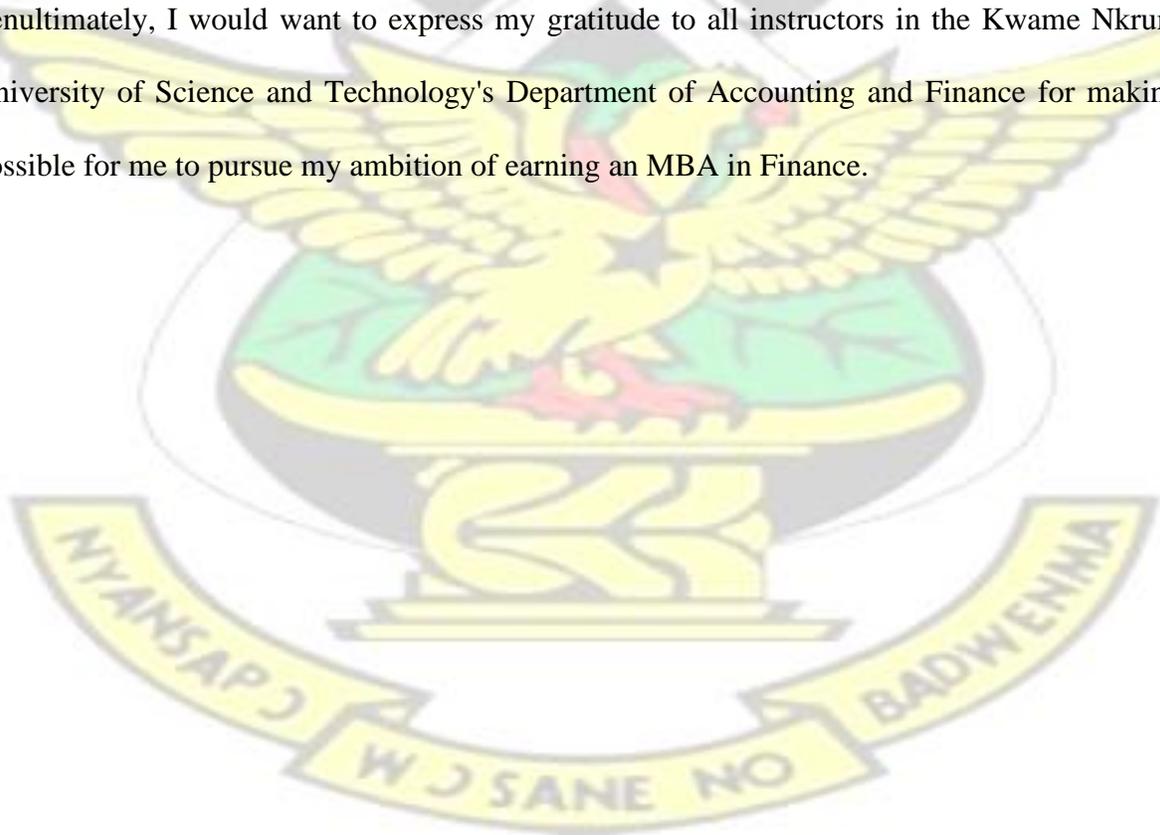


## ACKNOWLEDGMENTS

First and foremost, I want to thank Almighty God for His grace, and love shown to me as I pursued this degree. Much appreciation also goes to my supervisor, Nicholas Addae Boamah, PhD, for his support and guidance. I owe him a huge debt of gratitude because without his invaluable input and guidance, I could not have accomplished this.

For their support, I would want to sincerely thank my parents and all of my siblings during my academic endeavors. I would especially want to thank all of my friends and family members whose varied support enabled me to finish my thesis. I also like to thank my colleagues at Kwame Nkrumah University of Science and Technology's department of accounting and finance. I appreciate having the chance to work with them on this program study.

Penultimately, I would want to express my gratitude to all instructors in the Kwame Nkrumah University of Science and Technology's Department of Accounting and Finance for making it possible for me to pursue my ambition of earning an MBA in Finance.

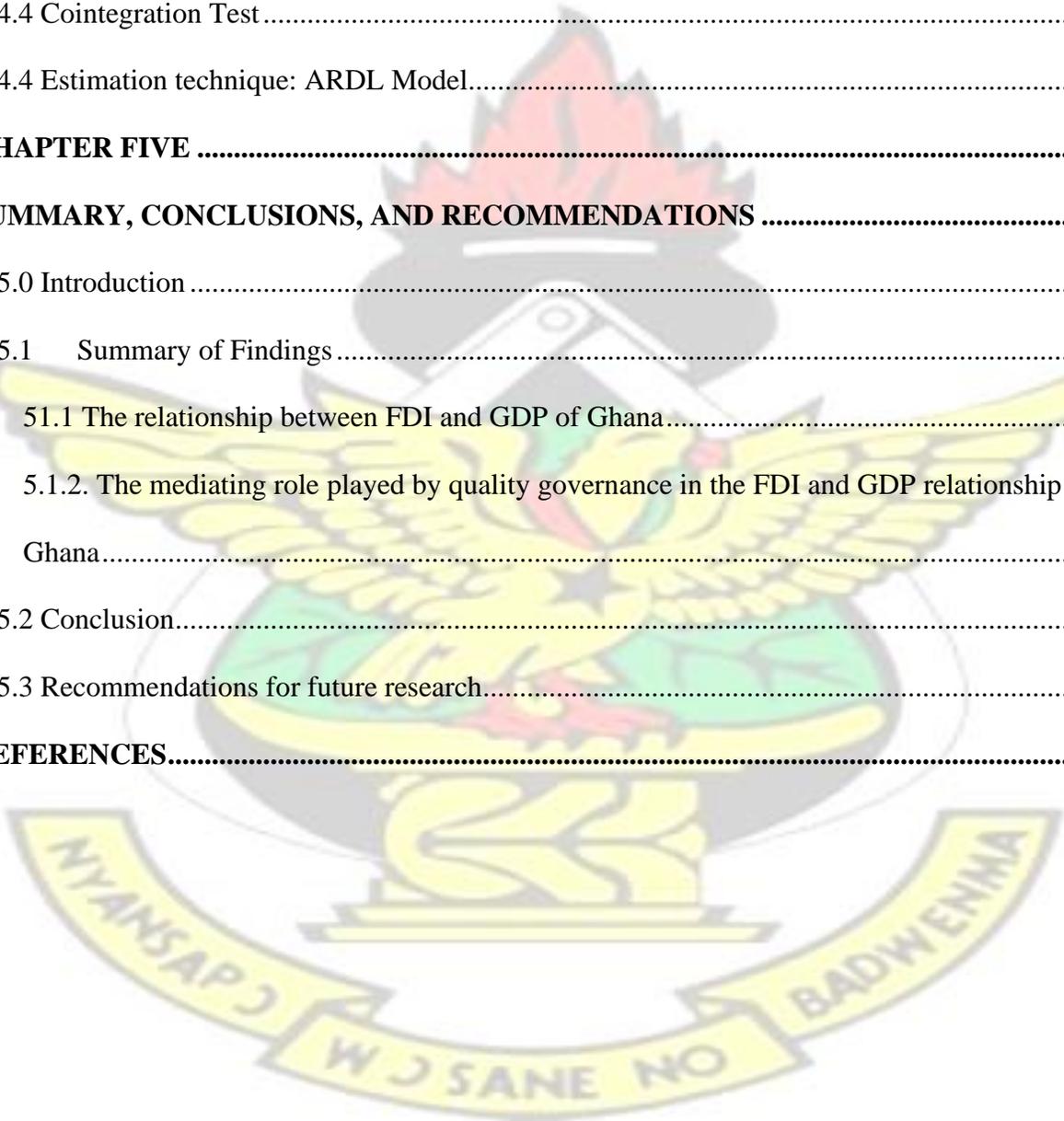


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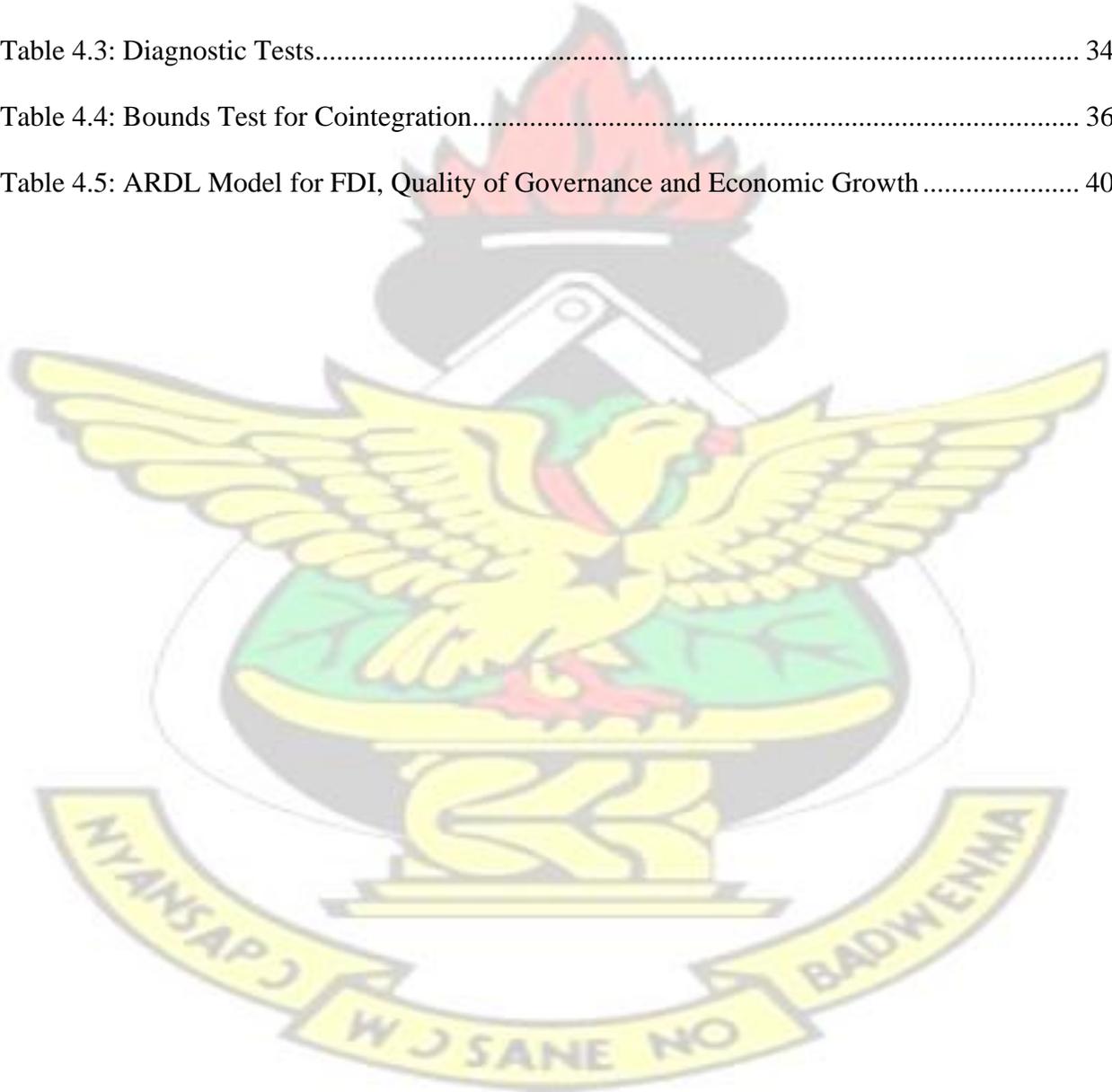
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# CHAPTER ONE

## INTRODUCTION

### 1.1 Background of the Study

This study explores Ghana's nexus of foreign direct investment (FDI), quality governance and economic growth. The economic growth of developing economies may be improved by the inflow of foreign direct investment and quality governance systems (Ibrahim and Alagidede, 2018). Further, examining how FDI affects economies has been extensively studied because of the rise in cross-border investments in literature (Nguyen, 2023; Emodi et al., 2023; Behera et al., 2023; Zhang et al., 2023). However, whereas theoretical studies regularly find that FDI enhances economy of the host country, empirical research continues to produce results that are inconclusive, and this could be because of the low-quality governance exhibited by the host country (Iddrisu et al., 2023; Krifa-Schneider et al., 2022; Githaiga et al., 2023).

Practically, the growth of the economy is a major predictor of how well a country performs and, hence, its impact on the attraction of FDI cannot be overemphasized (Badmus et al., 2022). However, FDI's impact on economic progress, particularly in Ghana, is necessary for an economy or a nation to reach its full potential, then there is the need for Ghana to improve its governance system, which is quality governance. The United Nations Center for Trade and Development (2020) states that coupled with the effects of the Covid-19 pandemic, one of the factors affecting growth in developing economies especially those in Africa of which Ghana is not an exception, is poor governance system. With regards to World Bank Report (2021), lack of quality governance attributes to low growth in developing economies. The report further indicated that, quality governance is the benchmark for growth and the attraction of FDI. This means that, for Ghana as

a country to attain the needed benefit for economic growth through FDI, then quality governance is considered a key requirement.

Consequently, it is believed that the FDI-growth link is, at best, mixed (Gorg and Greenaway, 2020). The mixed effect is shown due to one important element which is always left out of the equation, and that is quality governance. This is due to the fact that several research indicated that other characteristics, such as good governance among others, influence the relationship between FDI and growth (see Munjal, et al., 2023; Saidi et al., 2023; Alfaro et al., 2014). Moreover, studies (Gorg and Greenaway, 2020; Johnny et al, 2021; Al-Masbhi et. al., 2020) have shown through both theoretical and empirical studies that quality governance has a significant impact on a nation's ability to thrive economically (discovered that in a metadata analysis of 1102 estimations, around 44% argued that FDI enhances growth, 44% were marginal, and 12% of the studies found that FDI reduces the host country's economic development.

Nevertheless, the growth of an economy is tied to different and numerous factors with the most essential of all the factors considered being quality governance (Gonel and Aksory, 2016). Quality governance is critical in determining FDI-Economic growth nexus (Agyeman et al, 2021; Globerman et al, 2013; Al-Masbhi et al, 2020). This study supports the concept of absorptive captivity and emphasizes its applicability in defining the relationship between FDI and growth. However, this study focuses on a different significant but understudied relationship in the literature: the contribution of quality governance to the definition of the FDI-economic growth nexus. According to Johnny et al. (2021), nations with stronger institutions through quality governance exhibit superior economic success. Similar research by Kulu et. al., (2021) came to the same conclusion: quality governance enhances economic growth. This indicates that, all the variables in the study are critical towards the growth of countries, specifically, Ghana.

## 1.2 Problem Statement

The importance of good governance as a driver of globalization has been acknowledged for the attraction of foreign capital to boost productivity and international trade for holistic economic development (Al-Masbhi and Du, 2020). It is well known that a host country's institutional framework through quality governance has an impact on its capacity to draw in foreign investment which potentially improves economic growth (e.g. Johnny et al, 2021). In general, a country draws more foreign investment the better (or more sophisticated) its institutional framework is (Zhang et al., 2020; Khan et al., 2022; Saha et al., 2022). However, there is a limited understanding of how institutional environment factors such as quality governance affect different types of foreign investment and how they do so (Shenkar, 2020).

Globally, due to the continued liberalization of investment regimes and the execution of large-scale international initiatives by an increasing number of multinational firms, FDI has been performing well (UNCTAD, 2020; Agyeman, et al, 2021), but its influence on the nation's development differs (Johnny et al, 2021). In 2020, the flow of FDIs stood at \$1.8 trillion (Sharma and Cardenas, 2020). According to Ibrahim et al. (2020), the presence of foreign enterprises creates competition with domestic firms. Therefore, domestic firms use foreign investment services, such as organizational and managerial abilities, technological knowledge, and access to global markets, to restructure economies in host countries through innovation, increased productivity, and good governance, both in FDI-attracting sectors and in supporting local industries (UNCTAD, 2022; UNCTAD, 2021; Analizi, 2021).

Despite the economic merits, FDI inflows also suffered shocks in economic terms, political and social crises. In addition to a shortage of investment money Analizi (2021), countries' response to the COVID-19 pandemic such as lockdowns slowed existing investment projects compelling

multinational companies to reconsider new projects thereby reducing FDI and, hence, having a detriment to economic growth. Following this development, the world FDI flows plummeted by a figure of 35 percent in the year 2020, recording \$1 trillion, compared to \$1.5 trillion in 2019, and the lowest since 2005 (UNCTAD, 2021). In 2021, however, the global FDI inflows saw a 77% increase amounting to \$1.65 trillion (UNCTAD, 2022). According to UNCTAD, developing economies were not spared as their FDI flows fell by \$663 billion (8 percent) during the 2020 pandemic. For example, in Africa, FDI flows dipped by \$40 billion representing 16 percent in the year 2020, a level recorded 15 years ago, and sharply rose to \$97 billion, a 147% increase in 2021 (UNCTAD, 2022). This, therefore, compelled developing countries to attract capital for investment through FDI. However, whether FDI promotes or supplants local investment and economic growth through good governance is a very contentious question with regard to the impact of FDI on host nations (Anaman, 2018).

In Africa, the debates on economic growth and FDI have received much attention in relation to the numerous kinds of literature that have been established in this field (Acquah and Ibrahim, 2020; Nguyen, 2020; Anetor, 2020; Yeboua, 2021; Yimer, 2022). For example, Yeboua (2021) revealed that FDI improves GDP in Africa where there is a higher level of institutional quality. The author further argues that FDI reduces GDP in countries that lie below the threshold. Similar to this, Yimer (2022) investigates how foreign direct investment impacts economic growth in unstable, factor-driven, and investment-driven nations in Africa. The author contends that FDI increases GDP in African factor-driven and investment countries. Furthermore, the author contends that FDI has a negligible beneficial influence on GDP in weak economies.

In Ghana, there have been fairly some studies on GDP and FDI. For instance, Ofori and Asumadu (2020) discovered that FDI inflows into Ghana have the potential of improving the economy. This

analysis used annual time series data from 1986 to 2013. Additionally, Antwi et al. (2013) noted in their analysis that FDI increases Ghana's GDP during the years 1980–2010 regardless of the growth proxies used. Interestingly, none of these studies took into account the role that good governance plays in examining the FDI-growth nexus in Ghana. The current study intends to investigate FDI, quality governance, and GDP in Ghana based on this literature gap. To achieve this, the current study employs an ARDL method of analysis to examine both short-run and long-run relationships between FDI, quality governance, and GDP in Ghana, this study further makes a unique contribution to literature on Ghana by examining the mediating role played by quality governance in the FDI-Growth by employing five governance indicators. In this study, the mediating role played each governance indicator in FDI-Growth nexus is examined.

### **1.3 Research Questions**

The research topics are classified into two types in the study.

#### **1.3.1 General Research Question**

What are the relationships between FDI, quality governance, and GDP in Ghana?

Specifically, the study answers the following questions;

1. What impact does FDI have on Ghana's GDP?
2. What is the role of quality governance in FDI-growth nexus in Ghana?

### **1.4 Research Objectives**

#### **1.4.1 General Research Objective**

Examining the relationship between FDI, good governance, and economic growth in Ghana is the study's main goal.

The study will specifically accomplish the following goals:

1. To examine the effects of FDI on economic growth in Ghana.
2. To explore the role of quality governance in FDI and GDP nexus in Ghana.

### **1.5 Methodology Overview**

This section of the study will entail in detail how the study will be conducted or carried out. It will spell out the scope and procedures employed for the study, the data as well as its sources, Real Gross Domestic Product and GDP annual growth rate are hence variable metrics; the measure of the independent variable to be used in the study which is FDI; in addition to the various controls which will be employed in the research, Inflation and Trade Openness. Moreover, the study's parameters will be attended to as well as the empirical strategies that will be used in achieving the stated objectives of the study.

### **1.6 Research Paradigm**

Research paradigm was defined as the nature and growth of knowledge, according to Saunders, Lewis, and Thornhill (2009). In other words, research paradigms give the study the guiding philosophies and methods they use to decide what to examine, how to study it, what theory and technique to utilize, and how to evaluate the results of the study. Because qualitative research is conducted and/or evaluated using different assumptions than quantitative research, it is crucial that theoretical paradigms in research be recognized (Krauss, 2005). As a result, scientists can use a variety of research theories, including positivism, interpretivism, and realism. One of the advantages of a research paradigm is that, the researcher's thinking and research are shaped by their paradigm thus their perceived understanding of the situation at hand (Bogdan & Biklen, 1982).

Looking at the positivist point of view, positivism holds that reality exists apart from people. It is unmediated by our senses and subject to unchangeable laws. Measurement, control, prediction, the creation of laws, and assigning causality are the goals of positivist paradigm (Cohen, Manion, & Morrison, 2007). Thus, numerical data are frequently produced by positivist research. Further, a specific feature can be isolated and understood as a variable, which is, as an object that can take on different values, because this epistemology presupposes those elements of social reality are constant throughout time and contexts. Numerical scales can be used to express these values.

Moreover, according to interpretivism, the reality is a social creation that may be understood and interpreted in different ways by different people (Walsham, 2006). Therefore, viewing a particular phenomenon in its context is the greatest approach to determine reality or understanding it. They further contend in their study that since each person experiences reality from a different perspective or standpoint of view, each person's reality is distinct and unrelated. Therefore, individuals who experience interesting phenomena create a variety of realities. Depending on the type of study, the positivist approach will be selected or relied on as the research paradigm to be used in the study.

### **1.5.2 Scope of the Study**

The study will cover the whole of Ghana as an emerging economy from 2000-2020 which constitute a twenty-three (21) year period.

### **1.6 Significance of the Study**

This study investigates the effects of FDI, quality governance, and GDP in Ghana. This study will be of great significance and worth undertaking to the economy of Ghana and other countries that are recipients of FDI inflows. This study makes a significant contribution to both policy-making and literature.

This research will advance our understanding of the literature. There has been numerous research on FDI and GDP, but to the best of my knowledge, none of the studies on growth and FDI have examined the influence of quality governance.

In the area of policy implications, the study will help Ghana and its associated countries to determine the impact of FDI on GDP through quality governance by providing fresh and new evidence.

### **1.7 Limitations of the study**

It's important to keep in mind that there are certain limitations to the study. The enumerated variables are not all there is to consider, but they are an excellent place to begin. If additional variables affecting GDP are found and examined, it may be feasible to get a deeper understanding. The researcher intended to perform a study including several variables, but was constrained by time, money and other factors. The study encounters challenges of data availability. In appendage, time constraint is a major challenge for carrying out the study. All these caveats notwithstanding, the study's findings remained unaffected.

### **1.8 Organization of the Study**

The study comprises five chapters. The chapter one consists of the introduction, problem statement, research questions, objectives of the study, methodology overview, and significance of the study, scope, and limitations of the study. Chapter two presents the literature review.

Chapter three explains the methodology employed for the study. Chapter four presents the findings and their analyses. Chapter five includes summary of findings, conclusions and policy recommendations.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.0 Introduction**

This chapter presents the literature review of the study. This includes conceptual review which discusses key concepts in the study. In addition, this chapter presents theoretical review which discusses the relevant theories underpinning the study. Also, this chapter presents empirical literature which covers and discusses studies undertaken by scholars and researchers. Finally, this chapter presents the conceptual framework of the study which guides the literature review.

#### **2.1. Conceptual review**

##### **2.1.1 Foreign Direct Investment (FDI)**

FDI is essential in the potential transfer of knowledge and technology, boosting economic activities through productivity, improving entrepreneurship and competition, and, therefore, ameliorating poverty by improving economic growth and development (Yeboua, 2020). In order to provide a favorable environment for FDI flows, more than 100 countries invested roughly 90% of their national regulatory investment regime reform efforts between 1991 and 2012 (Demena, 2016). Similar to this, 65 countries adopted 126 investment-related policy actions, 84% of which were supportive of FDI (UNCTAD, 2018). The increase in FDI flows throughout the 1990s was significantly aided by these pro-FDI measures. FDI is required in developing countries for investment purposes and growth. There are many theories explaining the benefits of inflows of FDI (Saini et. al., 2018). FDI, as per traditional theory, is capital mobility arising due to different returns to be derived from different countries. Neoclassical economists view FDI as a source of economic growth (Kida, 2014). However, modern theory explains FDI to mean both the transfer of capital and the source of many forms of international sponsorship such as technology, and skills,

among others, to local firms (Johnson et. al., 2015). The growing FDI leads to increased financial and capital formation in host countries (Saini et. al., 2018).

Foreign direct investment has increased globally during the 1990s (UNCTAD, 2019). For instance, according to UNCTAD (2019), from around \$3 billion in 1990 to \$46 billion in 2018, FDI inflows to Africa grew. The global growth in FDI may be attributed to macroeconomics, national and firm-level performance, and the efforts of WTO and IMF to liberalize global fund transfers. Similarly, countries formulate policies including subsidies and tax exemptions, and holidays, among others to attract more FDI inflows to improve the GDP of different nations are formulating their programs to attract more capital inflows to increase their GDP by formulating policies such as tax exemptions and holidays, and subsidies, among others (Yeboua, 2020). However, in recent periods particularly during the COVID-19 period, FDI inflows have reduced due to lockdowns compelling multinational companies to redirect into new projects. The world FDI flows, witnessing its lowest level since 2005, reduced by 35% in 2020 accounting for \$1 trillion from \$1.5 trillion in 2019 (UNCTAD, 2021). However, world FDI inflows increased by 77% in 2021 to \$1.65 trillion (UNCTAD, 2022). According to UNCTAD, developing economies were not spared as their FDI flows fell by \$663 billion (8 percent) during the 2020 pandemic. In Africa, FDI flows, witnessing their lowest fall since 2005, dipped by 16% representing \$40 billion, though FDI flows rose to \$97 billion in 2021 accounting for 147% increase (UNCTAD, 2022).

### **2.1.2 Quality Governance (QG)**

Quality of governance refers to the act of ensuring effective dynamic public administration in countries (Salma et. al., 2021). It includes effective public power public management and corruption control in a transparent manner. Worded differently, governance is the combination of

a well-organized social network and state intervention (Kadyrzhanova et. al., 2011; Salma et. al., 2021).

Generally, government's responsibility is to make decisions to provide friendly environment for the market and the economy to function. Worded differently, the government creates a favorable atmosphere for the assurance of property rights, promoting private investment, promoting institutional arrangements, and guaranteeing political stability, thus attracting foreign direct investment (Salma et. al., 2021). This implies that good governance guarantees respect for the rights of individuals, corruption control, the existence of the legal system, and democratic development to encourage economic prosperity. Hence, good governance is a necessary requirement to improve the process of development on the globalization path in developing countries (Ofori et al., 2023). International institutions have always prioritized the QG as a stimulant for GDP and reduction in poverty level.

### **2.1.3 Economic Growth**

Economic growth is one of the most significant and fascinating ideas in economics. Modern economics which derived its basis from Adam Smith claimed that there were possibly small distinctions between the poorest and richest countries in the world (Maddison, 2001; Acemoglu et. al., 2002). Afterward, the richest countries grew and developed further which widened the gap with the poor countries due to differential growth around the world (Sandor et al., 2023). This differential growth further widened the income inequality gap and, hence, living standards between the richest and poorest countries. Nevertheless, the income inequality gaps can be lessened by economic growth as indicated by the experiences of Singapore, South Korea, Japan, and more recently China. Therefore, a marginal proportion in country's growth rate might alter significantly affect the standard of living and, hence, the welfare of its citizens (Acemoglu, 2012).

## 2.2 Theoretical review

### 2.2.1 The Link between FDI and Economic Growths

(Rostow, 1959; Harrod, 1939; Domar, 1947) Savings have always been seen as the primary driver of capital formation, economic expansion, and advancement. The IMF and World Bank have issued recommendations to developing countries to request loans from abroad, to add up to domestic savings and attain a projected growth rate. Through subsidies and tax incentives, governments and regional administrations have in the past encouraged FDI inflows to boost economic growth. Many emerging nations are heavily indebted to their creditors in currencies denominated in foreign countries. As a result, there are dangers connected to investing abroad, such as the possibility of profit extraction or the diversion of home resources to foreign uses (see Hughes 1979; Kentor 1998; Dixon and Boswell 1996). According to Herzer et al. (2014), FDI significantly increases inequality among emerging nations.

Solow and Swan's (1956) neoclassical growth theory supplanted the Harrod-Domar hypothesis, presenting a new reason for the transfer of monies from affluent to impoverished countries. They assumed lower stock of capital and diminishing returns to capital in poor countries. There should be higher returns on capital in the poor countries to lure the rich countries to invest in those countries and, hence, catch up with the rich countries. This provides theoretical support for poor countries to capitalize on FDI to achieve targeted growth. However, empirical evidence reports that long-run growth is due to technological advancement (Tran et. al., 2022). Moreover, the capital was instead found to flow from poor countries to the rich (Gourinchas et. al., 2013). International organizations have maintained that developing countries need technological transfer from rich countries to improve economic growth (Blomström and Kokko 1998;

Balasubramanyam, Salisu, et al., 1996; Blomström, Lipsey, et al., 1994; Blomström and Sjöholm 1999).

By combining Solow's external growth theory with Swan's endogenous growth theory (Lucas 1988; Barro 1990; Romer 1990), Johnson (2006) found that FDI promotes knowledge transfer, which in turn boosts economic growth. However, there is little proof that technology is shared between nations. For instance, Ashraf et al. (2016) found that FDI negatively affects the total productivity of factors in 123 different nations.

### **2.2.2 Institutional Theory**

North (1990) introduces the institutional theory to illustrate the role of institutions in influencing FDI inflows. North (1990) explains that good institutions improve GDP by reducing transaction and production costs, whilst poor institutions reduce economic growth through an increase in uncertainty and production costs. Strong economic institutions, such as a working legal system and the protection of property rights, are necessary for efficient resource allocation (Rodrik et al., 2004). However, poor institutions, such as those that violate property rights or lack effective governance, make investments more expensive and, as a result, cause an inefficient distribution of resources (Daniele et al., 2011). This further reduces FDI inflows as investors are unwilling to enter such countries. As a result, the stability of institutions is crucial for influencing FDI inflows (Busse et al., 2007).

In addition to FDI, QG also contributes significantly to a nation's economic growth (Jude et al., 2016). Poor quality of governance causes negative economic problems such as low investment, a fall in productivity, and a fall in GDP per capita and, hence, slowing down of economic progress (Raza et al., 2019). However, good quality of governance ensures high investment, efficient

allocation of factors, high productivity and, hence, pacing up economic progress (Jude et. al., 2016).

## **2.3 Empirical review**

### **2.3.1 Relationship between FDI and economic growth in Ghana.**

This section presents a literature review on economic growth and FDI nexus. There are several empirical research available that have investigated economic growth and FDI nexus. Panel data analysis is used by Saini et al. (2017) to examine 20 countries (both developing and developed) between 2004 and 2013. They examine the FDI and economic determinants relationship (trade openness, GDP growth and freedom index). The authors report that FDI enhances economic determinants in developing countries whereas FDI worsens economic determinants in developed countries. Researchers Carbonell et al. (2018) look at how FDI affected Spain's GDP between 1984 and 2010. The authors claim that FDI has little effect on Spain's economy's expansion. The Spanish EU and euro entry have a negative effect on growth. Kulu et al. (2021) look at how institutions affect FDI's impact on Ghana's GDP. Using the ARDL model, the authors discovered that FDI and high-quality institutions had a considerable beneficial impact on Ghana's GDP when combined. However, taken separately, FDI and the effectiveness of institutions have little impact on Ghana's GDP. Yeboua (2020) investigates the relationship between FDI and GDP in Africa from 1990 to 2017 using a panel smooth transition regression model (PSRM). The author finds that, beyond a certain threshold for institutional development, FDI enhances economic growth. In addition, the author reveals that FDI either reduces or negligible impact on growth in the economy in nations that fall below the institutional development threshold. Acquah et al. (2019) investigate the link between foreign direct investment, banking sector development, and GDP in 45 African nations

from 1980 to 2016. Employing the two-system GMM, the authors reveal that FDI increases GDP. However, the financial sector weakens the effect of FDI on GDP.

Nguyen et al. (2018) looked at the relationship between institutional quality and economic growth in developing economies. Institutional equality, according to the authors, encourages economic expansion. However, the authors discovered that the positive benefits of FDI on GDP are diminished by institutional effectiveness.

### **2.3.2 Exploring the role of quality governance in FDI and GDP nexus in Ghana.**

Panel GMM approaches are used by Baiashvili et al. (2020) to examine the role of institutional quality in the link between economic development and foreign direct investment in emerging countries. The study examines information from 111 countries that dates back to 1980. The authors claim that there is an inverse U-shaped relationship between FDI volume and income level's impact on economic growth. The authors contend in the appendix that the absorptive ability is crucial for directing the FDI effect. Furthermore, institutional quality on GDP within-country income groups moderates the positive impact of FDI.

Saidi et al. (2022) examine the triangular relationship between FDI, GDP, and QG in 102 countries. The authors show that from 1996 to 2014, inward FDI had a sizable influence on GDP. Therefore, the QG has little impact on FDI or GDP in emerging economies.

In the OECD nations, Sayed et al. (2021) look into how strong governance affects the link between GDP and FDI. On a dataset from 1996 to 2013, The fixed effect model and the GMM estimator are employed by the authors. The authors demonstrate how FDI raises GDP. The authors of the appendix demonstrate a bidirectional association between FDI and regulatory quality on GDP

using the Granger causality test. The authors do, however, show that there is a one-way relationship between political stability, vocal accountability, and the suppression of corruption.

Jude et al. (2016) examines how the host country's institutional quality influences how much FDI affects GDP. Theoretically, the authors argue that institutional heterogeneity accounts for the findings of actual investment negotiations in the literature are varied. On a sample of less developed countries, the authors also employ a panel smooth regression approach. to make the case that FDI boosts economic development once institutional quality reaches a particular level.

The ARDL model is used by Duodu and Biadoo (2022) to investigate from 1984 to 2018 how institutional quality influences the connection between capital inflows and GDP in Ghana. The authors argue that remittances enhance GDP whereas FDI and external debt reduce GDP in the long run in Ghana. In addition, the short- and long-term impacts of foreign aid on Ghana's GDP are negligible. However, in the long term, both remittances and external debt increase GDP in the presence of high-quality institutions.

Ibrahim (2019) examines the connection amongst FDI and the quality of institutions in Ghana from 1985 to 2016. The ARDL model is used by the authors to show how the quality of institutions affects FDI inflows both now and in the future. The authors, however, reveal that there is an insignificant effect of inflation on FDI regardless of the time horizon. Moreover, GDP per capita growth and commerce were discovered to have a major impact on FDI only in the short run.

The GMM estimate technique is used by Hayat (2019) to assess the direct effect of institutional quality on FDI-induced GDP using a data set of 104 countries. The author demonstrates how both FDI and institutional quality have a major influence on GDP. Due to superior institutional quality,

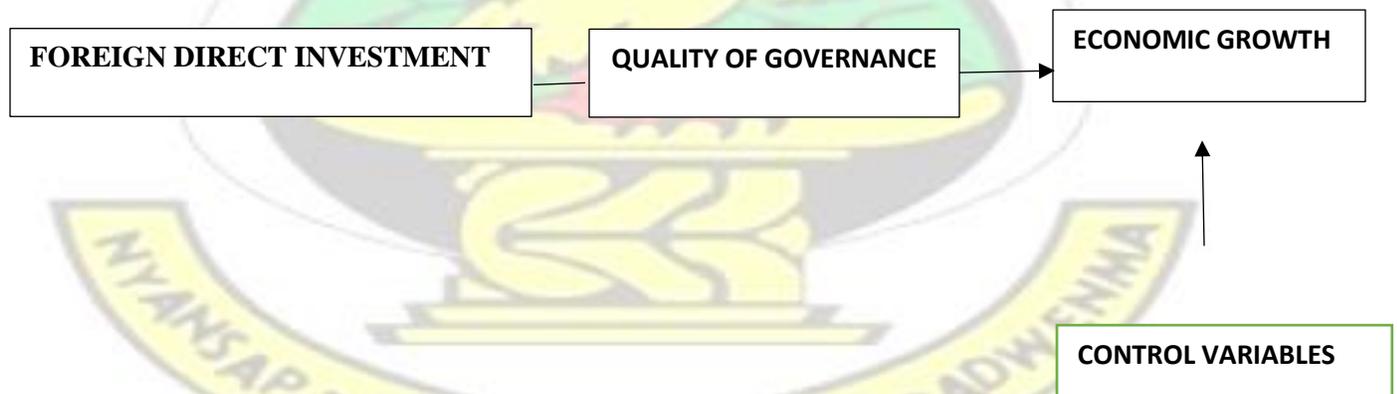
FDI-led growth only occurs in low- and middle-income nations. However, it has been found that FDI slows GDP in high-income nations.

## 2.4 Conceptual Framework

This research seeks to achieve two objectives. Investigating how FDI affects GDP is the primary goal, as indicated in Figure 1. The second objective, depicted in Figure 2, is to investigate the role of governance quality in the impact of FDI on economic growth. To assist attain these goals, the study also included control variables such as trade openness and inflation rate, which have been shown in the literature to have an influence on GDP.



**Figure 1: FDI-Economic Growth Link**



**Figure 2.1: FDI-Economic Growth Link Influenced by Quality of Governance**

### 2.4.1 FDI and Economic Growth

An important question is whether FDI affects economic growth. Different studies all over the world have provided mixed findings in this regard. There are some studies that reported that FDI

enhances GDP (Saini et. al., 2017; Saidi et. al., 2022; Acquah et. al., 2019; Ofori et. al., 2020; Antwi et. al, 2013). For instance, Sayed et. al., (2021) argue that FDI positively influences economic growth in OECD countries. Similarly, according to Saini et al. (2017), FDI boosts GDP in both developing and developed nations. Moreover, Ofori et. al., (2020) argue that inflows of FDI in Ghana improve the country's GDP.

However, only few studies have reported mixed findings in FDI and GDP relationship (Carbonell et. al., 2018; Kulu et. al., 2021; Gorg and Greenaway, 2020; Yeboua, 2020; Johnny et. al., 2021; Anetor, 2020; Yimer, 2022). For example, Anetor (2020) contends that FDI has a negligible influence on GDP. The author goes on to claim that when FDI interacts with human capital, it slows economic growth in SSA. Yimer (2022) studies the influence of FDI on GDP in Africa's investment, factor-driven, and unstable economies. The author contends that FDI boosts GDP in Africa's investment and factor-driven economies. The author also claims that FDI has a minor positive impact on GDP in underdeveloped nations.

*H<sub>1</sub>: The GDP is significantly boosted by FDI.*

#### **2.4.2 FDI-Quality of Governance and Economic Growth**

In the context of good governance, FDI boosts economic growth (UNCTAD, 2020; Agyeman et al, 2021; Globerman et al, 2013; Al-Masbhi et al, 2020). However, the FDI-GDP relationship has produced mixed results despite the need of effective governance. (Johnny et al, 2021; Shenkar, 2020; Hayat, 2019; Baiashvili et. al., 2020; Kulu et. a., 2021; Jude et. al., 2016; Sayed et. al., 2021; Saidi et. al., 2022). Some studies have found that FDI has a favorable influence on economic growth when there is good governance. (Sayed et. al., 2021; Kulu et. a., 2021; Hayat, 2019), for instance, Kulu et. al., (2021) suggest that FDI and institutional quality combined to positively

influence economic growth in Ghana. Similarly, according to Sayed et al. (2021), FDI has a strong beneficial influence on GDP in OECD nations. Additionally, Johnny et al. 2021 have demonstrated via theoretical and empirical investigations the importance of good governance for a nation's economic success.

Other studies, however, have shown either negative, insignificant, or mixed impacts of FDI on economic development in the context of subpar governance. (Jude et al., 2016; Baiashvili et al., 2020; Shenkar, 2020; Saidi et al., 2022). Jude et al. (2016), for instance, make the theoretical argument that institutional heterogeneity explains the contradictory results of empirical investigations reported in the literature. Additionally, the authors claim that FDI has a positive impact on economic growth above a specific threshold of institution quality by using a PSRM on a sample of less developed nations. This suggests that FDI lowers economic growth below the required level.

Most research that examined the impact that QG played in the relationship between FDI and GDP support the idea that FDI enhances economic growth in the presence of QG. Only a few studies in the literature contend that FDI has little to no impact on GDP.

*H<sub>2</sub>: The relationship between FDI and governance quality has a favorable effect on GDP.*

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.0 Introduction**

The study's goal is to examine the link between FDI, good governance, and GDP in Ghana. This section describes the methodology of the research. This chapter outlines the methods used to collect the data as well as the methods used to analyze it. The methodology used comprises sample size and approach, data collecting and analysis methods, and statistical process.

#### **3.1 Research Strategy and Design**

The study adopts an explanatory research design. An explanatory research design was used because it establishes a causal relationship between two or more variables. It was useful in explaining how capital structure influences firms' profitability under the mediating role of interest rate (Saunders, 2011). To understand how the independent variable brings about changes in the dependent variable, explanatory research design helps to establish a more complete relationship between the variables. The study seeks to establish the cause-and-effect between the variables and, hence, an explanatory research design is the most appropriate approach. In addition, explanatory research design helps to formulate hypotheses based on either existing literature or the researcher's instincts to address the research questions.

Quantitative research is the best technique to evaluate the impact of an independent variable on the dependent variable. With the help of this technique, it is possible to examine the amount and direction of the impact of the independent factors on the dependent variables. The advantages of adopting a quantitative research method include; that it is the most powerful tool for gathering empirical data for a study. Researchers are able to evaluate their hypothesis with a quantitative

research design. However, results obtained from the quantitative research method are only numerical responses with little insight into the thoughts, emotions, motivations, and drivers of the group.

The study also used a case study methodology to examine how FDI affected Ghana's economic growth in the context of good governance. A detailed analysis of the study on Ghana is used to generalize on all African countries, developing countries, and, to some extent, the entire world. Hence, the results obtained from this study can be used to make inferences on similar topics in the future.

### **3.2 Data and Data Sources**

Data for the research were sourced from the World Development Index database. The study made use of annual time series data from 1980 to 2020. Consequently, there were 40 observations in all. The duration of the data is adopted to include more observations in order to improve the fitness and estimation of the results. In addition, to contribute to knowledge, the study extended the duration to assess and understand the current dynamic relationships that exist between FDI and GDP. Furthermore, the length of time depends on the data's accessibility. Missing values and incompleteness in the data are reduced to lessen bias in the outcomes. The selected variables and their measurements are shown in Table 3.1

**Table 3.1: Data Source, Brief Description of Variables, And Expected Relationship of the Independent Variable with The Dependent Variable**

Variable	Proxy/Measurement	Notation	Expected Effect	Data Source
<b>DEPENDENT VARIABLE</b>				
Economic Growth	Growth rate of GDP/ Real GDP growth rate	E		WDI
<b>INDEPENDENT VARIABLES</b>				
Foreign Direct Investment	FDI inflows as a ratio to GDP	FDI	+	WDI
Quality of Governance		QoG	+	WDI
Regulatory Quality	It represents the public's perception of the government's ability to pass and carry out laws that support the growth of the private sector.	REQ		
Government effectiveness	It demonstrates the assessment of the quality of civilian and public services, as well as their independence from political pressure. It evaluates the effectiveness and dedication of the government in developing and putting policies into effect.	GOE		
Political stability	It represents the possibility that the government might be overthrown or destabilized by peaceful or unconstitutional methods.	POS		
Voice and accountability	It involves the level of perception by indicating the extent of citizen's participation in selection of government. It reflects the freedom of association and expression	VAC		
<b>CONTROL VARIABLES</b>				
Trade Openness	Real exports per capita plus real imports per capita	TO	+	WDI
Inflation	Percentage of inflation annually.	INF	-	WDI

### 3.3. Econometric specification

This section focuses on the empirical strategy the study uses to achieve the stated research objectives. Additionally, this part will go into detail on the empirical approach taken to look at how FDI affects Ghana's GDP through good governance. These model estimations or the empirical strategy will be done according to the objectives that are being outlined in the study for it to be achieved.

#### 3.3.1.1 Autoregressive Distributed Lag (ARDL) model

Following the research of Pesaran, Shin, and Smith (2001), this study analyzes data using the ARDL model. The expanded ARDL model's instructions must be understood in order to execute the ARDL model. To concurrently get rid of the problem of endogeneity and rectify autocorrelation it is important to appropriately modify the orders of the ARDL model (Pesaran and Shin, 1998). ARDL (p, q) model is shown below:

$$\Delta y_t = \alpha + \delta y_{t-1} + \theta x_{t-1} + \sum_{i=1}^{p-1} \gamma_i \Delta y_{t-1} + \sum_{i=0}^{q-1} \varphi_i \Delta x_{t-1} + \varepsilon_t \quad (1)$$

where  $\alpha$ ,  $\delta$ ,  $\theta$ ,  $\gamma_i$  and  $\varphi_i$  are parameters, p and q denote the optimal lag length chosen. In theory, the significance of  $\delta$  and  $\theta$  confirms the presence of co-integrating relationships between y and x. By comparing the FPSS statistic obtained from equation (1) to the asymptotic upper and lower critical value constraints of Pesaran et al. (2001), co-integration existence is demonstrated. The null hypothesis that there is no cointegration is rejected if the F-statistic is greater than the upper bound.

There are several benefits of the ARDL method over conventional cointegration procedures developed by Johansen and Juselius (1990) and Engle and Granger (1987). The main advantage is

that presence of cointegration among variables can still be tested even if variables have different orders of integration. In addition, it allows for the presence of weak endogeneity among the regressors and serial correlation among the errors. These factors significantly affect the finite sample and asymptotic properties of the regressors. This, therefore, makes the OLS estimator super-consistent and its cointegrating parameter efficiently determined (Pesaran and Shin, 1998; Pesaran et. al., 2001).

Pre-testing of the unit root of the variables is unnecessary in the ARDL technique of co-integration. However, to avoid unreliable results of the bounds test particularly in cases where the variables may have higher orders of integration, [for instance, I(2) or more], The series' stationarity characteristics must be established.

### 3.3.1.2 Stationarity Tests

The stochastic and stationary process that a time series of data follows is fundamental. This is because time series use past data to establish historical relationships. That is, if the past is like the future, then we can use the past to predict future relationships. Similarly, if the past is not like the future, then no historical relationships can be built.

A covariance or weakly stationary is when a variable  $y_t$  has constant mean and time invariant covariance or has a constant probability distribution over time. Stationarity of a variable is achieved given the following conditions:

$$E (y_t) = \mu \text{ (constant mean)}$$

$$Var (y_t) = \sigma^2 \text{ (constant variance)}$$

$$Cov (y_t, y_{t+s}) = Cov (y_t, y_{t-s}) = Y_s$$

(Covariance depends on  $s$ , not  $t$ )

However, if all the three above conditions for stationarity do not hold, then the variable  $y$  will be non-stationary unit root and, hence, will lead to spurious results when used for estimation. The unit root in the series may be examined using a variety of statistical techniques. The Phillips-Perron (PP) and Augmented Dicky-Fuller (ADF) tests are among them. In general, the Augmented Dicky-Fuller test is modeled as follows for a unit root test:

$$\Delta Y_t = \alpha + \rho y_{t-1} + \lambda t + V_t \quad (2)$$

Where  $\Delta$  is the differencing operator,  $y_t$  is the dependent variable,  $t$  is the trend time,  $y_{t-1}$  is the lag of the dependent variable and  $V_t$  is the white noise process. The assumptions for testing the unit root using the aforementioned equation are as follows:

$H_0: \rho = 0 \rightarrow (Y_t \text{ has a unit root or it is non-stationary})$

$H_1: \rho \neq 0 \rightarrow (Y_t \text{ is stationary or it has no unit root})$

In literature, there are two measures identified for solving the problem of unit root. To solve the problem of unit root is to convert the variable from the non-stationary series to stationary series. The two measures include either logarizing the time series data or differencing the series. Logarizing the series eliminates the possible nonlinear nature in the series and hence, stabilizing the stochastic process' variance. However, differencing the variables will stabilize the mean of the variables. There are some empirical studies that have employed these measures simultaneously. This, however, generates the growth rate of the variable (Macri and Sinh, 1999).

This research employs the PP and ADF unit root tests. The PP and ADF contrast the alternative hypothesis, "no unit root," with the null hypothesis, "unit root." As a consequence, the null hypothesis is accepted if the series has no unit root; otherwise, it is rejected.

### **3.3.1.3 Testing ARDL Co-integration**

This study examines the long-term relationship between the variables using the Pesaran bound test for co-integration (Pesaran et al., 2001). This method, though relatively new, has many more advantages over the classical co-integration tests which make it suitable for this study;

- i) the approach is used irrespective of the orders of integration of the variables.
- ii) The ARDL model's bound testing may be employed to produce an unconstrained error correcting model. This enables both short- and long-run dynamic analysis.
- iii) This method provides results that are more consistent

### **3.3.1.4 Diagnostic Checks**

Theoretically, the simple ARDL model is presented as a good model. Nonetheless, data availability influences their statistical results. It is necessary that the following diagnostic tests are undertaken to choose the accurate and preferred model (Brown et. al., 1975):

- i) RAMSEY Test for model specification: Functional form
- ii) Serial correlation: Breusch-Pagan Test
- iii) Normality test: JB statistic
- iv) Heteroskedasticity test: Breush-Godfrey Test
- v) CUSUM and CUSUMSQ

### 3.3.2 Model Specification

There have been lots of models employed in the literature to investigate the relationship between GDP and FDI (Kulu et. al., 2021; Carbonell et al., 2018; Yeboua, 2020). This study, furthermore, emphasizes the mediating role played by quality governance in GDP and FDI nexus. The empirical model is specified in equation (3) as:

$$\ln GDP_t = \beta_1 + \beta_3 \ln FDI_t + \beta_4 \ln QG_t + \beta_5 \ln(FDI * QG)_t + \beta_6 \ln TO_t + \beta_7 \ln INF_t \quad (3)$$

Where GDP refers to Gross Domestic Product, FDI to Foreign Direct Investment, QG to Quality Governance, TO is for Trade Openness, and INF to Inflation Rate.

This study employs an ARDL Model of analysis for this study. The ARDL (n, m) model is specified to follow the Pesaran et. al. (2001) as follows;

$$\ln GDP_t = \beta_1 + \beta_2 \ln GDP_{t-1} + \beta_3 \ln FDI_{t-1} + \beta_4 \ln QG_{t-1} + \beta_5 \ln(FDI * QG)_{t-1} + \beta_6 \ln TO_{t-1} + \beta_7 \ln INF_{t-1} + \sum_{i=1}^n \alpha \ln GDP_{t-i} + \sum_{j=1}^{m1} \phi \ln FDI_{t-j} + \sum_{h=1}^{m2} \partial \ln QG_{t-h} + \sum_{k=1}^{m3} \pi \ln(FDI * QG)_{t-k} + \sum_{l=1}^{m4} \varphi \ln TO_{t-l} + \sum_{p=1}^{m5} \omega \ln TO_{t-p} + \varepsilon_t \quad (4)$$

Further, in equation (4), a term for error correction is introduced as shown in equation (5) below:

$$\ln \Delta GDP_t = \vartheta \chi_{t-1} + \sum_{i=1}^n \alpha \ln GDP_{t-i} + \sum_{j=1}^{m1} \phi \ln FDI_{t-j} + \sum_{h=1}^{m2} \partial \ln QG_{t-h} + \sum_{k=1}^{m3} \pi \ln(FDI * QG)_{t-k} + \sum_{l=1}^{m4} \varphi \ln TO_{t-l} + \sum_{p=1}^{m5} \omega \ln TO_{t-p} + \varepsilon_t \dots \dots \dots (5)$$

The ADRL model is used in Equation (4) to describe both the short-term and long-term effects of FDI on GDP.  $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6,$  and  $\beta_7$  are the intercept and slope coefficient parameters used to represent long-run associations, while,,,,, and are the short-run estimations for their respective explanatory variables. Equation (5) is a variation of equation (4) that introduces an error correction

factor in the ARDL model that integrates the long-run equilibrium, and its coefficient transmits the pace of adjustment.

Due to its benefits, the ARDL approach has been chosen over traditional cointegration methodologies. First of all, the ARDL approach may be used independently of the variables' integration order. Additionally, it allows for varying delays for every variable. Moreover, this method is well suited to studies with small sample sizes; and finally, the method produces unbiased long-run estimates (Odhiambo, 2008).

Akaike Information Criterion is employed as an optimal lag selection criterion for  $n$ ,  $m_1$ ,  $m_2$ ,  $m_3$ ,  $m_4$ , and  $m_5$ . To widen the degrees of freedom, I restricted the maximum lag length to 2. The maximum lag length of 2 selected is also best with data associated with low frequency (Perron, 1989).

I do a bound test using the F-test to assess whether there is a long-run relationship between the variables and to establish the cumulative significance of the lagged-level variables. The F-distributed Bound test is used to test for the co-integration for the perfect ARDL model for this regression. To achieve this, the following hypotheses are set up:

$$H_0: \beta_1 = \beta_2 = \beta_3 = \beta_4 = \beta_5 = 0 \quad (\text{no cointegration})$$

$$H_1: \text{Not } H_0 \quad (\text{cointegration})$$

### **3.3.2.1 Justification of Variables**

#### **3.3.2.1.1 Dependent Variable**

##### **Economic Growth**

Economic development is an important and intriguing subject. Economic growth is a crucial indication to recognize and comprehend the state of the economy and the advantages obtained from FDI inflows. This has been supported by theoretical and empirical literature over the years. Hence, this study has adopted economic growth and employs the GDP growth rate as an indicator of economic expansion.

#### **3.3.2.1.2 Independent Variables**

##### **Foreign Direct Investment (FDI)**

FDI is regarded as one of the most important variables influencing GDP, particularly in developing nations (Saini et al., 2018). As a result, various research on the relationship between FDI and GDP in developing countries have been conducted (Saidi et al., 2022; Jude et al., 2016; Carbonell et al., 2018; Kulu et al., 2021; Yeboua, 2020; Acquah et al., 2020). The majority of these research found that FDI boosts economic development. In this analysis, I follow the literature and calculate FDI as a ratio of GDP. FDI inflows are the net inflows of investment to acquire a long-term stake in management of an organization functioning in an economy. It is the total of equity capital, profits reinvestment, short-term and long-term capital as shown in the balance of payments. In general, it is a measure of net FDI inflows as a percentage of GDP. This indicator has been used multiple times in the literature (Adeniyi et al., 2012; Gui-Diby, 2016; Rahman, 2016; Tshepo, 2015).

##### **Mediating Role of Quality Governance in FDI-Economic Growth Nexus**

The quality of institutions or governance in developing countries is important for GDP. This is evident in both direct and indirect (mediating) effects of quality governance on GDP in less

developed countries. Some studies have argued the direct effect of quality governance on GDP (Saidi et. al., 2022; Nguyen et al., 2018; Hayat, 2019). Similarly, there are several studies that have argued an indirect (mediating) effect on economic growth. Worded differently, empirical studies in the literature have examined the role of quality governance in the economic growth and FDI nexus in developing countries (Duodu and Baidoo, 2022; Ibrahim, 2019; Baiashvili et. al., 2020; Yeboua, 2020; Jude et. al., 2016; Sayed et. al., 2021). This demonstrates the significance of good governance in developing nations' GDP, particularly Ghana's. This study, therefore, examines the mediating role of quality governance in the FDI-GDP nexus. To achieve this objective, as measures of quality governance, I look at stability in politics, regulatory quality, voice and transparency, and government effectiveness.

### **3.3.2.1.3 Control Variables**

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

In the literature, the hypothesized link between GDP and TO has been widely demonstrated. (Squalli and Wilson, 2011; Sakyi, Villaverde, and Maza, 2015; Ben-David & Loewy 2000, 2003; Squalli and Wilson, 2011; Grossman & Helpman, 1990, 1991; Perera-Tallo, 2003; Rivera-Batiz & Romer, 1991; Wacziarg and Welch 2008;). Generally, the theoretical literature supports the argument that TO are good for growth (see Krueger, 1998). To improve division of labour and specialization and, hence, promotes growth. This, therefore, leads to more effective domestic resource allocation and increases economic growth.

Many empirical research has been conducted to investigate the impact of TO on GDP in developing nations. (Asiedu, 2013; Mani & Afzal, 2012; Hassen, and Anis et. al., 2015 and Yosra 2013; Karam & Zaki, 2015; Sakyi et al., 2014; Sakyi and Commodore, et. al., 2015). Most of the empirical literature has also reported that trade openness improves economic growth. Trade openness is considered to be one of the widely used macroeconomic variables by various scholars in recent as well as past literature. TO can be defined as the act or process of countries trading among or between them. Trade openness has been used extensively by numerous scholars in their study including Halay, 2012; Pandya and Sisomba, 2017; Keho, 2017; Kumi et al., 2017. This justifies the study's choice of adopting TO as one of the control variables in the study.

### **Inflation**

Inflation is defined as the persistent rise in the prices of goods and services in an economy over time. Inflation has been used extensively by various scholars as a major variable when the measures of macroeconomic variables come into play. Consistent with the standard and previous literature reviewed, inflation was employed as an indicator of macroeconomic instability. Inflation is defined as the percentage change in the average price of consumer goods and services over a given year, as measured by the consumer price index. (Kumi et al., 2017; Ibrahim and Alagidede, 2017; 2018).

## CHAPTER FOUR RESULTS AND DISCUSSIONS

### 4.0 Introduction

This chapter presents the empirical results of the study. The results of the study are displayed in chronological order. Firstly, I presented the summary statistics followed by unit root tests to assess the stationarity of the variables. In addition, I presented the empirical results from the dynamic panel data model of analysis and the associated diagnostic tests.

### 4.1 Descriptive Statistics

From Table 1, the annual time series have 42 observations spanning from 1980 to 2022. The mean values, median, minimum, maximum, and standard deviation, for all the variables were presented. From table 1, it is indicated that trade openness (TO) has the highest mean of 62.0734 whereas the government effectiveness-induced FDI (FDI\*GE) has the lowest mean of -0.4156. The most dispersed variable is trade openness (TO) as it has the highest standard deviation of 27.64618 and the least dispersed variable is the corruption control-induced FDI (FDI\*CC) of 0.3782. Moreover, inflation rate (INF) has the highest maximum value of 122.8745 whereas the FDI\*CC has the lowest maximum value of 0.2131. Furthermore, inflation rate (INF) has the highest minimum value of 7.1436, and the GDP growth rate has the lowest minimum value of -6.9237.

Political stability-induced FDI (FDI\*PS), FDI\*GE, FDI\*CC, GDP, and TO variables have standard deviations greater than their means whereas FDI, voice accountability-induced FDI (FDI\*VA) and INF have standard deviations lower than their means. This is an indication that the observations of the former variables deviate much from their means whereas the observations of

the latter variables deviate less from their means. For instance, ROE has a mean of -5.386667 and a standard deviation of 32.18515.

**Table 4.1: Descriptive statistics**

Variables	Observations	Mean	Median	Std. Dev.	Minimum	Maximum
FDI	42	3.0890	1.9429	2.8965	0.0453	9.5167
GDP	42	4.5434	4.8224	3.6017	-6.9237	14.3892
TO	42	62.0734	65.6386	27.6462	6.3203	116.0484
FDI*VA	42	1.1672	0.0552	1.6410	-0.4188	4.5482
FDI*PS	42	-0.0712	-0.0766	0.5247	-1.2703	1.3737
FDI*RQ	42	-0.2834	-0.2702	0.4719	-1.7947	0.7863
FDI*GE	42	-0.4156	-0.1930	0.5601	-1.9128	0.4769
FDI*CC	42	0.3857	-0.3431	0.3782	-1.2346	0.2131
INF	42	25.7884	17.3023	24.5962	7.1436	122.8745

*Note: FDI denotes Foreign Direct Investment, FDI\*CC denoted Corruption Control induced FDI, FDI\*VA denotes Voice Accountability induced FDI, FDI\*RQ denotes Regulatory Quality induced FDI, FDI\*PS denotes Political Stability induced FDI, INF denotes Inflation Rate, TO denotes Trade Openness and GDP denotes Gross Domestic Product growth rate*

*Source: Author's estimate*

#### **4.2 Unit Root Tests: ADF and PP Tests**

The research performs unit root tests on the variables employed. For unit root testing, the study applies both the ADF and PP tests. From Table 2, it is clear that except FDI, FDI\*GE and TO, all other variables are stationary at the levels. However, taking the first difference of the remaining variables (FDI\*GE, TO, and FDI) and applying the two tests for unit root, I find that they are stationary. Hence, to avoid spurious regression, it demands that I use the stationary variables in the model. The variables are mixtures of stationarity at different orders at the levels [I (0)] and first difference [I(1)] and the most suitable model is the ARDL model

**Table 4.2: ADF and PP unit root tests**

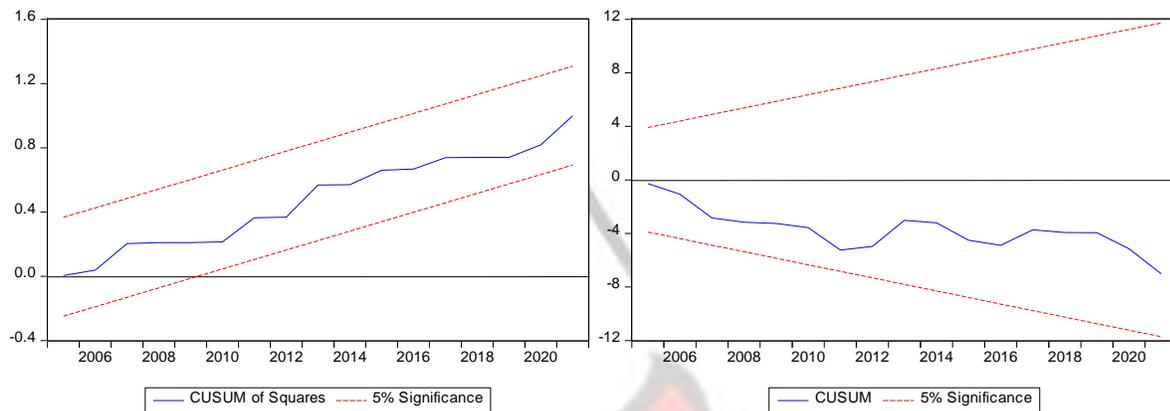
Variables	ADF				PP			
	Levels	Prob.	1 <sup>st</sup> Diff.	Prob.	Levels	Prob.	1 <sup>st</sup> Diff.	Prob.
FDI	-1.9357	0.6179	-5.0738	0.0010	-1.9357	0.6179	-4.9084	0.0015
FDI*CC	-4.0040	0.0163			-4.0788	0.0135		
<i>FDI * GE</i>	-4.0483	0.0148	-6.5202	0.0000	-2.3653	0.3913	-6.3097	0.0000
FDI*PS	-3.3469	0.0190			-3.3946	0.0169		
FG*RL	-3.1166	0.0331			-3.0673	0.0371		
FDI*RQ	-2.8872	0.0555			-2.9717	0.0461		
GDP	-3.4080	0.0163			-3.0676	0.0370		
INF	-6.7457	0.0000			-6.7378	0.0000		
TO	-1.7031	0.7318	-7.9749	0.0000	-1.6084	0.7723	-6.6058	0.0000

### 4.3 Diagnostic Tests

Table 4 reports that the ARDL model is devoid of econometric and statistical problems as all of the tests had probability values greater than 0.05. Therefore, the ARDL estimated results are normally distributed and, also, devoid of heteroscedasticity, and serial correlation. The CUSUM and CUSUMQ graphs in Figure 1 showed that GDP was stable during the research period since the CUSUM and CUSUMQ plots were within the 5% critical limit. As a result, the ARDL model fits well.

**Table 4.3: Diagnostic Tests**

Tests	F-Statistics	Probability Value
Serial Correlation	0.9496	0.8819
Normality	0.574417	0.7504
Functional Form	0.093756	0.9100
Heteroskedasticity	1.290568	0.2953
CUSUM	Stable	
CUSUMSQ	Stable	



**Figure 4.1: Graphs of CUSUM and CUSUM**

#### 4.4 Cointegration Test

This section looks at the existence of long-run relationships between the variables. Table 5 shows the results of the bound test for co-integration. I found that the F-statistic value of 15.07189 ( $F_{GDP} = 15.07189 > 3.77$  and  $3.42$ ) exceeds the upper bound critical value of 3.77 and 3.42 at 1% and 5% levels of significance, respectively. Thus, based on the bound test estimates, we concluded that there is cointegration among GDP, FDI, inflation rate, trade openness, and the multiplicative interactions between the FDI and the various quality governance variables. As a result, the variables have a long-run connection.

**Table 4.4: Bounds Test for Cointegration**

Critical Values	Lower Bound	Upper Bound
1%	2.62	3.77
5%	2.11	3.42
F Statistic	15.07189	

Source: Author's estimates. Critical values for lower and upper bounds were obtained from Pesaran et al. (2001)

#### 4.4 Estimation technique: ARDL Model

Table 6 shows the study's estimation findings. The study investigates the impact of FDI on GDP in Ghana in the presence of good governance. Table 6 shows the short-run findings, whereas Table 7 shows the long-run results. The short-run results report both the lagging (previous years) effects and the contemporaneous (current year) effects whereas the long-run results report only the contemporaneous effects.

In the short run, both the first lag (immediate past year) and second lag (the last two years) of GDP have positive effects on the current GDP. However, only the second lag significantly improves economic growth. Specifically, a 1% increase in the past two years' economic growth causes the current economic growth to increase by 0.223394, all else equal. This outcome confirms the results of Abere and Akinbobola (2020) who reveal that economic growth responds positively to its own shocks. Employing variance decomposition analysis, the authors argue that response peaked at the second period at 91.2% indicating the significance of the relationship between current GDP and its second period. This means that a rise in the overall worth of goods and services produced would lead to an expansion of the economy, create more confidence in investment into the economy, increase productivity, and, as a result, leads to an enhancement in GDP.

In addition, the main independent variable, FDI, has an insignificant positive effect on GDP. Thus, a 1% increase in FDI would have a statistically insignificant impact of 0.725358 on GDP, all else equal. This outcome confirms the results of Carbonell and Werner (2018) who explored the link between economic development and foreign direct investment in Spain. According to the authors, though Spain is one of the largest destinations of FDI in Europe, their results reveal no significant relationship between GDP and FDI in Spain. Similarly, Kulu et. al. (2021) argue FDI improves GDP in Ghana. The authors reveal that a one-period lag of FDI enhances GDP in Ghana.

Among the FDI-induced quality governance variables, both the current year (FDI\*GE) and the previous year's [(FDI\*GE) (-1)] government effectiveness-induced FDI significantly improves economic growth 1% significance level. A 1% rise, to be precise in (FDI\*GE) and [(FDI\*GE) (-1)] would cause economic growth to increase by 2.323976 and 3.298361, respectively. This implies that enhancement in the quality of public and civilian services and freedom from public pressure would lead to an increase in productivity and GDP. In addition, GDP would rise if the quality of government policy development and execution were improved. The quality of policy-making and implementation of decisions by the government would attract many FDI inflows into the country which would help add up to the domestic productive capacity and, hence, increase in economic growth.

Also, regarding voice accountability-induced FDI, only the second lag [FDI\*VA (-2)] is statistically significant. [FDI\*VA (-2)] increases GDP in Ghana. This outcome conforms to the outcome of Raza et. al. (2019) who argued that governance quality-induced FDI interaction terms improve on economic growth. The increased perception of individuals' participation in government decisions signals the presence of freedom from oppression and dictatorship. This creates a good image of the country attracting investors into the country and hence, increasing

capital inflows and productivity. Similarly, the findings are supported by the works of Jude and Leveuge (2016). For example, Jude and Leveuge (2016) suggest that in order to raise GDP, the quality of local institutions should be upgraded in order to attract more foreign direct investments. They reveal that improvement in institutional quality causes economic growth to increase.

Political stability-induced FDI has both significant lagging [FDI\*PS (-1)] and contemporaneous (FDI\*PS) effects on GDP in Ghana. However, whereas the contemporaneous effect increases GDP, the lagging effect reduces GDP. Similarly, Corruption Control-induced FDI has both significant lagging and contemporaneous effects on GDP in Ghana. However, whereas the current and first lag have negative impacts on GDP, the second lag has a positive effect on GDP. Moreover, only the first and second lags of the RQ\*FDI have significant impacts on GDP. However, whereas the first lag reduces GDP, the second lag enhances GDP.

Regarding the control variables, both TO and inflation rate have significant lagging and contemporaneous effects on GDP in Ghana. Focusing on trade openness, whereas the current value of TO significantly enhances GDP, the first lag of TO significantly reduces GDP.

The lower section of Table 4 shows the long-run outcomes of the link between GDP and FDI, as well as governance quality-induced FDI determinants. FDI, like in the short run, has a negligible positive influence on GDP. This finding agrees with the findings of Yeboua (2020) who argued in the absence of or poor quality of governance FDI has no impact on GDP. Duodu and Biadoo (2022) argue in an appendix that foreign aid has a negligible influence on economic growth in Ghana in both the short and long run. Kulu et al., (2021) contend that FDI has a negligible influence on GDP in the absence of high-quality institutions.

Similarly, all the governance quality-induced FDI indicators have significant impacts on economic growth except FDI\*PS. Whereas FDI\*VA, FID\*GE, and FDI\*RQ have enhances economic growth, FDI\*CC significantly reduces economic growth. Specifically, FDI\*VA, FID\*GE, and FDI\*RQ have positive impacts of 3.896023, 8.829354, and 3.902857 on GDP whereas FDI\*CC has a negative impact of -4.525322 on GDP. This outcome confirms the results of Yeboua (2020) who argued that in the presence of strong governance quality, FDI enhances GDP. The beneficial influence of previous governance quality-induced FDI indicators on economic development demonstrates the moderating function that quality governance has in the long-term GDP and FDI connection.

Based on the findings in Table 4, Both short-run and long-run data show that governance quality-induced FDI has a favorable influence on Ghana's GDP. This finding has been supported by the outcomes of Duodu and Biadoo (2022); Sayed et. al. (2021); Yeboua (2020); Kulu et. al., (2021); Nguyen et al. (2018); Baiashvili et. al., (2020). All these studies support the argument that quality of governance improves the impact of FDI on GDP. For instance, Baiashvili et. al., (2020) argues that countries with better-developed institutions exhibit a significant positive impact of FDI on GDP in developing countries. These data highlight the importance of institutional quality in the GDP-FDI connection. Hence, this indicates that developing countries, especially Ghana. The aforementioned findings, however, contradict the findings of Saidi et. al., (2022) who reports that institutional quality does not play any role in developing nations, there is a link between GDP and FDI.

**Table 4.5: ARDL Model for FDI, Quality of Governance and Economic Growth**  
**Short-run Estimations: ARDL (2, 0, 1, 2, 1, 1, 2, 2, 1)**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.1695	1.3686	1.5852	0.1303
GDP(-1)	0.1398	0.1220	1.1459	0.2668
GDP(-2)	0.2234	0.0914	2.4444	0.0250
FDI	0.7254	0.4297	1.6879	0.1087
FDI*GE	2.3240	0.7535	3.0843	0.0064
FDI*GE(-1)	3.2984	0.6674	4.9420	0.0001
FDI*VA	0.6666	0.9229	0.7223	0.4794
FDI*VA(-1)	-0.9024	0.6143	-1.4691	0.1591
FDI*VA(-2)	2.7168	0.5632	4.8207	0.0001
TO	0.0392	0.0182	2.1475	0.0456
TO(-1)	-0.0582	0.0235	-2.4732	0.0236
FDI*PS	4.3007	0.6220	6.9144	0.0000
FDI*PS(-1)	-3.4757	0.7533	-4.6141	0.0002
FDI*CC	-2.3818	1.3432	-1.7732	0.0931
FDI*CC(-1)	-3.4294	1.2376	-2.7711	0.0126
FDI*CC(-2)	2.9296	1.2530	2.3381	0.0311
FDI*RQ	-0.1564	0.8383	-0.1866	0.8540
FDI*RQ(-1)	4.9951	1.0988	4.5460	0.0003
FDI*RQ(-2)	-2.3534	1.0503	-2.2407	0.0379
INF	-0.0538	0.0172	-3.1400	0.0057
INF(-1)	0.0819	0.0152	5.3893	0.0000
ECM(-1)	-0.6368	0.0424	-15.0360	0.0000

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**Long-Run Estimations: ARDL Model**

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C	3.4071	1.5210	2.2400	0.0380
FDI	1.1391	0.7626	14936	0.1526
FDI*VA	3.8960	2.6826	3.2914	0.0272
FDI*GE	8.8294	2.6826	3.2914	0.0041
FDI*PS	1.2956	0.9982	1.2980	0.2107
FDI*CC	-4.5253	1.9253	-2.3505	0.0304
FDI*RQ	3.9029	1.5541	2.5113	0.0218
INF	0.0439	0.0498	0.8818	0.3895
TO	-0.0299	0.0546	-0.5471	0.5910

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**Statistical tests**

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R-squared	0.919616
Adjusted R-squared	0.830299
S.E. of regression	1.166666
F-Statistic	10.29619
Prob(F-Statistic)	0.000003
Durbin-Watson stat	2.062072

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## CHAPTER FIVE

### SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

#### 5.0 Introduction

This study examines the effect of FDI on the GDP of Ghana. In addition, the study investigates the influence of good governance in FDI and GDP in Ghana.

#### 5.1 Summary of Findings

##### 5.1.1 The relationship between FDI and GDP of Ghana

The results report that FDI has a negligible positive influence on GDP both in the short and long run. This implies that increased cash inflows in terms of FDI in the country would affect domestic production to increase. This would then lead to an improvement in the aggregate outcome of the domestic economy and, as a result, an improvement in economic growth.

##### 5.1.2. The mediating role played by quality governance in the FDI and GDP relationship of Ghana

In the short run, the results indicate that among the FDI-induced quality governance variables, both the current year (FDI\*GE) and the previous year's [(FDI\*GE) (-1)] government effectiveness-induced FDI enhances GDP at 1% significance level. In addition, regarding voice accountability-induced FDI, only the second lag [FDI\*VA (-2)] is statistically significant. [FDI\*VA (-2)] significantly enhances economic growth in Ghana. Political stability-induced FDI has both significant lagging [FDI\*PS (-1)] and contemporaneous (FDI\*PS) effects on GDP in Ghana. However, whereas the contemporaneous effect enhances GDP, the lagging effect reduces GDP. Similarly, Corruption Control-induced FDI has both significant lagging and contemporaneous effects on GDP in Ghana. However, whereas the current and first lags have

negative impacts on economic growth, the second lag has a positive effect on GDP. Moreover, only the first and second lags of the RQ\*FDI have significant impacts on economic growth. However, whereas the first lag significantly reduces economic growth, the second lag enhances GDP.

In the long run, the results indicate that all the governance quality-induced FDI indicators have significant impacts on GDP except FDI\*PS. Whereas FDI\*VA, FID\*GE, and FDI\*RQ significantly enhances economic growth, FDI\*CC significantly reduces GDP.

## **5.2 Conclusion**

The study investigates the influence of FDI on GDP. In Ghana, domestic savings and capital accumulation are considered to be insufficient to ensure GDP. As a result, the contribution of FDI to the GDP of Ghana cannot be overemphasized. There have been considerable amounts of capital inflows into the country from various sources including multinational companies, individual investors, and international governments among others. The influence of FDI on Ghana's GDP is yet unknown. Several reasons have been attributed to this ambiguity including the role that quality of governance played in the GDP and FDI relationship.

This current study has further added to knowledge in the literature about the FDI and the GDP S of Ghana. The findings of this study have to some extent improved and clarified the FDI and GDP relationship. In addition, the study has further re-emphasized and clarified the role of quality of governance in the FDI and GDP relationship. The findings of this study have further emphasized the need to improve the quality of institutions in Ghana to spur GDP. The study has revealed that FDI inflows can better stimulate GDP in the country when there is improved quality of institutions.

Thus, there would be better FDI inflows and, hence, GDP when Ghana continues to improve the quality of institutions or governance.

### **5.3 Recommendations for future research**

I recommend that countries especially Ghana should take a keen interest in the development of the quality of governance or institutions to facilitate the efficient utilization of the inflow of funds from FDI to improve GDP in the country. In appendage, policymakers should formulate effective government policies that are geared toward improving the measure of institutional quality. Finally, future studies should extend the scope of the research to include other African countries to clarify the broader understanding of the importance of quality of governance in the effect of FDI on GDP.



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