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EFFECT OF FINANCIAL DEVELOPMENT ON ECONOMIC GROWTH IN SUB-SAHARAN AFRICAN COUNTRIES

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DEDICATION

I dedicate this work to my parents of blessed memory and siblings. Mr. and Mrs Dapilah and Isaac Dapilah for their great support throughout my basic education and to everyone working hard in any small way to help build a better society.

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ABSTRACT

Due to the imperativeness of the nexus between financial development and economic growth several researchers have underscore this topic as important and effective for quantifying the economic wellbeing of a country. For many years, how financial development is contributing to economic growth has been the subject of matter in a number of debates among economists. As such there are several empirical and theoretical assumptions attempting to shed more emphasis on these debates. The main objective of the study is to examine the effect of financial development on economic growth. Specifically, the study aimed to address the effect of financial development on economic growth and the determinants of economic growth. The study adopted an explanatory research design. The study was based a quantitative research approach. For estimation strategy, the study applied the ordinary least squared. The study used the pooled Ordinary Least Square, fixed effect and random effect. The study employed secondary data from the period of 10 years from 2012 – 2021. The study used EViews in performing the analyses. The following analyses were performed; descriptive statistics, correlation, Hausman test as well as regression analysis. The study found that exchange rate, monetary policy, and human development index are positive and significant determinants of GDP. However, inflation and trade openness are significant and negative determinants of GDP whereas FDI is a positive and insignificant determinant of GDP. The study recommends that finding the government should implement policies to maintain a stable exchange rate and promote monetary policies that stimulate economic growth. Investing in human development is also recommended to promote economic growth. Additionally, the government should control inflation and promote trade openness to boost economic growth. The government should also encourage foreign direct investment (FDI) to promote economic growth, but other factors should be considered when making decisions about FDI.

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LIST OF ABBREVIATIONS

ARDL	Autoregressive Distributed Lag
CDR	Credit to Deposit Ratio
CPS	Credit to Private Sector
EMH	Efficient Market Hypothesis
FD	Financial Development
FDI	Foreign Direct Investment
FI	Financial Institutions Development
FIA	Financial Institutions Availability
FIE	Financial Institutions Efficiency
FINSAP	Financial Sector Adjustment Programme
FM	Financial Market Development
GDP	Gross Domestic Product
GMM	Generalized Method of Moments
IMF	International Monetary Fund
LBCP	Bank Credit to the Private Sector
LBDL	Bank Deposit Liabilities
LDCP	Domestic Credit to the Private Sector
OLS	Ordinary Least Square
PSDC	Private Sector Domestic Credit
SEM	Structural Equation Model
SYS-GMM	System Estimation - Generalized Method of Moments
VAR	Vector Autoregressive
WB	World Bank

CHAPTER ONE

GENERAL INTRODUCTION

1.1 Background to the Study

The concept of finance and growth is a topic that has persisted since the days of Schumpeter and yet has vast interest from researchers and academicians (Giri et al., 2021; Khan et al., 2022). Due to the imperativeness of the nexus between financial development and economic growth several researchers have underscore this topic as important and effective for quantifying the economic wellbeing of a country (Giri et al., 2021). For many years, how financial development is contributing to economic growth has been the subject of matter in a number of debates among economists. Mostly, researchers have strived to identify the robust financial systems prompting rapid economic growth and how financial development is a key determinant of economic (Ali and Masih, 2018; Khan et al., 2022).

As such there are several empirical and theoretical assumptions attempting to shed more emphasis on these debates. Although many empirical studies have investigated the relationship between development of financial markets and economic growth, the results are ambiguous (Levine 2013; Pagano 2016; Bist, 2018; Nasir et al., 2018; Khan et al., 2022). According to Levine (1997) a well-functioning financial system in a country can stimulate economic growth by fostering technological innovation and by identifying those firms most likely to succeed in adopting new products and production methods McKinnon (1973) argues that government institutions can also La Porta et al. (2012) argue that excessive government interference in banking restricts bank growth and slows economic growth, especially in developing countries. They argue that excessive government intervention in the banking sector constrains bank growth and slows economic growth, especially in developing countries. McKinnon (1973) therefore argues that financial liberalisation is necessary to

promote economic growth. From a theoretical perspective, Schumpeter and some neo-Keynesian authors explicitly emphasise the money-synthesising capacity of the banking system and the productive and innovative use of money (Graff, 2003). According to Schumpeter (2003), a well-developed financial system is a system in which innovative products and processes are thought to be able to stimulate innovation and growth by providing services and financial resources to the firms likely to produce them (Ali and Masih, Iheomu et al., 2021; Giri et al., 2021; Khan et al., 2022).

In the context of finance and development, the predominant observation is how an enhanced financial sector contributes to apportion of resources, better supervision, lower information asymmetries and economic growth (Shen and Lee 2016). In sum, the nexus of financial development and economic growth has been theoretically proven in four ways in literature (Apergis et al., 2017; Nguyen and Pham, 2021). These involve hypothetical assumptions comprising response of supply-leading, demand-following, mutual impact as well as the non-casual association (Odhiambo 2014; Demetriades and Hussein 2016; Greenwood and Smith 2017; Graff 2019; Lucas 2018).

On the contrary, Lucas (2018) provided that financial development has no substantial influence on economic growth. Most empirical studies on the finance-growth link are based on cross-sectional or panel data (Saci, Giorgioni and Holden 2009; King and Levine 2013). However, there is growing support for the idea that conditions are important determinants of the finance-growth link, with Arestis and Demetriades (2017) arguing that cross-sectional regressions do not capture country-specific conditions such as financial institutions, policy regime and governance efficiency. In support of this argument, Rousseau and Wachtel (2011) noted that the impact of finance on growth is weaker in countries with high inflation. This is

also supported by Rioja and Valev (2014), with the attestation that countries having a greater development in their financial sector have higher capacity to enhance economic growth. Bittencourt (2012) stresses that in order to achieve financial development in Latin America, and hence sustainable economic growth and prosperity, macroeconomic stability (low inflation), a common institutional framework and a more open and competitive financial sector that brings financial resources into firms are essential. Since 1970s, financial liberalization has gain face in the economic market as a means to enhance financial sector and economic growth.

In 1988, Ghana adopted the Financial Sector Adjustment Programme (FINSAP) to liberalise its financial system. This is among the initiatives that the International Monetary Fund (IMF) and the World Bank (WB) adopted to recover most economy. In the 1920s, repressive measures (such as interest rate ceilings and capital controls) were introduced (Aryeetey, Nissanke and Steel 2015). These measures have contributed enormously to that financial sector for instance there have been a significant improvement concerning the number of banks operating in this country from 10 in 1988 to 29 in 2013 (Quartey and Afful-Mensah 2014), owned by both Ghanaians and foreigners. More so, aspects like total assets have increased to 0.66% of GDP from 0.31% in 2008 (Bawumia, 2010), indicating that the banking sector has grown from pre-reform levels. Quartey and Prah (2008) analysed whether financial growth in Ghana is driven by demand or supply. The report shows that financial growth is driven by either demand or supply. While the growth of money supply as a percentage of GDP, an indicator of financial growth, indicates to some extent that it is demand-led, the growth of domestic credit as a percentage of GDP, the growth of private credit as a percentage of GDP and the growth of private credit as a percentage of domestic loans, an

indicator of financial growth, do not provide clear evidence of financial growth driven by demand or supply. There is no evidence of this.

As several evidences have attested the nexus between financial development and economic growth especially in the advanced countries, there is little knowledge on the underlying topic with regards to African communities. Interestingly, a number of studies conducted in Africa have produced mixed results. For instance, the discoveries of La Porta et al. (2019) attested the significance of regulatory system on the nexus of financial development and economic growth. According to them, the right to own a property and contractual security are essential to facilitate the functioning of banks and financial institutions, and that a lack of contract enforcement can lead to borrowers renegeing on their promises and reducing lenders readiness to lend. More so, corruption and political interference in the banking facilities can lead to loans being diverted to unproductive or unprofitable activities. This suggests that economies with better institutions may benefit more from financial development. They suggest that similar studies are needed in countries at different levels of development, comprising Ghana, South Africa, Nigeria, Rwanda and Kenya, to draw more valid conclusions about the role of financial development in national economic development.

1.2 Problem Statement

One of the most imperative metrics of economic performance is the annual growth rate of real GDP (Kargbo and Adamu 2013; Levine, Loayza and Beck 2015; Ali and Masih, 2018; Bist, 2018; Iheomu et al., 2021; Giri et al., 2021; Nguyen and Pham, 2021; Khan et al., 2022). Therefore, several studies have attempted to provide theoretical and empirical claims on the main determinants of economic growth, especially the sources of spatial and temporal variation in economic growth (Quartey and Prah 2012; Odhiambo 2014). The financial

growth rate has been identified as one of the determinants of such growth (Aghion and Howitt 2019). However, the evidence is conflicting and there is an ongoing debate on whether financial growth is a cause or a consequence of economic growth (Aghion and Howitt 2019). As such, a cohort for flexible apportion of resources and sufficient economic growth is a robust financial sector (Dmetriades and Hussein 2016; Jalil and Feridun 2014; Esso 2010).

However, the evidence provided with regards to the impact of financial development on economic performance is patchy. Thus, as some researchers (Schumpeter 2003; Goldsmith 2009; King and Levine 2013a; Christopoulos and Tsionas 2014; Fry 2018; Bencivenga and Smith 2016;) support the claims that financial development is a positive contributor to economic growth, others too (Acemoglu, Johnson and Robinson 2002; Lucas 2008; Stern 2009; Demetriades and Hussein 2016; Arestis and Demetriades 2017) believed that finance is a handmaiden to industrial development and enhancement in commercial activities. Accordingly, finance is a demand-driven mechanism of which insufficient development in this aspect will trigger inadequate financial services (Xu 2017). Other researchers (Adusei 2013; Wijnbergen 2013; Buffie 2014) have discovered an adverse nexus of finance and economic growth. According to them economic policy should focus on the financial sector because financial development is an adverse contributor to economic growth. With respect to Osamwonyi and Kasimu (2013), there is no statistical significant association between financial development and economic growth in most developing economics like Ghana and Nigeria. Due to these reasons, the current study strives to bridge the gap in economic and finance literature by focusing on the link existing between development of finance and growth in economy in sub-Saharan Africa at two levels.

Although researchers (Aluko et al., 2020; An et al. 2020; Ho and Iyke, 2020; Ibrahim and Alagidede, 2018) have delved into the area of study, but they mainly focused on aggregate growth of the economy whereas the current thesis will look at the sectoral growth. Also, this measure has gain face in a number of studies (Oliynyk-Dunn 2017; Asaleye et al. 2018; Davay-Ducanes and Gochoco-Bautista 2019; Ogbonna et al. 2020) however the researchers either focused one country or employed a single proxy for financial development. This is important as research evidence suggests that the impact of financial development on economic growth may differ across sectors of the economy. Data on sectoral growth can therefore help policymakers design sectoral policies to promote growth in specific sectors. Against this background, the aim of this study is to examine the links between financial development and economic growth in selected sub-Saharan African countries.

1.3 General Objective

The main focus of the study is to determine the relationship between financial development and economic growth in Sub-Saharan African countries.

1.3.1 Specific Objectives

Specifically, the research study intends to:

1. Examine the effect of financial development on economic growth in Sub-Saharan Africa.
2. Examine the effect of trade openness on economic growth in Sub-Saharan Africa.
3. Examine the effect of foreign direct investment on economic growth in Sub-Saharan Africa.

1.4 Research Questions

The following questions are relevant to the study:

1. Does financial development have significant effect on economic growth in Sub-Saharan Africa?
2. Does trade openness have significant effect on economic growth in Sub-Saharan Africa?
3. Does foreign direct investment have significant effect on economic growth in Sub-Saharan Africa?

1.6 Significance of the Study

Generally, management of financial institutions, specifically, banks, government and researchers are the main stakeholders that this current study will be of benefit. First, an examination into the contributions of financial development does not only assist these management of banks but also inform them on how these variables may be improved to ensure a strong and resilient financial sector in some selected Sub-Saharan African countries, specifically Ghana, South Africa, Nigeria, Kenya, Rwanda, Senegal, Tanzania, Burkina Faso, Uganda and Zambia. The entire growth and development of every country rests on the strength and the knowledge of the government and therefore, a study like financial development coupled with other macroeconomic variables has a great imperative implication for the government and other related policy-makers even in drawing up policies (fiscal policies and monetary policies) that benefit Ghana, South Africa, Nigeria, Kenya, Rwanda, Senegal, Tanzania, Burkina Faso, Uganda and Zambia. Lastly, the study serves as a parameter for researchers to further more studies in the area of finance-growth relationship. Lastly, this study is of a relevancy since it contributes to the finance and growth literature and offers a robust policy implication. For instance, the current situation of the economic growth of most African communities require enhancement in financial systems as it may has a positive implication on economic growth.

1.7 Scope of the Study

The study covers data concerning some selected Sub-Saharan African countries, specifically Ghana, South Africa, Nigeria, Kenya, Rwanda, Senegal, Tanzania, Burkina Faso, Uganda and Zambia in respect to financial development, FDI and other macroeconomic factors. That is, the study uses annual secondary data collected that are sourced from worldwide development indicator 2021 report, covering the year 2012–2021 which has a 10-year period of observation. Largely, time series data of financial development, foreign direct investment and other variables such as GDP, gross savings, inflation are all sourced from worldwide development 2021 financial report.

1.8 Brief Methodology

This study used an explanatory research method to find the link between financial development and economic growth. The study used secondary data and sourced from 2021 world development indicator report of Ghana, South Africa, Nigeria, Kenya, Rwanda, Senegal, Tanzania, Burkina Faso, Uganda and Zambia. Variables are captured between 2012 and 2021 making 10-year period of observation. The study was based quantitative and employs econometric views, popularly known as Eviews. Before data is analysed, the data goes through series of robustness checks such as stationarity, heteroscedasticity and multicollinearity. For estimation strategy, the study applies ordinary least squares (OLS). This model uses shared OLS, fixed effects, and random effects.

1.9 Organization of the Study

The poll is made up of five parts. Section 1 presents the study's background, problem statement, general and specific goals, research questions, significance, scope, a brief explanation of the method. In Section 2, an overview of the different sources of writing in the

area being looked at is given. The study has a conceptual overview, a theory overview, an empirical overview, and a conceptual framework. Section 3 describes the research methods and tools used in the study. In Section 4, the study of the data and an explanation of what was found are given. Part 5 is the last part. It reviews the most important data and gives academics and practitioners tips.

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CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This very chapter encompasses the literature review on financial development and growth of the economy. The conceptual review presents various concepts and definitions under the study whilst the theoretical review covers theories that underpin the study. The conceptual framework presents the diagrammatic representation of the entire study. The empirical review presents the various studies that have been done in literature.

2.1 Conceptual Review

The section covers some definitions and themes under economic growth, financial development and general overview of economic growth in the Sub-Saharan African countries. Each of this has been explained into detail below:

2.1.1 Economic Growth

Economic growth is defined as the increase in the value of goods and services in the economy and the increase in corporate income (Abalon and Fredick, 2020). As a result, stock prices rise. This provides firms with the means to invest and hire additional workers. The creation of new jobs leads to higher incomes. Consumers have more money and can buy more goods and services, and these purchases lead to faster economic growth. All countries are therefore striving for positive growth. This is why the focus is on economic growth (Alper, 2018). Economic growth is the most effective tool to reduce poverty and improve quality of life in developing countries. Growth can create a cycle of prosperity and opportunity. The rapid growth of the economy and the employment opportunities motivate parents to invest in education and send their children to school. This can foster a strong and growing business

community that needs better governance. Rapid economic growth thus fosters the development of human capital, which in turn supports economic growth (Rani and Kumar, 2019).

The increase in the economy's capacity to produce goods and services relative to other periods is defined as economic growth. It is measured in nominal or real terms, in the latter case adjusted for inflation (Chokri et al, 2018; Chowdhury et al, 2019). The benefits of economic growth are mainly higher living standards, higher real incomes and greater investment in areas such as health and education: in the 20th century, economic growth was an important factor in reducing absolute poverty and extending life expectancy (Bakari and Krit, 2017).

Economic growth occurs when people change and make better use of resources (Fannoun and Islam, 2019). As economic growth increases, society is able to allocate more resources to promote recycling and the use of renewable resources. The Kuznets curve shows that economic growth has an initial impact on the environment, but once a certain level of growth is reached, the environmental impact decreases (Okunnu et al., 2017). Economic growth is the growth of a country's economy over a period of time. The size of an economy is usually measured by the total output of goods and services produced in that economy, referred to as gross domestic product (GDP) (Oshodi, 2018).

Economic growth is a long-term process that occurs when the potential output of an economy increases (Iddrisu and Chen, 2022). Quarterly and even annual fluctuations in real GDP reflect short-term changes in aggregate demand and short-term changes in aggregate supply (Naghshpour and Sergi, 2018). Although the term is often used to refer to short-term

economic performance, in economic theory it usually refers to longer-term improvements in welfare. In the long run, economic activity converges to potential output levels. The potential growth rate is the rate of economic growth (Ali et al, 2021). Growth is defined as a process of change. Regardless of whether it is a modernized industrial economy or an economy in its early stages of development, the growth process is irregular and uneven (Giri et al, 2021). Growth is the process by which an economy shifts out of the production curve (Cornwall, 2022). What is the relationship between changes in the capacity curve and changes in potential output? In order for an economy to reach its potential output, it must move along the production curve. An increase in potential output therefore implies an outward shift of the potential output curve (Asterious and Spanos, 2022).

2.1.2 Sub-Saharan Africa Economic Growth Outlook (World Bank 2022)

In Sub-Saharan Africa, there are more than a billion people, and by 2050, half of them will be under the age of 25. It has the natural and human resources that are needed for growth that benefits everyone and the end of poverty in the area. With the largest free-trade area in the world and a market of 1.2 billion people, Africa has a new way to grow that takes advantage of its resources and people. There are 22 unstable or war-affected middle-income countries, as well as low-, middle-, and high-income countries in the area. There are also 13 small African countries that have low human capital, small people, and small amounts of land. It is expected that the economy of Sub-Saharan Africa will grow by 4% in 2021 and shrink by 2% in 2020. However, in a global environment characterised by multiple (and emerging) shocks, high volatility and uncertainty, growth in the region is expected to slow in 2022. Growth is forecast to be 3.6% in 2022 (4% in 2021), driven by the global economic slowdown, continued supply constraints, the emergence of new strains of the crown virus, high inflation and increased financial risks due to high debt and growing vulnerabilities. The incursion into

Ukraine has added to the obstacles to recovery in the region. Despite weak direct trade and economic relations with Russia and Ukraine, the war could affect sub-Saharan Africa's economy through higher commodity prices, higher food and fuel inflation, a worsening global economic situation and reduced foreign capital flows to the region.

The impact on the region's economic growth is expected to be moderate, but the main impact will be increased political instability and possible unrest due to food and fuel inflation. In the sub-region of Eastern and Southern Africa, the recovery from recession (4.1%) is expected to slow to 3.1% in 2022 and stabilise at 3.8% in 2024. Growth in the West and Central Africa sub-region is expected to be 4.2% in 2022 and 4.6% in 2023, compared with the October 2021 projections, which were revised upwards by 0.6 percentage points in October 2022, mainly due to improved conditions in Nigeria. Sub-Saharan Africa is expected to grow by 3.9% in 2023 and 4.2% in 2024.

Global demand is expected to pick up in 2023 as most of the shocks to the global economy are expected to ease. Signs of stagflation caused by supply shocks related to the war in Ukraine pose a challenge for monetary policy. Central banks will have to find a balance between adjusting to the downturn, which will lead to higher inflation, and fighting inflation, which will lead to a recession. Many of the region's central banks have so far opted for the latter and tightened, while others have adopted a more flexible stance: as of October 2021, the region's countries were at medium to high risk of default, with the share of countries at high risk of default rising from 52.6% to 60.5%. Many countries in the region have adopted austerity measures to reduce the growing debt sustainability risk, but these measures have not been sufficient to reduce debt levels. In the context of a global economic slowdown caused by new additional shocks, African policymakers need to take action to accelerate structural

change by raising productivity and creating more and better jobs. Increasing agricultural productivity is key to the structural reforms needed for growth. With rising food prices and limited supply, policymakers need to avoid past mistakes (import and export bans and tariffs) and protect international trade flows.

2.1.3 Financial Development

Wen et al. (2021) say that "financial development" means providing a wide range of financial services to meet different financial needs. Financial development is the growth of financial organizations, financial markets, and financial goods. Financial growth (Bayar, 2016) includes the gathering and pooling of resources, the ease of trading certain goods and services, and the sharing of knowledge about possible projects and capital distribution. These financial transactions affect how people choose to spend and save their money, how technology advances, and, in the end, how the economy grows. For financial growth to happen, it is also necessary to improve the efficiency of the financial system and stop market distortions (Song, 2021). It can be thought of as the growth of the size, efficiency, security, and ease of the financial system (Muyambiri and Odhiambo, 2018). Financial development is the growth of markets, financial goods, and institutions that help with business and growth. The growth of the banking industry is part of and necessary for economic growth. Shahbaz et al. (2020) say that funding for business and new ideas is a key link between money and economic growth.

According to, Botev et al. (2019) financial development helps private sector development tactics that help the economy grow and reduce poverty by lowering the "costs" of the financial system. Abubakar et al. (2015) say that contracts, middlemen, and financial markets have grown because the costs of getting information, bargaining, and making transactions

have gone down. Financial growth depends on keeping the "costs" of the financial system as low as possible. These "costs" can come in many different forms, including information costs, trade costs, police costs, and governmental costs. Contracts, markets, and financial middlemen all came about because information was shared, deals were enforced, and transaction costs went down (Asongu and De Moor, 2017). According to Tchamyou and Asongu (2017), a strong theory assumption is that as the financial sector grows, the development benefits of financial globalization improve while the risk of crises decreases. A well-developed local financial market makes it possible for foreign money to be put into business projects that are competitive.

Cecchetti and Kharroubi (2015) say that financial development is the increase in the efficiency of the financial system that comes from more financial deals and the improvement of the financial sector. It is important to get rid of financial barriers, improve financial frameworks, come up with new financial goods, and diversify financial institutions to keep up with the growth of the economy. So, financial growth helps people learn more about projects that might work and makes it easier to put money where it will do the most good (Ibrahim et al., 2015). Or, to put it another way, Guru and Yadav (2019) say that the rise of financial institutions has made it cheaper to get information and carry out deals and trades. Because of the growth of financial services, the system has become more active. The new financial system has also led to changes in the way things are built. The rise of the size, efficiency, and security of financial markets is part of the expansion of the financial system (Ehigiamusoe, 2021). This means that the economy is better able to use financial markets. For example, well-established financial markets can help guide economic savings toward successful investments, allow for better capital allocation because information costs are lower, and lower the cost of doing business (Ekanayake and Thaver, 2021). Also, well-known

financial intermediaries encourage innovation by paying business owners for coming up with new ideas.

2.1.4 Financial System Development in Africa

According to Otchere et al., (2017) financial mechanisms is imperative for credit and liquidity creation so as managing financial risk and ensuring proper economy management. Nevertheless, for the financial system to have the desired impact on the economy, it must have the means to support business growth. For example, if finance does not directly mediate the creation of new firms by lending to real sector firms, the mobilisation of savings and the creation of credit to the real sector may be inadequate. In such cases, the financial system will need to evolve to meet these obstacles. The existence of financial institutions and financial markets is meaningless without well-functioning financial intermediaries. The level of development of financial systems remains low in Africa, despite past reforms ranging from financial integration reforms to financial diversification that allowed international capital to flow freely into the economy (Abubakar 2015).

Table 1 presents the average financial system development indicators for several African countries. After the first list of country names, the following indicators are presented in the second column: the Financial Development Composite Index (FD), followed by Financial Institutions Development (FI), Financial Market Development (FM), Financial Institutions Depth (FID), Financial Institutions Availability (FIA) and Financial Institutions Efficiency (FIE). This has been illustrated below:

Figure 2.1: Average financial system development indicators (2006–2022)

Country	FD	FI	FM	FID	FIA	FIE
Algeria	0.15	0.29	0.00	0.06	0.09	0.78
Botswana	0.26	0.44	0.08	0.37	0.22	0.72
Central African Republic	0.06	0.13	0.00	0.03	0.01	0.37
Gabon	0.15	0.30	0.00	0.24	0.08	0.59
Lesotho	0.12	0.24	0.00	0.06	0.07	0.65
Mali	0.42	0.53	0.29	0.40	0.43	0.71
Mauritius	0.39	0.49	0.28	0.40	0.33	0.71
Morocco	0.35	0.65	0.06	0.77	0.35	0.71
Namibia	0.24	0.24	0.23	0.07	0.12	0.56
Nigeria	0.14	0.27	0.00	0.10	0.07	0.67
Rwanda	0.13	0.25	0.09	0.10	0.06	0.70
Senegal	0.07	0.14	0.01	0.03	0.03	0.38
Sierra Leone	0.58	0.70	0.44	0.86	0.35	0.78
South Africa	0.10	0.20	0.00	0.04	0.05	0.55
Sudan	0.12	0.22	0.01	0.08	0.04	0.59
Tanzania	0.14	0.24	0.03	0.12	0.06	0.56
Togo	0.25	0.41	0.07	0.18	0.29	0.78
Tunisia	0.11	0.19	0.03	0.08	0.04	0.48
Uganda	0.11	0.20	0.02	0.08	0.08	0.46
Zambia						

Source: IMF International Financial Statistics database (highest = 1.00, lowest = 0.00)

aa

In most African communities the level of development in financial systems is yet low despite the initiatives implemented to stimulate growth in the economy such as financial integration reforms and the free supply of international capitals. For example, with the exception of South Africa with FD at 0.52, no African country has an FD greater than 0.5. Although the FD figures for countries like Mauritius (0.42), Namibia (0.35) and Morocco (0.39) are relatively good. Countries like Nigeria which has a better score (0.56) for its performance in financial institutions also comes with inadequate performance in the general development of its financial systems. The majority of countries scored average on the efficiency of financial institutions, except Zambia, Central African Republic, Sierra Leone and Uganda. Moreover, the overall growth of the African financial sector remained weak during the period under review. According to Otchere et al. (2017), African financial systems are generally weak and financial development lags behind other developing continents. Imperatively, these issues are

not favourably to our economy and entrepreneurial activities. Hence, it will be relevant to make reforms and adopt robust policies to shape effectiveness and efficiency of the financial sector.

2.1.5 Measurement of Financial Development

In measuring financial development there are several proxies that can be used depending the purpose and the interest of the researchers (Ryan et al, 1992). In the researcher by Adamopoulos (2010) in Ireland, proxies like credit market enhancement were used. Likewise, Yücel (2009) employed liquidity liability as a measure whereas Siaw and Adam (2010) employed credit-private sector, liquidity liability and bank liquid reserve-asset ratio were used. However, Adusei (2013) used money supply, domestic credit-private sector and domestic credit as measures. According to Adusei there is improvement in finance in an economy once the collaboration effect of financial instruments, markets and intermediaries ensures reductions in the costs from information dissemination, implementation and transactions. Also the World Bank has proven that a country with a well-structured and developed financial sector is liable to secure better growth in its economy. In this study, the ratio of private domestic credit to GDP is used as a measure financial growth (Ghirmay, 2004), private sector credit as a share of total credit, money supply as a percentage of GDP ($M2+Y$), money supply as a percentage of GDP (CUY) and total credit as a share of GDP (Adu et al., 2013).

2.2 Theoretical Review

2.2.1 The McKinnon-Shaw Model

McKinnon and Shaw made two models of financial reform in 1973. Each one looks at a different part of how rising interest rates affect economies. Shaw's model is based on how

loans and borrowing work together, while McKinnon's model is based on how savings rates and investments might work together in the future. The main difference between the two plans is where the money comes from. Shaw made the internal finance model, which says that all funding comes from inside the company, while McKinnon's external finance model says that all funding comes from outside the company (Ang, 2010). So, the two models need to be linked because they work well together and most projects get money from both internal and external sources (Molho, 1986). The effects of the McKinnon-Shaw model have everything to do with economic growth. The McKinnon-Shaw model gives a real interest rate that is mostly unrestricted and changes based on market forces. De Gregorio and Guidotti (1995) say that high interest rates may show that people don't trust economic policy, the banking system, or financial firms' desire to take risks.

McKinnon (1973) says that Keynesian and neoclassical models are not convincing because they are based on limiting assumptions, such as the idea that capital markets compete based on a single interest rate. Moreover, neither model explains how capital markets operate in underdeveloped countries with different interest rates. McKinnon (1973) adds that in developing countries with an inefficient financial system, money and capital can complement each other. This theory is based on an external money model in which all economic units must finance themselves and in which money is seen mainly as fiat money issued by governments. McKinnon (1973) argued that financial development is a process of interest rate liberalisation. When financial development reduces the interest rate differential between borrowing and saving, this leads to an increase in savings and investment. McKinnon (1973) developed another financial model, based on the complementarity hypothesis, which can be used to describe financial processes and capital accumulation in LDCs. The complementarity hypothesis is the general hypothesis that the demand for real money $(M/P)^D$ is positively

related to the average real rate of return on capital (R_{capital}), while the investment rate (I/Y) increases with the real rate of return on deposits (R_{money}). This general hypothesis shows that both $(M/P)^D$ and I/Y respond positively to increases in R_{capital} and R_{money} .

2.2.2 Neoclassical Model

The neoclassical model is based on two strong assumptions: capital markets are completely costless. The main function of money is to satisfy the transactional motive and it has no direct capital accumulation function (Solow and Swan, 1956). In this case, there is no distinction between money and deposits because money is treated as an external fiat currency. Furthermore, the real rate of return on capital and the real rate of return on money are expressed as R_{capital} and R_{money} respectively. This equation shows that income is positively correlated with the demand for money transactions. However, one of the basic assumptions of the model is that money and capital are substitutes for each other. Therefore, an increase in real income reduces the demand for real capital. Conversely, high real money reserves reduce capital accumulation. This means that the return on capital is inversely proportional to M/P , while the return on money is positively proportional to $(M/P)^D$. Thus, to stimulate economic growth, an optimal interest rate that maximises the potential return on both capital and money is required. An increase in the real interest rate therefore reduces the demand for physical capital. Conversely, a high real money supply reduces capital accumulation. In other words, ROCE is inversely proportional to M/P and RRR is positively proportional to $(M/P)^D$. Thus, to promote economic growth, an optimal interest rate that maximises the potential return on both capital and money is required. Liquid debt or money supply is an important component of economic growth and should be optimal because money supply is negatively correlated with the return on capital and positively correlated with the return on money.

2.3 Empirical Review

Theoretical models often assume that financial development (FD) has a double effect on economic growth. First, FI makes people save more, which means they have more money to spend. Second, FI supports a better way to use income and makes investments work better. McKinnon (1973) says that the first result gets a lot of attention. Ndako (2010) looked at the possible link between foreign direct investment (FDI) and economic growth in Nigeria. He used bank loans to the private sector (BCL) as a stand-in for FD and found a connection between the two factors that was not statistically significant.

But Ndako found that when private sector domestic credit (PSDC) and bank savings (LBDL) were used as stand-ins for FD, they significantly and statistically helped the economy grow. Odhiambo (2010) used the ARDL constraint to test the dynamic link between financial growth, investment, and economic growth in South Africa. The method says that economic growth has a big effect on the growth of the banking sector. Esso (2010) confirmed the positive links between the underlying factors by using private sector credit-to-GDP as a proxy and data from the World Bank between 1960 and 2005, just like other parts of the world did. In the end, the author showed that the development of finance had a big impact on the growth of the Ghanaian economy. Similar to what Adusei (2013) found, who used data from the World Bank from 1971 to 2010 to look at the effects of domestic credit-to-GDP and money supply-to-GDP rates on economic growth over the long and short term. The writers used the ratio of domestic credit to GDP, the ratio of private domestic credit to GDP, and the ratio of money supply to GDP to measure financial growth. Esso (2010) confirmed the positive links between the underlying factors by using private sector credit-to-GDP as a proxy and data from the World Bank between 1960 and 2005, just like other places around

the world. In the end, the author showed that the development of finance had a big impact on the growth of the Ghanaian economy.

Wen et al. (2021) used a thorough GMM study on a group of 120 countries from 1997 to 2017 to look at the effects of financial development on important economic factors like economic growth, inflation, and jobs. They used four different ways to measure the growth of the economy's finances: bank credit, short-term debt, cash and cash-like assets, and credit to the private sector. The results showed that the traditional theory of credit supply was wrong and that there was a bad link between financial development and economic growth. Financial growth is also linked to more jobs and higher prices, which are both good things.

Guru and Yadav (2019) looked at the link between financial growth and economic growth in growing market countries by looking at the growth rates of banks and stock markets from 1993 to 2014. Key measures of economic and financial growth were looked at, and the data showed that there were big differences between the countries. The results of the dynamic one-step SYS-GMM estimate show that in the presence of a turnover index, all of the chosen bank growth indicators, such as the size of financial intermediaries, CDR, and CPS, are significant and have a positive correlation with economic growth. Also, it is found that the value of stock exposure is strongly linked to economic growth for all of the growth measures picked by the banking sector. But this is not the case when change is only linked to things in the banking business. When it comes to how they affect growth, the stock market and the banking industry's growth factors often work well together.

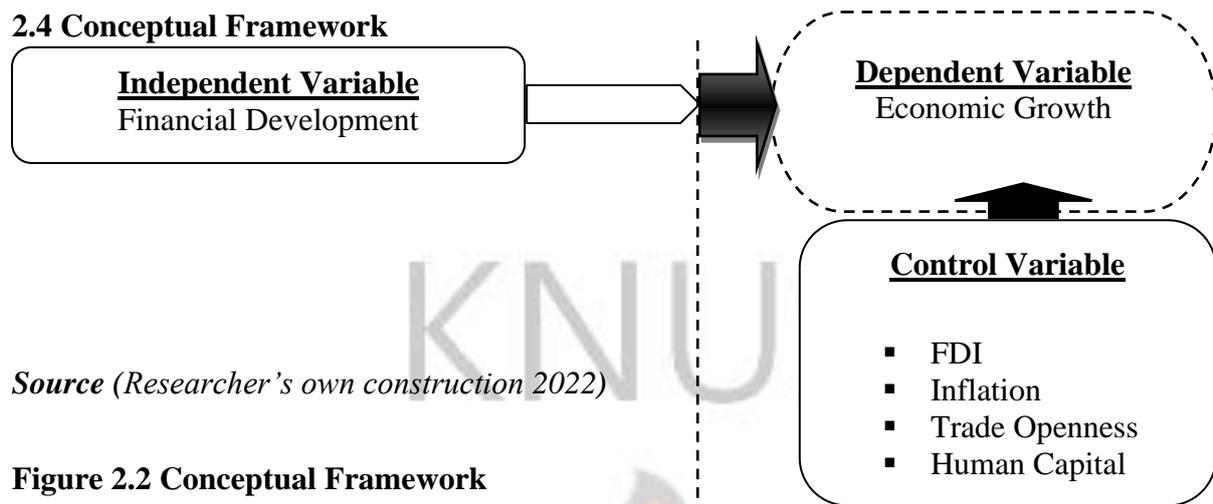
Nasir et al. (2018) looked into the idea that financial growth is the basis for economic growth. The numbers support the idea that South Korea and Thailand's economies are growing

because of how their banking systems are changing. Not only does financial growth cause economic growth, but it also has this very important trait. The ratio of non-government credit to GDP is used by the banking sector to figure out how much room there is for the economy to grow.

Ali and Masih (2018) talk about the causes and problems that affect growth. They find both short-term direct links and long-term covariate relationships between growth and its causes. When you look at the results as a whole, they show that, among other things, all of the factors add to economic growth in the near future. Several studies, however, show that the effects of real estate prices, material prices, and true production on growth aren't as big as the effects of asset values (stock prices) and consumer prices. According to the results of the study, real production, house prices, and material costs are also factors in Malaysia's economic growth. Asset prices and product prices also have a big effect on economic growth.

On the other hand, Bist (2018) looked at data from 16 developing countries over the course of 20 years and found that financial development and economic growth go hand in hand over time. Pedron's study on panel cointegration showed that the author's idea of a long-term link between cointegration and a dynamic, fully adjusted OLS method was right. (Iheomu et al., 2021) says the same thing. According to Nguyen and Pham (2021), the relationship between the growth of the financial sector and the growth of the economy in transition countries, especially in Asia, looks like an upside-down U. The GMM model was used by these writers to look at data from 29 transitional economies that began changes in the early 1990s (Iheomu et al., 2021).

2.4 Conceptual Framework



Source (Researcher's own construction 2022)

Figure 2.2 Conceptual Framework



CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

In this part talks about the tools and methods that were used to do the research. In particular, it describes the study's model and its research design, sample, selecting method, data sources, data gathering, analysis methods, and variable explanations.

3.1 Research Design

Research design according to Creswell (2014), is defined as the procedures involve in the research process, this include the data collection, data analysis and report writing. The study was based on explanatory and descriptive due to the purpose of the study. There are three main research methods. These are quantitative, qualitative and mixed method. This study was based on a quantitative design to figure out how financial development and economic growth are related. The study was based on a quantitative method was used because it is used for the acquisition and examination of numerical data. The study uses a panel data set and an explanatory research method to show this relationship in a measured way. So, both time series data and cross-sectional data are taken into account. Panel data is better for the study because it will help the researcher get clear data points that the researcher can use to learn about different countries. It has two main subtypes: balanced panel data sets and lopsided panel data sets. The difference is that every time period in the formal system has a unit, but not every time period in the informal system does (Wooldridge, 2016).

3.2 Data Type, Source and Sampling Techniques

Sampling technique offers a series of methods aiding researchers on selecting data for their studies that could be generalized to all possible cases (Saunders et al 2009). By conveniently,

the researcher samples some selected African countries in the Sub-Saharan. These countries include, Ghana, South Africa, Nigeria, Kenya, Rwanda, Senegal, Tanzania, Burkina Faso, Uganda and Zambia. The study employs secondary data and this data have already been collected. This means that the researcher sourced the data used in study from the annual data of worldwide development indicator covering the period 2012–2021 which has a 10-year period of observation.

3.3 Measurement of Variables

The section presents the overview of the variables used in the study. It presents the how the variables were operationalized and the various proxies used. The variables include economic growth, financial development, trade openness, FDI, inflation and human capital.

3.3.1 Dependent Variable

The dependent variable used in the study is economic growth, which is a rise in the value of the economy's goods and services and an increase in the income of corporations. GDP was used to measure how much the economy grew. The GDP is a normal way to measure how much worth is added to a country's goods and services over a certain amount of time.

3.3.2 Independent Variable

Independent factors were used in the study were trade openness, FDI, and financial development. Financial development is the growth of financial organizations, financial markets, and financial goods. Financial growth was measured by how much credit financial intermediaries gave to the private sector. Trade openness was measured by comparing the amount of goods and services received and sold to the country's GDP. FDI was calculated by adding up all of the net amounts of stock capital, gains that were re-invested, other long-term

capital, and short-term capital. Monetary policy was measured using the quarterly monetary policy rate provided by the Bank of Ghana.

3.3.3 Control Variables

Inflation and human capital was used as control variables in the study. Inflation is defined as the rate at which prices increase over a given period of time. It was measured using annual growth rate of the GDP implicit deflator. Human capital is defined as the economic value of experience workers and their skills. It was measured using school enrolment rates.

Table 3.1: Operationalization of Variables and Expected Signs

Variable Category	Definition	Data Source	Sign
<i>Dependent Variable</i> <i>Economic Growth</i>	<i>GDP, measure as real units of output</i>	WDI	
<i>Independent Variable</i> <i>Financial Development</i>	<i>The level of credit to the private sector by the financial intermediaries.</i>	WDI	(±)
Trade Openness	<i>Sum of imports and exports of goods and services against GDP.</i>	WDI	(±)
FDI	<i>Net inflows (sum of equity capital, reinvestment of earnings, other long-term capital, and short-term capital)</i>	WDI	(±)
Monetary policy	<i>Measured using the quarterly monetary policy rate provided by the Bank of Ghana.</i>	WDI	(±)
<i>Control</i>			
Inflation	<i>Annual growth rate of the GDP implicit deflator.</i>	WDI	(±)
Human Capital	<i>School-enrolment rates</i>		(±)

Source (Researcher 2022) **wwdi means worldwide development indicator

3.4 Model Specification

$$GDP_{ti} = \beta_0 + \beta_1 \text{FinDvt}_{ti} + \beta_2 \text{FDI}_{ti} + \beta_3 \text{Infl}_{ti} + \beta_4 \text{TradOpen}_{ti} + \beta_5 \text{DepRatio}_{ti} + \varepsilon_{it}$$

Where:

GDP = Gross domestic product representing economic growth

FinDvt = financial development

FDI = foreign direct investment

Infl = inflation

TradOpen = terms of trade

DepRatio = Dependency ratio

ε = error term, i and t represent cross-section unit and at time t respectively, and β represents coefficient of the variables.

3.5 Data Analysis Techniques

This study used Eviews version 10 most of the time. Before the data is analyzed, it goes through two tests to see how stable it is. These are the panel root test and the multicollinearity test. In the study, the OLS regression model is used. The Hausman Test is used to figure out which model is best for showing results and making ideas. This is done to see if the results from the pooled OLS, fixed effect, and random effect models are good.

3.6 Panel Data Analysis

This study used the panel data method because it offers several advantages. Panel data, where the same firm (n) is observed over several years (t), can provide a robust finding than a cross-sectional analysis which covers a specific year (Smith et al. 2016). As described above, increasing the number of observations ($n \times t$) improves the forecasting performance due to the larger sample size and the reduction in the forecasting bias. In addition, the use of panel plots reduces multicollinearity problems in time series analysis.

Panel data are also more useful because they have more variation, less "sticky" factors, more degrees of freedom, and are more efficient (Hsiao, 2013). Moulton (2017) says that both time series and cross-sectional studies can't take into account how different people are, which can make the data less accurate. Against this background, the panel analysis framework distinguishes between residual heterogeneity over time (period effect) and between-firm heterogeneity (group effect). Below are the formulas for estimating panel data:

$$Y_{it} = \alpha + X_{it}\beta + \varepsilon_{it} \dots\dots\dots (1)$$

Here, α = constant variable, i denotes the firm whereas t denotes time dimension. X_{it} denotes explanatory variable and ε_{it} = error term. $\varepsilon_{it} = u_{it} + v_{it}$; μ_i denotes firm's specific effect whereas v_{it} denotes random term. There are several ways in order to estimate the panel data model. However, the error term is key in the estimation. It also dependent the estimated model, thus if it has a series of correlations or varying variation. As mentioned above, this study focuses on standard least squares methods such as traditional OLS, fixed effects and random effects methods.

3.6.1 Pooled OLS Model

For complex regression models, all observations are pooled and the regression model is used, excluding cross-sections and time series when X is uncorrelated with error components. The main problem with pooled regression is that it does not separate subjects. It is the most accurate model because the coefficients are constant, which is a common assumption in cross-sectional analysis:

$$Y_{it} = \alpha + \beta X_{it} + \varepsilon_{it} \dots\dots\dots (2)$$

It is assumed that, the dependent variable = Y, the explanatory variable = X, cross section unit = i, the time period = t and the Error time = ε it is assume that the X's are non-stochastic and that the error term follows the classical assumptions.

3.6.2 Fixed Effect Model

With respect to fixed effect model, β_{1t} is influenced by various variables which has correlation with the explanatory variables X. Below presents the formula for fixed effect model:

$$Y_{it} = \beta_{1i} + \beta_2 X_{2it} + \beta_3 X_{3it} + \mu_{it} \dots\dots\dots (3)$$

Where;

Y =Dependent Variable, X=Explanatory Variable, i =Cross section unit, t =The time period.

The horizontal cross-sections of the fixed effects model vary across firms, but the individual horizontal cross-sections do not vary over time. In other words, it is constant over time. The fixed effects model also assumes that the slope of the regression coefficient for each individual does not change over time.

3.6.3 Random Effects Model

The random effects model makes sense because, unlike the fixed effects model, it is assumed that the subject error terms and the explanatory factors don't have anything to do with each other. Here is what the random effects model looks like:

$$Y_{it} = \beta_{1i} + \beta_2 X_{2it} + \beta_3 X_{3it} + \mu_{it} \dots\dots\dots (3)$$

Where;

t is the time frame, Y is the dependent variable, X is the explanatory variable, and i is the cross-section unit. People think that β_{1i} is not a constant, but rather a chance variable with a mean of β_{1i} (minus i). This shows that the units of the cross-sectional and time series, as well as the individual error terms, are not linked to each other. y is a dependent variable, x is an explanatory variable, and t is a time interval, i is a horizontal cross-sectional unit.

Instead of β_{1i} being a constant, it is a random variable with mean β_{1i} (without index i). In other words, the error components are uncorrelated across cross-sectional units and time series. ϵ_i is called the unobserved or latent variable because it is not directly observable. Assuming ϵ_i and X are correlated, a fixed effects model would be appropriate, while if ϵ_i and X are uncorrelated, an SEM model would be appropriate.

3.7 Justification of the Model

The OLS method is often used because it can capture changes occurring at different points in time and space, as well as changes occurring simultaneously at two points in time. Indeed, instead of testing a cross-sectional model at a single point in time for all the firms under study, or a time-series model for a single firm using time-series data, a full model is tested for each year of the firm's period (Podestà 2012).

CHAPTER FOUR

RESULTS AND DISCUSSION

4.0 Introduction

This section presents the results of the study on the effect of financial development on economic growth. Specifically, the study aimed to address the effect of financial development on economic growth and the determinants of economic growth. The study employed a secondary data from the period of 10 years from 2012 – 2021. The study employed econometric views popularly known as EViews for the analyses. The following analyses were performed; descriptive statistics, correlation, Hausman test as well as regression analysis.

4.1 Descriptive Statistics on Variables used in the study

Table 4.1: Descriptive Statistics

	Observation	Min	Max	Mean	SD	Skewness	Kurtosis
GDP	100	10.730	63.227	33.620	16.054	0.568	-0.685
Monetary Policy	100	10.080	25.780	16.235	5.284	0.204	-1.453
Exchange Rate	100	0.905	3.197	1.467	0.656	1.266	0.797
Inflation	100	8.840	20.340	12.835	2.945	0.546	-0.788
FDI	100	1.351	9.517	6.066	2.645	-0.361	-0.949
Trade Openness	100	0.617	0.981	0.728	0.118	1.343	0.358
Human Capital	100	0.420	0.540	0.471	0.027	-0.209	-0.234

Table 4.1 presents the descriptive results on the variables used in the study. The study showed that GDP had a minimum score of 10.730 and a maximum score of 63.227. Also, GDP had a mean (std. deviation) of 33.620 (16.054) with skewness (kurtosis) score of 0.568 (-0.685). Also, monetary policy had a minimum score of 10.080 and a maximum score of 25.780. Again, monetary policy had a mean (std. deviation) of 16.235 (5.284) with skewness (kurtosis) score of 0.204 (-1.453). Further, exchange rate had a minimum score of 0.905 and a maximum score of 3.197. Again, exchange rate had a mean (std. deviation) of 1.467 (0.656)

with skewness (kurtosis) score of 1.266 (0.797). Inflation similarly, had a minimum score of 8.840 and a maximum score of 20.340. Moreover, inflation had a mean (std. deviation) of 12.835 (2.945) with skewness (kurtosis) score of 0.546 (-0.788). Also, FDI had a minimum score of 1.351 and a maximum score of 9.517. Again, FDI had a mean (std. deviation) of 6.066 (2.645) with skewness (kurtosis) score of -0.361 (-0.949).

Additionally, trade openness had a minimum score of 0.617 and a maximum score of 0.981. Further, trade openness had a mean (std. deviation) of 0.728 (0.118) with skewness (kurtosis) score of 1.343 (0.358). Finally, human development index had a minimum score of 0.42 and a maximum score of 0.54. Again, human development index had a mean (std. deviation) of 0.471 (0.027) with skewness (kurtosis) score of -0.209 (-0.234). This implies that the sample of countries had a range of GDP, monetary policy, exchange rate, inflation, FDI, trade openness and human development scores, with the mean indicating the average score for the sample of countries. The standard deviation of indicates that there was a significant amount of variability in the scores among the countries in the sample. The slightly skewed distribution of suggests that there may have been more countries with higher scores than lower scores. The slightly negative kurtosis score suggests that the distribution was slightly flatter than a normal distribution, meaning that there were fewer countries with extreme values than would be expected in a normal distribution.

4.2 Correlation Matrix

Table 4.2: Correlation Matrix

	Monetary Policy	Exchange Rate	Inflation	FDI	Trade Openness	Human Capital	GDP
Monetary Policy	1						
Exchange Rate	.871** .000	1					
Inflation	.166 .098	.133 .187	1				
FDI	.438** .000	.216* .031	.063 .537	1			
Trade Openness	-.289** .004	-.268** .007	.095 .346	-.309** .002	1		
Human Capital	.623** .000	.545** .000	-.212* .035	.549** .000	-.496** .000	1	
GDP	.868** .000	.828** .000	-.075 .458	.305** .002	-.513** .000	.734** .000	1

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

The study shows that there is a strong and positive link between monetary policy and GDP ($r=0.868$; $p=0.000$). The exchange rate and GDP also have a strong and positive relationship ($r=0.828$; $p\text{-value} = 0.000$). FDI and GDP are also linked in a strong and positive way ($r=0.305$; $p\text{-value} = 0.002$). Again, the GDP and the human development score have a strong and good relationship ($r=0.734$; $p\text{-value}=0.000$). Also, while the link between inflation and GDP is small and negative ($r=-0.075$; $p\text{-value}=0.458$), the link between trade openness and GDP is large and negative ($r=-0.513$; $p\text{-value}=0.000$).

4.3 Hausman Test

Table 4.3: Correlated Random Effects – Hausman Test

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f	Prob.
Period random	1.444714	6	0.9631

A Hausman test is conducted in order to know whether random or fixed effect is appropriate for the study. The results revealed that the p-value is bigger than 0.05 which indicates the null hypothesis was supported. Hence, the random effect is appropriate for the study.

4.4 Regression Analysis

Table 4.4: Pooled Regression Results

Variable	Coefficient	Std. Error	T-statistics	Prob.
Monetary Policy	1.950	0.234	8.303	0.000
Trade Openness	-30.603	4.971	-6.155	0.000
FDI	-1.173	0.260	-4.509	0.000
Exchange Rate	3.510	1.734	2.024	0.045
Human Capital	130.939	30.741	4.259	0.000
Inflation	-0.653	0.195	-3.346	0.001
C	-27.182	15.673	-1.734	0.086
Model Indices				
R-squared		0.906		
Adjusted R-squared		0.900		
S.E. of regression		5.058		
Sum squared resid		2380.158		
Log likelihood		-300.381		
F-statistic		150.679		
Prob(F-statistic)		0.000		

The study showed that monetary policy is a positive and significant determinant of GDP (Beta=1.950; t-value=8.303; p-value=0.000). Besides, trade openness is a negative determinant of GDP (Beta=-30.603; t-value=-6.155; p-value=0.000). Also, FDI is a negative determinant of GDP (Beta=-1.173; t-value=-4.509; p-value=0.000). Likewise, exchange rate is a positive and significant determinant of GDP (Beta=3.510; t-value=2.024; p-value=0.045). Further, human development index is a positive and significant determinant of GDP (Beta=130.939; t-value=4.259; p-value=0.000). Meanwhile, inflation is significant and negative determinants of GDP (Beta=-0.653; t-value=-3.346; p-value=0.001).

Table 4.5: Random and Fixed Effect Results

Variable	Random		Fixed	
	Beta(Std. Error)	T-value	Beta(Std. Error)	T-value
Monetary Policy	1.950(0.244)	7.986***	1.927(0.251)	7.661***
Trade Openness	-30.603(5.168)	-5.920***	-30.777(5.198)	-5.920***
FDI	-1.173(0.270)	-4.337***	-1.179(0.271)	-4.352***
Exchange Rate	3.510(1.803)	1.947**	3.587(1.822)	1.968**
Human Capital	130.939(31.959)	4.097***	136.198(33.308)	4.088***
Inflation	-0.653(0.202)	-3.219***	-0.641(0.207)	-3.086***
C	-27.182(16.294)	-1.668	-29.394(-1.743)	-1.743
Model Indices				
R-squared	0.906		0.908	
Adjusted R-squared	0.900		0.892	
S.E. of regression	5.058		5.259	
F-statistic	150.679		55.899	
Prob(F-statistic)	0.000		0.000	

The study showed that exchange rate is a positive and significant determinant of GDP (Beta=3.510; t-value=1.947; p-value=0.052). Also, monetary policy is a positive and significant determinant of GDP (Beta=1.950; t-value=7.986; p-value=0.000). Further, human development index is a positive and significant determinant of GDP (Beta=130.939; t-value=4.097; p-value=0.000). Nonetheless, inflation (Beta=-0.653; t-value=-3.219; p-value=0.000) and trade openness (Beta=-30.603; t-value=-5.920; p-value=0.000) are significant and negative determinants of GDP. Also, FDI is a negative significant determinant of GDP (Beta=-1.173; t-value=-4.337; p-value=0.000).

4.5 Discussion of Results

4.5.1 Effect of Financial Development on Economic Growth

The study found that monetary policy was a significant determinant of GDP. For instance, theoretical models often make the assumption that financial development (FD) has a multiplicative influence on economic expansion. First, financial independence encourages individuals to save more, which results in their having more money available for other purposes. Second, financial independence enables a more effective manner to spend one's money and improves the performance of one's assets. According to McKinnon (1973), the

initial result receives a significant amount of attention. Ndako (2010) investigated the potential relationship between foreign direct investment (FDI) in Nigeria and the country's overall economic development. He identified a correlation between the two elements by using bank loans to the private sector (BCL) as a stand-in for foreign direct investment (FD), but the connection was not statistically significant.

Ndako discovered, however, that when private sector domestic credit (PSDC) and bank savings (LBDL) were substituted for FD, they contributed considerably and statistically to the expansion of the economy. In South Africa, Odhiambo (2010) investigated the dynamic relationship between financial growth, investment growth, and economic development by using the ARDL constraint in his research. According to the methodology, the expansion of the banking sector is significantly influenced by the expansion of the economy. Using data from the globe Bank between the years 1960 and 2005 using private sector credit-to-GDP as a proxy, Esso (2010) proved the positive linkages between the underlying components. This is the same methodology that was used in other regions of the globe. In conclusion, the author demonstrated that the expansion of financial services had a significant bearing on the expansion of the Ghanaian economy. Similar to the findings of Adusei (2013), who examined the impact of domestic credit-to-GDP and money supply-to-GDP rates on economic growth over the long and short term using data from the World Bank from 1971 to 2010. Adusei's research focused on the period from 1971 to 2010. The authors measured the expansion of the economy's financial sector by comparing factors such as the ratio of domestic credit to GDP, the ratio of private domestic credit to GDP, and the ratio of money supply to GDP. Using data from the globe Bank between the years 1960 and 2005 and the private sector credit-to-GDP ratio as a proxy, Esso (2010) was able to corroborate the positive correlations between the underlying components. This was done in the same manner as other countries throughout

the globe. In conclusion, the author demonstrated that the expansion of financial services had a significant bearing on the expansion of the Ghanaian economy. Wen et al. (2021) conducted a comprehensive GMM analysis on a group of 120 nations between the years 1997 and 2017 in order to investigate the impacts of financial development on significant aspects of the economy such as economic growth, inflation, and employment. They measured the expansion of the economy's financial resources using four distinct methodologies, namely bank credit, short-term debt, cash and cash-like assets, credit to the private sector, and credit to the private sector. The findings suggested that the conventional theory of credit supply was flawed, and they also indicated that there was a tenuous connection between financial development and economic expansion. The creation of more employment and an increase in overall pricing are two additional benefits that are associated with economic expansion.

By analyzing the growth rates of banks and stock markets from 1993 to 2014, Guru and Yadav (2019) investigated the relationship between the expansion of the financial sector and the expansion of the economy in countries with rising markets. The most important indicators of economic and financial development were compared across nations, and the results revealed that there were significant disparities between them. According to the findings of the dynamic one-step SYS-GMM estimate, in the event that a turnover index is present, each of the selected bank growth indicators, such as the size of financial intermediaries, CDR, and CPS, are significant and have a positive association with economic growth. These findings are supported by the fact that all of these indicators are positively correlated with one another. The value of stock exposure is also shown to have a significant relationship to economic growth across the board for all of the growth indicators used by the banking industry. This was proven to be the case. On the other hand, this is not the case when change is simply tied to aspects of the banking industry. The growth elements that impact the stock market and

those that affect the banking sector tend to function well together when it comes to how they affect growth. Nasir et al. (2018) conducted research on the hypothesis that increased financial growth is the driving force behind increased economic growth. The data provide credence to the hypothesis that the evolving financial structures of South Korea and Thailand are directly responsible for the expansion of their respective economies. Not only does an expansion of the financial sector led to an expansion of the economy, but it also has this extremely significant quality. The banking industry looks at the proportion of non-government credit to GDP to determine how much capacity there is for the economy to expand into new territory.

Ali and Masih (2018) discuss the factors that generate growth difficulties as well as the factors that induce growth. They uncover both short-term direct ties and long-term covariate correlations between the phenomenon of growth and the factors that contribute to it. When taken as a whole, the findings demonstrate, among other things, that in the not-too-distant future, all of the contributing elements will contribute to economic expansion. However, a number of studies indicate that the impacts of asset values (stock prices) and consumer prices have a far larger impact on economic growth than do the effects of real estate prices, material costs, and genuine output. According to the findings of the research, real production, housing prices, and material costs are all contributing elements to Malaysia's rising standard of living and economic development. The pricing of assets and products also have a significant impact on the rate of economic growth.

On the other hand, Bist (2018) examined data from 16 developing nations over the period of 20 years and discovered that financial development and economic growth go hand in hand throughout time. These findings were based on the observation that both factors contribute to

overall economic growth. The research on panel cointegration that was conducted by Pedron demonstrated that the author's hypothesis of a long-term connection between cointegration and a dynamic, fully adjusted OLS approach was accurate. Iheomu and his colleagues (2021) come at the same conclusion. According to Nguyen and Pham (2021), the link between the expansion of the financial sector and the expansion of the economy in transition nations, particularly in Asia, resembles an inverted letter U. They state that this pattern can be seen particularly in countries in Southeast Asia. (Iheomu et al., 2021) These authors analyzed the data from 29 economies that were in the process of transitioning when they employed the GMM model to do so. These countries started the process of transformation in the early 1990s.

4.5.2 Effect of Trade Openness on Economic Growth

The study found that, trade openness was a substantial and important drivers that have a negative effect on GDP. The outcome is supported by the available empirical evidence. For instance, Kim et al. (2011) use marginal regression with an instrumental variable to test whether the relationship between trade and income changes with the level of economic development. The results show that the degree of trade openness has positive effects on financial development, capital accumulation and economic development in high-income countries. However, these effects are negative and significant in low-income countries. Kim et al. (2011) also show that the degree of trade openness has a positive effect on economic growth and real income in developed countries, but a negative effect in developing countries. Moreover, the real effects of trade also depend on the level of financial development and inflation. The degree of trade openness has a negative impact on economic growth in less economically developed countries, while the impact is small in more economically developed countries. Trade openness has a positive impact on economic growth in low-inflation

countries, but a negative impact on economic growth in high-inflation countries. Kim et al. (2012) show that trade increases economic growth in high-income, low-inflation and non-agricultural countries, but has a negative impact on countries with the opposite characteristics. Huang and Chang (2014) find that the effect of trade on economic growth depends on the degree of stock market development. Trade promotes economic growth only when a country reaches a threshold level of stock market development. Sakyi et al. (2015) found evidence of a positive bidirectional causal relationship between trade and economic growth in a sample of 115 developing countries; Were (2015) found that trade has a positive and significant effect on economic growth in both developed and developing countries, but the effect is not significant in least developed countries (LDCs), which are mainly African countries.

Vlastou (2010) found that trade openness has a negative effect on economic growth in a sample of 34 African countries. Tekin (2012), in a study of 27 LDCs in Africa, found no significant causal relationship between foreign aid, trade openness and real GDP per capita; and Asfaw (2014), in a study of 47 sub-Saharan African countries, analyses the impact of trade liberalisation on economic growth. The results show that trade openness increases economic growth and investment. In addition, trade policies such as weighted average tariffs and real effective exchange rates affect economic performance through trade. Menyah et al. (2014) examine the causal relationship between financial development, trade openness and economic growth in 21 sub-Saharan African countries. Their results provide little support for the hypothesis of trade-driven economic growth. Only for Benin, Sierra Leone and South Africa was the trade-driven growth hypothesis confirmed.

In a more recent study, Brueckner and Lederman (2015) applied an instrumental variables approach to a panel of 41 sub-Saharan African countries. They find that trade openness increases economic growth in the short and long run; Musila and Yiheyis (2015) study Kenya and find that trade openness has a positive effect on investment performance but not on economic growth; Polat et al. (2015) find that trade openness inhibits economic growth in South Africa. Lawal et al. (2016) apply the ARDL approach to Nigeria and find that trade openness has a negative impact on economic growth in the long run, but a positive impact on growth in the short run. They also find bidirectional causality between the two variables.

4.5.3 Effect of Foreign Direct Investment on Economic Growth

Further, the study found that FDI was a significant determinant of GDP. The result is empirically supported. For instance, FDI has the advantage of promoting technology transfer, human capital development, international trade integration, job creation and a competitive environment for firms (Farole and Winkler, 2014; Jugurnath et al., 2016). Kobai et al. (2018) propose a tool for bridging the knowledge gap. They highlight the benefits of FDI as a way for MNEs to bridge the knowledge gap between developed and emerging countries by bringing new knowledge to the host country. In contrast to these benefits, the OECD (2002) emphasises the disadvantages of FDI for the domestic economy: FDI can undermine the host country's balance of payments through profit repatriation, lack of positive links with local firms, negative environmental impacts, social distortions and negative effects on competition in the domestic market. Foreign firms have technological, capital and managerial advantages over local competitors that may crowd out domestic investment (Dinh et al., 2019).

In addition to the theoretical divergences, the empirical results of previous studies also differ. Jugurnath et al. (2016), in their study based on a panel of 32 countries from 2008 to 2014,

find mixed empirical results compared to later studies examining the impact of FDI on economic growth in Southern Africa. Their GMM results show that FDI has a positive and significant impact on economic growth. Nketiah-amponsah and Sarpong (2019) use GMM to examine the impact of infrastructure and FDI on economic growth in sub-Saharan Africa. Their results show that FDI interacts with host country infrastructure to have a positive effect on economic growth. Makiela and Ouattara (2018) use GMM on a sample of developed and developing countries over the period 1970-2007. The study shows that FDI is associated with higher economic growth in the host country. Mohd and Muse (2021) conducted a study on Ethiopia using a VAR model over the period 1981-2017. The results showed that FDI has a positive and significant impact on economic growth in both the short and long run. Similarly, Nguyen (2020) conducted a study on Vietnam over the period 1997-2018 and the results showed that FDI has a positive and significant impact on economic growth.

Furthermore, Alzaidy et al. (2017), who studied Malaysia over the period 1975-2014, and Azman-saini et al. (2010), who used observations from 91 countries over the period 1975-2005, found that FDI has a positive and statistically significant effect. However, this positive effect depends on the level of financial sector development; FDI is more favourable in countries with high financial sector development than in those with low financial sector development; Borensztein et al. (1998) found that the impact of FDI on economic growth was greater in 69 developing countries between 1970 and 1989. Their results show that human capital development plays an important role in the positive impact of FDI.

In contrast to the positive and significant impact of FDI, Katerina et al. (2004) conducted a study on FDI and economic growth in 17 transition economies between 1995 and 1998. Their results show that there is no significant relationship between FDI and economic growth.

Similarly, Herzer et al. (2006) conducted a study of 28 developing countries using the country integration method. The results show that in most countries FDI does not have a statistically significant effect on economic growth in the short run. Dinh et al. (2019) studied developing countries over the period 2000-2014 using the VECM and FMOLS methods. The results show that FDI hinders economic growth in the short run but has a positive effect in the long run. Kobai et al. (2018) analysed the relationship between FDI and economic growth in Southern Africa from 1970 to 2016 using quantile regression.



CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This chapter presents the summary of the results from the previous chapter, the conclusion of the study, and the recommendations for the study as well as areas for future studies.

5.1 Summary of Findings

The descriptive statistics result revealed that the sample of countries had a range of GDP, monetary policy, exchange rate, inflation, FDI, trade openness and human development scores, with the mean indicating the average score for the sample of countries. The standard deviation of indicates that there was a significant amount of variability in the scores among the countries in the sample. The slightly skewed distribution of suggests that there may have been more countries with higher scores than lower scores. The slightly negative kurtosis score suggests that the distribution was slightly flatter than a normal distribution, meaning that there were fewer countries with extreme values than would be expected in a normal distribution.

5.1.1 Effect of Financial Development on Economic Growth

The first objective of the study is to examine the effect of financial development which monetary policy was used as a proxy. The study found that monetary policy was a significant determinant of GDP in the pooled regression. Also, with the random effect, the study found that, monetary policy was a significant determinant of GDP.

5.1.2 Effect of Trade Openness on Economic Growth

Secondly, the study aims to assess the effect of trade openness on economic growth. The study found that, trade openness was a substantial and important drivers that have a negative effect on GDP in the pooled regression. Moving on with the random effect, the study found that, trade openness significantly influence GDP.

5.1.3 Effect of Foreign Direct Investment on Economic Growth

Lastly, the study aims to examine the effect of foreign direct investment on economic growth. Further, the study found that FDI was a significant determinant of GDP in the pooled regression. With regards to random effect, the study found that, FDI was a significant determinant of GDP.

5.2 Conclusion

This section presents the results of the study on the effect of financial development on economic growth. Specifically, the study aimed to address the effect of financial development on economic growth and the determinants of economic growth. The study adopted an explanatory research design. The study was based a quantitative research approach. For estimation strategy, the study applied the ordinary least squared. The study used the pooled OLS, fixed effect and random effect. The study employed a secondary data from the period of 10 years from 2012 – 2021. The econometric view popularly known as EViews was used in performing the analyses. The following analyses were performed; descriptive statistics, correlation, Hausman test as well as regression analysis. The study found that monetary policy was a significant determinant of GDP. Also, the study found that, trade openness was a substantial and important drivers that have a negative effect on GDP. Further, the study found

that FDI was a significant determinant of GDP in the pooled regression. The study concludes that, financial development is a significant predictor of economic growth.

5.3 Recommendations

Based on the study's findings, the following recommendations are made;

The study found that, monetary policies significantly influence GDP. The study therefore recommends that, the government should implement policies to maintain a stable exchange rate and promote monetary policies that stimulate economic growth. Also, the countries can aim at implementing policies that promote monetary stability: This means that countries should aim to keep inflation rates low and maintain a stable currency. This can be achieved through policies such as controlling the money supply and setting interest rates.

Also, the study revealed that, trade openness significantly influence GDP. The study suggests that, the government should control inflation and promote trade openness to boost economic growth. Again, the various countries can focus on exchange rate stability: This means that countries should aim to keep their currency exchange rates stable. This can be achieved through policies such as setting exchange rate targets and intervening in the foreign exchange market when necessary. There is a need for being cautious when opening up trade policies: This means that countries should be careful when opening up their trade policies, as this can have both positive and negative impacts on GDP. While trade can lead to increased economic growth, it can also lead to job losses and other negative impacts.

Further, the study found that, FDI significantly influence GDP. The study recommends that, the government should also encourage foreign direct investment (FDI) to promote economic

growth, but other factors should be considered when making decisions about FDI. Also, countries can aim at attracting foreign direct investment (FDI): This means that countries should create an environment that is attractive to foreign investors. This can be achieved through policies such as tax incentives, streamlined regulations, and political stability.

In summary, the government should focus on implementing policies that promote economic growth and stability.

5.4 Areas for Further Studies

This study used explanatory research design by establishing the relationship between financial development and economic growth. The study was based on a quantitative research approach. Hence, future studies are encouraged to use different approach and design such as exploratory and qualitative or mixed method. The study was based on Sub Saharan countries, future studies are recommended to extend it to different countries in order to generalize the results. The study covered a 10 year period, future studies are recommended to extend the period of study to increase the observation. Again, future studies are recommended to look at other government policies which were not captured in the current study and know how it significantly influence economic growth.

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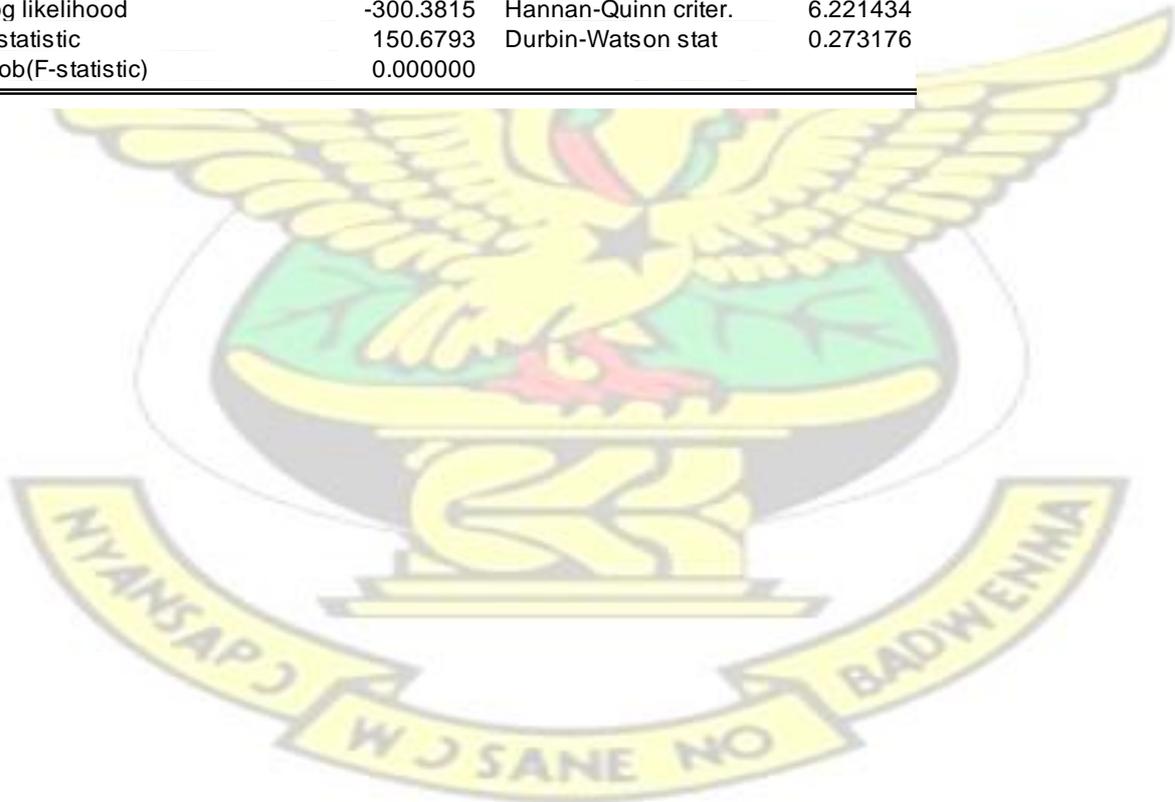
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APPENDIX

Pooled Regression

Dependent Variable: GDP
 Method: Panel Least Squares
 Date: 07/17/23 Time: 15:27
 Sample: 2012 2021
 Periods included: 10
 Cross-sections included: 10
 Total panel (balanced) observations: 100

Variable	Coefficient	Std. Error	t-Statistic	Prob.
MONETARY_POLICY	1.950147	0.234860	8.303432	0.0000
TRADE_OPENNESS	-30.60316	4.971542	-6.155668	0.0000
FDI	-1.173380	0.260186	-4.509782	0.0000
EXCHANGE_RATE	3.510908	1.734388	2.024292	0.0458
HUMAN_DEVELOPMENT_INDEX	130.9398	30.74123	4.259418	0.0000
INFLATION	-0.653078	0.195145	-3.346627	0.0012
C	-27.18253	15.67316	-1.734337	0.0862
R-squared	0.906727	Mean dependent var	33.62096	
Adjusted R-squared	0.900710	S.D. dependent var	16.05491	
S.E. of regression	5.058962	Akaike info criterion	6.147629	
Sum squared resid	2380.158	Schwarz criterion	6.329991	
Log likelihood	-300.3815	Hannan-Quinn criter.	6.221434	
F-statistic	150.6793	Durbin-Watson stat	0.273176	
Prob(F-statistic)	0.000000			



Random Effects

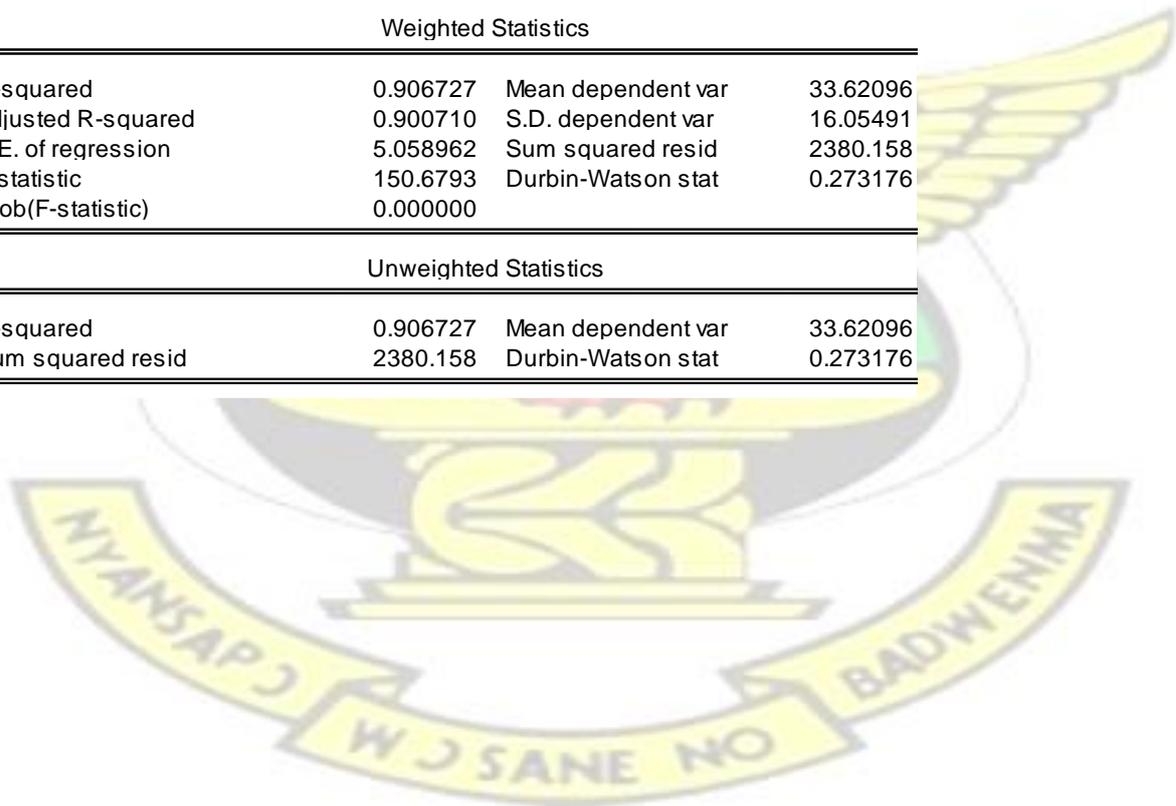
Dependent Variable: GDP
 Method: Panel EGLS (Period random effects)
 Date: 07/17/23 Time: 15:28
 Sample: 2012 2021
 Periods included: 10
 Cross-sections included: 10
 Total panel (balanced) observations: 100
 Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
MONETARY_POLICY	1.950147	0.244170	7.986831	0.0000
TRADE_OPENNESS	-30.60316	5.168616	-5.920959	0.0000
FDI	-1.173380	0.270499	-4.337829	0.0000
EXCHANGE_RATE	3.510908	1.803140	1.947108	0.0545
HUMAN_DEVELOPMENT_INDEX	130.9398	31.95982	4.097011	0.0001
INFLATION	-0.653078	0.202881	-3.219024	0.0018
C	-27.18253	16.29445	-1.668208	0.0986

Effects Specification		S.D.	Rho
Period random		0.000000	0.0000
Idiosyncratic random		5.259501	1.0000

Weighted Statistics			
R-squared	0.906727	Mean dependent var	33.62096
Adjusted R-squared	0.900710	S.D. dependent var	16.05491
S.E. of regression	5.058962	Sum squared resid	2380.158
F-statistic	150.6793	Durbin-Watson stat	0.273176
Prob(F-statistic)	0.000000		

Unweighted Statistics			
R-squared	0.906727	Mean dependent var	33.62096
Sum squared resid	2380.158	Durbin-Watson stat	0.273176



Fixed Effect

Dependent Variable: GDP
 Method: Panel Least Squares
 Date: 07/17/23 Time: 15:30
 Sample: 2012 2021
 Periods included: 10
 Cross-sections included: 10
 Total panel (balanced) observations: 100

Variable	Coefficient	Std. Error	t-Statistic	Prob.
MONETARY_POLICY	1.927654	0.251613	7.661199	0.0000
TRADE_OPENNESS	-30.77752	5.198506	-5.920454	0.0000
FDI	-1.179824	0.271072	-4.352436	0.0000
EXCHANGE_RATE	3.587297	1.822462	1.968380	0.0523
HUMAN_DEVELOPMENT_INDEX	136.1983	33.30867	4.088976	0.0001
INFLATION	-0.641408	0.207802	-3.086629	0.0027
C	-29.39414	16.85594	-1.743845	0.0848

Effects Specification

Period fixed (dummy variables)

R-squared	0.908942	Mean dependent var	33.62096
Adjusted R-squared	0.892682	S.D. dependent var	16.05491
S.E. of regression	5.259501	Akaike info criterion	6.303596
Sum squared resid	2323.638	Schwarz criterion	6.720423
Log likelihood	-299.1798	Hannan-Quinn criter.	6.472294
F-statistic	55.89939	Durbin-Watson stat	0.251086
Prob(F-statistic)	0.000000		



Hausman Test

Correlated Random Effects - Hausman Test

Equation: Untitled

Test period random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Period random	1.444714	6	0.9631

** WARNING: estimated period random effects variance is zero.

Period random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
MONETARY_POLICY	1.927654	1.950147	0.003690	0.7112
TRADE_OPENNESS	-30.777518	-30.603160	0.309881	0.7541
FDI	-1.179824	-1.173380	0.000310	0.7144
EXCHANGE_RATE	3.587297	3.510908	0.070054	0.7729
HUMAN_DEVELOPMENT_INDEX	136.198340	130.939751	88.037152	0.5752
INFLATION	-0.641408	-0.653078	0.002021	0.7952

Period random effects test equation:

Dependent Variable: GDP

Method: Panel Least Squares

Date: 07/17/23 Time: 15:29

Sample: 2012 2021

Periods included: 10

Cross-sections included: 10

Total panel (balanced) observations: 100

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-29.39414	16.85594	-1.743845	0.0848
MONETARY_POLICY	1.927654	0.251613	7.661199	0.0000
TRADE_OPENNESS	-30.77752	5.198506	-5.920454	0.0000
FDI	-1.179824	0.271072	-4.352436	0.0000
EXCHANGE_RATE	3.587297	1.822462	1.968380	0.0523
HUMAN_DEVELOPMENT_INDEX	136.1983	33.30867	4.088976	0.0001
INFLATION	-0.641408	0.207802	-3.086629	0.0027

Effects Specification

Period fixed (dummy variables)

R-squared	0.908942	Mean dependent var	33.62096
Adjusted R-squared	0.892682	S.D. dependent var	16.05491
S.E. of regression	5.259501	Akaike info criterion	6.303596
Sum squared resid	2323.638	Schwarz criterion	6.720423
Log likelihood	-299.1798	Hannan-Quinn criter.	6.472294
F-statistic	55.89939	Durbin-Watson stat	0.251086
Prob(F-statistic)	0.000000		