FOREIGN DIRECT INVESTMENT, FINANCIAL INCLUSION AND BANKING SECTOR DEVELOPMENT IN AFRICA.

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THIS THESIS IS SUBMITTED TO THE DEPARTMENT OF FINANCE, UNIVERSITY OF GHANA BUSINESS SCHOOL, UNIVERSITY OF GHANA, LEGON IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF MPHIL FINANCE DEGREE

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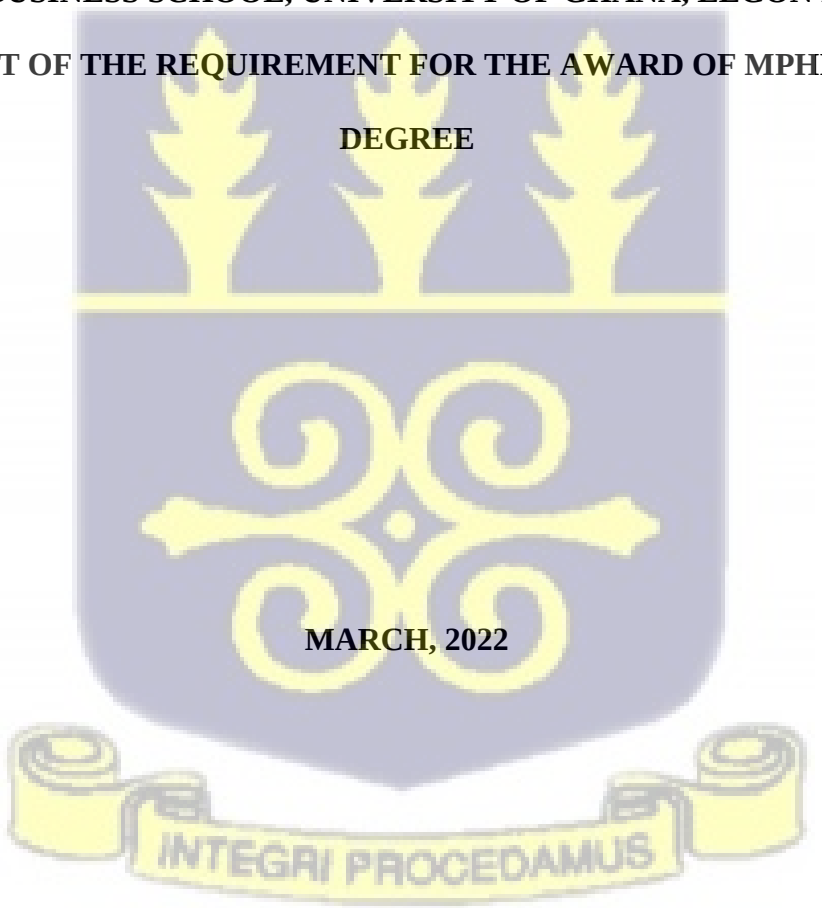

DECLARATION

I, EVANS KWAKU AVOGADRO WEMEGAH do hereby declare that this thesis is a result of my own work and has not been presented to any other academic institution. All references in the work have been duly acknowledged. I also declare my full responsibility for any shortcomings in the document.

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CERTIFICATION

I certify that this thesis was supervised in accordance with procedures laid down by the University of Ghana.

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DEDICATION

I dedicate this work to my beloved late father; Mr John Adzevia Wemegah and my original queen (mother); Miss Mary Mawuko Afi Kofi-Ekpor.

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My profound gratitude goes to God Almighty for the gift of life and strength. My heart is full of joy for your grace and mercy which have brought thus far. Ebenezer; this is how far you have brought me, LORD. Thank you for the morning of the finished thesis.

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ABSTRACT

This study set out to investigate the effect of foreign direct investment (FDI) on financial inclusion (FI) and Banking Sector Development (BSD) and the moderating role of FI on the FDI – BSD relationship. A balanced panel data of fifty- two African countries for a period of fourteen (14) years (2004 to 2017) was used in the study. The fixed and random effects model estimators together with system generalized methods of moment (SGMM) were employed. The discussion of the findings was based on the result of SGMM of respective objectives of the study.

The results show that the FDI has negative statistically insignificant effects on financial inclusion. It has statistically significant positive effects on banking sector development. In addition, the interactive term of FDI and FI has negative but statistically insignificant impact on BSD. The study also revealed that financial inclusion decreases banking sector development in African countries.

Building a good financial inclusion index and banking sector development index using principal component (PCA) analysis measurement method is important for developing countries like African countries. It helps to assess the level of FI and BSD of each country and between countries together, made easily and accurately for policies formulation and implementation.

First, unlike previous studies, the author constructed composite indices for FI and BSD using Principal component analysis (PCA) to assign weights instead of using arbitrary weight or proxy to empirically investigate the relationships between FDI, FI and BSD in Africa. Second, using the interaction term between FDI and FI the author empirically analyzes whether, and to what extent, the banking sector development interact with each other in the process of poverty reduction

CHAPTER ONE

INTRODUCTION

1.1RESEARCH 1BACKGROUND

According to Agbloyor et al. (2014), foreign direct investment (FDI) and portfolio investment as component of private capital inflows is an important vehicle through which developing countries (Africa) growth problem can be addressed. Through a cautious critical analysis of the components of private capital flows, show that FDI is the least volatile, as it is usually long term in nature and it's potentially to be accompanied by technology and expertise (Prasad et al, 2003). In terms of the distribution of FDI across different countries, it is undeniable that FDI has flowed throughout Africa, but the majority of it seems to be concentrated in a few countries such as; Angola, Nigeria, Egypt, and South Africa which have attracted the most foreign direct investment to Africa. From 1990 to 2010, these above mention countries had contributed closely to 53% of entire FDI flows to African countries. On the contrary, over the same period, certain African countries received less than 5% of total FDI inflows to Africa.

The flow of foreign direct investment has expanded dramatically during the previous twenty years, and Africa has reaped the benefits. In reality, FDI increased from roughly $5 billion in the early 1990s to nearly $20 billion in the late 1990s, in all 53 countries in African. In comparison to a global mean growth rate of 20%, this amounts to a yearly mean growth rate of roughly 18% for the same period. In the 2000s, Africa continued to experience the rise of FDI inflows, rising from roughly $35 billion in the early 2000s to over $73 billion in 2008. Nonetheless, Africa has experienced a downward trend of FDI flows since 2009, falling from $60.2 billion to roughly $55 billion in 2010. This decline is owing to world financial crisis (United Nations Conference on Trade and Development, UNCTAD, 2010). The financial growth of both the source and destination countries has an impact on overall FDI flows. The sound financial intermediation of source countries may provide holding companies with easy access to external funds, allowing them to expand into new countries via overseas affiliates or the acquisition of a

local corporation (Desbordes and Wei, 2014). International affiliates should be able to access domestic financial markets for additional capital if the destination countries have a strong financial framework in place. Local firms may also benefit from the depth of their native country's financial system by providing them with suitable external funding to compete with multinational organizations (MNEs) (Ju and Wei, 2010). According to Bilir et al. (2019), solid domestic financial growth looks to have a direct positive influence on FDI inflows by sourcing foreign capital, but it is also likely to have an indirect negative impact on the same FDI by increasing local competitiveness. FDI flows may boost general economic activity, with financial institutions, particularly commercial banks, benefiting indirectly as a result of technological diffusion. With regard to endogenous growth model, which premises on the reasoning that FDI is accompanied by technology transfer, skills and training which augment technological advancement to attain economic growth in the long term (Kumar and Pradhan, 2002). Thus, many countries, especially the developing ones now put in policy measures so as to attract FDI inflows so as to rake in the associated benefits induced by FDI (Kaur et al., 2013). As a result, unlike private sector credit to GDP, the perceived advantage of FDI appears to be captured by commercial banks' performance metric (ROA), allowing for a more precise description of the dynamic linkage between bank-centric financial development and FDI inflows.

The past years have witnessed an increase in FDI inflows into the African countries, representing 39% of their external finance (Jaiblai and Shenai, 2019; Martins et al., 2021). A substantial body of studies tried to attribute this increase to several divergent factors (Ajide et al., 2022). For instance. Jaiblai and Shenai (2019) argued that the increase in FDI in Africa is attributed to better infrastructure, a lower income level, and a smaller market size. Development of the financial sector is one major absorption capacity, which must be established to enhance the inflows of FDI (Asong, 2014 and Adams, 2009). Omri and Kahouli (2014) revealed that Middle East and North African countries, as a result of ill-

developed financial markets, did not benefit enough from FDI. On their part, Almfraji and Almsafir (2014) and Seenivasan (2014) provide evidence to the effect that development of the financial sector presents one sure conduit through which countries can reap the FDI-induced benefits

Financial inclusion (FI) is defined in a variety of ways by various organizations. In a broad sense, FI refers to a population's ability to maintain a low-cost account with a financial intermediary that allows account users to save, make purchases through payment services, and borrow funds. Individuals who are not part of the financial system must rely on their meager savings to pay for their schooling or to fund potential income-generating ventures. Financial inclusion is critical to inclusive growth, proffering policy solutions to eradicate the barriers that exclude individuals and business from financial markets. Due to global momentum financial inclusion gained in the last two decades; African countries have made significant headway in promoting financial inclusion throughout the years. The emergence of various modern financial instruments in Africa, such as mobile money, has expanded the financial options available to the poor, young, rural inhabitants, and small and medium enterprises (SMEs) in the fight against poverty (Abor et al., 2018).

Financial inclusion is a process that integrates disparate groups of people under one financial roof, allowing them to receive basic financial services, particularly those with extremely low incomes, the poor and marginalized groups, such as migrants. Not only do these services comprise banking products, but they also contain low-cost services like insurance, pensions, and remittances. In recent years, there have been two primary causes for the rising emphasis on financial inclusion. To begin with, (Gurley and Shaw, 1955; Goldsmith, 1969; Diamond and Dybvig, 1983; Greenwood and Jovanovic, 1990; Angadi, 2003) believe that financial exclusion threatens economic growth. Second, policymakers have noted that, as a result of poverty reduction, financial inclusion can boost GDP (Cull et al., 2014). Financial inclusion's impact on growth, on the other hand, would be incomplete without a discussion of its links to

unemployment, poverty, and income inequality. People who are accessing banking services benefit by putting their money in reputable financial institutions, according to Mehrotra et al. (2009). High economic growth and greater per capita GDP are achieved as a result of the multiplier effect (Ghosh, 2011). Several important empirical studies (Jeanneney and Kpodar, 2011; Beck et al., 2007; Clarke et al., 2006; Burgess and Pande, 2005; Honohan, 2004) have found that access to formal financial services is negatively connected to poverty and inequality. Financial inclusion has increasingly become a very topical among researchers, stakeholders and policymakers especially in developing nations. However, 65% of adults in the poorest developing nations still lack access to a transaction account and only 20% save through a formal financial institution (Pazarbasioglu et al., 2020). According to the Global Findex report in 2017, only 33% of the adult population own a bank account at a formal financial institution in sub-Saharan Africa (SSA), which is less than any other region in the world (Demirguc-Kunt et al., 2018). Primarily, financial inclusion begins with adults owning a transaction account which can be used to save money, send and receive payments (Demirgüç-Kunt et al., 2017). For low-income individuals and households, owning formal bank accounts involve inconveniences and high transaction costs (Beck & Demirgüç-Kunt, 2008; Karlan et al., 2016; Soumaré et al., 2016) but the availability of mobile telephony has helped to reduce the constraints, especially, in rural areas (Andrianaivo & Kpodar, 2011; Pazarbasioglu et al., 2020).

The banking sector is one of the major important essential pillars of any country's economy because of the critical role it plays in enhancing the development and progress of the economic and financial sectors. The commercial banking sector's performance and progress are based on a number of factors, including profitability, expansion, and credit management behavior. The multi-dimensional concept of banking sector growth makes it difficult to identify just one definition of this process, as it is a multi-step process that encompasses both quantity and quality advances in financial services. Savings

mobilization, credit issuance, and risk management are all aspects of the banking system. The ability of a bank to perform these functions efficiently is the criterion by which it is judged.

Africa's banking system has experienced considerable reforms in the previous three decades, following a protracted period of poor performance. The banking sector of most African countries is underdeveloped despite series of reforms. Standley (2010) observes that most banking sector depth indicators in sub-Saharan Africa are low compared to other regions of the world. The low institutional quality in most sub-Saharan African countries is a plausible reason for their lower levels of banking sector development. Anayiotos and Toroyan (2009) opine that the banks in majority of the sub-Saharan African countries conduct business within an environment characterised by weak institutional quality. A recent ranking by Krause (2016) shows that most countries in sub-Saharan Africa rank low on the institutional quality. The underdeveloped nature of banking sector of most sub-Saharan African countries is a plausible reason for the economic backwardness in the region.

Banks act as intermediaries between borrowers and savers. As financial intermediaries, banks provide access, financial diversification and financial utilization to individuals and firms. Financial intermediation is seen as the extent to which financial institutions bring deficit spending units and surplus spending units together. Banks are able to effectively monitor borrowers and thus play the role of delegated monitoring. Reduced monitoring costs are a source of comparative advantage. Among other things, industrial reforms have resulted in the liberalization of interest rates and credit markets across the continent. In a number of African countries, interest rate controls have been replaced with open market activities. In order to reduce inefficiencies in the sector, state-owned banks have been privatized in large numbers (Fosu, 2013). As a result, commercial bank competition has piqued academic attention and continues to consume a huge amount of empirical study. The impact of banking rivalry on economic growth, on the other hand, has received little attention.

1.2 PROBLEM STATEMENT

The effect of financial development on economic growth and FDI to economic growth has separately drawn a good number of researchers to investigate the issues. However, the studies investigating the direct linkage between financial development and foreign direct investment are still scarce (Hanif & Shariff, 2016; Hassan, Das, & Islam, 2016). Few numbers of researchers stressed upon to find the direct linkages. The few studies that have looked into the direct link between foreign direct investment (FDI) and financial development, particularly in emerging areas like Africa are also inclusive. The following examples are the few studies that have affirmed the research gap being identified. A study by Agosin and Mayer (2000) demonstrates varying effect of FDI on financial development for three emerging regions that is Asia, Latin America and Africa. Their results suggest that FDI tends to substitute financial development in Latin America, while it complements financial development in Asia. The results for African economies were inconclusive. Agosin and Machado (2005) also employed the GMM estimation technique to test the effect of FDI on financial development for 36 developing economies in Africa, Latin America and Asia from 1971 to 2000. Their results confirm crowding-out effect of FDI on financial development in Latin America and a neutral effect of FDI on financial development in Africa and Asia. David et al. (2014) in their studies using data from Sub Saharan African economies concluded that, there is no relationship between FDI and financial development. They however contend that trade openness (TO) is vital for financial development for economies characterised by quality institutional. Adeniyi et al. (2015) studied the causal relationship between FDI and financial development in Ghana, Gambia, Nigeria Cote' d'Ivoire and Sierra Leone for the period of 1970–2005 by applying Granger causality tests. Measuring financial development by three variables – liquid liabilities/GDP, banking sector credit/GDP and credit to the private sector/GDP, the findings support the view that FDI matters for financial development in the economies considered except for Nigeria.

Researchers examined economic size and growth, institutional development, economic freedom, religion, cultural distance between nations, inflation, trade openness, financial development, tax rates, and physical infrastructure to establish the economic, social, and cultural determinants of FDI (Saini and Singhania, 2018; Anyanwu and Yameogo, 2015). Several empirical studies have been published on the assessment of which key determinants explain which countries (advanced countries, emerging countries, and least developed countries) attract the most FDI and understanding which factors are the most important predictors of FDI. But there is no general agreement insofar as some studies have not found any statistically significant relation with respect to certain determinants (Assunção et al 2011., Tocar, 2018., Dimitrova et al., 2020). According to Coulibaly (2015), the empirical influence of FDI on financial development is limited, particularly in African countries where, despite the importance of FDI for host countries, the financial sector remains underdeveloped. Agbloyor et al. (2013) believe that increased FDI flows will lead to the development of Africa's local banking industry, based on the 2SLS panel instrumental variable technique. Soumaré and Tchana (2015) discovered that there is reverse causality between FDI and stock market development indicators after conducting an experimental investigation into the causal relationship between FDI and financial development indicators. On the other hand, the link between banking sector development indicators is fuzzy and confusing. FDI money is critical for expanding the banking sector's deposit base, which is then made available to the general population in the form of loans and other credit facilities. Since FDI is assumed to be routed through the banking sector to productive areas. It's uncertain if FDI boosts or stifles the banking sector's growth due to lack of consensus among the above mention studies.

The studies that tried to establish the relationship between FBI and banking sector development (BSD) empirically used a proxy of three or one measure to capture BSD. There is lack of consensus among researchers on the adequate measure to capture banking sector development and myriad of empirical

studies have used a single measure, commonly private sector credit to Gross Domestic Product (GDP). A single measure would not suffice to provide a comprehensive information on banking sector development (Svirydzenka, 2016). This is due to the multidimensional nature of banking sector development. Cihak, Demirgu¨ç-Kunt, Feyen, and Levine (2013) identify four dimensions of banking sector development which include depth, access, efficiency, and stability. This study addressed this gap by developing a composite index from six different measures of banking sector development, taking into consideration all dimensions of banking sector development.

Financial sector development (FSD) and financial inclusion (FI) have been a hot topic among policymakers, academia, development partners, and global development financing organizations due to the enormous consequences they have on economic growth. Since FSD is becoming a more important source of finances, it continues to play an essential role in Sub-Saharan Africa, with consequences for financial inclusion, macroeconomic policy, and stability. Due to a lack of awareness of the bidirectional causality between the two, policymakers may target either financial inclusion or FSD as a policy goal when they are actually outcome variables of each other. In Sub-Saharan Africa, there is evidence of a reverse causality between financial inclusion and FSD. In this way, financial inclusion and FSD are mutually reinforcing. Unlike previous studies that suggested that financial inclusion could impede FSD as a result of subprime lending, this reverse causality has policy implications because financial inclusion and FSD are complementary rather than antagonistic (Khan, 2011).

The level of financial inclusion and FSD has a significant impact on each other. Increased financial inclusion could assist the boost of FSD since the number of individuals with access to finance is an indicator of the degree of financial inclusion, which also aids the development of the financial sector in an economy. In addition, the level of FSD influences the level of financial inclusion. In a study published in 2019 by Anarfo et al. discovered bidirectional causality between FSD and financial

inclusion in both the Sub-Saharan Africa countries sample and the entire Africa sample. Financial inclusion clearly drives FSD, and vice versa. This suggests that because FSD is a financial inclusion outcome variable, it should not be sought solely as a policy goal and vice versa. While policymakers continue to look to scholars for suggestions on how to effectively implement financial inclusion measures, there is a dearth of research in this area. Although the reverse causation between financial inclusion and FSD has been proven in the research above, it is unclear which component of financial sector development is responsible for that reverse causality. As a result, the goal of the research is to find an empirical link between banking sector development and financial inclusion.

Due to the above skeptical in literature; this research has been motivated to empirically examine the effect of FDI on financial inclusion, banking sector development and both FDI and financial inclusion's interactive effect on banking sector development in Africa.

1.3 RESEARCH OBJECTIVES

To establish the relationship between FDI and financial inclusion, as well as FDI and banking sector development, the study investigates the interaction effect of FDI and financial inclusion on banking sector development. The following are the specific research objectives:

i. To examine the effect of FDI on Financial Inclusion (FI).

ii. To ascertain the effect of FDI on Banking Sector Development (BSD).

iii. To examine the interaction effect of FDI and Financial Inclusion (FI) on Banking Sector Development (BSD).

1.4 RESEARCH QUESTIONS

The following research questions are established to guide the study in order to fulfill the study's objectives:

i. What is the effect of FDI on Financial Inclusion?

ii. What is the effect of FDI on Banking Sector Development?

iii. What is the interaction effect of FDI and Financial Inclusion on Banking Sector Development?

1.5 SIGNIFICANCE OF THE RESAERCH

The majority of researches in the literature have concentrated on financial inclusion, financial development, and economic growth, which has some skepticism. In the literature, there has been no study of the effect or influence of FDI on financial inclusion. Although considerable research has been done on the influence of FDI on income inequality and other aspects of financial inclusion, the results are inconclusive. As a result, the focus of this research will be on the overall impact of FDI on financial inclusion.

Furthermore, the literature has given little or no attention to the influence of FDI on the development of the banking sector. The vast majority of FDI, financial development, and economic growth research have discovered faults. In fact, this study focuses on the impact of FDI on bank-based financial development (banking sector development).

The study, as the first of its kind, is expected to provide a solid foundation for policymakers and economic players to use FDI to improve financial inclusion and banking sector development in Africa and other developing countries, thereby raising living standards and eradicating unemployment and poverty. It would also serve as a foundation and direction for future research projects.

1.6 RESEARCH LIMITATION

The study focuses primarily on the impact of FDI on FI and Banking Sector Development, and the interaction effect of both FDI and FI on Banking Sector Development in Africa, and hence cannot be applied to difficulties in other regions of the world. The main limitation to this study is the unavailability of sufficient data for all the African countries used in the study. Since the results of the study shall be generalized to cover all countries within Africa, although there is no sufficient data available for all countries within the period under study. The study is somehow new so not getting substantial amount of literature to support it, will constrain the generalization of the study.

1.7 ORGANIZATION OF THE RESEARCH

The research is divided into six chapters. The research background, problem statement, research objectives, and research questions, as well as the significance of the research, research limitations, and research structure, are all included in Chapter 1. The Chapter 2 presents introduction, overview and stylized facts of FDI, FI and banking sector development in Africa and chapter summary. The Chapter 3 contains the literature review, which consist of introduction, theoretical framework, empirical literature review of FDI, financial inclusion and banking sector development and chapter summary. The Chapter 4 presents the research methodology employed for the study. And it consists of data and sources, estimation strategy, the model specification and variable description. The Chapter 5 presents discussion of empirical findings. It outlines are; introduction, summary descriptive statistics, correlation matrix, pca result used in construction of financial inclusion index, pca result used in construction of banking sector development index, correlation matrices of regression variables, diagnostic test, the interpretation and discussion of empirical results. The Chapter 6 consists of the summary of the study, conclusions, policy recommendations and future research.

CHAPTER TWO

OVERVIEW AND STYLISED FACTS OF FOREIGN DIRECT INVESTMENT, FINANCIAL INCLUSION AND BANKING SECTOR DEVELOPMENT

2.1 INTRODUCTION

This chapter presents an overview of the Foreign Direct Investment (FDI), Financial Inclusion (FI) and Banking Sector Development in Africa (BSD) as a whole. It also presents stylized facts as well as trends of Foreign Direct Investment, Financial Inclusion and Banking Sector Development in African countries with the aim of setting the study within in a context. The overview talks about the importance and the roles of foreign direct investment, financial inclusion and banking sector development in Africa**.** In stylized facts, the metamorphosis and trends of FDI, FI, and BSD are enumerated.

2.2.1 OVERVIEW AND STYLIZED FACTS ON FOREIGN DIRECT INVESTMENT

For globalization and the global economy, FDI is a critical component. It is a catalyst for job creation, technical advancement, productivity gains, and eventually the acceleration and sustainability of long-term economic growth. The vital role that FDI plays in developing nations in terms of development, investment, foreign exchange, and tax revenue is evidenced by the fact that it fills gaps in development, investment, foreign exchange, and tax revenue (Smith, 1997; Quazi, 2007). Transferring modern technology, integrating into the global economy, increasing domestic savings, creating and growing jobs, improving efficiency, developing local suppliers, and improving local people's abilities are all examples of how FDI can aid Africa's development efforts (Dupasquier and Osakwe, 2003; Anyanwu, 2006). Furthermore, by acting as a stimulus for economic diversification and providing a large source of long-term finance for infrastructure and other developmental projects, FDI is assisting African countries in moving beyond their over-reliance on natural resources. These countries' recent economic policies

reflect this understanding. Mostly if not all, some African countries have changed their economic policies to improve their investment climate and promote their enterprises in order to attract more money. Economic reforms initiated and endorsed by the World Bank and the International Monetary Fund in the early 1990s permitted multinational corporations to enter Africa. To achieve this, African countries have offered significant incentives, such as significant tax reductions for foreign investments in a range of important sectors and extensive incentive packages for international investors. FDI inflows to African countries have remained disappointing despite all of these efforts. In the previous two decades, FDI flows to African countries have dropped in relative terms after expanding in absolute terms (Onyeiwu and Shrestha, 2004). One of the most likely acceptable explanations for African countries' failure to attract substantial quantities of FDI is their inability to combine economic changes with political and institutional reforms in order to build effective institutions and improve governance. According to Ngowi (2001), Africa has attracted little foreign direct investment since most African countries are perceived as high-risk by foreign investors due to a lack of political and institutional stability and predictability. Using fixed and random-effect models based on a panel dataset for 29 African nations from 1975 to 1999, Onyeiwu and Shrestha (2004) analyze whether the stylized determinant of FDI influences FDI flows in traditional ways to Africa. The most important determinants driving FDI flows to Africa have been identified as economic growth, inflation, trade openness, international reserves, and natural resource availability. Political rights and infrastructure, on the other hand, have been found to have no impact on FDI flows to Africa. Asiedu (2002) looked into whether the factors that influence FDI flows into Sub-Saharan African (SSA) countries are the same as those that influence FDI in rising markets. She looked at cross-section data from 71 developing countries and discovered that some characteristics that are crucial for FDI flows to developing countries aren't as

important for FDI flows to sub-Saharan Africa. Two examples are the rate of return on investment and improved infrastructure.

FDI is desired around the world for its ability to facilitate technological transfers, create jobs, increase domestic output, and expand international market networks, among other things. The dynamic and rapid improvements in technological change have propelled the steady rise in FDI with growing integration between countries around the world during the last two decades. FDI to developing countries has expanded dramatically over the last decade, according to the World Bank (2001), growing from $24 billion (24 percent of total foreign investment) in 1990 to $178 billion (61 percent of total foreign investment) in 2000. Despite the fact that this is wonderful news, Africa did not benefit from the FDI boom despite its best efforts. This is particularly true for countries with limited access to international capital markets. For example, FDI into Africa increased by 59 percent between 1980 and 1989 and 1990 to 1998. This is disproportionate when compared to the large increases of 455 percent in Latin America and the Caribbean, 5,200 percent in Europe and Central Asia, 740 percent in South Asia, 942 percent in East Asia and Pacific, and 672 percent in all emerging countries. Actual FDI inflows into all African countries increased steadily from $5 billion to $20 billion from the early 1990s to the late 1990s. In comparison to the global average growth rate of 20%, this equates to an annual average growth rate of around 18% for the same time period. Foreign direct investment (FDI) into African countries increased considerably in the early 2000s, from roughly $35 billion to nearly $73 billion in 2008, and has continued to expand. Nonetheless, as a result of the international financial problems, African countries' FDI flows have been dropping in 2009 and 2010. FDI flow decreased from $73 billion in 2008 to $60.2 billion in 2009, and then further decreased to around $55 billion in 2010. (UNCTAD, 2010). Even though FDI flows globally have been rising but is not at the same rate as compare to the pre-global financial crisis periods according to the World Investment Report, 2011. Specifically, in 2010 it rose to

$1.24 trillion which is about 15 per cent below the pre-crisis average (UNCTAD, 2011). In 2010, MNC operations added nearly $16 trillion in value to the global economy, accounting for one-quarter of global GDP. Multinational firms' foreign affiliates account for one-third of global exports and over 10% of global GDP. Foreign direct investment into Africa fell by 9% in 2010. In 2010, Africa got 4.4 percent ($55 billion) of overall global FDI inflows, down from 5.1 percent in 2009.However, the primary sector, particularly the oil industry, continues to dominate the attraction of FDI flows to the African continent. Though FDI flows to the oil industry have increased, inflows to Angola and Nigeria have decreased. But the story for Ghana is different; it has risen as a major host country. The northern Africa political uprisings (Arab springs) and the indecisions of Nigeria's petroleum industry bill and political instability in the Niger Delta served as inhibitions to foreign investors. With regard to the relationship within African countries is no doubt how regional FDI is generating significant positive developments to the host countries. For instance, in Zambia the state of agriculture is regenerated through the foreign investments in agriculture.

In order to attract this regional foreign investment in services, agriculture, as well as the banking and finance industry; other countries have provided incentives as a catalyst (UNCTAD, 2011). FDI flows to Africa climbed by 11% from 2017 to 2018, hitting $46 billion, but remain below the 10-year average ($50 billion), according to (UNCTAD, 2019). Resource-seeking investments, a continuous expansion of various investments in a few economies, and a more than doubling of FDI flows to South Africa (from $2 billion to $5.3 billion) all contributed to the expansion. The potential for expansion in Africa is the key motivator for investment. Until recently, Africa had been growing steadily and has been one of the world's fastest-growing areas for several years (IMF, 2013). Despite the decline in FDI, multinational companies continue to see Africa as a potential investment destination. Africa received $42 billion in

foreign direct investment in 2017, (UNCTAD, 2018). The United States, the United Kingdom, and France are the top three (3) investors in Africa, followed by China.

2.2.2 OVERVIEW AND STYLIZED FACTS ON FINANCIAL INCLUSION

African countries have focused their efforts on reducing poverty, inequality, and unemployment in order to achieve their socioeconomic goals. Despite the continent's tremendous economic expansion since 1990s, inequality, poverty, and unemployment remain high (African Development Bank, 2018). For the past two decades, the extent to which financial systems and institutions are covered has been a key topic of discussion around the world. This hot topic is the term "financial inclusion" or "financial exclusion," which has received a lot of attention (Bhanot et al., 2012; Hasnol et al, 2013). Financial inclusion refers to how vulnerable and low-income individuals are included in a country's financial services so that they are not left out of financial products and services (Sinclair, 2013). Financial inclusion has been designated as a means of attaining seven (7) of the United Nations' seventeen (17) Sustainable Development Goals (SDGs) to secure prosperity for people and the planet, hence policy measures must be enacted to assure its effectiveness in African countries (Klapper et al., 2016). African countries have made significant progress in promoting financial inclusion throughout the years. The emergence of various modern financial instruments in Africa, such as mobile money, has expanded the financial options available to the poor, youth, rural inhabitants, and small and medium businesses (SMEs) in the fight against poverty (Abor et al., 2018).

Africa is a continent with enormous potential and a wide range of options. Its burgeoning youth population and fast urbanization have attracted a slew of new investors. Exchange rate changes and a drop in commodity prices, on the other hand, have caused uncertainty in the region. Furthermore, African GDP growth is among the highest in the world, despite the fact that it began from a relatively low base. The continent's economies saw one of the longest consecutive periods of high growth (over

6% on average) in history during the 2000s. The majority of African countries are wracked by extreme poverty and unacceptably high unemployment rates. It's also important to remember that most residents, especially in the past, have been financially disadvantaged. This exacerbates the economy's underlying imbalances. Financial inclusion has been regarded as a major element of socio-economic development in Africa in order to address financial difficulties and lower the extent of shadow banking. In most African countries, it is a major policy priority aimed at alleviating poverty and establishing new economic prospects for possible job creation and youth employment (Varghese and Viswanathan, 2018). Financial inclusion has lately been adopted and incorporated into the financial system framework by Africa's central banks, with a variety of financial legislation and reforms aimed at bringing low-income people into the official financial system. The framework serves as a road map for Africa's financial system's development, with the purpose of developing innovative financial products, a more efficient payment system, more inclusive lending regulations, and encouraging a savings culture. Simultaneously, most countries establish Microfinance Bank Policy, which acts as a framework for promoting financial inclusion at the grassroots level. The most major barrier to financial inclusion, according to Zins and Weil (2016), is a lack of funds. They believe that the African continent is in the vanguard of mobile money banking, particularly in East Africa, where more than 73 percent of Kenyans are mobile money consumers, after analyzing the World Bank's worldwide findex database on 37 African nations to generate Probit calculations. They went on to say that 36 of the 54 countries in Sub-Saharan Africa had signed up for mobile banking services. Almost 2.5 billion people in low-to-middle-income nations do not have access to banking services. They also show how Africans save differently than people in other parts of the world. That is, the primary motivations for saving in Africa are for school (21.3%), farm or company (19.6%), and old age (10.3 per cent). While relatives and friends are the most common source of credit in Africa, official accounts only account for 6.7 percent of total borrowing. In 2011, for

example, financial inclusion in Sub-Saharan Africa was slightly over 23%. It was over 43% in 2017, with digital financial services accounting for a large portion of the rise. In Africa, the majority of adults today have access to a formal banking system. Youths were able to find work and start businesses as a result of this progress. Micro and medium enterprises now have access to simple banking transactions, which has resulted in a reasonable amount of growth, job creation, and poverty alleviation. Financial inclusion has opened up options in terms of technology, allowing businesses to better their database analytics and start new businesses (Okpara and Koumbiachs, 2009; ADB report, 2018).

2.2.3 OVERVIEW AND STYLISED FACTS ON BANKING SECTOR DEVELOPMENT

The banking industry is vital to the growth of the economy (Bushman, 2014). Indeed, the manner in which a financial system distributes capital to potential investment opportunities has a large and positive impact on long-term economic growth (Levine, 2005). The recent 2008 financial crisis, which began in the banking sector, highlighted the banking industry's importance in the macroeconomic climate, as well as the importance of accurate reporting and good regulation. Over the previous thirty years, a great majority of Africa's 10 countries have implemented a series of financial reforms to grow the continent's banking system. State-owned banks were reformed, a monetary policy framework was established, a financial regulatory and supervisory framework was established, interest rate controls and lending ceilings were eliminated, and capital account liberalization was implemented (Motelle and Biekpe, 2014). In 1980, for example, South Africa repealed credit restrictions and interest rate controls. Furthermore, in 1995, the financial rand exchange control system for non-residents was removed. Citizens' exchange limitations were also modified in 1997, allowing them to invest a limited amount of money overseas and maintain foreign currency accounts with local institutions. Ghana began its reform effort in 1987 with the partial liberalization of interest rates, which was followed in 1988 by the removal of sectoral credit limitations. These patterns were found in all ten Frontier African countries. The limited

banking sector development in most African countries is owing to their geographic location and population density. Huang (2010a) claims that geography has an impact on both the demand and supply sides of the financial sector's development. Land extent, lack of access to the coast and rivers that flow into the sea (landlocked), and population density are all likely factors in the banking sector's growth. According to Beck and colleagues, countries near the equator have a higher prevalence of undeveloped financial systems than those farther away (Beck et al., 2003a). Countries with bigger geographical areas have lower levels of financial sector growth, according to Huang (2010a). Landlocked countries' banking sector development may be hampered by limited access to ocean water transportation, limited access to external commerce, and greater transportation costs of goods compared to non-landlocked countries. According to Allen et al. (2014), population density is more essential in Africa than in other parts of the world for the development of the banking sector. According to them, several African countries' banking systems are undeveloped as a result of their low population density.

Banking sector provides opportunities for income production, savings, investments, and loan availability, and is critical to economic development, particularly in developing countries (Otchere et al., 2017). As part of IMF and World Bank-assisted structural adjustment attempts in the 1990s, the majority of African countries liberalized their banking systems. The restructuring and privatization of state-owned banks, as well as the lowering of lending ceilings and interest rate deregulation, are among the most significant measures. The financial systems of Nigeria, Malawi, Botswana, South Africa, and the Seychelles are all well-capitalized and innovative (Allen et al., 2011). Africa's principal source of external financing is banks. However, the financial sectors of most African countries remain underdeveloped (Otchere et al., 2017), and poor institutional quality in many countries may play a role. Due to economic, political, and cultural differences, Africa's banking system differs despite many similarities. Central banks and deposit-taking institutions make up the majority of Africa's banking

sector (local banks and international bank branches or subsidiaries). Despite their seeming independence from government power, central banks aid governments in designing and implementing macroeconomic policies (Allen et al., 2011). In Dakar, Senegal, the countries of French West Africa, in particular, have a joint Central Bank of West African States. In most countries, state-owned banks or a few large banks, some of which are multinational, dominate the banking sector. Indeed, multinational banks' presence in many African countries has assisted banking sector development by raising competition and introducing banking techniques such as corporate governance and innovation (Nyantakyi and Sy, 2015). Geographical factors, according to Huang, can influence both the demand and supply sides of financial sector development (2010a). Land area, lack of access to the coast and rivers that flow into the sea (landlocked), and population density are all likely factors in the banking sector's development. As they approach closer to the equator, countries with a less developed financial system are more likely to experience it (Beck et al., 2003a). According to Huang, countries with larger geographical areas have lower levels of financial sector growth (2010a). Landlocked countries have limited access to ocean water transportation, which could stifle banking sector growth due to a lack of external trade or greater commodity transportation costs than non-landlocked countries. According to Allen et al., the development of the banking business in African countries is more dependent on population density than in other parts of the world (2014). They say that the undeveloped financial systems in several African countries are due to low population density.

2.4 CHAPTER SUMMARY

Foreign direct investment (FDI) is a driver for economic diversification in Africa, allowing the continent's economy to shift away from natural resource dependence. FDI inflows to Sub-Saharan Africa (SSA) increased by 59 percent from 1980 -1989 to 1990 -1998. From the early 1990s to the late 1990s, actual FDI inflows into all African countries climbed consistently from roughly $5 billion to

around $20 billion. Compared to a global average growth rate of 20%, this equates to an annual average growth rate of around 18% for the same time period. FDI flows to African countries have steadily climbed since the early 2000s, growing from around $35 billion in 2000 to around $73 billion in 2008.

Despite substantial economic growth throughout the 1990s, inequality, poverty, and unemployment remain high in Africa, according to the African Development Bank's (2018) study. The level of coverage of financial systems and institutions is a big subject that has acquired a lot of traction in the recent two decades around the world. As former United Nations Secretary-General Kofi Annan put it, FI is a critical public policy goal and a worldwide socioeconomic development panacea. “The stark reality is that most poorer people in the world still lack access to sustainable financial services, whether it is savings, credit or insurance. The great challenge before us is to address the constraints that exclude people from full participation in the financial sector. Together, we can and must build inclusive financial sectors that help people improve their lives.”

The financial sector plays a crucial part in the growth of the economy (Bushman, 2014). The devastation wrought by the global financial crisis of 2008, which originated in the banking sector, underlines the banking sector's importance in the macroeconomic environment and emphasizes the importance of correct reporting and regulation. The majority of African countries have launched a series of financial reforms in order to expand the continent's banking industry over the previous three or four decades. The reform process included the restructuring of badly run state-owned banks, the creation of a new financial regulatory and supervisory framework, a new monetary policy framework, the removal of interest rate controls and lending ceilings, and capital account liberalization (Motelle and Biekpe, 2014)

CHAPTER THREE

LITERATURE REVIEW

3.1 INTRODUCTION

Theoretical and empirical literature reviews of FDI, financial inclusion (FI), and banking sector development (BSD) are all included in this chapter. The theoretical literature discusses various theories that underpin the study, while the empirical literature reviews some related studies done around the world in relation to FDI, FI, and BSD, particularly those done in Africa, in order to put the study and its findings in proper perspective.

3.2 THEORETICAL FRAMEWORK

Many hypotheses have been proposed to explain the behavior of FDI, financial inclusion, and the development of the banking sector. Electric Theory, Theory of the Multinational Enterprise (MNE), and Endogenous Optimum Currency Area Hypothesis are among the theories considered significant for this study.

3.2.1 ECLECTIC THEORY

The FDI theory (also known as the OLI paradigm) was proposed by Dunning (1993/2000). The three kinds of criteria in the paradigm determine whether a company, industry, or corporation is a source of foreign direct investment or a host of it. Ownership benefits, locational considerations, and internalization are the three categories. Ownership benefits are those that are specific to the business. Expanding into the home market could be an alternative method because the company has such a competitive advantage over both domestic and global competition. Technology, size and diversification, management and organizational skills, access to or control over raw materials, the ability to enlist the political support of their government, access to favorable financing terms in both foreign and domestic

markets, and the ease with which the firm can shift production between two countries are all examples of such advantages.

Transportation costs for finished goods and raw materials, import restrictions, the company's ability to operate in another country, ownership benefits that combine profitability with factor endowments in other countries, tax policies in both the source and host countries, and political stability in the destination country are all considered. Internalization gains are the factors that a corporation analyzes that make conducting transactions within the organization rather than relying on external marketplaces more advantageous. Market flaws (uncertainty, difficulty of control, economies of scale, and information asymmetry to a prospective customer, are examples) must be avoided in order to realize such profits. However, the existence of ownership advantages is, to some part, the bedrock on which internalization gains clearly rely. The eclectic theory of FDI is predicated on the fact that all three types of circumstances must be met before FDI can occur.

3.2.2 THEORY OF THE MULTINATIONAL ENTERPRISE (MNE)

The notion of the multinational enterprise (MNE) dominates the international literature on banks' worldwide growth, explaining why multinational banks provide transaction services through direct presence rather than through the free market (Gray & Gray, 1981; Grubel, 1977; Sabi, 1988; Williams, 1997). Efficiency improvements (or X-efficiency) can be gained in the form of lower costs or increased revenues, according to the larger international banking literature. Indeed, geographic expansion allows banks to enter new markets when domestic growth is limited (for example, the latter justified globalisation of Japanese economic environments, thus reducing variation in the organizations' earnings (Aggarwal & Durnford, 1989; Berger & DeYoung, 2001); and to exploit internationally high domestic market to book ratios, as the easy availability of capital appears to provide bankers with a significant

competitive edge (Aliber,1984). (Marr, Rogowski, & Trimble,1989; Aggarwal & Durnford, 1989; Berger &DeYoung, 2001); and to take advantage of internationally high domestic market to book ratios (Aliber, 1984), because easy access to capital appears to give bankers a significant competitive advantage in global markets (Aggarwal & Durnford, 1989; Berger & DeYoung, 2001); and (Marr, Rogowski, and Trimble, 1989.)

3.2.3 ENDOGENOUS OPTIMUM CURRENCY AREA HYPOTHESIS

Barriers to trade, according to Mundell, who popularized this thesis in 1973, led to an increase in foreign direct investment inflow. Foreign direct investment capital market theory is another name for it. To overcome a trade barrier between countries, the Endogenous Optimum Currency Area Hypothesis is offered. It is thought that for any business entity to overcome such a barrier, it is necessary for such an entity to incur the risk of entering the target country, establish up business machineries for production, and make products or services available for sale, which is the best alternative. The Toyota of Japan vehicle production factory in the United States, which makes Lexus cars, fits within Mundell's Endogenous Optimum Currency Area Hypothesis, which allows foreign autos to avoid US obstacles (Louangrath, 2014). The similar method is used at Nissan Motors of Japan's production unit in the United States, which makes Infinity automobiles. Foreign investment, according to Makoni (2015), arose as a result of capital market flaws in general. While this capital market theory holds true in developed countries such as the United States, the United Kingdom, and Canada, later researchers have challenged it for ignoring basic currency risk management concepts (Makoni, 2015).

3.2.4 FDI - BANKING SECTOR DEVELOPMENT NEXUS

Foreign direct investment to African economies improves the availability of domestic capital which serves as the launch of transition process of the financial system of these economies (Lane and

Mcquade, 2014). The development of the banking sector as a result of capital availability through takeovers and greenfield investment is good evidence to the effect that access to credit is improved (Elekdag and Wu, 2011). Foreign investors interact with domestic banking agents. The extent to which foreign investors as well as domestic investors can appreciate and adopt new technologies due to FDI is partly dependent on their relationship with their bankers. FDI in itself may help overcome the credit constraints faced by local firms in developing countries (see Zakaria, 2007). Another dimension to the FDI–bank nexus is that this relationship may determine whether FDI is undertaken in the first place and the subsequent volume of future FDI. For example, Klein et al. (2002) find that in response to deteriorations of domestic banks' financial health in the early 1990s, Japanese firms cut back on US direct investment substantially. They also posit that financial conditions of creditors, especially banks with which firms have developed close relationships, drive FDI by changing the availability of credit. FDI money is critical for expanding the banking sector's deposit base, which is then made available to the general population in the form of loans and other credit facilities.

When foreign firms enter into a domestic economy, they make use of the domestic financial markets. They will most likely open a local bank account. When they have funds in their accounts, the bank can then use part of those funds for their lending activities. Due to the fact that these enterprises are big accounts for banks, a lot of funds become available to the banking sector to intermediate. These enterprises are also more likely to demand higher quality internationally comparable services. The presence of these foreign investors should promote domestic banking sector development.

3.2.5 FDI - FINANCIAL INCLUSION NEXUS

Although there are no established theoretical and empirical relationships between FDI and Financial inclusion (FI) in the literature to the best knowledge of the author, the theoretical intuition supports that an increase in FDI inflow will result in a subsequent rise in money supply into the economy which will

increase the financial intermediation. A well-developed financial system can act as a sign of validity, openness, and market-friendly environment, which subsequently attracts foreign investors, hence remarkable economic development which will spillover to businesses and individuals in the economy. Financial inclusion has been a significant focus for policymakers, industry leaders, and academics (Iram et al. 2020; Ahmad et al. 2022). This is because everyone stands to gain from widespread access to financial services. Most people agree that increased access to the financial system is a powerful weapon in the fight against poverty and narrowing the wealth gap.

It is essential to state that, FDI brings with it technological expertise. Multinationals are deemed to have a superior technology relative to domestic firms (Markusen, 2002), hence, FDI inflow by acquisition, joint venture or other capital transfer methods may result in the setting up of foreign technology in the domestic firm. These developments could manifest themselves in increasing innovative activity that would result in an improved access to credit by businesses. Examination of the relevant literature will show that most of the statistics go in the direction that inclusion decreases financial limitations for both people and enterprises, increases income and aids in economic growth, and lowers poverty rates.

Consequently, increase in FDI inflows could change the access to credit opportunities for domestic firms (Harrison and McMillan, 2003). Girma et al. (2008) found FDI inflow to various sectors level to be positively related with domestic innovative activity and improve access to domestic finance. Many nations realize that expanding access to financial services is crucial to fostering long-term growth that can support the economy (Kim et al. 2017). The term "financial inclusion" refers to the availability and use of formal banking services, both of which are necessary for individuals and enterprises to be called "financially included" (Chiu and Lee 2020; Hasan and Liu 2022). More people will be able to utilize the services and products supplied by financial institutions. Due to the high level of efficiency and technological expertise and advancement that FDI brings, more people are encouraged to join formal

financial institutions The term “financial inclusion” is often used to describe the effort to increase the availability of banking and other financial services to those living in low-income and underprivileged areas.

3.2.6 FDI -FINANCIAL INCLUSION- BANKING SECTOR DEVELOPMENT

FDI inflows to African economies are expected to supplement domestic savings mobilization to achieve the desired level of growth. However, FDI has been argued to play a complementary role by providing financial resources vital for boosting access to credit by the private (Mbulawa,2015). According to the study of Iram et al. (2020) suggested that people who have access to a wide range of financial services are more likely to save money and make better use of their savings. The impact of capital available on the long-term viability of Armenia’s small and medium-sized enterprises (SMEs) was studied by Jalil and Feridun (2011). According to Zhang et al. (2021), an inclusive financial system may increase low-interest deposits, which can help banks save money on their marginal funding costs and provide them with more bargaining leverage in the money market. If banks establish an inclusive financial system to increase low-interest deposits, these potential advantages of financial inclusion might be realized. This would happen if more people have access to financial services due to the positive effect of financial inclusion.

The inflow of foreign investment to certain hitherto isolated areas may attract financial services to these areas which may markedly improve financial inclusion. Greater improvement in financial inclusion by way of access to financial services can also further attract FDI bringing about bidirectional causality between financial inclusion and FDI. The same scenario can also hold for banking sector development as the inflow of foreign capital can greatly stimulate the provision of credit facilities to these investments by banks in order to partake in their investment returns. These banks can also create financial incentives to attract foreign capital which thus brings about financial and sustainable

development to the economy in which they are operating. Several arguments have been made for why it is vital to aim toward a higher degree of financial inclusion. These arguments help to paint a picture of how financial inclusion could contribute to monetary security. From a macroeconomic perspective, more readily accessible credit might mean that banks and other financial institutions have access to more funding. The banking and finance industries may benefit when more people have access to credit, and more people can join the economy, which has a multiplier effect that helps the economy grow that benefits all segments of society

3.3 EMPIRICAL LITERATURE REVIEW

There is no evidence on the study of the effect of FDI on financial inclusion (FI) as well as the interaction effect of FDI and financial inclusion on the banking sector in the literature. But there are few studies that exist on the area of interest. Despite the paucity of empirical evidence on the effects of FDI on banking sector development in the literature; they are also inconclusive. A few of these studies are reviewed here.

3.3.1 THE EFFECT OF FDI ON FINANCIAL INCLUSION

FDI inflow is an important factor for economic growth, and many countries try to attract it. The advantage of foreign direct investment might be by way of information and technology overflow, job creation, and business development. The technology transfer, the job creation and business development through FDI increases accessibility and provides financial services at a low cost to the unbanked and poor people of the country, including educating and encouraging them towards financial services. The promotion of an inclusive financial system is a policy priority in many countries in recent years (Sarma, 2012), which highlights the issue of financial inclusion—means that all economic agents have access to formal financial services and can use such services effectively (Ahamed & Mallick, 2019).

Klapper and Singer (2015) looked into and confirmed the use of informal savings and borrowing methods in African countries in the literature. Financial innovation, such as mobile money due to technological advancement by the presence of FDI aims to increase financial inclusion by allowing the middle class, women, the poor, the less educated, rural settlers, and the unemployed to use financial services at any time. Previous research has suggested that people's demographic and socioeconomic have characteristics an impact on financial inclusion in developing countries, and these findings support that idea. Financial inclusion has been shown to increase growth by eliminating poverty, according to policymakers (Cull et al., 2014). Social factors such as gender and the location of financial services have a substantial impact on financial inclusion in a developing country like Uganda, according to recent research by Irankunda and Van Bergeijk (2019).

The study took into account other demographic factors such as age, marital status, and educational level. Due to the relevance of financial inclusion on economic growth, Soumare et al. (2016) study the factors that influence financial inclusion in Central and West Africa. Gender, age, education, income, home location, marital status, and work status are all considered key factors in financial inclusion in Africa's central and western sub-regions, and the findings of this study are consistent with previous research. The size of the household and the level of trust in financial institutions are two more socioeconomic factors that influence financial inclusion in both sectors. According to a prior study by Demirguc-Kunt and Klapper, individual characteristics such as income, education, and trust are drivers of financial inclusion in Africa (2012a, b). Low account maintenance costs, geographic accessibility of financial intermediaries, and fewer document requirements for account opening are all factors that impact the decision to utilize a financial service (Allen et al., 2012).

3.3.2 THE EFFECT OF FDI ON BANKING SECTOR DEVELOPMENT

FDI is believed to be a crucial determinant of credit growth and a cause of credit booms (Lane and Mcquade, 2014; Calderon and Kubota, 2012; Mendoza and Terrones, 2012; Elekdag and Wu, 2011; Sa, 2006; Hernández and Landerretche, 2002). There are strands of diverse empirical studies that exist in the literature about the effect of FDI on banking sector development with findings that report contradictory results. Starting with some few studies that found a positive impact of FDI on banking sector development in the literature.

Foreign direct investment to African economies improves the availability of domestic capital which serves as the launch of transition process of the financial system of these economies (Lane and Mcquade, 2014). The development of the banking sector as a result of capital availability through takeovers and greenfield investment is good evidence to the effect that access to credit is improved (Elekdag and Wu, 2011). FDI helps overcome the credit constraints faced by local firms in developing countries (see Zakaria, 2007). Agbloyor et al. (2013) believe that increased FDI flows will lead to the development of Africa's local banking industry, based on the 2SLS panel instrumental variable technique. Oteng-Ababio et al. (2016) investigated the effect of FDI on the banking sector performance using some selected banks in Ghana. The study confirmed a positive and significant correlation between FDI, banks' capital base and the liquidity of the selected banks in Ghana.

The presence of foreign banks, according to Gamariel (2015), promotes competition while also forcing domestic banks to pursue efficiency goals in order to stay profitable. FDI inflows, according to Konara et al. (2019), provide foreign and domestic banks with a variety of volumes and types of efficiency improvements. Sissy et al. (2017) discovered evidence of a favorable relationship between foreign bank presence and bank risk adjusted profits earned by diversification in 38 African countries. Foreign banks, they argue, force local banks to diversify into previously untapped areas, non-traditional banking

operations, and product innovations in order to increase profitability and stability. Furthermore, empirical research using de facto financial integration indicators often shows that the latent benefits of increased international capital mobility, as well as higher participation rates, improve bank profitability in general (Mishkin, 2007). Similarly, Pohl (2011) shows that as a result of foreign bank entry, technical and regulatory spillovers improve the efficiency and profitability of African banks.

Touching on other empirical studies which also reports negative impact of FDI on banking sector development in the World and Africa in the literature. Hanif and Shariff (2016) contend that there is no established theory to confirm the relationships between FDI and financial development. The increased money supply will flow through the two main veins of the financial system, namely the baking system and stock market, which will increase the financial intermediation. On the other hand, a well-developed financial system acts as a sign of validity, openness, and market-friendly environment, which attracts foreign investors. Based on cointegration and granger causality techniques Hanif and Shariff (2016) empirically studied a five economies panel from ASEAN zone namely, Malaysia, Indonesia, Singapore, Thailand, and the Philippines, for a period from 1990 to 2011. Their study finds that the FDI and banking sector of the ASEAN panel does not cause each other meaning that there is little evidence that FDI can boost the banking sector of ASEAN economies. On the contrary, they also found a bidirectional causal relationship between financial development and FDIs which partially supports his theories.

A similar relationship is investigated by Soumaré and Tchana (2015) who analyzed 29 emerging economies for the time span of 1994-2006. They empirically found a very positive and significant bidirectional relationship between FDI and stock market indicators while FDI and banking indicators are found to be ambiguous and inconclusive. An inadequate banking system, according to Antras et al. (2009), pushes foreign and domestic companies to rely excessively on external sources, resulting in foreign firms' activities being constrained and low economic growth.

3.3.3 THE INTERACTION EFFECT OF FDI AND FINANCIAL INCLUSION ON BANKING SECTOR DEVELOPMENT

FDI can solve problems commonly faced by the banking industry, such as financial product shortage and inefficient management, and create more effective risk management tools and financial product development (OECD, 2002; Magnus et al., 2008). According to Alfaro (2003), foreign direct investment is not only a source of capital supply but also a source of transferring useful technology and know-how to the host countries through promoting connection with local countries' enterprises. If transferred technology is used in the financial sector, it can act as an instrument to improve a platform that helps to broaden the financial services in access areas. Also, technology helps banks decrease their cost to increase the reachability of the financial service to customers, which increases the financial inclusion of the banks. Reforms in the financial sector, for example, have been shown to boost competitiveness in East Africa's banking sector (Yildirim and Philippatos, 2007; Berger et al., 2009; Mugume, 2007). A well-developed banking sector, according to Schumpeter (1911), provides capital to firms, which they may utilize to manufacture new products and drive technological innovation and economic growth. Foreign banks from more sophisticated regulatory frameworks, according to Mishkin (2007), encourage prudential regulatory measures, which improve the general health of the domestic banking sector's development.

Banks with greater stability may broaden financial services to underbanked sectors of the economy: sectors that rely more on external finance, and that are naturally composed of small firms for technological reasons. If market frictions–e.g., transaction costs and informational opacity–hinder small firms and firms that are heavy users of external finance to get access to credit, higher levels of financial inclusion will ameliorate these frictions and will aid in the faster growth of firms, which in turn leads to higher economic growth. IMF et al. (1991) and Meyer (2001) discuss that FDI supplies an important

source of investment funds for the public and private sectors, contributing to managerial skills, new technology, and capital and promoting competition. The financial sector is always the key sector for the overall development of any country, and the banking sector is the primary sector among all. Baladevi et al. (2019) evaluate the impact of financial inclusion on the banking sector in India. The study found that FDI has solved the banking sector's problems, like risk management, low capitalization, and stability problems. Also, it mentions that FDI has a buoyant impact on the banking sector through technology transfer, financial soundness, innovative products, and employment

3.4 CHAPTER SUMMARY

The critical and careful examination of literature, as well as the gaps in empirical research, led this study of the influence of FDI on FI and to determine the effect of FDI on BSD, as well as the interactive effect of FDI and FI on BSD. According to research, FDI is the most effective vehicle for economic development in Africa and plays a vital role in financial progress. Some research has been done to empirically establish the relationship between FDI and financial development, as well as how FDI inflows can help the banking sector develop. Adam and Tweneboah (2009), Agbloyor et al. (2013), Antras et al. (2009), Kaur et al. (2013), Otchere et al. (2016) Other research, such as Allen et al. (2012), Beck and Cull (2013), Soumare et al. (2016), Irankunda and Van Bergeijk (2019), looked into the determinants and social elements that influence financial inclusion because FI is important for humanity's socioeconomic growth.

CHAPTER FOUR

METHODOLOGY

4.1 INTRODUCTION

This chapter presents the methodology for the study which is the methods and procedures employed to achieve the stated objectives. The chapter started with the data and sources with their measures, type and period of the data and the number of the countries used in the study and their scope. The model specification used for the achievement of the set objectives is being stated and the empirical works that serve as the source of motivation for its choice has also been outlined. It has further discussed the variables utilised in study into details by specifying those that are independent, dependent and control.

Some of the variables were used to construct indices by employing the principal component analysis (PCA) to make the findings robust and justifiable for easy adoption by national and international research communities and policymakers. The estimation strategies used in the study are fixed and random effects. These estimators are briefly discussed for their relevance and shortfalls.

4.2 DATA AND SOURCES

The study uses a quantitative case study research design to analyze the objectives; effect of FDI on Financial Inclusion (FI), to determine the effect of FDI on Banking Sector Development (BSD), and the interaction effect of FDI and Financial Inclusion (FI) on Banking Sector Development. The World Bank Development Indicators (WDI) and the Global Financial Development (GFD) Database provided secondary panel data for the study, which was obtained through content analysis. Panel data from fifty-two (52) African countries was studied between 2004 and 2017 due to unavailability of some of the data from 2018 and beyond.

4.3 THE MODEL SPECIFICATION

The study uses the model employed by Adjasi et al (2012) and Agbloyor et al (2014) to analyze the influence of FDI on FI, as well as the effect of FDI on BSD and the interaction effect of FDI and FI on BSD in Africa. The following is a model comparable to Alfaro et al. (2004) and (Buam, 2009):

$$Y_{it} = \beta_o + \beta_j X_{it} + \sum_j^N \beta_j X_{it} + \varepsilon_{it} \quad \textbf{1}$$

Where: Y_{it} is the dependent variable of country *i* at the time *t*, with i = 1 …., N; *t* = 1 …., T;

j = 1…., N; β_o is an intercept, β_j is parameter estimation of the independent variable, and the vector of control variables, X_{it} is independenet variable(s); $\sum_j^N \boldsymbol{\beta}_j X_{it}$ is the vector of control variables.

Equation (1) is transformed into the following specific models;

$$D.FII_{it}=\beta_o+\beta_1 DFII_{it-1}+\beta_2 FDI_{it}+\beta_3 INF_{it}+\beta_4 HCD_{it}+\beta_5 D.TO_{it}+\beta_6 GVE+\beta_7 D.UN_{it}+\beta_8 GR + \varepsilon_{it} \quad \textbf{2}$$

$$BSDI_{it} = \beta_o + \beta_1 BSDI_{it-1} +\beta_2 FDI_{it} + \beta_3 INF_{it} +\beta_4 HCD_{it} + \beta_5 D.TO_{it} +\beta_6 GVE_{it} + B_7 D.UN_{it}+\beta_8 GR+\varepsilon_{it} \quad \textbf{3}$$

To capture the interactive effect between FDI and financial inclusion model 1 is re-estimated and introduce an interactive term between FDI and financial inclusion index.

$$BSDI_{it} = \beta_o +\beta_1 BSDI_{it-1} + \beta_2 FDI_{it} + \beta_3 D.FII_{it} +\beta_4 (FDI_{it} \text{ x } FII_{it}) +\beta_5 INF_{it}+\beta_6 HCD_{it}+ B_7 D.TO_{it}+\beta_8 GVE_{it}+ B_9 D.UN_{it} +\beta_{10} GR_{it}+\varepsilon_{it} \quad \textbf{4}$$

Where:

B_o is the intercept, $B_1 - \beta_{10}$ is parameter of estimation, $D.FII_{it}$ is the first difference of financial inclusion index for country i at time t, $D.FII_{it-1}$ is lag one level of first difference of financial inclusion index for

country i at time t, FDI_{it} is net foreign direct Investment inflows as percentage of GDP for country i at time t, $BSDI_{it}$ and $\beta_1 BSDI_{it-1}$ represent banking sector development index and it's lag one level respectively for country i at time t, (FDI_{it} x FII_{it}) is the interaction effect between foreign direct investment for country i at time t and financial inclusion index for country i at time t. The significance of the introduction of this interaction terms is to ascertain the marginal effects (net effects) of FDI on the rate of banking sector development which largely depends on FI Africa countries. And INF_{it}, HCD_{it}, GR_{it}, $D.TO_{it}$, GE_{it} and $D.UN_{it}$ represent; inflation, human capital development, growth rate, first difference of trade openness, government expenditure and first difference unemployment of country i at time t respectively, and ε_{it} is the error term.

To properly interpret the interaction terms, there is a need to include the mean level of financial inclusion index (FII) for the study period (Brambor et al., 2006). For instance, based on equation (4), the effect of a change in FDI on banking sector development index (BSDI) is given by:

$$\frac{\partial(\Delta BSDI)}{\partial(\Delta FDI)} = \beta 2 + \beta 4\ (D.FII)it \qquad \mathbf{5}$$

Where β2 is the coefficient of the independent effect of FDI on BSDI, β4 is the coefficient of the interaction between FDI and FII and (FII) is the mean value of financial inclusion index over the periods under study. In interpreting the net effect computed, we compare the coefficients of the independent impact of FDI on BSDI to the coefficients of the marginal or net effects computed to draw a conclusion.

The net effect of FII on banking sector development index (BSDI) is investigated with key interest of the moderating role of FDI over the study period. To do this, the interaction effect of FII on the level on the level of BSDI from equation (4) again, for instance is computed by;

$$\frac{\partial(\Delta BSDI)}{\partial(\Delta D.FII)} = \beta 3 + \beta 4\ (FDI)it \qquad 6$$

4.4 VARIABLE DESCRIPTION

The variables used in study are organised into two categories; main variables and control variables. Foreign direct investment, financial inclusion and banking sector development are the main variables. The control variables include; inflation, human capital development, growth rate, trade openness, government expenditure and unemployment.

TABLE 4.1 DATA MEASURES AND SOURCE

TABLE 4.1 shows variables and their measures, and **sources.** WDI is World Development Indicator. GFD is Global Financial Development.

VARIABLE	MEASUREMENT	DATA SOURCE
FOREIGN DIRECT INVESTMENT (FDI)	Net FDI inflow as a percentage of GDP	WDI
FINANCIAL INCLUSION INDEX (FII))	Bank account per 1000 adults (BA).	GFD
	Automated Teller Machine (ATM) per 100000 adults (ATM).	WDI
	Commercial banks branches per 100000 adults (CBB)	WDI
	Borrowers from commercial banks per 1000 adults (BCB)	WDI
	Depositors with commercial banks per 1000	WDI

	adults (DCB)	
BANKING SECTOR DEVELOPMENT INDEX (BSDI)	Gross domestic savings as a percentage of GDP (GDS)	WDI
	Domestic credit to private sector by banks as percentage of GDP (DCPSB)	WDI
	Private credit by depositor money bank to as percentage of GDP (PCDMB)	WDI
	Deposit money banks' assets to GDP (DMBA)	GFD
	Deposit money bank assets to deposit bank assets plus central bank assets as percentage (DMBACBA)	GFD
	Domestic credit to private sector as percentage of GDP (DCPS)	GFD
INFLATION (INF)	GDP deflator (annual %)	WDI
GROWTH RATE(GR)	GDP per capita growth (annual %)	WDI
HUMAN CAPITAL DEVELOPMENT(HCD)	School enrollment, secondary (% gross)	WDI
TRADE OPENNESS (TO)	Sum of the exports and imports as a percentage to GDP.	WDI
UNEMPLOYMENT (UN)	Percentage of total labour force	WDI

GOVERNMENT EXPENDITURE (GVE)	General government final consumption as percentage of GDP.	WDI

4.4.1 MAIN VARIABLES

The variables considered as main variables are; foreign direct investment (FDI), financial inclusion (FI) and banking sector development so far as this study is concerned

4.4.1.1 FOREIGN DIRECT INVESTMENT

This study's primary independent variable is FDI inflow. FDI can be characterized in a variety of ways. For example, the International Monetary Fund (IMF) (1993) defines FDI as an investment made to gain fixed advantages in firms operating beyond the investor's own country. FDI is also characterized as private capital flows from a parent business in the enterprise's home nation to the enterprise (Pajunen, 2008). FDI is defined by Bradley (2005) as the foundation of a new company in a foreign country. According to Cavusgil et al. (2012), FDI is a company's internationalization strategy that involves owning productive assets such as capital, land, plant and equipment, technology, and labor in a foreign country. According to Bronzini (2007), FDI happens when a foreign corporation develops a subsidiary in another country from the ground up, which involves purchasing real estate, hiring and training personnel, providing financing, and managing the subsidiary in conformity with the parent company's culture. Grasp the impact of FDI flow by managing banking sector development and distinctive characteristics of financial inclusion require a thorough understanding of macroeconomic and industrial causes. Some of the empirical proxies used to measure the effects of foreign investment include current FDI inflows, exports from the host country, imports from the home country, trading, total direct inward investment divided by GDP, net FDI into the home country, home FDI to host country divided by host

GDP, square root of home share of investment to host country, change in the value of direct investment in the host country, and the number of foreign corporations in the host country. Williams (2002) and Kosmidou et al. (2007), on the other hand, propose using investment indicators like FDI as a preferred proxy to test the defensive expansion hypothesis, which claims that banks follow their clients into the host country's market to maintain (defend) their bank–client relationship. This study investigates the defensive expansion hypothesis using net FDI inflow as a proportion of GDP as a financial liberalization indicator. A rise in FDI influx is predicted to boost the banking sector's performance, especially in developing and emerging markets. Increased FDI inflow, particularly into the banking sector, can help to improve performance by providing innovative financial products, solving inefficient management problems, lowering the ratio of non-performing assets, increasing financial stability, and assisting in the resolution of the problem of poor capitalization. Agbloyor et al. have employed these measurements (2014).

4.4.1.2 MEASURING FINANCIAL INCLUSION INDEX FOR AFRICA

Inclusion in the financial system can be measured in a variety of ways. Several approaches to developing inclusive financial indices have been tried over time, ranging from individual characteristics to econometric and statistical tools. In India, Chakravarty and Pal (2010) utilized an axiomatic method, whereas in Turkey, Yorulmaz (2013) used three dimensions. Thakkar (2014) utilized six metrics to assess the level of financial inclusion in the BRICS economies. Sethy (2016) utilized six dimensions for India based on Sarma (2008)'s model, however Park and Mercado (2018) adopted a five-dimensional approach with five financial inclusion elements. To estimate our model, we employed principal component analysis (PCA) to construct the financial inclusion index for fifty-two (52) African countries. This procedure is similar to that used by Anarfo et al. (2019) and Pieyro (2013), but for a robustness check, the study computed the index with five measures using three dimensions, as recommended by

Sarma (2008), rather than the two and five dimensions used by Anarfo et al. (2019), Park, and Mercado (2018). Banking penetration (BP), availability of banking services (BS), and banking system use are the three fundamental features of an inclusive financial system (BU). The two factors influence these dimensions are; the availability of data for a large number of countries and the current status of research.

Banking penetration (dimension 1): A system that is financially inclusive should have as many users as feasible, i.e., it should be generally accepted. The number of persons who have a bank account, or the "banked" population, is a measure of the system's banking penetration. As a result, if every person in an economy has a bank account, the value of this metric equals 1. As a measure of this dimension, the number of bank accounts per 1000 adults is expressed as a proportion of the total population.

Availability of banking services (dimension 2): An inclusive financial system's services should be freely available and accessible to its users. The number of bank outlets, automated teller machines (ATM), and commercial bank branches (CBB) per 100,000 adults can be used to demonstrate service availability. These are the two variables utilized in the calculation of the availability dimension**.**

Usage (dimension 3): This dimension is inspired by the concept of "underbanked" or "marginally banked" people, as observed by Kempson et al (2004). They have observed that "in some apparently very highly-banked countries, a number of people with bank account are nonetheless making very little use of the services on offer…"

Individuals who are "underbanked" or "marginally banked" are referred to as "underbanked" or "marginally banked." Simply having a bank account is insufficient for a truly inclusive financial system; banking services must also be efficiently utilized. When calculating the utilization dimension of this index, two basic banking services, credit and deposit, were taken into account. As a result, borrowers

from commercial banks (BCB) per 1,000 adults and depositors from commercial banks (DCB) per 1,000 adults have been used to quantify this dimension.

Principal component analysis (PCA): Anarfo et al. (2019) use the panel PCA estimation technique to create a financial inclusion index (FII) that is made up of five different financial inclusion metrics. Variables are normalized to have values between zero and one before PCA so that the scale on which they are measured is not a concern. Where 0 denotes financial exclusion and 1 denotes financial inclusion.

According to this estimation technique, the jth factor index can be specified as: $FII_j = W_{j1}X_1 + W_{j2}X_2 + W_{j3}X_3 + \ldots + W_{jp}X_p,$

Where FII is the Financial Inclusion Index; Wj is the weight of the parameter of the factor score; X is the original figure of the respective components; while P is the number of variables in the equation. The financial inclusion composite index is made up of three dimensions of financial inclusion: penetration, availability, and usage, which are each made up of one, two, and two variables, respectively. The first dimension is the banking penetration factors, which include: bank account per thousand adults; bank account per thousand adults; bank account per thousand adults; bank account per thousand adults; bank account per (BA). The availability of financial services, which includes automated teller machines (ATM) and commercial bank branches per hundred thousand adults (CBB) is the second dimensions factor. Borrowers from commercial banks per thousand adults (BCB) and Depositors with commercial banks per thousand adults (DCB) are the usage side components in the third dimension. The FII is made up of five components. The following is the index specification:

FII = *f* (BA, ATM, CBB, BCB, DCB, DC).

4.4.1.3 MEASURING BANKING SECTOR DEVELOPMENT INDEX FOR AFRICA

Domestic credit to the private sector by banks (PC) was previously utilized as a main proxy for financial development (Beck and Levine, 2004; Koivu, 2002) since it is used as a measure of banking development and the proportion of bank credit to the private sector is related to GDP.

According to Hemming and Manson (1988) and Liu and Woo (1994), another key measure used to assess the size of the financial system, particularly in developing countries, is money and quasi-money (RQM). As indicators of banking sector development, Agbloyor et la. (2012) used a proxy of three measures: private credit, bank credit, and M2 to measure banking sector progress. Quantitative proxies of two factors were used by Giuliano and Ruiz-Arranz (2009) and Aggarwal et al. (2006) to assess banking sector improvement. The first is the financial system's ratio of liquid liabilities to GDP (M2); the second is the banking sector's ratio of domestic credit to GDP (Loans), which comprises public and private sector lending. According to Giuliano and Ruiz-Arranz (2009), the use of these two indicators highlights the banks' critical role in channeling funds (remittances) into worthwhile investment opportunities. Because of the considerable linkages between the various indicators, six measures of the banking sector development composite index (BSDI) are developed using principal component analysis (PCA). The first indicator to consider is gross domestic savings as a percentage of GDP. The second statistic is domestic bank credit to the private sector as a percentage of GDP. Deposit money bank private credit as a percentage of GDP is the third metric. The fourth statistic is deposit money bank assets as a percentage of GDP. This variable represents bank claims on the domestic real non-financial sector (Beck et al., 2009). The fifth statistic is the proportion of deposit money bank assets to deposit money bank assets and central bank assets. The sixth statistic is domestic credit to the private sector as a percentage of GDP. Principal components are weighted averages of the original variables calculated in a method that maximizes total variation given the chosen weights (Cudeck, 2000). The covariance

between the major components should be zero because they are uncorrelated. Because the variables are standardized to have values between zero and one before PCA is formed, the scale on which they are measured is irrelevant. The following are the uncorrelated linear combinations of variables produced by PCA:

$BSDI_j = W_{j1}X_1 + W_{j2}X_2 + W_{j3}X_3 + \ldots + W_{jp}X_p$, Where, the constructed principal component is denoted by BSDIj, whereas the weights and original variables are denoted by w and x, respectively.

The uncorrelated linear combinations' variance can be described as follows:

$\text{Var}(BSDI_j) = W_j' \sum W_j \quad = 1, 2, \ldots\ldots p$

4.4.2 CONTROL VARIABLES

(Raza et al. 2014; Naceur et al. 2014; Elsherif. 2015) used trade openness, inflation, government consumption and unemployment in their studies as banking sector development determinants but for robustness; growth rate and human capital development have been added in this study. Robinson (1952) argued that economic growth increases GDP per capita thus ensuring that consumers have extra money to save in their banks and other financial instruments. With careful analysis of literature of financial inclusion and its determinants. This study adopts some macroeconomic indicators such as inflation, growth rate, human capital development and trade openness as determinant of financial inclusion.

4.4.2.1. INFLATION

It is the rate at which the overall price level of goods and services in an economy change. It was calculated using the annual growth of the GDP deflator from the WDI database. Haslag and Koo (1999) argued that high inflation results in low financial development as consumers no longer see the importance of holding on to money related assets in their investment portfolios. English (1999), however

observed that consumers in a high inflation economy replace transaction services for money balances hence increasing the rate of financial services production and financial sector development as a whole. Elbadawi and Rocha (1992) go on to say that a sign of economic and possibly political instability (a potential source of risk and uncertainty) could lead to a high rate of inflation, which could have an impact on the banking sector's development. Inflationary pressures have been observed to raise loan costs (Tarus et al., 2012), impacting borrowers' willingness to take out loans. These options have the potential to influence the banking sector's development and financial inclusion. As a result, this analysis predicts that inflation will have a positive or negative impact on the development of the banking sector and financial inclusion.

4.4.2.2. HUMAN CAPITA DEVELOPMENT

The rate of secondary school enrollment was used to gauge human capital development. Improved literacy is thought to enhance demand for and access to financial services, thus it's important to keep an eye on this variable. On the other hand, these research (Kumar and Laha, 2012; Akudugu, 2013; Grohmann et al., 2018) emphasize the relevance of literacy and understanding of various banking services, as well as income level, as key variables in achieving increased financial inclusion.

4.4.2.3 GROWTH RATE

It was calculated using the GDP growth rate, which measures the percentage change in gross domestic product. It is commonly assumed that countries with faster growth rates will require more financial resources. We use real per capita GDP to represent the average income of the countries analyzed. The pace of growth has been linked to the development of the banking sector (Christopoulos and Tsionas, 2004; Bencivenga and Smith, 1991), and hence has been controlled in this research.

4.4.2.4. TRADE OPENNESS

The total of exports and imports (percentage of GDP) is used to measure trade openness. The hypothesis of trade's growth effects is ambiguous. For example, Levine and Renelt (1992) and Grossman and Helpman (1992) show that trade stimulates growth through the import of goods and services including new technology which facilitates the production process and increase productivity. However, Batra and Slottje (1993) argue that trade openness has a negative impact on growth through reducing tariffs. A decline in relative prices of domestic manufacturing may result in a less demand for domestic goods in contrast with foreign goods. It enables local firms to compete internationally by exporting their products and services. These domestic firms will require the use of sophisticated risk management inclined financial products in order to diffuse the effects associated with external shocks and foreign competition. On the other hand, Baltagi et al (2009) noted that openness allows big companies to over rely on external finance instead of the domestic financial markets. Consistent with literature, this study expects trade openness to either have a positive or negative influence on banking sector development and financial inclusion.

4.4.2.5. GOVERNMENT EXPENDITURE

This is the indicator of fiscal policy and measured by general government final consumption expenditure (% of GDP). An increase in government size requires more spending. To finance this spending government imposes more tax on individuals and firms. An increase in tax results in a fall of economic activities, private investment and hence economic growth (Barro, 1991). However, an increase in government size may also encourage private investment as large government is more likely to do more investment in technological diversification and infrastructure, which improves development of the economy. Government consumption also increases the need for borrowing extra funds from the

domestic financial markets and in the process crowding out of local firms, both of which have long term negative impact on financial development (Naceur et al. 2014:218). The positive or negative impact is anticipated on banking sector development and financial inclusion by government expenditure.

4.4.2.6. UNEMPLOYMENT

Unemployment negatively affect financial affordability as consumers cannot afford essentials such as shelter, food, medical care, clothes, among others. Using ARDL approach with data from 1973 to 2007, Shabbir et al (2012) found out that unemployment negatively influenced banking sector development in Pakistan in the long run. Consistent with literature, this study expects unemployment to negatively influence banking sector development in the African countries.

4.5 ESTIMATION STRATEGY

The regression method is almost certainly the most important technique available to an econometrician. Regression is focused with describing and evaluating the relationship between one or more variables (Independent variable(s)) and a given variable (Dependent variable). Regression is an attempt to explain changes in one variable by comparing it to changes in one or more other variables. The type of regression approach to utilize is determined by the nature of the data used in the investigation. Various panel data methods are being used to estimate Equation one (1). Fixed effects (FE) and random effects (RE) are two static model and system generalizes methos of moment which is a dynamic model are the strategies used. The pooled OLS model, in fact, does not account for panel heterogeneity and is therefore not an optimal technique (Hill et al., 2012). The heterogeneity is moved to the error term, which may result in a correlation between the error term and the regressor, which contradicts one of the conventional linear regression model's assumptions, resulting in biased and inconsistent estimated coefficients. Generalised Method of Moments (GMM), among others can be used to deal with data and

model specifications with the aforementioned problems in order to achieve consistency and efficiency in the parameter estimates (Wooldridge, 2009). The STATA software package used for the analysis.

4.5.1 FIXED EFFECT MODEL (FEM)

The fixed-effect model (FE) is used to investigate the impact of time-varying variables. FE explores the relationship between predictor and outcome factors inside a single entity (country, person, company, etc.). Individual characteristics of each entity may or may not have an impact on the predictor variables (for example, country could have some effect on trade or GDP; or the business practices of a company may influence its stock price). It is assumed that something about the individual influences or biases the predictor or outcome variables when using FE, and this must be taken into consideration. This logic underpins the assumption of a link between the entity's error term and predictor components**.** The effect of those time-invariant characteristics is removed using FE, which allows the net effect of the predictors on the outcome variable to be determined. Although the fixed effects model allows for cross-sectional unit variability, the fixed-effect within-group estimator may provide skewed estimates due to the exclusion of long-run effects (Gujarati & Porter, 2009). The fixed effect estimate strategy, unlike the pooled OLS estimation technique, tackles omitted variable bias, but also has the potential to exacerbate the measurement error problem (Hauk & Wacziarg, 2009).

4.5.2 RANDOM EFFECT MODEL (REM)

The random effects model is similar to the fixed effects model; however, the technique assumes that the individual effects are random rather than fixed (Hill et al., 2012; Bell & Jones, 2015). The variation across entities is assumed to be random and uncorrelated with the predictor or independent variables included in the model. Even though country-specific, time-invariant, and explanatory variables are uncorrelated, the random effect model requires that the influence of such unobserved factors be addressed in the regression model. The random effect is used when it is believed that differences across

entities have some influence on your dependent variable. The advantage of random effect over the fixed effect is that the time invariant variables (i.e, gender) are included in the model. In the fixed effects model these variables are absorbed by the intercept.

4.5.3 GENERALISED METHODS OF MOMENT

This study makes the assumption that current values of FII and BSDI may be impacted by their previous values. We therefore require the use of the lag of FII and BSDI as explanatory variables. Doing so will help avoid low precision of point estimates as a result of higher variances when lags are omitted – due to a specification error (Blackwell et al., 2017). We apply the GMM dynamic panel data estimation to avoid Nickell bias and address the issues of endogeneity of all explanatory variables in a dynamic formulation, and mitigate potential biases induced by fixed effects (Arellano and Bond, 1991; Arellano and Bover, 1995; Blundell and Bond, 1998). Specifically, the study adopts the two-step System Generalized Method of Moments (SGMM) estimator, with Windmeijer (2005) corrected standard errors since this is asymptotically more efficient than the one-step estimator. Adopting this approach however presents a risk of large instrument count relative to the sample size (Roodman, 2006). The possible effect if this happens is an over-fitting of endogenous variables. We will then be unsuccessful in eliminating their endogenous components which leads to having biased coefficient estimates. The autocorrelation test and the robust estimates of the coefficient standard errors assume no correlation across individuals in the idiosyncratic disturbance

4.5.4 PANEL UNIT ROOT TESTS

To ensure that the estimated model is devoid of biases, a diagnostic test is run. A panel unit root test was done to ensure the validity of the panel regression results. The time series properties of the data must be assessed to ensure the robustness of our estimates. The ADF Fisher-Type test was used to check for data

stationarity since data has a tendency to change over time once a shock occurs (Keong, 2007). Because this test accounts for individual heterogeneity as well as heterogeneity among African countries, it was chosen. Data were examined for stationarity in order to make policy and forecasting decisions. Testing for data stationarity is critical because making decisions based on non-stationary data might lead to the wrong policy being implemented.

CHAPTER FIVE

DISCUSSION OF EMPIRICAL FINDINGS

5.1 INTRODUCTION

The findings of various investigations so far as this study is concern are being discussed in this chapter. This section is categorized into the following; the summary descriptive statistics which outline the observation, the mean, the standard deviation, minimum and maximum values and other relevant features of the variables use, correlation matrix which specify the relationship between the variables either positive or negative, diagnostic test results and empirical results for the achievement of the stated objectives in Africa.

5.2 SUMMARY DESCRIPTIVE STATISTICS

The Table 5.1 shows the summary descriptive statistics of various variables used for this study. The table contains comprehensive statistical descriptions and distributions of the dataset used for investigation of the stated objectives. The quantitative description and distribution of the data used provide an insight of behaviour of the data used in the study. The Table displays the variables, the number of observations, the mean values, standard deviation, minimum and maximum values for each of the variable utilised in the study. The yearly panel data from fifty- two (52) Africa nations were utilized from 2004 to 2017.

TABLE 5.1 THE SUMMARY DESCRIPTIVE STATISTICS

TABLE 5.1 Shows the summary descriptive statistics of the variables sourced from World Development Indicator (WDI) and Global Financial Development (GFD) for fifty- two (52) African countries for the period of fourteen years (14) 2004 -2017.OBS is the number of observations. MEAN is the mean value or average. SD is the standard deviation. MIN is the minimum value. MAX is the maximum value. GDS is the Gross domestic savings as a percentage of GDP. DCPSB is the Domestic credit to private sector by banks as percentage of GDP. DCPS is the Domestic credit to private sector as percentage of GDP. DMBA is the Deposit money banks' assets to GDP. DMBACBA is the Deposit money bank assets to deposit bank assets plus central bank assets as percentage. PCDMB is the Private credit by depositor money bank to GDP (%).BA is the bank account per 1000 adults. ATM is the Automated Teller Machine per 100000 adults. CBB is the Commercial banks branches per 100000 adults. BCB is the Borrowers from commercial banks per 1000 adults. DCB is the Depositors with commercial banks per 1000 adults. BSDI is the measure for the banking sector development index. FII is the measure for the financial inclusion index. FDI is the measure for the net FDI inflow (% of GDP. FDI*FII is the measure for the interactive term of FDI and FII. INF is the measure for the inflation; GDP deflator (annual %). HCD is the measure for the human capital development; school enrollment secondary (% gross). GR is the measure of growth rate; GDP per capita growth (annual %). TO is the measure for the trade openness; sum of the exports and imports (% of GDP). GVE is the measure for the government expenditure; general government final consumption (% of GDP). UN is the measure for the unemployment; % of total labour force.

VARIABLES	OBS	MEAN	SD	MIN	MAX
GDS	728	0.6886	0.0976	0.0000	1.0000
DCPSB	728	0.1833	0.1746	0.0047	1.0000
DCPS	728	0.1249	0.1573	0.0031	1.0000
DMBA	728	0.0370	0.0749	0.0004	1.0000
DMBACBA	728	0.7513	0.2604	0.0420	1.0000
PCDMB	728	0.0272	0.0701	0.0004	1.0000
BA	728	0.0977	0.1611	0.0002	1.0000
ATM	728	0.1120	0.1768	0.0000	1.0000
CBB	728	0.1126	0.1579	0.0026	1.0037
BCB	728	0.1038	0.1884	-0.0001	1.0000
DCB	728	0.0923	0.1613	0.0002	1.0000
BSDI	728	-0.0004	1.0000	0.3924	13.8726
FII	728	0.0004	1.0000	0.6079	5.6000

FDI	718	4.8554	8.4454	-6.0572	103.3374
FDI*FII	718	0.1954	9.3987	62.8140	140.3340
INF	711	7.9916	11.6127	-26.7003	100.6077
HCD	452	46.6641	22.0187	8.7066	99.9039
GR	708	1.8876	5.1874	-36.5569	32.1706
TO	694	74.0495	42.1026	20.7225	347.9965
GVE	654	14.6374	5.9827	2.0471	43.4838
UN	221	10.3086	7.2739	0.3200	35.4600

The Table 5.1 presents the descriptive summary statistics of the variables of fifty-two African countries used in the study for a fourteen years period. However, the discussion of the summary statistics is based on the precedence from the work of Agyapong et al., (2020) with modification. The mean of GDS is 0.6886 units with the standard deviation (**SD**) of 0.976 units. The mean shows that the GDS is almost 70% of GDP. The average level of DCPSB is 0.1833 units, (SD = 0.1746). It shows that just 18% of domestic credit of GDP had been granted to private sector by banks which is inadequate to propel growth of economy in Africa. DCPS recorded a mean of 0.1249 units, (SD =0.1573). The mean indicates that only 12.5% of domestic credit to GDP was used to support private sector. The mean value of DMBA is 0.0370 units, (SD =0.0749). The average level of DMBACBA is 0.7513 units, (SD = 0.2604). The average recorded by PCDMB is 0.0272 units, (SD = 0.0701). The above variables discussed are indicators of BSDI.

Considering the mean of the FII. The mean value of BA is 0.0977 units, (SD =0.1611). It means that for every 1000 adults, only 161 have bank account which is very low. ATMs has a mean value of 0.1120 units, (SD = 0.1768). For every hundred thousand adults, only 11200 have access to ATMs. CBB

recorded average level of 0.1126units. (SD =0.1579). It is clear from the mean that only 11.3% (1126) of every 100000 adults access a bank. The mean of BCB is 0.1038 units, (SD = 0.1884). It shows that 10.4% of 1000 adults borrower from commercial banks. Lastly DCB recorded average of 0.0923 units, (SD = 0.1613). So for every 1000 adults only 92.3 or 93 people deposit with commercial bank, which is just 9.23%. The rest of the financial inclusion in the Africa sample, respectively. According to the mean distribution of the various banking sector development and financial inclusion indicators discussed above, show that Africa has relatively low financial sector development.

The average value of BSDI is -0.0004 units, (SD = 1.0000).This shows that BSD is declining by 0.04%. FII recorded a mean value of 0.0004 units, (SD = 1.0000). The mean shows that Africa has a long way to achieve financial inclusion. The average value of FDI inflows recorded is 4.8554 units, (SD =8.4454). The mean level of FDI*FII is 0.1954 units, (SD =9.3987). The inflation (INF) recorded the mean value of 7.9916 units, (SD = 11.6127). The mean of HCD is 46.6641 units, (SD = 22,0187).The average level of GR is 1.8876 units, (SD=5.9827).74.0495 units is the mean of TO with SD =42.1026. The mean of GVE is 14.6374 units, (SD = 5.0827).10.3086 units the average value recorded for UN with (SD = 7.2739).

5.3 THE CORRELATION MATRIX

The study employs the correlation matrix technique to test multicollinearity. The correlation matrix was used to look at the linear relationship between the variables in the study. The Pearson product moment coefficient of correlation examines the degree of linear relationship between two or more variables for pairs of variables. Table 5.2 presents the results of the correlation among banking sector development index (BSDI), FDI inflows, financial inclusion index (FII), the interactive term of FDI and FII (FDI*FII), INF, HCD, GR, TO, GVE UN.

From Table 5.2, it is clear that most of the independent variables show weak negative and positive correlation with the dependent variables (BSDI, FII). Thus, most variables recorded correlation coefficients below 0.60 with the dependent variables.

TABLE 5.2 CORRELATION MATRIX OF THE MAIN VARIABLES

TABLE 5.2 shows the linear relationship between all the main variables used in the study. BSDI is the measure for the banking sector development index. FII is the measure for the financial inclusion index. FDI is the measure for the net FDI inflow (% of GDP). FDI*FII is the measure for the interactive term of FDI and FII. INF is the measure for the inflation; GDP deflator (annual %). HCD is the measure for the human capital development; school enrollment secondary (% gross). GR is the measure of growth rate; GDP per capita growth (annual %). TO is the measure for the trade openness; sum of the exports and imports (% of GDP). GVE is the measure for the government expenditure; general government final consumption (% of GDP). UN is the measure for the unemployment; % of total labour force.

	BSDI	FDI	FII	FDI*FII	INF	HCD	GR	TO	GVE	UN
BSDI	1.000									
FDI	0.267	1.000								
FII	-0.029	0.135	1.000							
FDI*FII	-0.102	0.116	0.871	1.000						
INF	-0.096	-0.131	-0.051	-0.048	1.000					
HCD	0.079	-0.076	0.351	0.344	0.011	1.000				
GR	0.043	0.149	-0.008	0.030	-0.043	0.008	1.000			
TO	-0.005	0.294	0.168	0.331	-0.135	0.053	0.152	1.000		
GVE	0.059	0.158	0.042	0.135	-0.130	0.007	-0.266	0.284	1.000	
UN	0.017	-0.271	-0.031	0.020	0.048	0.247	-0.153	0.059	0.455	1.000

Generally, it is not expected that there would be strong correlations among the variables considered for the regression. The correlations between the variables under consideration ranged between -0.005 and 0.871 as shown in Table 5.2. However, 0.871 is the highest and strongest correlation and is reported between FII and FDI*FII which was above 0.70 but lower than 0.90. Bryman and Cramer (2002) argued

that there is multicollinearity if the correlation among two exogenous variables is more than 0.80 whereas Anderson et al. (1990) suggested 0.70. But Kennedy (2008) contended that correlation between two independent variables is high when it is above 0.80 or 0.90. Based on the threshold set by Kennedy (2008) of 0.90, it can be concluded there is no multicollinearity among the variables.

5.4 PCA RESULT USED IN CONSTRUCTION OF FINANCIAL INCLUSION INDEX

The findings of PCs estimate for the composite of FI index are shown in Tables 5.3 and 5.4 below. 3.75378, 0.612174, 0.398966, 0.185498, and 0.0495819 are the eigenvalues of the five PCs, respectively. This demonstrates that only the first component has an eigenvalue larger than 1, hence it was utilized to determine the PC weights. In terms of the PC structure, it is seen that all three dimensions contribute to the first component, which accounts for more than 80% of the overall variance of the data. This means that the FI level is understood as the sum of the three dimensions measuring the same latent structure. It also demonstrates that all factors have been explained.

TABLE 5.3 PRINCIPAL COMPONENTS OF FI

TABLE 5.3 shows the eigenvalues for the components and the one used in construction of financial inclusion index. It also shows the difference, proportion and cumulative of each of the components.

COMPONENT	EIGENVALUE	DIFFERENCE	PROPORTION	CUMULATIVE
Comp1	3.75378	3.14161	0.7508	0.7508
Comp2	0.612174	0.213208	0.1224	0.8732
Comp3	0.398966	0.213468	0.0798	0.9530
Comp4	0.185498	0.135916	0.0371	0.9901
Comp5	0.0495819		0.0099	1.0000

TABLE 5.4 ROTATED COMPONENT MATRIX (VARIMAX)

TABLE 5.4 shows the weight of five indicators in contributing to one eigenvalue extracted for the financial inclusion index. It also shows the difference, proportion and cumulative of each of the components.

COMPONENT	VARIANCE	DIFFEENCE	PROPORTION	CUMULATIVE
Comp1	1	2.77608e-06	0.2000	0.2000
Comp2	1	7.67410e-06	0.2000	0.4000
Comp3	0.999997	2.08903e-06	0.2000	0.6000
Comp4	0.999995	8.11575e-08	0.2000	0.8000
Comp5	0.999995		0.2000	1.0000

5.5 PCA RESULT USED IN CONSTRUCTION OF BANKING SECTOR DEVELOPMENT INDEX

The results of PCs estimate for composite of banking sector development index (BSDI) are shown in the Table 5.5 and 5.6 below. The computed principal components' eigenvalues, proportion of variance explained, and eigenvector are displayed. The six PCs' eigenvalues are 2.423, 1.97738, 0.770552, 0.54022, 0.159669, and 0.129183, respectively. This demonstrates that only the first two components have an eigenvalue greater than 1, hence they are used to determine the PC weights. The first two components of the PC structure account for 78.68 percent of the total variation in banking sector development measures. As a result, the BSDI includes important elements that determine the depth of financial intermediation in Africa's banking sector, such as banking intermediation's role in credit creation, banking system liquidity, and total assets held by deposit money institutions. This stage is critical since the depth of financial intermediation is reliant on the interaction of numerous activities, as these selected individual indicators of banking sector development demonstrate.

TABLE 5.5 PRINCIPAL COMPONENTS OF BSD

TABLE 5.5 shows the eigenvalues for the components and the ones used in construction of banking sector development index. It also shows the difference, proportion and cumulative of each of the components

COMPONENT	EIGENVALUE	DIFFERENCE	PROPORTION	CUMULATIVE
Comp1	2.423	0.445624	0.4038	0.4038
Comp2	1.97738	1.20682	0.3296	0.7334
Comp3	0.770552	0.230332	0.1284	0.8618
Comp4	0.54022	0.38055	0.0900	0.9519
Comp5	0.159669	0.0304862	0.0266	0.9785
Comp6	0.129183		0.0215	1.0000

TABLE 5.6 ROTATED COMPONENT MATRIX (VARIMAX)

TABLE 5.6 shows the weight of six indicators in contributing to two eigenvalues extracted for the financial inclusion index. It also shows the difference, proportion and cumulative of each of the components

COMPONENT	VARIANCE	DIFFERENCE	PROPORTION	CUMULATIVE
Comp1	1	3.40952e-06	0.1667	0.1667
Comp2	1	5.81091e-08	0.1667	0.3333
Comp3	1	6.02271e-08	0.1667	0.5000
Comp4	1	3.05947e-07	0.1667	0.6667
Comp5	1	3.31174e-06	0.1667	0.8333
Comp6	0.999996		0.1667	1.0000

TABLE 5.7 AUGMENTED DICKEY-FULLER – FISHER TYPE UNIT ROOT TEST

TABLE 5.7 shows the Augmented Dickey-Fuller Fisher type unit root test of the main variables**.** BSDI is the measure for the banking sector development index. FDI is the measure for the net FDI inflow (% of GDP). D.FII is the measure for the first difference financial inclusion index. FDI*FII is the measure for the interactive term of FDI and FII. INF is the measure for the inflation; GDP deflator (annual %). HCD is the measure for the human capital development; school enrollment secondary (% gross). GR is the measure of growth rate; GDP per capita growth (annual %). D.TO is the measure for the first difference trade openness; sum of the exports and imports (% of GDP). GVE is the measure for the government expenditure; general government final consumption (% of GDP). D.UN is the measure of first difference unemployment; % of total labour force. The asterisks imply; *** *Significant at 1%*, ***Significant at 5%*, **significant at 10*.

	NORMAL LEVEL		FIRST DIFFERENCE	
VARIABLES	**INVERSE CHI^2 – STATISTICS**	**P-VALUE**	**INVERSE CHI^2 - STATISTICS**	**P-VALUE**
BSDI	193.3436 ***	0.0000		
FDI	196.4437***	0.0000		
D.FII			292.4506***	0.0000
FDI*FII	199.1965***	0.0000		

INF	247.7174***	0.0000		
HCD	108.2050***	0.0000		
GR	252.4163***	0.0000		
D.TO			248.6687***	0.0000
GVE	181.3012***	0.0000		
D.UN			22.6743*	0.1227

The study used the Augmented Dickey-Fuller (ADF) test – Fisher Type Unit Root Test to check the stationarity of the regression variables. The results from Table 5.7 show that most variables are stationary at normal level, and other variables however were stationary at first difference. From the Table is clear that BSDI, FDI, FDI*FII, INF and HCD, GR, GVE are stationary at normal level and hence significant at 1% significance level. The variables such as D.FII, D.TO and D.UN however were stationary at first difference. D.FII and D.TO are also significant at 1% significance level but D.UN is significant at 10% significance level.

TABLE 5.8 HAUSMAN TEST FOR FIXED EFFECT AND RANDOM EFFECT

TABLE 5.8 shows Hausman test for fixed effect and random effect for respective regression model. The model two (2) is the regression model for the objective one. The regression model for the objective two (2) is the model three (3) and the model four (4) is the regression model for the objective three (3).

	MODEL 2	**MODEL 3**	**MODEL 4**
CHI-SQUARE	28.315	115.908	122.194
PROB>CHI-SQUARE	0.0004	0.0000	0.0000

The Table 5.11 shows the results of Hausman test to choose which of panel data methods is more appropriate to explain each objective. It has clearly indicated in table that probability values of the three

models; 2, 3 and 4 are less than 5% or 0,05 and significant. So is the rejection of the Null Hypothesis which states that RE model is consistent and preferred and the Alternative Hypothesis is accepted that FE is rather consistent and appropriate.

5.6 THE INTERPRETATION AND DISCUSSION OF EMPIRICAL RESULTS

From an econometric standpoint, panel data could be better controlled for unobservable country and time-specific effects (Liang *et al.*, 2011) in order to answer the research questions formulated to achieve the objectives, Random Effect (RE) estimator and Fixed Effect (FE) estimator were used to estimate the model specify for each objective. According to Hausman test statistics, the null hypothesis that the RE estimates are asymptotically efficient and consistent was rejected at any conventional level of significance. It has clearly proven that probability values of the three models; 2, 3 and 4 are less than 5% or 0,05 and significant. So is the rejection of the Null Hypothesis which states that RE model is consistent and preferred and the Alternative Hypothesis is accepted that FE is rather consistent and appropriate. Due to the shortfalls that are associated with the FE-estimator; a dynamic model which is system generalised methods of moment (SGMM) was employed to mitigate those falls. The results of the three estimators are presented in a series of tables for easy comparison. The analysis of the empirical findings in line with the objectives of the study is based on results obtained from (SGMM) for all the objectives.

5.6.1 REGRESSION RESULTS OF THE EFFECT OF FDI ON FINANCIAL INCLUSION

The first objective of the study sought to establish the effect of foreign direct investment on financial inclusion in Africa. The regression analysis and findings are reported in the Table 5.1

1TABLE 5.9 THE EFFECT OF FDI ON FINANCIAL INCLUSION

TABLE 5.9 shows the regression result of the model two (2**)** for objective one. LD.FII is the lag of the measure for the first difference financial inclusion index which also independent variable. D.FII is the measure for the first difference financial inclusion index and is the dependent variable. FDI is the measure of net FDI inflow (% of GDP) is the main independent variable. INF is the measure of inflation; GDP deflator (annual %). HCD is the measure of human capital development; school enrollment secondary (% gross). GR is the measure of growth rate; GDP per capita growth (annual %). D.UN is the measure of first difference unemployment; % of total labour force. CONS (constant or intercept) is the measure for the country's specific. **** Significant at 1%, **Significant at 5%, * significant at 10 respectively. The* standard errors are reported in parenthesis; ( ).*The discussion was done based on the results in in system generalized method moments column (SGMM)*

VARIABLES	(RE) D.FII	(FE) D.FII	(SGMM) D.FII
LD.FII	-0.0397	-0.0977**	-0.0496
	(0.0405)	(0.0421)	(0.0377)
FDI	0.00109	0.000135	-0.000836
	(0.00168)	(0.00223)	(0.00203)
INF	-0.000709	-0.000479	-0.000217
	(0.00129)	(0.00144)	(0.00153)
HCD	0.00189***	0.000394	0.00175
	(0.000512)	(0.000762)	(0.00518)
D.TO	0.000822	0.000744	-0.000493
	(0.00135)	(0.00139)	(0.00105)
GVE	-0.000516	-0.000824	0.00672*
	(0.00206)	(0.00362)	(0.00376)
D.UN	0.0190	0.0132	-0.365**
	(0.0217)	(0.0222)	(0.175)
GR	0.00198	0.00110	0.0413***
	(0.00306)	(0.00323)	(0.0126)

CONS	-0.00520	0.0491	-0.167
	(0.0358)	(0.0570)	(0.106)
Observations			
No. of Countries			
AR (1)			0.006
AR (2)			0.863
Sagan test			0.947
Hasen test			0.796
R-squared		0.011	

The panel regression results from Table 5.9 shows that the financial inclusion for a particular year largely does not depend on that of the previous year. That is, the FII of the previous year has insignificant negative effect on the current year's financial inclusion.

It is clear from the table that foreign direct investment (FDI) inflows into Africa have a negative effect on financial inclusion (FII). And the effect is statistically insignificant at significance level. Ngowi (2001) claim that Africa has received little FDI since most African countries are seen as high-risk, lacking political and institutional stability and predictability.

From the result shown in the table is obvious that government expenditure has positive and statistically significant effect on financial inclusion. However, an increase in government size may also encourage private investment as large government is more likely to do more investment in technological diversification and infrastructure, which result in job and employment creation hence improves development of the economy. When government expenditure is being increased by one percent, it will cause financial inclusion to rise by 0.672%

Unemployment has negative statistically significant effect on financial inclusion in Africa from the result exhibited in the table. According to the findings, a 1% rise in unemployment decreases financial inclusion by 36.5% in Africa, which must be a very great concern of policymakers in the continent.

The rate of growth has a favorable positive impact on financial inclusion. It is commonly assumed that countries with faster growth rates will require more financial resources. The impact is statistically insignificant at 1% significance level. A percentage increase in GR will cause an increase of 4.13% in financial inclusion.

5.6.2 REGRESSION RESULTS TO ASCERTAIN THE EFFECT OF FDI ON BANKING SECTOR DEVELOPMENT.

The purpose of the regression analysis and conclusions shown in Table 5.10 is to determine the impact of FDI on the development of the banking industry. The second goal is to empirically determine the impact of foreign direct investment on banking sector development in Africa. It doesn't matter if it's positive or negative, or how statistically significant or insignificant it is.

TABLE 5.10 TO ASCERTAIN THE EFFECT OF FDI ON BANKING SECTOR DEVELOPMENT.

TABLE 5.10 shows the regression result of the model three (3) for objective two (2). BSDI is the measure for the banking sector development index and is the dependent variable. FDI is the measure for the net FDI inflow (% of GDP) and is the main independent variable. INF is the measure for the inflation; GDP deflator (annual %). HCD is the measure for the human capital development; school enrollment secondary (% gross). D.TO is the measure for the first difference trade openness; sum of the exports and imports (% of GDP). GVE is the measure for the government expenditure; general government final consumption (% of GDP). D.UN is the measure for the first difference unemployment. CONS (constant or intercept) is the measure for the country's specific. The asterisks imply; *** Significant at 1%, **Significant at 5%, * significant at 10 respectively. Also, standard errors are in the parentheses; ( ).The discussion is based on the results in system generalized method of moments column (SGMM).

VARIABLES	(RE) BSDI	(FE) BSDI	(SGMM) BSDI
LBSDI	0.741***	0.502***	0.964***
	(0.0230)	(0.0335)	(0.00424)
FDI	0.0234***	0.0309***	0.0168***
	(0.00274)	(0.00318)	(0.000818)
INF	-0.000998	-9.38e-05	0.00121**
	(0.00185)	(0.00197)	(0.000518)
HCD	-0.000370	-0.000628	-0.00452***
	(0.000727)	(0.00104)	(0.000620)
D.TO	-0.000653	-0.000801	0.000196
	(0.00194)	(0.00189)	(0.000413)
GVE	0.00259	0.00117	0.000340
	(0.00295)	(0.00492)	(0.00144)
D.UN	0.00207	0.00127	-0.000914
	(0.0310)	(0.0302)	(0.00999)

GR	0.000823	0.00303	-0.0382***
	(0.00437)	(0.00439)	(0.00177)
CONS	-0.127**	-0.146*	0.112***
	(0.0519)	(0.0779)	(0.0218)
Observations	676	676	676
No of Countries	52	52	52
AR (1)			0.277
AR (2)			0.692
Sagan test			0.000
Hasen test			0.054
R-squared		0.423	

Th table 5.10 above shows that the banking sector development (BSDI) of a given year hugely depends on that of the previous year. The BSDI of the previous year has a statistically significant positive effect on the current year's banking sector development at 1% significance level. For all things being equal, a percentage increase in previous year BSDI will cause 96.4% change in the current year's banking sector development in the same direction.

Foreign direct investment (FDI) is critical to globalization and the global economy. It is expected that FDI will lead to the development of the domestic banking system due to the interaction between foreign firms and the domestic banking system. The empirical estimates in Table 5.10 suggest that FDI has a beneficial impact on the development of the banking industry in Africa. FDI has a statistically significant positive influence on BSDI at 1% significance level. During the study period, if FDI had been raised by 1%, the development of Africa's banking industry would have been increased by 1.68%.

Though this study uses index, it's finding reaffirm the position of Agbloyor et al (2013) who used a proxy and found that FDI spurs domestic banking sector development to be highly significant at 1% significance. But the finding of the study contradicts the finding of Soumaré and Tchana (2015), who empirically investigated the causal relationship between FDI and financial development indicators for a panel of 29 emerging countries from 1994 to 2006. They established a bidirectional causal association between FDI and stock market development indicators. The relationship between the expansion of the banking sector and FDI is hazy and uncertain.

Inflation which is a control variable in the model has a statistically significant positive impact on BSDI which at a considerable rate of 5% significance level. A 1% increase in inflation translates in a 0.121% increase in banking sector development, according to result from the table. The finding of this study is consistent with Aluko and Ajayi (2018) who found that inflation does not inhibit banking sector development in Sub-Saharan African countries which is surprisingly contrary to the inflation and finance theory's assumption. The finding of the study is contrast with those of Agbloyor et al. (2013) and Boyd et al. (2001), who discovered that inflation has a detrimental impact on banking sector development, but that effect diminishes once inflation hits 15%. They also discover a nonlinear relationship between inflation and the development of the banking sector.

Human capital development (HCD) has negative effect on banking sector development (BSDI) in African countries. According to the study the effect is statistically significant at 1 percent significance level. For every 1% increase in HCD will cause BSDI to decline by 0.452 percent. The result of our study sought to affirm the prior study by Allen et al., (2014), who's finding stated that human capital is not necessary for the depth of the banking industry in Sub-Saharan African countries. They further stated that in Sub-Saharan African countries, human capital has little impact on the banking industry's efficiency and stability.

Growth rate (GR) has statistically significant negative influence on BSDI at 1% significance level. A 1% increase in GR causes 0.382% decrease in banking sector development. Growth rate is crucial for development of banking sector in Africa. The pace of growth has been linked to the development of the banking sector (Bencivenga and Smith, 1991). It shows clearly that Africa has not been doing enough to maximize the growth that ought to help the development of the banking sector.

5.6.3 REGRESSION RESULTS OF THE INTERACTION EFFECT OF FDI AND FINANCIAL INCLUSION ON BANKING SECTOR DEVELOPMENT

The third objective is to investigate the interaction effect of foreign direct investment and financial inclusion on banking sector development in Africa. The result of the regression analysis is shown in the Table 5.11below

TABLE 5.11 THE INTERACTION EFFECT OF FDI AND FINANCIAL INCLUSION ON BANKING SECTOR DEVELOPMENT

TABLE 5.11 shows the regression result of the model four (4**)** for objective three (3). BSDI is the measure for the banking sector development index and is the dependent variable. FDI is the measure for the net FDI inflow (% of GDP) and is one of the main independent variables. D.FII is the measure for the first difference financial inclusion index and is another main the independent variable. FDI*FII is the measure for the interactive term of FDI and FII. INF is the measure for the inflation; GDP deflator (annual %). HCD is the measure for the human capital development; school enrollment secondary (% gross). GR is the measure of growth rate; GDP per capita growth (annual %). D.TO is the measure for the first difference trade openness; sum of the exports and imports (% of GDP). GVE is the measure for the government expenditure; general government final consumption (% of GDP). CONS (constant or intercept) is the measure for the country's specific. The asterisks imply; *** *Significant at 1%*, ***Significant at 5%*, * *significant at 10 respectively*. Also, standard errors are reported in parentheses; ( ). *The discussion is based on the results in system generalized method moments column (SGMM).*

VARIABLES	(RE) BSDI	(FE) BSDI	(SGMM) BSDI
L.BSDI	0.724***	0.488***	0.819***
	(0.0233)	(0.0334)	(0.0277)
FDI	0.0222***	0.0276***	0.0260
	(0.00274)	(0.00327)	(0.0157)

D.FII	0.0306	0.0196	-1.107
	(0.0556)	(0.0544)	(0.681)
FDI*FII	-0.00838***	-0.0127***	-0.0282
	(0.00240)	(0.00338)	(0.0283)
INF	-0.00118	-8.47e-05	-0.00282
	(0.00184)	(0.00195)	(0.00237)
HCD	0.000520	-0.000487	0.0171*
	(0.000771)	(0.00103)	(0.00966)
D.TO	-0.000518	-0.000702	0.000278
	(0.00192)	(0.00187)	(0.00218)
GVE	0.00356	0.00242	-9.60e-05
	(0.00294)	(0.00489)	(0.0102)
D.UN	0.00270	0.000330	0.337*
	(0.0307)	(0.0300)	(0.185)
GR	0.000938	0.00250	0.0158
	(0.00433)	(0.00435)	(0.0199)
CONS	-0.157***	-0.147*	-0.542***
	(0.0523)	(0.0772)	(0.199)
Observations	676	676	676
No. of Countries	52	52	52
AR (1)			0.160
AR (2)			0.284
Sagan test			0.0000

Hasen test		0.916
R-squared	0.436	

The regression results from Table 5.11 above shows that the banking sector development index (BSDI) for a particular year depends on that of the previous year. The BSDI of the previous year has a statistically significant positive effect on the current year's banking sector development at 1% significance level. For all things being equal, a percentage increase in previous year BSDI will cause 81.9% change in the current year's banking sector development in the same direction. From Table 5.11 is clear that unconditional impact of FDI on the banking sector development in the continent of Africa is positive but statistically insignificant.

The unconditional effect of financial inclusion index (D.FII) on banking sector development (BSDI) is negative and statistically insignificant.

The interactive term (i.e., conditional effect of FDI) indicates a negative impact on banking sector development in Africa. Taking the clue from the works of Kriese et al., (2019); Tchamyou (2018) and Asongu et al. (2017), the net effect (Marginal Effects) of the interaction between FDI and the FII on the BSDI is statistically insignificant. The coefficient of the net effect (marginal effects) for the D.FII variable component expressed in Model 5 which is based on the Model 4 is computed as follows:

Model 4 (D.FII): BSDI = 0.0260 + (-0.0282 (9.62e-10)) = 0.0260. In this computation, the effect of FDI (i.e., the independent effect of FDI) on BSDI is 0.0260, given that D.FII is zero (0). The conditional impact from the interaction between FDI and D.FII on the BSDI is (-0.0282), whereas 9.62e-10 is the mean value of D.FII variable. It shows that from the computation of marginal effect is the same as the

unconditional impact of FDI on BSDI, which indicates that financial inclusion has no influence of FDI on BSDI.

The study further investigates the net effect of D.FII on the of banking sector development index through the role of FDI as shown above using the average value of FDI over the study period as follows;

*Model 4 (FDI): BSD*I = - 1.107+ ((-0.0282(4.855377)) = - 1.2439. In the computation of the effect of FII (i.e., the independent effect of FII) on BSDI is -1.107, given that FDI is zero (0). The conditional impact from the interaction between FDI and D.FII on the BSDI is (-0.0282), whereas 4.855377 is the mean value of FDI variable. It is clear from the computation of marginal effect is worse than unconditional effect of FII on BSDI, which shows foreign direct investment has negative influence of FII on BSDI.

At the 10% significance level, human capital development (HCD) has a positive significant effect on banking sector development. From the table, 1% increase in HCD will increase BSDI by 1.71 percent. It demonstrates that in Africa, if the majority of the population has had at least a secondary education, their financial literacy will improve. It is possible to argue that people with a strong human capital basis are more inclined to use financial services than those with a weaker human capital foundation. Employees that work in a well-developed human capital base are more likely to be creative, innovative, and exposed. Traditional methods of money storage are popular among African businesses (such as keeping them at home). On the other hand, educated entrepreneurs are more likely to deposit cash in commercial banks, which are then made available to the general public in the form of loans and other credit facilities.

Unemployment has a statistically significant positive effect on the BSDI at the 10% significance level. It also indicates that the banking sector development increases by 33% for every 1% increase in

unemployment. The finding of this study contradicts the position of Shabbir et al (2012), who found that unemployment negatively influenced banking sector development in Pakistan in the long run.

CHAPTER SIX

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

6.1 SUMMARY OF THE STUDY

A foreign direct investment (FDI) transaction occurs when an investor from one country purchases assets in another country with the intention of managing those assets (Abor, 2010). FDI is viewed as a key stimulus and advantageous to economic growth in developing and less developed countries (LDCs) not only because it brings in much-needed money, but also because it creates jobs and theoretically, contributes to the eradication of socio-economic problems. It gives local manufacturing sectors access to innovative technology and spillovers, both technological and otherwise. FDI continues to be a major driver of growth in developing nations, particularly in Africa. This is primarily due to FDI's positive impact on economic growth. However, empirical researches on the significance of FDI on the development of Africa's banking industry remain inconclusive. This research looked at the impact of foreign direct investment (FDI) on financial inclusion (FI) and banking sector development (BSD), as well as the interaction effect of FDI and FI on BSD, by determining the role of FDI in assisting banks in promoting financial inclusion activities, particularly in Africa.

First of all, the empirical analysis of the study reveals that foreign direct investment (FDI) has negative effect on financial inclusion (FI). The negative association between them has statistically insignificant effect on FI. FI is a global issue since it provides several economic benefits to people, small enterprises, and long-term growth in general. It's also considered as a way to reduce social marginalization. Due to unsubstantial impact of the foreign direct investment on financial inclusion, it means that the hope to address the stark reality of poverty that confront African countries due to the barriers that prevent individuals from fully participating in the financial sector is in jeopardy.

Secondly, the study found that FDI has positive effect on banking sector development and this effect is statistically significant at 1% significance level using banking sector development index which consistent of six measures in Africa.

Thirdly, it is well noted from the empirical result that the interactive term of foreign direct investment and financial inclusion has no statistically significant effect on banking sector development. FDI as an individual has no meaningful effect on the banking sector development in Africa so far as this study is concern. The study also shows that financial inclusion has statistically insignificant negative relationship with banking sector development.

6.2 CONCLUSIONS

According to the report, FDI does not improve financial inclusion in African countries. But it shows that the net FDI inflows have significant impact on BSD in Africa. Financial inclusion, according to the research, enhances individuals' and SMEs' economic prospects. However, little is known about how it would affect the development of banks, which are the primary arbiters of financial services in every economy. The study shows detailed empirical evidence for the first time, that increased financial inclusion is negatively associated with individual bank sector development at a statistically insignificant level, using panel data from fifty-two (52) African nations of a fourteen-year period (2004–2017). This finding implies that banks view financial inclusion as a detrimental to their development and reliance in African. Increasing financial inclusion will also serves as a tool for lowering the marginal profitability and stability of banks.

6.3 POLICY RECOMMENDATIONS

Based on the finding of the first objective, FDI has negative and statistically insignificant effect on FI. Therefore, the study recommends that policymakers should put in place skill orientated policies that help

firms, small and medium enterprises (SMEs) and individuals to enormously benefit from FDI inflows since FI is the major key for eradicating poverty, inequality and unemployment which lead to social vices that confronting the development of African countries. Since foreign direct investment globally holds potentials in facilitating technology transfers, providing employment opportunities, increasing domestic production and international market networks amongst other things is imperative that policymakers and industry players should formulate and implement policies that meet the manpower skills needed by these foreign investors to boost financial inclusion in the continent.

With regard to the outcome of the second objective which indicated that FDI has positive statistically significant effect on BSD. Though FDI inflows have statistically significant positive effect on BSDI, is inadequate to sustain the viability of development of banking sector in Africa. The study therefore recommends that policymakers and stakeholders in the banking sector; most especially the central bank of these various African countries should implement viable policies devoid of political repression to win the investor's confidence in the banking sector. If FDI helps developing countries fill critical development, foreign exchange, investment, and tax revenue gaps while also supplementing domestic savings, job creation and growth, integration into the global economy, modern technology transfer, efficiency enhancement, and the development of local suppliers, it shows that banks that act as intermediaries and transact business on behalf of firms and individuals are not benefiting from FDI inflows. The defeat of confidence of foreign investors to keep their funds in the local banks to enhance their reserves and boost their credit granting might be due to poor implementation of policies, monitoring and evaluation on part of central banks. In recent time, the central bank of Republic of Ghana implemented a policy christen "financial center cleanup "which sought to wear a political spectacle leads to the collapse of many local banks, savings and loan, and microfinance companies for

that matter the lock up of depositors' funds in these financial institutions must detest the investors for keeping their funds in there.

With respect to the finding of third objective, the interaction term between FDI and FI has negative but statistically insignificant effect on BSD. So far as the third objective is concern; the FI sought to mitigate the negative effect of interaction term on BSD through the computation of marginal effect. In the view of the above finding the study again recommends that the central banks of African countries should formulate and implement policies that can help both indigenous and foreign banks that operate in these various countries to meet the international standard of good banking practices to enhance diversification and innovative forms of service provision, improvement of financial infrastructure in order to win the trust of the foreign investors. Governments should switch to a cashless system like digitizing all government payments (wages, social transfers and payments to suppliers, etc.) and so direct private sector to do same in order to accelerate FI. Through the acceleration of financial inclusion, policies should be implemented to check the threat it poses to the development of banking sector. By so doing these foreign investors will be compelled indirectly to keep their funds in these banks to use to grant loans to accelerate banking sector development.

6.4 FUTURE RESEARCH

Anarfo et al. (2019) find a reverse causation between financial sector development (FSD) and financial inclusion in both the Sub-Saharan Africa nations sample and the entire sample (FI). Moreover, employing fifty-two African countries of a period of fourteen years (2004-2017), this study empirically proved that FI has a statistically insignificant negative effect on banking sector development. So is very imperative that future studies should look at the relationship between the Stock market and financial inclusion to empirically establish which of the component of financial sector development (FSD) that

leads to the reverse causality between financial inclusion and FSD as Anarfo et al, (2019) empirically indicated. Other studies could also look at the how banking sector in Africa can be revamped in order to benefit fully from FDI inflows to help solve socio – economic problems like social and financial exclusion in Africa.

REFERENCES

Abor, J.Y. "Foreign direct investment and firm productivity: evidence from firm-level data", Global Business and Economics Review, Vol. 12, No.4, pp. 267–285, 2010.

Abor, J.Y., Amidu, M. and Issahaku, H. (2018), "Mobile telephony, financial inclusion and inclusive growth", Journal of African Business, Vol. 19 No. 3, pp. 430-453, doi: 10.1080/15228916.2017.1419332.

Acemoglu, D., Johnson, S., Robinson, J., 2004.Institutions as the Fundamental Cause of Long-run Economic Growth National Bureau of Economic Research, NBER Working Paper No. 10481. NBER, Cambridge, Mass.

Adam, A. M. and G. Tweneboah (2009), 'Foreign Direct Investment and Stock Market Development: Ghana's Evidence', International Research Journal of Finance and Economics, Vol. 26, pp. 178–85.

Adams, S. (2009), "Foreign direct investment, domestic investment, and economic growth in sub-Saharan Africa", Journal of Policy Modeling, Vol. 31 No. 6, pp. 939-949.

Adeniyi, O., Ajide, B. and Salisu, A. (2015), "Foreign capital flows, financial development and growth in Sub-Saharan Africa", Journal of Economic Development, Vol. 40 No. 3, pp. 85-103.

African Development Bank (2018), Annual Report, ADB publication, Abidjan.

Agbloyor, E. K., J. Abor, C. K. D. Adjasi and A. Yawson (2013), 'Exploring the Causality Links between Financial Markets and Foreign Direct Investment in Africa', Research in International Business and Finance, Vol. 28, pp. 118–34.

Agbloyor, E.K., Abor, J.Y., Adjasi, C.K.D. and Yawson, A. (2014), "Private capital flows and economic growth in Africa: the role of domestic financial markets", Journal of International Financial Markets, Institutions and Money, Vol. 30, pp. 137-152.

Aggarwal, R. (1993). The global expansion of Japanese financial service firms: role of domestic economic and regulatory policies. In Y. Aharoni (Ed.), *Coalitions and competition: The globalization of professional business services*. Chap. 16. London: Routledge.

Aggarwal, R., & Durnford, J. (1989). Market assessment of international banking activity: a study of US bank holding companies. *Quarterly Review of Economics and Business, 29*, 58–67.

Aggarwal, R., Demirguc-Kunt, A. and Pería, M.S.M. (2006), "Do workers' remittances promote financial development?", World Bank Policy Research Paper No. 3957, World Bank, Washington, DC.

Aghion, P. and Bolton, P. (1997), "A theory of trickle-down growth and development", The Review of Economic Studies, Vol. 64 No. 2, pp. 151-172.

Agnello, L., Mallick, S.K. and Sousa, R.M. (2012), "Financial reforms and income inequality", Economics Letters, Vol. 116 No. 3, pp. 583-587.

Agosin, M.R. and Machado, R. (2005), "Foreign investment in developing countries: does it crowd-in domestic investment?", Oxford Development Studies, Vol. 33 No. 2, pp. 149-162.

Agosin, M.R. and Mayer, R. (2000), "Foreign investment in developing countries: does it crowd in domestic investment?", World Investment Report, No. 146.

Agyapong, D. and Bedjabeng, K. A. (2020), "External debt stock, foreign direct investment and financial development Evidence from African economies", Journal of Asian Business and Economic Studies Vol. 27 No. 1, 2020 pp. 81-98

Ahmad M, Turi JA, Al-Dala'ie RNS, Manan A (2022) Potential use of recycled materials on rooftops to improve thermal comfort in sustainable construction projects. Frontiers in Built Environment, 235. https:// doi. org/ 10. 3389/ fbuil. 2022. 10144 73

Aizenman, J. and Noy, I. (2006), "FDI and trade—two-way linkages?", The Quarterly Review of Economics and Finance, Vol. 46 No. 3, pp. 317-337.

Akudugu, M.A. (2013), "The determinants of financial inclusion in Western Africa: insights from Ghana", Research Journal of Finance and Accounting, Vol. 4 No. 8, pp. 2013.

Alfaro, L. (2003). Foreign direct investment and growth: Does the sector matter. *Harvard Business School*, *2003*, 1-31.

Alfaro, L., Chanda, A., Kalemli-Ozcan, S., Sayek, S., 2004. FDI and economic growth: the role of local financial markets. Journal of International Economics 64, 89–112.

Alfaro, L., Kalemli-Ozcan, S. and Sayek, S. (2009), "FDI, productivity and financial development", World Economy, Vol. 32 No. 1, pp. 111-135.

Aliber, R. Z. (1984). International banking: a survey. *Journal of Money, Credit and Banking*, *16*, 661–712.

Allen, F., Carletti, E., Cull, R., Qian, J., Senbet, L., & Valenzuela, P. (2014). The African financial development and financial inclusion gaps. Journal of African Economies, 23(5), 614e642.

Allen, F., Demirguc-Kunt, A., Klapper, L. and Peria, M.S.M. (2012), The Foundations of Financial Inclusion: Understanding Ownership and Use of Formal Accounts, The World Bank, New York.

Allen, F., Demirguc-Kunt, A., Klapper, L. and Pería, M.S.M. (2016), "The foundations of financial inclusion: understanding ownership and use of formal accounts", Journal of Financial Intermediation.

Allen, F., Ochere, I. and Senbet, L.M. (2011), "African financial systems: a review", Review of Development Finance, Vol. 1 No. 2, pp. 79-113.

Anarfo, E.B., Abor, J.Y. and Gyeke-Dako, A. (2019), "Monetary policy and financial inclusion in sub-Sahara Africa: a panel VAR approach", Journal of African Business, Vol. 20 No. 4, doi: 10.1080/ 15228916.2019.1580998.

Anarfo, E.B., Abor, J.Y., Osei, K.A. and Gyeke-Dako, A. (2019), Financial Inclusion and Financial Sector Development in Sub-Saharan Africa: A Panel VAR Approach, International Journal of Managerial Finance, 15(4), 444-463.

Anderson, B.J., Auslander, W.F., Jung, K.C., Miller, J.P. and Santiago, J.V. (1990), "Assessing family sharing of diabetes responsibilities", Journal of Pediatric Psychology, No. 15, pp. 477-492.

Anetor, F.O. (2019), "Foreign direct investment inflows and real sector: a vector autoregressive (VAR) approach for the Nigerian economy", The Journal of Developing Areas, Vol. 53 No. 3, pp. 27-42.

Ang, J.B. (2008), "Determinants of foreign direct investment in Malaysia", Journal of Policy Modeling, Vol. 30 No. 1, pp. 185-189.

Angadi, V.B. (2003), "Financial infrastructure and economic development: theory, evidence andexperience", RBI Occasional Papers, Vol. 24 No. 1, pp. 191-223.

Antras, P. Desai, M.A. and Foley, F.C. (2009), "Multinational firms, FDI flows and imperfect capital markets", *The Quarterly Journal of Economics*, Vol. 124, No. 3, pp. 1171-1219.

Anyanwu, J. C. (2006), "Promoting of Investment in Africa", African Development Review, Vol. 18, No.1, April 2006, 42-71.

Anyanwu, J. C. and N. D. Yameogo (2015), 'What Drives Foreign Direct Investments into West Africa? An Empirical Investigation', African Development Review, Vol. 27, No. 3, pp. 199–215.

Ardic, O.P., Hermann, M. and Mylenko, N. (2011), "Access to financial services and the financial inclusion agenda around the world: a cross-country analysis with a new data set", working paper, World Bank Policy Research.

Arellano, M & Bond, S, 1991. Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations. The Review of Economic Studies 58(2), 277–97.

Arellano, M & Bover, O, 1995. Another look at instrumental variables' estimation of error component models. Journal of Econometrics 68, 29–51.

Arellano, M. and O. Bover (1995), 'Another Look at the Instrumental Variable Estimation of Error-Components Models', Journal of Econometrics, 68(1): 29–51.

Arellano, M. and S. Bond (1991), 'Some Tests of Specification for Panel Data: Monte Carlo Evidence and an Application to Employment Equations', The Review of Economic Studies, 58(2): 277–297.

Asiedu, E. (2002), "On the determinants of foreign direct investment to developing countries: is Africa different?", World Development, Vol. 30 No. 1, pp. 107-19.

Asiedu, E. (2006), "Foreign direct investment in Africa: the role of natural resources, market size, government policy, institutions and political instability", The World Economy, Vol. 29 No. 1, pp. 63-77.

Asif, M. and Majid, A. (2018), "Institutional quality, natural resources and FDI: empirical evidence from Pakistan", Eurasian Business Review, Vol. 8 No. 4, pp. 391-407.

Assunção, S., Forte, R., & Teixeira A. A. C. (2011). Location Determinants of FDI: a Literature Review. FEP working papers: University of Porto.

Atkinson, A. B. (1997, March). Bringing income distribution in from the cold. *The economic Jounal, 107*, 297–321.

Azman-Saini, W.N.W., Law, S.H. and Ahmad, A.H. (2010), "FDI and economic growth: new evidence on the role of financial markets", Economics Letters, Vol. 107 No. 2, pp. 211-213.

Baladevi, M., Nedumaran, G., & Manida, M. (2019). Impact of foreign direct investment in Indian banking sector. *International Journal of Recent Technology and Engineering*, *8*(3 Special Issue), 250–253. https://doi.org/10.35940/ijrte.C1058.1083S19

Baltagi, B.H. Demitriades, P.O. and Law, S.H. (2009), "Financial development, openness and institutions: Evidence from panel data", *Journal of Development Economics*, Vol. 89, No. 2, pp. 285-296.

Baltagi, BH, 2005. Econometrics analysis of panel data. 3rd edn. John Wiley and Sons Ltd, West Sussex.

Banerjee, A.V. and Newman, A.F. (1993), "Occupational choice and the process of development", Journal of Political Economy, Vol. 101 No. 2, pp. 274-298.

Barro, R. J. (1991). Economic growth in a cross section of countries. *The Quarterly Journal of Economics*, 106(2), 407-443.

Basu, P., & Guariglia A. (2007, December,). Foreign direct investment, inequality, and growth. *Journal of Macroeconomics*, *29*, 824–839.

Batra, R., & Slottje, D. J. (1993). Trade policy and poverty in the United States: Theory and evidence, 1947-1990. *Review of International Economics, 1(3)*, 189-208.

Beck, T. and Cull, R. (2013), Banking in Africa, Policy Research Paper 6684, The World Bank, New York.

Beck, T. and Levine, R., 2004. Stock markets, banks, and growth: Panel evidence. *Journal of Banking and Finance*, 28, pp. 423-442.

Beck, T., Demirgüç-Kunt, A. and Levine, R. (2007), "Finance, inequality and the poor", Journal of Economic Growth, Vol. 12 No. 1, pp. 27-49.

Bell, A & Jones, R, 2015. Explaining fixed effects: Random effects modelling of time series cross-sectional and panel data. Political Science Research and Methods 3(1), 133–53.

Belloumi, M. (2014), "The relationship between trade, FDI and economic growth in Tunisia: an application of the autoregressive distributed lag model", Economic Systems, Vol. 38 No. 2, pp. 269-287

Bergeijk, P.A. (2019), "Financial inclusion of urban street vendors in Kigali", Journal of African Business, pp. 1-15, doi: 10.1080/15228916.2019.1695182.

Berger, A. N., & DeYoung, R. (2001). The effects of geographic expansion on bank efficiency. *Journal of Financial Services Research,* in press

Berger, A.N., Hasan, I. and Zhou, M. (2009), "Bank ownership and efficiency in China: what will happen in the world's largest nation", Journal of Banking and Finance, Vol. 33, pp. 113-130.

Bhanot, D., Bapat, V.and Bera, S. (2012), "Studying financial inclusion in north-east India", International Journal of Bank Marketing, Vol. 30 No. 6, pp. 465-484.

Bilir, L.K., Chor, D. and Manova, K. (2019), "Host-country financial development and multinational activity", European Economic Review, Vol. 115, pp. 192-220.

Blackwell, M., J. Honaker and G. King (2017), 'A unified approach to measurement error and missing data: overview and applications', Sociological Methods & Research, 46(3): 303–341.

Blundell, R & Bond, S, 1998. Initial conditions and moment restrictions in dynamic panel data models. Journal of Econometrics 87, 115–43.

Blundell, R. and S. Bond (1998), 'Initial Conditions and Moment Restrictions in Dynamic Panel Data Models', Journal of Econometrics, 87(1): 115–143

Boyd, J. H., Levine, R., & Smith, B. D. (2001). The impact of inflation on financial sector development. Journal of Monetary Economics, 47(2), 221e248.

Bradley, F. (2005), International Marketing Strategy, Prentice-Hall, New York.

Bronzini, R. (2007), "FDI Inflows, agglomeration and host country firms' size: evidence from Italy", Regional Studies, Vol. 41 No. 7, pp. 963-978.

Bryman, A. and Cramer, D. (2002),Quantitative Data Analysis with SPSS Release 10 for Windows: A Guide for Social Scientists, Routledge.

Burgess, R. and Pande, R. (2005), "Do rural banks matter? Evidence from the Indian social banking experiment", American Economic Review, Vol. 95 No. 3, pp. 780-795.

Bushman, R. (2014), "Thoughts on financial accounting and the banking industry", Journal of Accounting and Economics,Vol. 58 No. 2, pp. 384-395.

Calderon, C. and Kubota, M. (2012), "Gross inflows gone wild: gross capital inflows, credit booms and crises", The World Bank.

Camara, N., Peña, X., & Tuesta, D. (2014). *Factors that matter for financial inclusion: Evidence from Peru* (No. 1409).

Cavusgil, S.T., Knight, G. and Riesenberger, J.R. (2012), "International business: the new realities",2nd ed., Saudi Medical Journal, Vol. 33 No. 3, pp. 3-8.

Chakraborty, C. and Basu, P. (2002), "Foreign direct investment and growth in India: a co-integration approach", Applied Economics, Vol. 34 No. 9, pp. 1061-1073.

Chakravarty, S.R. and Pal, R. (2010), "Measuring financial inclusion: an axiomatic approach", Indira Gandhi Institute of Development Research. Working Paper.

Chithra, N., & Selvam, M. (2013). Determinants of financial inclusion: An empirical study on the inter-state variations in India. *Available at SSRN 2296096*.

Chiu Y Bin, Lee CC (2020) Effects of financial development on energy consumption: the role of country risks. Energy Econ 90:104833. https:// doi. org/ 10. 1016/J. ENECO. 2020. 104833

Christopoulos, D.K. and Tsionas, E.G. (2004), "Financial development and economic growth: evidence from panel unit root and cointegration tests", *Journal of Development Economics,* Vol. 73, pp. 55-74. Bencivenga, V.R. and Smith, B.D. (1991), "Financial intermediation and endogenous growth", *The Review of Economics Studies,* Vol. 58 No. 2, pp. 195-209.

Claessens, S. (2006), "Access to financial services: a review of the issues and public policy objectives", Oxford University Press on behalf of the World Bank, The World Bank.

Claessens, S. and Perotti, E. (2007), "Finance and inequality: channels and evidence", Journal of Comparative Economics, Vol. 35 No. 4, pp. 748-773.

Clarke, G.R., Xu, L.C. and Zou, H.F. (2006), "Finance and income inequality: what do the data tell us?", Southern Economic Journal, Vol. 72 No. 3, pp. 578-596.

Cornia, G. (1999). *Liberalisation, globalisation and income distribution*. UNU/WIDER Study.

Coulibaly, D. (2015), 'Remittances and Financial Development in Sub-Saharan African Countries: A System Approach', Economic Modelling, Vol. 45, pp. 249–58.

Cull, R., Ehrbeck, T. and Holle, N. (2014), "Financial inclusion and development: recent impact evidence e", Focus Note, p. 92.

David, M.A., Mlachila, M.M. and Moheeput, A. (2014), Does Openness Matter for Financial Development in Africa?, Nos 14-94, International Monetary Fund

Demirguc-Kunt, A. and Klapper, L. (2012), "Measuring financial inclusion: the Global Findex Database", Policy Research Working Paper No. 6025, World Bank.

Desbordes, R. and Wei, S.J. (2014), The Effects of Financial Development on Foreign Direct Investment, The World Bank, Washington, DC.

Diamond, D.W. and Dybvig, P.H. (1983), "Bank runs,deposit, insurance, and liquidity", Journal of Political Economy, Vol. 91 No. 3, pp. 401-419.

Dollar, D., & Kraay, D. (2000). *Growth is good for the poor*. Development Research Group papers. Washington, DC: World Bank. evidence", Management and Labour Studies, Vol. 41 No. 2, pp. 127-153.

Dunning, J.H. (1993/2000), Multinational Enterprises and the Global Economy: Edinburgh Gate, Harlow, Addison-Wesley, Wokingham.

Dupasquier, C. and Osakwe, P. N (2003), Performance, Promotion, and Prospects for Foreign Investment in Africa: National, Regional, and International Responsibilities, Paper Prepared for the "Eminent Persons' Meeting on Promotion of Investment in Africa", Tokyo, February 2003.

Elbadawi, I.A. and Rocha, R. (1992),"Determinants of expatriate workers remittances in North Africa and Europe", Working Papers WPS 1038, Country Economics Department, The World Bank, Washington, DC.

Elekdag, S.A. and Wu, Y. (2011), "Rapid Credit Growth: Boon or Boom-Bust?", No. 11-241, International Monetary Fund, working paper

Elsherif, M.A. (2015), "The determinants of financial development: Empirical evidence from Egypt", *The Macrotheme Review*, Vol. 4, No. 3, pp. 69-87.

English, W.B. (1999), "Inflation and financial sector size",*Journal of Monetary Economics*, Vol. 44, No. 3, pp. 379-400.

Feenstra, R., & Hanson, G. (1997). Foreign direct investment and relative wages: Evidence from Mexico's maquiladoras. *Journal of International Economics, 42,* 371–393.

Figini, P., & Gorg, H. (2011). Does foreign direct investment affect wage ine quality? An empirical investigation. *The World Economy, 34*, 1455–1475.

Fosu, S. (2013), "Banking competition in Africa: sub regional comparative studies", Emerging Markets Review, Vol. 15, pp. 233-254.

Ghosh, S. (2011), "Does financial outreach engender economic growth? Evidence from Indian states", Journal of Indian Business Research, Vol. 3 No. 2, pp. 74-99.

Girma, S., Gong, Y. and Görg, H. (2008), "Foreign direct investment, access to finance, and innovation activity in Chinese enterprises", The World Bank Economic Review, Vol. 22 No. 2, pp. 367-382.

Giuliano, P. and Ruiz-Arranz, N. (2009), "Remittances, financial development, and growth", *Journal of Development Economics*, Vol. 90,pp. 144-152.

Gohou, G., & Soumare, I.(2011). Does foreign direct investment reduce poverty in Africa and are there regional differences? Electronic copy Retrieved from http://ssrn.com/abstract=1636352

Goldsmith, R.W.(1969), Financial Structure and Development (No. HG174 G57),Yale University Press, New Haven.

Gray, H., & Gray, J. (1981). The multinational bank: a financial MNC? *Journal of Banking and Finance, 5*, 33–63.

Greenwood, J. and Jovanovic, B. (1990), "Financial development, growth, and the distribution of income", Journal of Political Economy, Vol. 98 No. 5, pp. 1076-1107.

Grohmann, A., Klühs, T. and Menkhoff, L. (2018), "Does financial literacy improve financial inclusion? Cross country evidence", World Development, Vol. 111, pp. 84-96.

Grossman, G. M., & Helpman, E. (1992). Protection for sale. NBER Working Paper. No. w4149.

Grubel, H. G. (1977). A theory of international banking. *Banca Nazionale del Lavoro Quarterly Review, 123*, 349–364.

Gujarati, DN & Porter, DC, 2009. Basic econometrics. 5th edn. McGraw-Hill, Singapore. Hansen, LP, 1982. Large sample properties of generalised method of moments estimators. Econometrica 50, 1029–54

Gurley, J.G. and Shaw, E.S. (1955), "Financial aspects of economic development", The American Economic Review, Vol. 45 No. 4, pp. 515-538.

Haddad, M., & Harrison, A. (1993). Are there positive spillovers from direct foreign investment? Evidence from panel data for Morocco. *Journal of Development Economics, 42*, 51–74.

Haldar, P.K., Rahman, S.M., Mia, M., Ahmed, F. and Bashawir, A. (2016), "Assessing the role ofcorporate social responsibility practices of commercial banks in enhancing financial inclusion: a study on banking sector in Bangladesh", International Journal of Economics and Financial Issues, Vol. 6 No. 4, pp. 1778-1783.

Han, K.C. (2009), "Unemployment, financial hardship and savings in individual development accounts", *Journal of Poverty*, Vol. 13, No. 1, pp. 4-95.

Hanif, A., & Shariff, S. S. M. (2016). Relationship Between Foreign Direct Investment and Financial Development. Paper presented at the Proceedings of the 1st AAGBS International Conference on Business Management 2014 (AiCoBM 2014).

Hanning, A. and Jansen, S. (2010), "Financial inclusion and financial stability: current policy issues",ADBI Working Paper No. 259, Asian Development Bank Institute, Tokyo, available at:

www.adbi.org/working-paper/2010/12/21/4272.financial.inclusion.stability.policy.issues/

(accessed 24 November 2017).

Harrison, A.E. and McMillan, M.S. (2003), "Does direct foreign investment affect domestic credit constraints?", Journal of International Economics, Vol. 61 No. l, pp. 73-100.

Hasan MM, Liu K (2022) Decomposition analysis of natural gas consumption in Bangladesh usingan LMDI approach. Energy Strategy Reviews 40:100724.https:// doi. org/ 10. 1016/j. esr. 2021. 100724

Haslag, J. And Koo, J. (1999), "Financial repression, financial development and economic growth", Federal Reserve Bank of Dallas,Working Paper Number 99-02.

Hasnol, A.M., Alwee, P. and Salleh, M. (2013), "Integrating financial inclusion and saving motives into institutional zakat practices: a case study on Brunei", International Journal of Islamic and Middle Eastern Finance and Management, Vol. 8 No. 2, pp. 150-170.

Hasnol, A.M., Alwee, P. and Salleh, M. (2013), "Integrating financial inclusion and saving motives into institutional zakat practices: a case study on Brunei", International Journal of Islamic and Middle Eastern Finance and Management, Vol. 8 No. 2, pp. 150-170.

Hassan, M. R., Das, P. C., & Islam, M. A. (2016). Per Capita GDP And Population Growth Nexus: Facts from a Cross Country Analysis. The Cost and Management, 44(6), 39-43

Hemming, R. and Manson, A., 1988. Is privatization the answer? *Finance and Development*, 25, pp. 31-33.

Hernández, L. and Landerretche, O. (2002), "Capital inflows, credit booms, and macroeconomic vulnerability: the cross-country experience", Banking, Financial Integration, and International Crises, Central Bank of Chile Santiago, Chile, pp. 199-233.

Herzer, D. (2012), "How does foreign direct investment really affect developing countries' growth?", Review of International Economics, Vol. 20 No. 2, pp. 396-414.

Herzer, D., & Nunnenkamp, P. (2011). *FDI and income inequality: Evidence from Europe* (Working paper, 1675). Kiel: Kiel Institute for the World Economy.

Hill, RC, Griffiths, WE & Lim, GC, 2012. Principles of econometrics. Wiley, Asia.

Honohan, P. (2008), "Household financial assets in the process of development", in Davies, J.B. (Ed.), Personal Wealth froma Global Perspective, Oxford University Press, Oxford.

Huang, Y. (2010a). Determinants of financial development. London: Palgrave Macmillan.

Ibrahim, O.A. and Hassan, H.M. (2013), "Determinants of foreign direct investment in Sudan: an econometric perspective", Journal of North African Studies, Vol. 18 No. 1, pp. 1-15.

IMF (1993), "Balance of payments manual fifth edition", International Monetary Fund, Vol. 86 No. 1, pp. 1-188.

IMF (1999). *Growth in sub-Saharan Africa: Performance, impediments and policy requirements*. *World Economic Outlook*, Chapter VI. Washington, DC

IMF, World Bank, OECD and EBRD (1991). A study of the Soviet economy. OECD, Paris.

International Labour Organisation (2014). *World social protection report 2014/2015: Building economic recoverty, inclusive development and social justice*. Geneva: Author.

International Labour Organisation. (2012). *Working toward sustainable development: Opportunities for decent work and social inclusion in a green economy*. Geneva: Author. Irankunda, D. and Van

Iram R, Zhang J, Erdogan S et al (2020) Economics of energy and environmental efficiency: evidence from OECD countries. Environ Sci Pollut Res. https:// doi. org/ 10. 1007/ s11356- 019- 07020-x

Jaumotte, F., Lall, S., & Papageorgiou, C. (2013). Rising income inequality: Technology, or trade and financial globalization? *IMF Economic Review, 61*, 271–309.

Jeanneney, S.G. and Kpodar, K. (2011), "Financial development and poverty reduction: can there be a benefit without a cost?", The Journal of Development Studies, Vol. 47 No. 1, pp. 143-163.

Ju, J. and Wei, S.J. (2010), "Domestic institutions and the bypass effect of financial globalization", American Economic Journal: Economic Policy, Vol. 2 No. 4, pp. 173-204.

Kaufmann, D., Kraay, A., & Mastruzzi, M. (2009). Governance matters VIII: Aggregate and individual governance indicators 1996-2008 (World Bank policy research paper 4978). Washington DC: World Bank.

Kaur, M. Yadav, S.S. and Gautam, V. (2013), "Financial system development and foreign direct investment: A panel study for BRICS countries", *Global Business Review*, Vol. 14, No. 4, pp. /729-742.

Kempson E, A. Atkinson and O. Pilley, 2004. "Policy level response to financial exclusion in developed economies: lessons for developing countries", Report of Personal Finance Research Centre, University of Bristol.

Kennedy, P. (2008), A Guide to Econometrics, Blackwell Publishing, Malden, MA.

Keong, C. C. (2007). *The Role of Private Capital Flows on GDP of Low Middle and High Income Group Countries*. PhD Thesis, University Putra Malaysia, Malaysia.

Khan, R.E.A. and Adnan Hye, Q.M. (2014), "Foreign direct investment and liberalization policies in Pakistan: an empirical analysis", Cogent Economics and Finance, Vol. 2 No. 1, p. 944667.

Kim HT, Papanastassiou M, Nguyen Q (2017) Multinationals and the impact of corruption on financial derivatives use and firm value: evidence from East Asia. J Multinatl Financ Manag 39:39–59

Klapper, L, El-Zoghbi, M & Hess, J, 2016. Achieving the sustainable development goals: The role of financial inclusion. www.cgap.org. [Accessed 20 July 2019].

Klapper, L. and Singer, D. (2015), "The role of informal financial services in Africa", Journal of African Economies, Vol. 24 No. suppl1, pp. i12-i31.

Klein, M., Aaron, C., & Hadjimichael, B. (2001). *Foreign direct investment and poverty reduction* (The World Bank Policy Research Working Paper 2613). Washington DC: The World Bank.

Klein, M.W., Peek, J., Rosengren, E.S., 2002. Troubled banks, impaired foreign direct investment: the role of relative access to credit. American Economic Review 92, 664–682.

Koivu, T.,2002. Do efficient banking sectors accelerate economic growth in transition countries? (No. 14/2002). Bank of Finland, Institute for Economies in Transition.

Kosmidou, K., Pasiouras, F. and Tsaklanganos, A. (2007), "Domestic and multinational determinants of foreign bank profits: the case of Greek banks operating abroad", Journal of Multinational Financial Management, Vol. 17 No. 1, pp. 1-15.

Kumar, P.K. and Laha, A. (2012), "Determinants of financial inclusion: a study of some selected districts of West Bengal", India. Indian Journal of Finance, Vol. 5 No. 8, pp. 29 -36.

Lane, P.R. and McQuade, P. (2014), "Domestic credit growth and international capital flows", The

Law, S.H. and Singh, N. (2014), "Does too much finance harm economic growth?", Journal of Banking & Finance, Vol. 41, pp. 36-44.

Le, T., Kim, J., & Lee, M. (2016). Institutional quality, trade openness, and financial sector development in Asia: An empirical investigation. Emerging Markets Finance and Trade, 52(5), 1047e1059.

Lehnert, K., Benmamoun, M., and Zhao, H. (2013). FDI inflow and human development: Analysis of FDI's impact in host countries social welfare and infrastructure. Published online in Wiley Online Library (wileyonlinelibrary.com).

Levine, R. (2005), "Finance and growth: theory and evidence", in Aghion, P. and Durlauf, S. (Eds), Handbook of Economic Growth, Elsevier Science, Amsterdam.

Levine, R., & Renelt, D. (1992). A sensitivity analysis of cross-country growth regressions. *The American Economic Review*, *82(4)*, 942-963.

Liargovas, P.G. and SkaAsif, M. and Majid, A. (2018), "Institutional quality, natural resources and FDI: empirical evidence

Liu, L.Y. and Woo, W.T.,1994. Saving behavior under imperfect financial markets and the current account consequences. *Economic Journal*, 104, pp. 512–527. Evidence from China. *China economic review*,17(4), pp. 395-411.

Louangrath, P. (2014) Foreign direct investment in the banking industry. Retrieved from https://www.researchgate.net/post/ Which are the relevant FDI theories in the case of foreign bank entry into host countries.

Luca, O., & Spatafora, N. (2012). Capital inflows, financial development, and domestic investment: Determinants and inter-relationships (IMF working paper no. 120). Washington DC: International Monetary Fund.

Magnus, F.J. and O.-A.E. Fosu (2008) Bivariate Causality Analysis between FDI Inflows and Economic Growth in Ghana. International Research Journal of Finance and Economics 15: 103- 112.)

Makoni, P. L. (2015). An extensive exploration of theories of foreign direct investment. Risk Governance and Control: Financial Markets and Institutions, 5(2): 77-83.

Markusen, J.R. (2002), Multinational Firms and the Theory of International Trade Cambridge, MIT Press, Cambridge, MA

Marr, M. W., Rogowski, R. W., & Trimble, J. L. (1989). The competitive effects of US and Japanese commercial bank participation in eurobond underwriting. *Financial Management*, *18*, 47–54.

Marshall, J.N. (2004), "Financial institutions in disadvantaged areas: a comparative analysis of policies encouraging financial inclusion in Britain and the United States", Environment and Planning A, Vol. 36 No. 2, pp. 241-261.

Mazumdar, D. (1995). *Wage difference by size of enterprise in African manufacturing* (RPED Discussion Paper). WorldBank.

Mbulawa, S. (2015), "Effect of macroeconomic variables on economic growth in Botswana", Journal of Economics and Sustainable Development, Vol. 6 No. 4, pp. 68-78.

Mehrotra, N., Puhazhendhi, V., Nair, G. and Sahoo, B.B. (2009), "Financial inclusion-an overview", Department of Economic Analysis and Research, National Bank for Agriculture and Rural Development (NABARD), Occasional Paper, p. 48.

Meisenberg, G., & Lynn, R. (2011). Intelligence: A measure of human capital in nations. The Journal of Social, Political and Economic Studies,36(4), 421e454.

Meyer, K. E. (2001). International business research on transition economies. In The Oxford handbook of international business (pp. 716-759).

Mishkin, F.S. (2007), "Is financial globalization beneficial?", Journal of Money, Credit, and Banking, Vol. 39, pp. 259-294. No.10, pp. 1-14.

Mugume, A. (2007), "Market structure and performance in Uganda's banking industry", paper presented to the African Econometrics Society, Cape Town.

Naceur, S.B. Cherif, M. and Kandil, M. (2014), "What drives the development of the MENA financial sector? ", *Borsa Instabul Review,* Vol. 14, No. 4, pp. 212-223.

Nanda, K. and Kaur, M. (2016), "Financial inclusion and human development: a cross-country

Ngowi, H.P. (2001), "Can Africa increase its global share of foreign direct investment (FDI)?", West African Review, Vol. 2 No. 2, pp. 122.

Nyantakyi, E. and Sy, M. (2015), "The banking system in Africa: main facts and challenges", Africa Economic Brief, Vol. 6 No. 5, pp. 1-16.

OECD (Organisation for Economic Co-operation and Development) (2008) Benchmark definition of foreign direct investment, 4th ed. OECD, Paris. Retrieved from: https://www.oecd.org/daf/inv/investmentstatisticsandanalysis/40193734.pdf

Okpara, J.O. and Koumbiachis, N.J. (2009), "Strategic export orientation and internationalization barriers: evidence from developing economy", Journal of International Business and Cultural Studies, available at: www.aabri.com

Olufemi A. Aluko and Michael Adebayo Ajayi, (2018). Determinants of banking sector development: Evidence from Sub-Saharan African countries.

Onyeiwu, S. and Shrestha, H. (2004), "Determinants of foreign direct investment in Africa", Journal of Developing Societies, Vol. 20 Nos 1-2, pp. 89-106.

Onyeiwu, S. and Shrestha, H. (2004), "Determinants of foreign direct investment in Africa", Journal of Developing Societies, Vol. 20 Nos 1-2, pp. 89-106.

Otchere, I., I. Soumaré and P. Yourougou (2016), 'FDI and Financial Market Development in Africa', The World Economy, Vol. 39, No. 5, pp. 651–78.

Otchere, I., Senbet, L. and Simbanegavi, W. (2017), "Financial sector development in Africa – an overview", Review of Development Finance, Vol. 7 No. 1, pp. 1-5.

Oteng-Ababio, M., Owusu, G., Wrigley-Asante, C., & Owusu, A. (2016). Longitudinal analysis of trends and patterns of crime in Ghana (1980–2010): a new perspective. *African Geographical Review*, *35*(3), 193–211. https://doi.org/10.1080/19376812.2016.1208768.

Pajunen, K. (2008), "Institutions and inflows of foreign direct investment: a fuzzy-set analysis", Journal of International Business Studies, Vol. 39 No. 4, pp. 652-669.

Park, C.Y. and Mercado, R. (2018), "Financial inclusion, poverty and income inequality", The Singapore Economic Review, Vol. 63 No. 1, pp. 185-206.

Park, C.Y. and Mercado, R.V. Jr (2015), "Financial inclusion, poverty, and income inequality in developing Asia", No W426, Asian Development Bank, pp. 1-17.

Qi, L. (2007), "The relationship between growth, total investment and inward FDI: evidence from time series data", International Review of Applied Economics, Vol. 21 No. 1, pp. 119-133.

Quazi, R. M. (2007), "Investment Climate and Foreign Direct Investment: A Study of Selected Countries in Latin America", *Global Journal of Business Research,* Volume 1, Number 2, 1-13.

Rajan, R.G. (2009), "A Hundred Small Steps – Report of the Committee on Financial Sector Reforms", Planning Commission, Government of India, New Delhi.

Raza, S.H. Shahzadi, H. and Akram, M. (2014), "Exploring the determinants of financial development using panel data on developed and developing countries", *Journal of Finance and Economics,* Vol. 2, No. 5, pp. 166-172.

Robinson, J. (1952), The Generalisation of the General Theory. In the rate of interest and other Essays. London: MacMillan.

Roodman, D, 2009. How to do Xtabond2: An introduction to difference and system GMM in Stata. The Stata Journal: Promoting Communications on Statistics and Stata 9(1), 86–136.

Roodman, D. (2006), 'An Index of Donor Performance', Center for Global Development Working Paper, (67).

Rostow, W. W. (1960). *The stages of economic growth – A non-communist manifesto*. Cambridge: Cambridge University Press.

Sabi, M. (1988). An application of the theory of foreign direct investment to multinational banking in LDCs. *Journal of International Business Studies, 19,* 433–447.

Sahay, R., _Cihák, M., N'Diaye, P. and Barajas, A. (2015), "Rethinking financial deepening: stability and growth in emerging markets", Staff Discussion Notes, Vol. 15 No. 8, pp. 73-107.

Sahoo, P. (2006), "Foreign direct investment in South Asia: policy, trends, impact and determinants", Discussion Paper No. 56, ADB Institute, pp. 1-76.

Saini, N. and M. Singhania (2018), 'Deteminants of FDI in Developed and Developing Countries: A Quantitative Analysis Using GMM', Journal of Economic Studies, Vol. 45, No. 2, pp. 348–82.

Samimi, J.A. and Ariani, F. (2010), "Governance and FDI in MENA region", Australian Journal of Basic and Applied Sciences, Vol. 4 No. 10, pp. 4880-2.

Sarma, M. (2008), "Index of financial inclusion", Indian Council for Research on International Economic Relations Working Paper No. 215, New Delhi.

Sarma, M., & Pais, J. (2011), Financial inclusion and development. *Journal of international development*, ***23***(5), 613-628.

Scandinavian Journal of Economics, Vol. 116 No. 1, pp. 218-252

Schumpeter, J.A. (1911), *The Theory of Economic Development,* Harvard University Press, Cambridge, MA.

Sethy, S.K. (2016), "Developing a financial inclusion index and inclusive growth in India", Theoretical and Applied Economics, Vol. 2 No. 607, pp. 187-206

Shabbir, G. Anwar, S. Hussain, Z. and Imran, M. (2012), "Contribution of financial sector development in reducing unemployment in Pakistan", *International Journal of Economics and Finance*, Vol. 4, No. 1, pp. 260-268.

Shen, C.H. and Lee, C.C. (2006), "Same financial development yet different economic growth – why?", Journal of Money, Credit, and Banking, Vol. 38 No. 7, pp. 1907-1944.

Sinclair, S. (2013), "Financial inclusion and social financialisaton: Britain in a European context", International Journal of Sociology and Social Policy, Vol. 33 Nos 11/12, pp. 658-676.

Sinclair, S. and Bramley, G. (2011), "Beyond virtual inclusion communications inclusion and digital divisions", Social Policy and Society.

Smith, S. (1997), "Restrictive Policy toward Multinationals: Argentina and Korea", *Case Studies in Economic Development*, 2nd Edition, 178-189.

Smolensky, A., Plotnick, R., Evenhouse, E., & Reilly, S. (1994). Growth. *Inequality and poverty: A cautionary note, review of income and wealth, 40*, 217–222.

Soumaré, I. and F. Tchana (2015), 'Causality Between FDI and Financial Market Development: Evidence From Emerging Markets', The World Bank Economic Review, Vol. 29, No. (suppl_1), pp. S205–16.

Svaleryd, H. and J. Vlachos (2002), 'Markets for Risk and Openness to Trade: How Are They Related?', Journal of International Economics, Vol. 57, No. 2, pp. 369–95.

Sylwester, K. (2005). Foreign direct investment, growth and income inequality in less developed countries. *International Review of Applied Economics, 19*, 289–300.

Tarus, D.K., Chekol, Y.B. and Mutwol, M. (2012),"Determinants of net interest margins of commercial banks in Kenya: a panel study", *Procedia Economics and Finance*, Vol. 2, pp. 199 208.

Te Velde, D. W. (2003). *Foreign direct investment and income inequality in Latin America*. London: Overseas Development Institute.

Te Velde, D. W., & Morrissey, O. (2001). *Foreign ownership and wages: Evidence from five African countries* (CREDIT discussion paper 01/19). Nottingham.

Te Velde, D. W., & Morrissey, O. (2004). Foreign direct investment, skills and wage inequality in East Asia. *Journal of the Asia Pacific Economy, 9*, 348–369.

Thakkar, K. (2014),"A comparative analysis of financial inclusion in emerging economies", VSRD International Journal of Business and Management Research, Vol. 4 No. 6, pp. 165-168.

Tocar, S. (2018). "Determinants of foreign direct investment: A review, '' Review of Economic and Business Studies 11, no.1:165 – 196.

Treasury, H.M.S. (2004), Promoting Financial Inclusion, HM Treasury, London.

Tuesta, D., Sorensen, G., Haring, A., & Camara, N. (2015). *Financial inclusion and its determinants: the case of Argentina* (No. 1503).

UNCTAD (2019), The World Investment Report 2019: Special Economic Zones, United Nations, Geneva.

UNCTAD. (2005). *Transnational corporations and the internalization of R&D*. World investment report, Geneva: United Nations.

UNCTAD. (2011). *World Investment Report: Non-Equity Modes of International Production and Development.* Geneva: United Nations.

United Nations Conference on Trade and Development (UNCTAD) (2010), "Inward and outward foreign direct investment stock, annual, 1980-2010", available at: http://stats.unctad.org/fdi/reportfolder (accessed January 19, 2012).

Varghese, G. and Viswanathan, L. (2018), "Financial inclusion: opportunities, issues and challenges", Theoretical Economics Letters, Vol. 08 No. 11, pp. 1935-1942, doi: 10.4236/tel.2018.811126.

Williams, B. (1997). Positive theories of multinational banking: eclectic theory versus internalization theory. *Journal of Economic Surveys*, *11*, 171–211.

Williams, B. (2002), "The defensive expansion approach to multinational banking: evidence to date", Financial Markets, Institutions and Instruments, Vol. 11 No. 2, pp. 127-203.

Windmeijer, F. (2005), 'A Finite Sample Correction for the Variance of Linear Efficient Two-Step GMM Estimators', Journal of Econometrics, 126(1): 25–51.

World Bank (2001), "Gross fixed capital formation (current US$)" .www.adbi.org/working-paper/2010/12/21/4272.financial.inclusion.stability.policy.issues/

Xu, Y. (2012), "How does financial system efficiency affect the growth impact of FDI in China?", China Finance Review International, Vol. 2 No. 4, pp. 406-428.

Yildirim, S.H. and Philippatos, G.C. (2007),"Competition and contestability in central and eastern European banking markets", Managerial Finance, Vol. 33, pp. 195-209.

Yorulmaz, R. (2013), "Construction of a regional financial inclusion index in Turkey", Journal of BRSA Banking and Financial Markets, Banking Regulation and Supervision Agency, Vol. 7 No. 1, pp. 79-101.

Zakaria, Z., 2007. The causality relationship between financial development and foreign direct investment. Jurnal Kemanusiaan 10, 1–23.

Zaman, K., Shah, I.A., Khan, M.M. and Ahmad, M. (2012),"Macroeconomic factors determining FDI impact on Pakistan's growth", South Asian Journal of Global Business Research, Vol. 1 No. 1, pp. 79-95

Zins, A. and Weil, L. (2016), "The determinants of financial inclusion in Africa", Review of Development Finance, Vol. 6 No. 1, pp

APPENDIXES

TABLE OF LIST OF COUNTRIES

1	Algeria	19	Ethiopia	37	Niger
2	Angola	20	Gabon	38	Nigeria
3	Benin	21	Gambia	39	Rwanda
4	Botswana	22	Ghana		São Tomé and Principe
5	Burkina Faso	23	Guinea	41	Senegal
6	Burundi	24	Guinea-Bissau	42	Seychelles
7	Cabo Verde	25	Kenya	43	Sierra Leone
8	Cameroon	26	Lesotho	44	South Africa
9	Central African Republic	27	Liberia	45	South Sudan
10	Chad	28	Libya	46	Sudan
11	Comoros	29	Madagascar	47	Tanzania
12	Congo, Dem. Rep.	30	Malawi	48	Togo
13	Congo, Rep.	31	Mali	49	Tunisia
14	Cote d'Ivoire	32	Mauritania	50	Uganda
15	Djibouti	33	Mauritius	51	Zambia
16	Egypt, Arab Rep.	34	Morocco	52	Zimbabwe
17	Equatorial Guinea	35	Mozambique		
18	Eswatini	36	Namibia		