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FOREIGN DIRECT INVESTMENT IN SUB-SAHARA AFRICA

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ABSTRACT

This research examines the current and potential role of inward Foreign Direct Investment (FDI) in the economic development of Sub-Saharan Africa (SSA). It is motivated by the recent rise of inward FDI from both developed and developing countries into SSA, considering the attendant impact of foreign ownership on the performance of domestic firms. The study has four main objectives. The first objective is to critically review the relationship between FDI and economic development in SSA. The second objective is to identify macroeconomic determinants of inward FDI in SSA. The third objective will be to examine the effect of foreign ownership on the economic performance of firms in SSA. The fourth objective will investigate how GVC participation affects inward FDI in South Africa.

To achieve the first two objectives, empirical literature of inward FDI and its impact on economic development in developing economies was reviewed, identifying the factors that inform an investors' decision to invest in a firm or country. Although determinants of inward FDI have been widely investigated in the literature without any consensus, WHI leads to the second objective and that is to review it within the context of Dunnings-OLI of why do Multinational Corporations (MNCs) choose to invest the way they do? This research provides a review of both theoretical and empirical studies that identify the most significant determining factors that elucidate the geographical spread and examine the determinants of FDI in SSA using data spanning over 15 years (i.e., 2004 to 2018) for 47 SSA countries. The study employs pooled OLS, fixed and random effects estimators, and the system-GMM on data sourced from World Development Indicators (WDI). The findings of the study reveal that GDP growth rate, internet subscription, foreign exchange, human capital development, trade openness and government effectiveness are the drivers of FDI in the region. While labour force and mobile telecom subscription, exchange rate, inflation, and political stability hurt FDI in the region. Exchange rate, inflation, and political stability, on the other hand, have a negative but insignificant impact on FDI.

To achieve the third objective, the researcher did a review of the theoretical and empirical studies of the impact of foreign ownership on selected domestic firms. Firm-level data of the World Bank Enterprise Survey (WES) was employed to analyse productivity, profitability, and export propensity in 11,965 firms across 39

SSA countries using the Least Square Dummy Variable (LSDV) and Propensity Score Matching (PSM) techniques. In the findings, domestic firms with any degree of foreign ownership were 44 per cent more productive and 52 per cent more profitable than their domestic counterparts. Furthermore, foreign-owned firms had an export propensity of between 8 to 11 times more than their domestic counterparts.

To achieve the fourth objective, pooled OLS, fixed (double panel), and the GMM estimator were employed on a sample of selected sectors in South Africa for 5 years (2010-2014). The researcher also utilised data sourced from UNCTAD, ISC088, QLFS, QES and the Department of Statistics South Africa to ascertain the influence of inward FDI in the participation and positioning of South Africa in the Global Value Chain. The findings show that an increase in efficiency, a component of the value chain, is vital to an increase in inward FDI. This efficiency is due to skilled (high or moderate) labour and technology located in South Africa.

Keywords: Foreign Direct Investments, Sub-Saharan Africa, Foreign ownership, Firm performance etc.

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"I returned and saw under the sun that – the race is not to the swift, nor the battle to the strong, nor bread to the wise, nor riches to men of understanding, nor favours to men of skill; but time and chance happen to them all"

– Ecclesiastes 9:11(NKJV)

"For it is not of him who wills, nor of him who runs but of God who shows mercy"

– Romans 9:16 (NKJV)

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DEDICATION

This thesis is dedicated to late Prince L.A. Aladesanmi (father) , Mrs Joke Aladesanmi (mother) and my lovely wife and children Adeola, Omojolaade and Adedunmola.

DECLARATION

I certify that no part of this thesis has been acknowledged for the granting of any other degree or diploma by any institution or university. The thesis is entirely based on new research, with the exception of quotations and citations that have been appropriately acknowledged.

Kolawole Aladesanmi

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LIST OF ACRONYMS AND ABBREVIATIONS

DOS: Department of Statistics

FDI: Foreign Direct Investment

GDP: Gross Domestic product

GVC : Global Value Chains

ISC088 - United Nations International Standard Classification of Occupations

LIC: Low-Income Countries

M & A: Mergers and Acquisition

MFP : Multifactor Productivity

MNC: Multinational Corporation

MNE: Multinational Enterprise

QES - Quarterly Employment Statistics

QLFS - Quarterly Labour Force Survey

SSA: Sub-Sahara Africa

UNCTAD: United Nations Conference on Trade and Development

WDI : World Development Indicators

WES: World Bank Enterprise Survey

CHAPTER ONE

INTRODUCTION

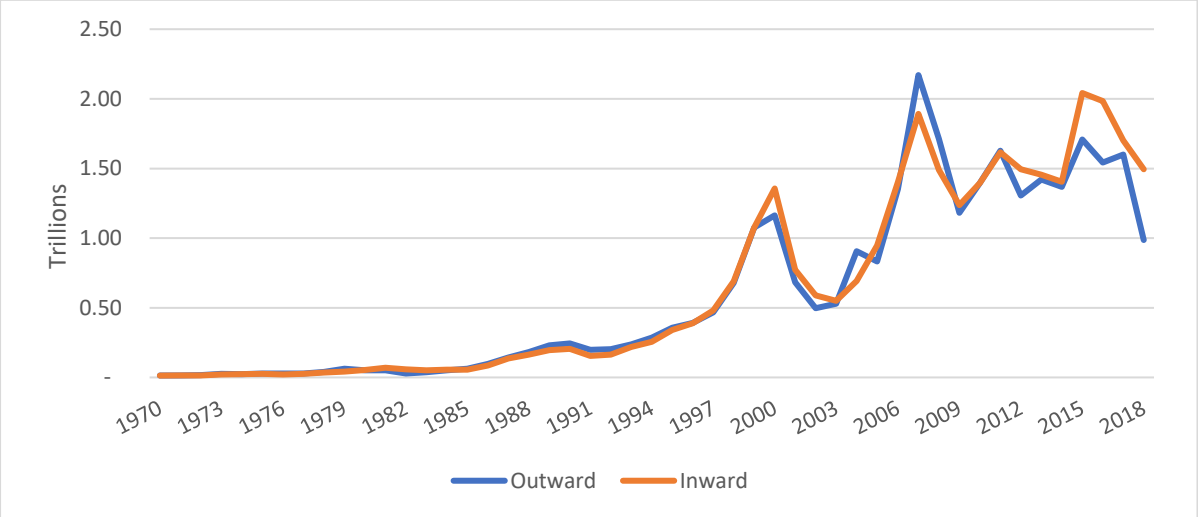
1.1 Background to the study

In the last three decades, the best indication of globalisation has been the continuous increase in Foreign Direct Investment (FDI). Its activities in international business have become the main features of global capital flows, which attract the interest of academic scholars and policymakers (Ajayi, 2006; Bogliaccini and Egan, 2017; Larue, 2019). Since 1990, the annual growth rate of global FDI between 1990 to 2018 averaged 10 per cent greater than the 7 percent of global trade, as shown in Figure 1.1. Furthermore, global FDI inflow peaked at $1.9 trillion in 2007, before the financial crisis in 2008, and $ 2 trillion in 2015, owing to a surge in cross-border M&A. Before that, there was a 6 per cent decline due to weak economic growth and perceived policy risk by MNEs (UNCTAD, 2019). Also, within the same period, international investment worldwide witnessed some hindrance due to government restrictions, which had adversely affected the flow of inward FDI (Mistura and Roulet, 2019).

Nevertheless, the position of countries in Sub-Saharan Africa (SSA) in the flow of global FDI has increasingly become more critical. For instance, SSA is home to over 500 Multinational Corporations (MNCs) who originate from both developed and developing economies and of more prominence is the FDI flow from MNCs who have expanded their operations internationally through FDI and exports. By 2007, very prominent firms like Huawei of China and Vodafone of England (telecommunications), Tata consultancy services of India (IT services), General Electric of United States of America (power, transportation, aviation and healthcare), Odebrecht of Brazil (Construction) and BMW and Volkswagen of Germany (Automobile) have made substantial gains in the region. Some scholars suggest that the presence of MNCs in developing countries impacts negatively on economic growth, while others view them as a vital source. In furtherance, the Economist magazine, in its July 2007 edition, reports on the potentially disruptive effects of the activities of MNCs from developed economies, such as restricting labour-intensive

activities to labour-abundant countries. Besides, UNCTAD (2007) identifies the following sectors as areas of interest for the top twenty MNCs in SSA: industries like shipping, petroleum refining, mining, fabrication of steel, telecommunications, and electronics.

Figure 1:1 Trend of global inward and outward FDI flows.



Source: UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics)

Foreign Direct Investment (FDI) is essential in developing low-income countries, just as investments are critical in the private sector. Hence, it is preferred in comparison to commercial bank lending for equity investment (UNCTAD, 2005; Bartels et al., 2014): the reason being that commercial bank loans are unpredictable, and their servicing is costly, though it can be a substitute for short term financing. However, FDI is cheap and relatively stable when considering long term project financing (Ajayi, 2006; Okafor et al., 2015). Similarly, in the theory of trade and economic growth, inward FDI flow raises the GDP per capita of host countries, which can access advanced technology as their primary source of sustainable growth and development (Busse and Koeniger, 2012). FDI is relevant as it benefits developing countries because of its supplement to local savings and investments, job opportunities, increased innovations, and domestic competition (Ayanwale, 2007; Adams, 2009; Olayiwola and Okodua, 2013). However, leading up to the 1980s, Africans hitherto had treated FDI with much doubt because of the global financial crises in which funding from local investors was no longer seen as reliable, thereby leading to difficulty in executing capital projects (Alfaro, 2003; Agrawal, 2015).

Hence, foreign investments became very attractive as an alternative source of financing used to supplement domestic capital and increase the activities of MNCs in developing countries (Asiedu, 2002; Sinha, 2008; Running, 2016; Iamsiraroj, 2016).

From literature, there are several ways in which capital and advanced technology can become attracted to an economy; Research and Development (R&D) to improve technology capability is another form (Morris, 2009; Iamsiraroj, 2016). However, with the stringent requirements needed to obtain foreign credit, some countries within developing economies may not have the requisite capital to conduct research locally. Hence, this makes developing countries view FDI as the most cost-effective way of sourcing capital, more so in that, it involves some form of risk-sharing between the investor and the host country (Asiedu, 2002,2013; Akpan et al., 2014; Iamsiraroj, 2016). In the case of Africa, it can be said that FDI has been beneficial, and investors who are in business intending to make a profit will expect their host countries to put in place not only policies that will attract more FDI but also those that will reap the benefits from firms (Jindra et al., 2009; UNCTAD, 2013).

In addition, FDI improves employment generation, mainly because investors coming to Africa are classed as either resource-seeking or market seeking; hence, the manufacturing sectors and the extractive industry are commonplace for recruiting unskilled workers for meagre wages. Therefore, it behoves policymakers to ask what role FDI plays in reducing poverty or creating quality jobs for local people engaged in it (Chen et al., 2015; Munalula and Aurick, 2017). On the other hand, technology transfer to the host firms that MNEs engage will depend on their knowledge gap and critical company operations. The entry model of an investor to a host county also describes how FDI contributes to economic development (Bwalya, 2006; Newman et al., 2015). Greenfield investments and Mergers and Acquisitions (M&A) are entry modes to which FDI is attracted to a host country. At the same time, the former contributes to economic development by expanding infrastructure as it involves building from scratch and creating new job opportunities. However, the latter allows for introducing new technology into a host country, providing opportunities for new skilled employees but has the disadvantage of laying off old unskilled workers (Smarzynska, 2002; Bertrand, 2005; Blanc-Brude, 2014).

Though FDI is considered beneficial, it has some demerits, including the exploitation of workers in the host community and environmental degradation. Therefore, investing in SSA requires inward FDI to be examined in the context of its role in firm performance, economic development, and how participation in a GVC contributes to it (Viviers and Strydom, 2015; Running, 2016). This is because inward FDI increases capacity and improves managerial skills and advanced technology, enabling MNCs to optimise their sourcing strategy by separating production stages (Moss, 2004; Mohammed, 2010; Cui et al., 2014). Furthermore, as MNCs optimise their production network, they become more efficient, and others will follow suit. Hence, according to the OECD (2002), FDI is considered a significant part of a global economic system and a catalyst for transferring capital from developed to developing economies. Its effect on host economies and its resultant implication on development make it a policy concern in which MNCs with access to managerial knowledge, skilled labour, and advanced technology have an advantage and can contribute to economic development through a spillover to the domestic economy (Wang and Wong, 2012; Rogmans and Ebbers, 2013; Micheal and Osamwonyi, 2014; Viviers and Strydom, 2015). However, these spillovers can happen through technology transfer, especially if the firm is in the same sector, value chain linkages with sellers and buyers locally, or the turnover of skilled workers (Farole and Winkler, 2012; Munteanu, 2015).

Several studies have investigated how inward FDI from developed and developing economies drives economic development in low-income countries (LIC), targeting several SSA regions. However, most provide little indication of how it affects the region (Moghadam 2011, Breivik 2014, Diallo and Tapsoba 2016). Literature shows that inward FDI flows to the region of SSA continued to increase because apart from being seen as an alternative to commercial loans, these come with very stringent requirements and shared risk of capital between investors and the host country. If well managed, inward FDI comes with maximum benefit and minimum cost while ensuring that the host country is still able to attract investment in the form of capital, technology and managerial skill from not only developing economies but also from developed economies as well (Abegaz, 2005; Ajayi, 2006; Moss, 2009; Makoni, 2014; Bartels et al., 2014; Okafor et al., 2015; Das 2015; Amendolagine and Presbitero, 2017). Studies on how FDI impacts economic growth reveal various findings (Adams, 2009; Paus and Gallager, 2008; Gerard et al., 2017). Other studies

looking at its impact on firm performance also do not reveal any valuable conclusions (Aydin et al., 2007; Bentivogli and Mirenda, 2017; Anh et al., 2018). Furthermore, it influences countries to be part of the Global Value Chains in Asia, Latin America, Africa and SSA without a definite conclusion (Azmeh and Nadvi 2014, Conde and Sullivan 2015, Kowalski et al. 2015, OECD 2015, Taglioni and Winkler 2016).

For this study, the expectation is to model how SSA countries can be integrated into GVCs to enable them to increase the flow of investment and thereby improve the socio-economic wellbeing of the country. Though GVC participation affects development through technology and knowledge spillovers, it is also dependent on several other factors, including interaction with international buyers and suppliers (Engel et al., 2016; Buelens and Tirpak, 2017; Brumm et al., 2019). In the literature, some studies have emerged that try to investigate the link between FDI and GVC. For example, Görg and Greenaway (2004), Javorcik (2004), Havranek and Irsova (2011), and Engel et al. (2016) found that primary channels between investors and local suppliers are regarded as backward linkages and these linkages matter for GVC participation. Also, Staritz and Frederick (2016) argued that benefits are attached to being integrated with the value chain through FDI while considering the apparel industry. In addition, Asian activities based in SSA tend to be limited to manufacturing, with local management having little control over decisions to source globally. In contrast, Amendolagine et al. (2017) concluded that involving developing countries in GVCs positively affected local economies by enhancing FDI spillover through the demand and assistance effect. Furthermore, firms with greater GVC participation are those whose foreign investors are involved in local sourcing and countries have specialised in the upstream stages of production (Taglioni and Winkler, 2016; Constantinescu et al., 2017).

As indicated earlier, several studies have reviewed macroeconomic theories to investigate what informs the decision by MNEs to invest in a foreign country (Lipsey, 2001; Asiedu, 2002; Okafor, 2014). This assessment has led to identifying several determinants of inward FDI (Woldemeskel, 2008), leading to so many without a clear consensus as results vary. The review also has researchers categorise SSA countries based on the 2016 edition of IMF Regional Economic Outlook, i.e. resource-intensive and non-resource intensive countries. Furthermore, classifications have been done based on income levels (Sun et al., 2020),

commodity and non-commodity based (Gossel, 2018) and then based on geographical location, i.e. Central, Eastern, Western and Southern (Folawewo and Tennant, 2008) which this study will adopt. Meanwhile, literature also exists focused on microeconomic variables to identify the impact of foreign investment on firm performance (Dunning, 1980, Aitken and Harrision, 1999; Asiedu, 2002; Bilyk, 2009; Okafor, 2014). The argument is that foreign investments provide access to specific assets such as managerial ability, technology, corporate governance practices, access to international markets and other intangible benefits (Dunning, 1980; 1998). The relationship between these ownership assets fosters efficiency and improves the performance of local firms in the host country. Hence, we apply this argument to determine the relationship between ownership structure and firm performance, which leads to theory suggesting firm performance will differ based on the variation of foreign ownership drawn from familiar Dunnings' eclectic (OLI) paradigm (Greenaway et al., 2014).

1.2 Motivation for Study

This research is motivated by the recent surge in commercial activity within the region of SSA. The behaviour of Governments reveals this, and Multinational Corporations (MNCs) worldwide are in a hurry to establish and reinforce diplomatic, strategic, and business ties, thereby creating enormous opportunities for which economic development can be sought. Therefore, to try and explain the role of inward FDI in the economic development of Sub-Saharan Africa, this study will investigate the following: macroeconomic determinants of inward FDI flows, foreign ownership of firms and its impact on increasing firm performance, and how SSA countries can leverage the current commercial ties to participate in GVCs through the Republic of South Africa. The choice of South Africa as an economy is because of its acceptance into the critical forums such as BRICS and G20 countries and remains the only representative of Africa to be listed among the top 25 FDI destinations based on the A.T. Kearney FDI confidence index. As a result of this, the country is regarded as the entry point for FDI into the region of SSA and the continent of Africa, with increased inward FDI flows entering the country and benefiting the region through spillover effects. In addition, South Africa is an excellent example of a resource-rich country with varying economic and cultural

disparities whose investigation can result in developing a blueprint that can be generalised to other SSA countries.

Moreso, South Africa is an excellent example of an African country that has successfully diversified its economy from natural resources to an economy driven by the service sector. Hence, the idea is to then recommend policies that will guide the policymakers of constituent countries on how to maximise the benefits of FDI with the right policies for their citizens and the environment of which, if there is none in place, investors will take undue advantage of the host country. Secondly, it will establish how to leverage the new ownership structure of firms after the receipt of capital to improve firm performance. Thirdly, it will outline the benefits of inward FDI and show how the local community and firms can absorb its spillover and leverage it as an integral part of a value chain in the international community.

1.3 Research questions

This study intends to respond to these questions in order to achieve the stated objectives as listed below.

1. What is the relationship between FDI and economic development?
2. What are the macroeconomic determinants of FDI inflows in SSA?
3. What is the relationship between foreign ownership and firm performance when considering indicators like productivity, profitability, and export in SSA?
4. Has inward FDI in South Africa encouraged and upgraded its participation in the GVC?

1.4 Research objectives

1. Critically review the literature of FDI and its economic development.
2. Identify the macroeconomic determinants of FDI inflow in SSA.
3. Examine the effect of foreign ownership on the economic performance of firms in SSA.
4. Investigate how GVC participation affects inward FDI in South Africa.
5. Provide policy recommendations on how SSA countries can upgrade in the GVC.

1.5 Structure of research

This research comprises ten chapters. Chapter one introduces the reader to the context and theme of the research while giving an overview of the main topic for the research.

Chapter one, begins with an early establishment of the research subject and then explains the inspiration that led to this research with a conclusion that provides the structure of this thesis.

Chapter two, provides a review of related research relevant to this study. It discusses existing theories of FDI, types of FDI, the hypothesis of FDI, literature of FDI determinants, and trends of FDI.

Chapter three, reviews several economic theories

Chapter Four, discusses the relationship analysis that has been done to determine what level firms with any percentage of foreign ownership and above 50 per cent foreign ownership have on firm performance by using output per worker, profitability per worker as proxies and then export.

Chapter five, provides a background and overview of Sub-Sahara Africa, a trend of FDI, ranking of states based on FDI inflows, advantages and disadvantages of FDI, economic growth, and factors affecting the region.

Chapter six, the analysis provides the macroeconomic determinants of FDI in SSA with an econometric analysis of a selected number of countries to determine how each determinant affects inward FDI flow and their impact on economic development. The research adopts pooled OLS, Fixed and Random effects estimators.

Chapter seven, discusses foreign ownership and firm performance, and firm-specific features and employs the Least Square Dummy Variable and Propensity Square Matching methods to analyse the relationship between Foreign Ownership of firms and Productivity, Profitability and Export propensity.

Chapter eight, discusses inward FDI and VC in South Africa, determinants of FDI, trends of FDI, the impact of inward FDI and its relationship with GVC and how it can influence an upgrade by employing I-O tables from 2010 to 2014.

Chapter nine, provides the results and conclusion for this research. It provides a scientific finding, describing, the key results, policy consequences, drawbacks and identifies future areas of this research.

CHAPTER TWO

FOREIGN DIRECT INVESTMENT

2.1 Introduction

The empirical investigation of the role of FDI in the economic development of nations, e.g., SSA, requires a complete understanding of FDI theories, such as its concept and definition, types, and reviews of the determinants of FDI in relation to its potential benefits.

2.2 Concept of Foreign Direct Investment

Foreign Direct Investment (FDI), according to the World Bank (1996), OECD (1998), Bertrand (2005) and Imodu (2012), is an investment made by a firm or an individual (regarded as an investor) in a firm with the intention of controlling at least 10 per cent equity or more in a country (or host economy) and is different from that of the investor. The ownership of a minimum of 10 per cent of ordinary shares of voting stock is the principle for the existence of a relationship considered to be a direct investment in corporate governance. In contrast, holding a value that is less than 10 per cent of ordinary shares of voting stock is considered to be a portfolio investment (Alfaro et al., 2003; Ajayi, 2006, OECD, 2008; Asemoah et al., 2016). Unlike direct investment, where the investor is dedicated to managing their investment, portfolio investors who have passive holdings, such as bonds, foreign stocks and other forms of financial assets, are not as dedicated and can sell off at the first sign of trouble (Bitzenis et al., 2012). FDI is measured by the addition of all foreign inflows, i.e., an addition of equity or capital and reinvested interest as shown in the balance of payment when looking at the performance of a country at a given time (Bertrand, 2005). Furthermore, an institution that possesses assets, controls, and operates in more than one country to generate its revenue is regarded as a Multinational Enterprise, Multinational Corporation or Transnational Corporation (Farell, 2008; Alfaro, 2014; Bruhn et al., 2016).

The movement of capital or direct investment is traditionally done through firms that are considered as channels. These firms that undertake a foreign investment are known as MNE/MNC/TNC, and their intention is to effectively control the management of any firm where they have obtained a lasting interest. This type of

investment may take the form of mergers and acquisitions (M&A) or a new capital transfer or new investment from a parent company to its affiliate, also known as greenfield investment (Moosa, 2002; Chen et al. 2015; Zhou, 2017). Greenfield investment (commonly known as brick-and-mortar investment) involves a foreign investor establishing a new operational facility in a foreign country, thereby creating new jobs. On the other hand, another form of Mergers and Acquisitions is known as brownfield investments (commonly known as cross border Mergers and Acquisitions). It happens when an existing business in a foreign country takes over or buys into an existing company to start a new product or service which does not involve new operational buildings or facilities (World Bank, 1996; Razin and Sadka, 2007; Zhou, 2017). Mergers and Acquisitions, M&A, are also a prevalent choice of investment because they are quicker to execute, assets are easier to acquire, and strategic assets are easily convertible, including royalties. Additionally, in Mergers and Acquisitions, the efficiency of the acquired firm increases as capital, technology and managerial skills are transferred with ease, unlike in a greenfield investment (Navaretti and Venables, 2004; Razin and Sadka, 2007; Zhou, 2017). Furthermore, the attraction of MNEs into different foreign markets is because of market failure, which gives them an advantage, primarily because of their superior knowledge and advanced technology, which enables them to acquire a market share.

FDI is measured by the addition of every foreign inflow, which is made up of reinvested earnings, equity capital, and other short- and long-term capital balance of payments, as shown in the balance of payment at a given time of a countries' performance (Moosa 2002; Bertrand, 2005; Breivik, 2017; Linsi, 2017). The required 10 per cent minimum threshold gives a foreign investor the ability to participate or influence an acquired enterprise management. Furthermore, if a foreign investor controls 10 and 50 per cent of the voting rights, that investor is regarded in that enterprise as an associate. While having beyond 50 per cent of the voting rights can make that enterprise a subsidiary, and, in that case, the investor can appoint or disengage the management and the board (OECD, 1996; Ruhl, 2016). While an investor in the case of foreign direct investment is committed to controlling their wealth, portfolio investors with passive securities, such as bonds, international stocks and other types of financial assets, are not as committed and may sell them off once they sense trouble (Moosa, 2002; Bitzenis et al., 2012). Economists believe

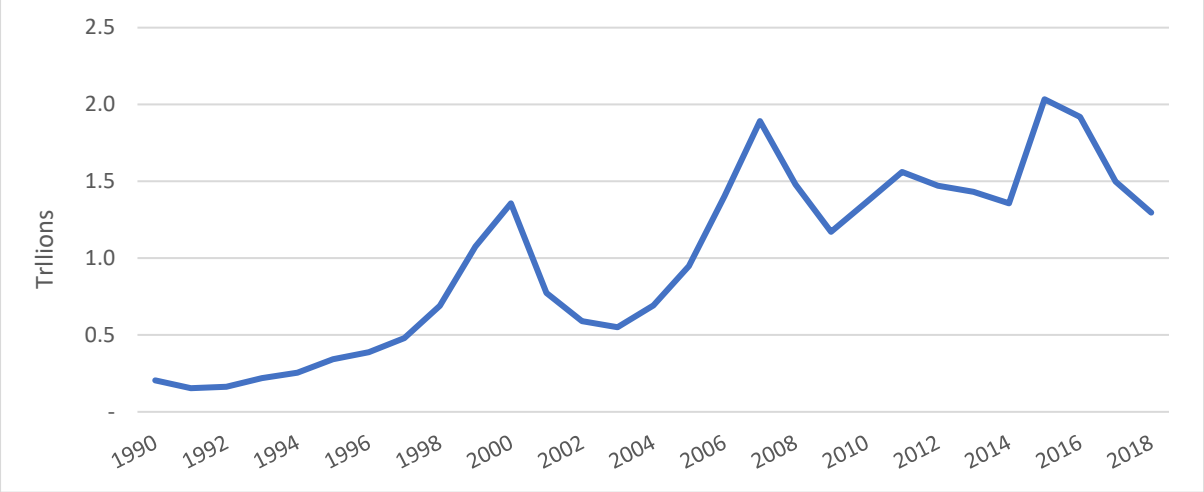
that every country, most especially the ones that are considered to be developing countries, sees FDI as an essential element of economic development. Hence, several theoretical and empirical studies have examined FDI and the reason for its motivation (Knoerich, 2017, Li et al., 2017). In developing countries like those in SSA, FDI is an essential source of finance, and it is an alternative to commercial bank loans, and it also grants access to global markets and foreign currencies, and higher export volume. FDI is also responsible for job creation, increased productivity, and technology spillovers (Ajayi, 2006).

2.3 Trend and distribution of Foreign Direct Investments

The introduction of tax reforms by the Government of the United States of America (USA) was pivotal to the reason for the return of foreign earnings in 2018; hence, global FDI inflows declined by 13 per cent to $1.29 trillion, highlighting the lack of growth in the volume of foreign investment in the last 10 years. Figure 2.1 illustrates global inward FDI flow from 1990 to 2018 with a peak at $2.04 trillion in 2015 owing to increased cross-border activities of M&A and then it began a steady decline to $1.50 trillion in 2018. Despite the poor showing in global growth, as shown in figure 2.2, inward FDI flows to developing countries witnessed a slight growth of 0.2 per cent to $699 billion, whereas developed and transition economies suffered a decline of 20 per cent and 31 per cent, $761 billion and $35 billion respectively, owing to repatriation funds by MNEs domiciled mainly in the United States of America, which eventually is responsible for the 18 per cent increase in cross border Mergers and Acquisitions. It is pertinent to note that in 1990, the developed and developing economies were responsible for 83 per cent and 17 per cent of global inward FDI flows, whereas, in 2018, the share of global inward flows had significantly changed to 51 per cent and 47 per cent respectively, as illustrated in Table 2.1.

According to UNCTAD (2019), inward FDI flow to developing economies remained stable, marginally increasing by 0.2 per cent. On the other hand, Asia had a negative growth of 1 per cent despite contributing to 72 per cent of the total inward FDI flow to developing economies. At the same time, Africa contributes 7 per cent but witnessed a 22 per cent increase in FDI inflow due to the rise and demand of some commodities that were able to sustain resource-seeking investment, with some countries increasing the diversification of their investment.

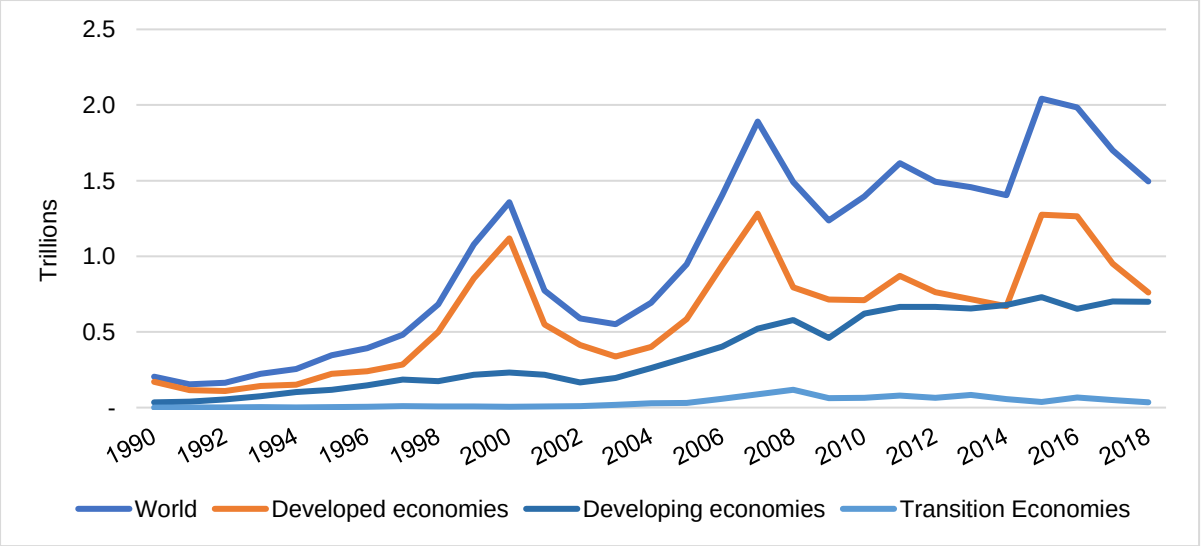
Figure 2. 1: Trend of Global inward FDI flow from 1990 to 2018



Source: UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics).

This change in investment structure has seen 55 countries introducing 112 policy measures that impact foreign investment, of which 60 per cent is how to promote, liberalise and facilitate new capital, and 34 per cent was the introduction of new restrictions or regulations (UNCTAD, 2019). Among the policies that were introduced, these include actions that impact national security in developed economies. In contrast, in developing economies, there was more of a concern about maintaining a ceiling for foreign ownership in specific industries or to place restrictions on the purchase of residential properties.

Figure 2.2: Trend of World, Developed, Developing, Transition economies FDI inflow.



Source: ©UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics).

Majorly, this is to ensure that requirements for local content are met, and that obligations are made to employ local workers as part of the rules of public procurement.

Table 2.1: Trend of Inward FDI flows to different economies ($ millions)

Region/economy	1990	1998	2008	2018
World	204,886.34	681,601.71	1,490,066.23	1,495,222.58
Developed economies	170,166.87	499,437.93	794,312.64	761,391.38
Europe	102,630.28	289,583.88	341,587.59	363,657.58
North America	56,004.28	197,237.45	367,918.52	297,020.04
Developing economies	34,648.57	174,995.20	578,020.39	699,305.56
Africa	2,845.17	9,991.92	58,009.60	50,576.53
Asia	22,973.20	93,554.78	378,481.17	498,559.78
Latin Amer and Car	8,536.83	71,150.62	138,892.11	148,920.32
Transition Economies	70.90	7,168.58	117,733.21	34,525.64

Source: UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics).

Additionally, data made available by UNCTAD (2019) shows that global inward FDI stock increased by 15-fold and transition economies by 486-fold as compared to developed and developing economies which saw an increase by 11-fold and 20-fold, respectively. Total inward FDI stocks to developing countries increased from $509 billion to $11 trillion, which is approximately a far better performance when compared with the world and developed economies whose increases were 14-fold and 12-fold, respectively, in three decades. Unlike inward FDI flows, where the trend reflects a significant movement of capital from developed to developing and transition countries, the same cannot be said of stocks.

In 1990, developed and developing economies had a share of 77 per cent and 23 per cent, i.e. $1.7 trillion and $510 billion, respectively. In contrast, by 2018, the developed economies lost 11 per cent of their share to developing economies and 2 percent to transition economies as shown in Figure 1.2 and Figure 1.3.

Table 2.2: Trend of inward FDI stock to different economies ($ 'millions)

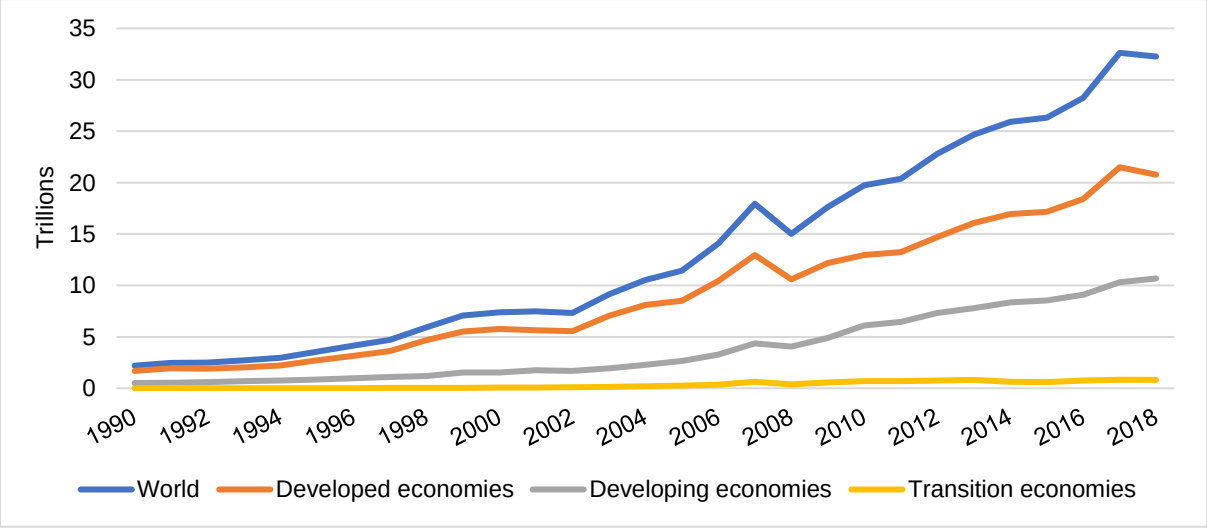
Region/ Economy	1990	1998	2008	2018
World	2,196,201	5,916,835	15,027,431	32,272,043
Developed economies	1,685,746	4,689,964	10,598,591	20,789,577
Europe	930,673	2,184,672	6,885,989	11,309,164
North America	652,444	2,322,380	3,106,637	8,358,637
Developing economies	508,804	1,196,790	4,038,743	10,678,872
Africa	59,995	109,652	407,899	894,678
Asia	339,675	747,994	2,645,887	7,639,452
Latin America & Caribbean	107,187	336,987	975,446	2,116,095
Transition economies	1,652	30,082	390,097	803,594

Source: UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics).

However, in 2018 while the developed and transition economies witnessed a decline, developing economies increased by 4 percent. These changes cannot be unconnected to the activities of MNEs whose preferred investment destination is the developing economy in the last three decades.

Furthermore, there was a global increase of 41 per cent in greenfield investment to $961 billion, of which developing economies announced an increase of 68 per cent, with most of them based in Asia.

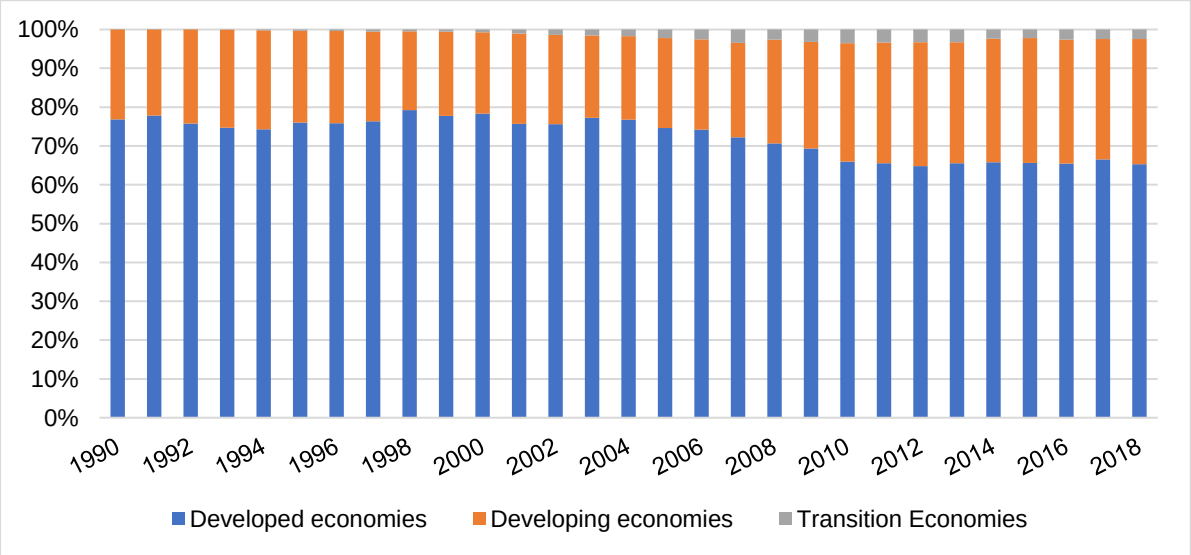
Figure 2.3: Trend of Inward FDI stock in the World and different economies



Source: ©UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics).

On the other hand, Africa increased its share to 60 per cent, with Latin America and the Caribbean witnessing a decline. A significant amount of these increases is mostly natural resource seeking activities, as much of the activities of MNEs are because of the expansion of international production driven by contract manufacturing and licensing. Figure 2.3 shows a graphical representation of the growth of inward FDI stock from 1990 to 2018, while Figure 2.4 shows the share of global inward FDI stock between developed and developing economies.

Figure 2.4: Share of Inward FDI stock from 1990 to 2018



Source: UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics).

In 1990, the developed economies attracted 77 per cent of inward FDI stock while 23 per cent went to developing economies compared to 65 per cent and 32 per cent for developed and developing economies in 2018, respectively, suggesting a gradual movement of capital by investors to developing economies.

2.3.1 Foreign Direct Investment in Africa and economic development

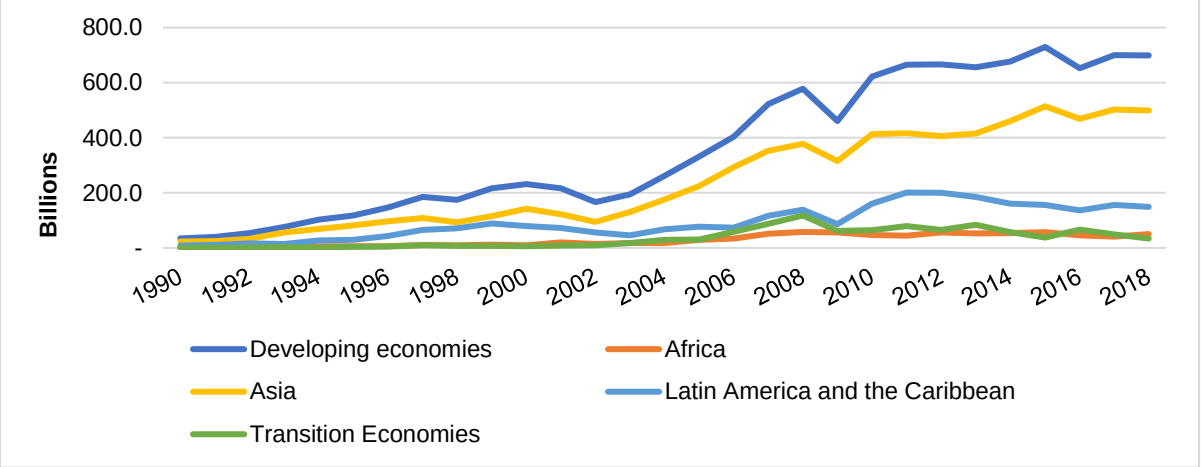
In reviewing the relationship between inward FDI and economic development at the country level, several studies exist whose opinion is that the transfer of technology from developed economies to developing economies is the central role of inward FDI (Roy and Van den Berg, 2006). Inward FDI flow into Africa in 2018 grew by 11 per cent to $46 billion due to a continued resource seeking investment with countries like Morocco, Kenya, and Tunisia, contributing to increases in diversified investments. Although inward FDI flows into countries like Egypt, Ethiopia, and Nigeria, considered traditionally as large recipients, have declined while those to South Africa

increased significantly. It is remarkable that a significant investment of $5.0 billion into the automotive and renewable energy sectors in South Africa, and US $2.7 billion in the oil and gas industry of Mozambique, was enough to cover for the declines in virtually every other country in the region of Sub-Sahara Africa and record a net gain.

In 2018, out of the total inward FDI to Africa, North Africa witnessed an increase of 31 per cent, with Egypt being the largest recipient of FDI inflows despite witnessing a decline of 8 per cent to $6.8 billion. In contrast, Morocco showed more stability in its economic growth as the automobile and finance sectors, among many others, continued to attract investments seeing FDI increase to $3.6 billion. In addition, Sub-Sahara Africa saw an increase of 69%, with South Africa being the largest recipient of inward FDI flows due to the substantial increase in automotive and renewable energy investments. In contrast, Congo received a $4.3 billion investment into its oil exploration and production. Figure 2.6 illustrates a trend of the share on inward FDI flows in Africa.

In Sub-Saharan Africa, inward FDI stock witnessed a 16-fold increase from $36 billion in 1990 to $610 billion in 2018, which is commendable from the viewpoint of Africa as a whole (with a 14-fold increase). However, the suggestion is that an improvement is required when compared with other developing economies that are running, on average, at a 20-fold increase over the same time period. The notion supports the reason for establishing the New Partnership for Africa's Development (NEPAD) in 2001. NEPAD’s aim was to achieve an annual growth rate of 7 per cent by reducing the number of Africans living in poverty by mid-2015. Millennium Development Goal (MDG), set by the United Nations in 2000, is seen as a welcome idea as the debate of investment and economic development in Africa remained at its forefront (Adams, 2009; Kaplinsky and Morris, 2009; Imodu, 2012; Alden and Davis, 2015).

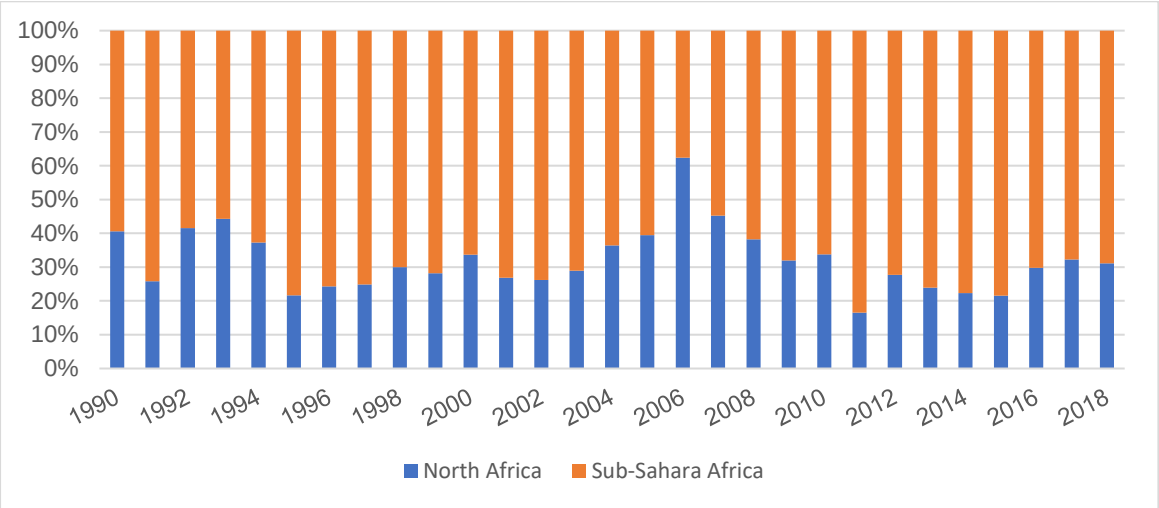
Figure 2.5: Trend of inward FDI flows to SSA and other developing economies.



Source: UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics).

According to NEPAD (2001), the continent of Africa will need $64 billion or 12% of its GDP annually to meet up with its resource gap; hence, it will have to attract foreign investment and private capital from trade, which is a more sustainable form of development. Additionally, while working with a national government, proposals were drawn to make the continent an attractive destination for investment and reduce any associated risk, such as weak legal requirements and inadequate intellectual property (Nyaga, 2013). Since Africa, and by extension Sub-Sahara Africa (SSA), has shown passion in seeking foreign investment, there is a need to re-evaluate its impact on economic growth and development to date. Furthermore, policymakers should be able to ascertain if past policies have helped to improve economic development while considering the current surge of investments into SSA, which is the reason for this study.

Figure 2.6: Share of inward FDI flow to Africa



Source: UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics).

2.4 Types of Foreign Direct Investment

There are two types of Foreign Direct Investment, horizontal and vertical FDI.

2.4.1 Horizontal FDI

Horizontal FDI occurs when a firm manufactures a product utilising the same production line and value chain in a foreign country just like it has done in its home country, thereby improving horizontal specialisation in the host country. In horizontal FDI, the tendency for positive technology spillover is very high as most manufacturing stages and some research and development are outsourced to host countries that benefit from high value-added manufacturing stages. Though Horizontal FDI is located within developed countries with key competencies kept in the home country of the lead firm, some developing countries with a high-income level and a large domestic market have benefited from some level of R&D and technological skill (Markusen, 1984; Hanson 2001)

2.4.2 Vertical FDI

Vertical FDI occurs when a firm breaks each part of its production value chain in countries with the least costs to optimise its cost of production, and it is very popular among MNCs as it decreases their production cost and increases their profit. In vertical FDI, the focus is more on a low-technically specialised task, which is why it dominates developing countries. Technologically, developing countries with very low-

level skills will benefit from vertical FDI to some extent (Markusen, 1984; Hanson 2001).

2.5 Potential impact of FDI on a host economy

The rapid growth of Foreign Direct Investment (FDI) and its importance to developing economies like SSA have made it an essential part of their strategy in becoming a developed economy (Ayanwale, 2007; Bartels et al., 2014). Furthermore, the dramatic increase in Mergers and Acquisitions through privatisations and transactions that are regarded as "private to private" can be of significance to developing economies where they suddenly view FDI as a purposeful vehicle (Kyaw, 2003; Adams, 2009; Bartels et al., 2014). Hence, this has informed many developing economies about liberalising FDI policies and adopting their best efforts to attract investments. However, policymakers and academics continue to debate over the impact of FDI on the economic development of countries. These debates focus on the benefits of investors locating their businesses in the host countries and whether the presence of foreign-owned firms will have any detrimental effects on the local population and the natural resources.

In developing economies like SSA, optimising the advantages of FDI can be very important to the host country; these include technology transfers, support for human capital growth, improving the competitive market climate, contributing to the growth in global trade, and improving business development. However, just as there are benefits to attracting FDI that vary from country to country and are difficult to measure, there are also drawbacks to having FDI attracted to a host economy. According to UNCTAD (2006), the developmental effects of FDI can be assessed using qualitative or econometric analysis. However, in the review of FDI's influence in the region of SSA, the former will be adopted because it discusses the interaction while considering the distinct characteristics on MNEs and their host countries (Dunning, 1993).

2.5.1 Advantages of FDI in SSA

FDI contributes to the economic development of a host country in so many ways, and Adams (2009) in his study classifies them under two main ways: increasing domestic capital and improving efficiency through the transfer of technology, managerial skills and marketing, innovation and practice standards. However, just as

there are benefits of FDI in a host country, there is also an accompanying cost that is determined by country-specific conditions and the ability to target FDI at the opportunities regarding linkages with local investment, which includes diversification and the level of absorptive capacity (Hill, 2000; Asiedu, 2002; Adams, 2009; Uwubanmwen and Ajao, 2012). Existing studies have thoroughly analysed FDI flows to identify its influence on employment and economic development. However, evidence from past studies has shown various determinants, but only a few of them will be discussed here.

2.5.1.1 Technology

Technology plays a critical role in economic growth and development as it stimulates industrialisation incorporated in the manufacturing process or may be integrated in the product (Romer, 1994; Hill, 2000). However, the lack of R&D has hampered the ability of many SSA countries to develop local products through local technology to meet international standards. The literature has found that technology transfer through FDI has contributed positively to efficiency and economic development in host countries. These technological advancements deployed in SSA are more environmentally friendly and modern compared to those obtained locally (Grossmann and Helpman,1991,1995; Barro and Salai-Martin, 1995, 1997)

2.5.1.2 Capital

The movement of cash and resources across international borders by investors to achieve a high rate of returns is a method preferred by policymakers and academics. Access to low-cost capital and the size of MNEs enables them to take financial risks globally. In addition, their ability to invest in long term projects generates revenue at lower costs and influences firm performance through internalisation and that makes them key in FDI (Zhao and HE, 2016; Smet, 2019). This is because of their access to funding from their home countries, mainly through intercompany company sources, or borrowings from capital markets, which may not be available to their domestic competitors (Hill, 2000; Lewis, 2009; Henley, 2012).

Literature argues that the provision of capital in the form of FDI contributes to economic growth and development. However, they "crowd out" any increase in domestic investments, thus enhancing the overall impact of FDI growth (Jenkins and Thomas 2002). It was also suggested that a rise of FDI inflows by one-dollar results

in an increase of more than a dollar of investment (i.e. the investment is complementary) in a host country and is evidence of "crowding out" (Borensztein et al. 1998; Bosworth and Collins,1999).

2.5.1.3 Management

Inward FDI enhances the knowledge and skills in a developing economy like SSA through skills transfer, training of human capital, and the transfer of new organisational procedures as suggested by Lall and Streeten (1977; Dunning and Lunden, 2008; Narula and Pinelli, 2017). These skills when transferred can benefit the local economy as trained staff go on to occupy management positions both financially and technically in new or existing local establishments. For unskilled labour, training is done either explicitly or implicitly and trained staff then gets this skill and then goes on to re-enter the local jobs market in the host economy (Helleiner, 1989; Aitken and Harrison, 2003; Akinlo et.al., 2020). Dunning (1993), emphasises the benefits arising from MNEs' superiority to be the efficiency that is arising from better training, entrepreneurship capability and impact of the training on the host economy.

2.5.1.4 The impact of employment

In the region of SSA where cheap labour is relatively abundant and capital is scarce, job creation, whether indirectly or directly, has remained one of the most important effects of FDI. The indirect impact of FDI occurs when jobs are created due to increased spending by the employees of MNEs and when investments result in job creation by local suppliers (Karlsson et al., 2009; Bakkalci and Argin, 2013). On the other hand, the direct impact occurs when MNEs employ the residents of a host country. For instance, there is financial benefit for the private sector in a host country if it gets involved in backward and forward linkages. This is done by encouraging a system in which sub-contractors, who supply machine components, spare parts and unfinished goods, get involved with MNEs who will process and handle the export, thereby creating jobs and encouraging economic development (Farole and Winkler, 2014; Nielsen et al. 2017). An example is the department of trade and industry who in its review of the Automotive Production and Development programme in its November 2015 issue reveals that the automotive industries in South Africa cater for over 13,000 residents' indirect employment and that they are responsible for over 200 manufacturers of automotive components and 150 other suppliers.

According to Aaron (1999), Karlsson et al. (2009), and Bakkalci and Argin (2013), FDI into developing economies is responsible for the creation of approximately 1.6 million jobs created indirectly through linkages between MNEs and local sectors.

2.5.1.5 The Impact of balance of payment

The effect of FDI on constituent countries within the region of SSA is an issue that most national governments take very seriously. There are several ways in which this can occur, but three significant ways stand out,

1. The initial inflow of capital to the capital account of a host country because of the establishment of a subsidiary by MNE.
2. The substitution of imports of goods and services by FDI can improve the current account of the host economies' balance of payment.
3. This occurs when the foreign subsidiary of MNEs is involved in the export of goods and services.

In his study of the role of US investment in the United Kingdom, Dunning (1980) posited a positive impact of 15 percent of invested capital when the impact of the investment was approximately 15 percent positive. Even though his study was concerned about what direct impact FDI has on a balance of payment, which turned out to be significant, the indirect impact of FDI on the income of residents and their pattern of consumption has not been addressed. (Yang and Zou, 2007; Rahman, 2016)

2.5.1.6 Impact of FDI on global trade

The significant contribution of FDI to economic growth and development in a developing economy like the SSA region is their export potential and impact on global trade. This ability will differ in constituent countries depending on it being either market seeking, efficiency-seeking, resource seeking or strategic asset seeking (Dunning 1993, 2000).

Where domestic firms supply inputs to MNEs for the purpose of manufacturing goods for export, the value-added export has a higher domestic content and this is an example of production as a result of an efficiency-seeking FDI that is intended for the purpose of exporting, which aids export growth. As instances of intermediate products being imported from outside the host economy, the efficiency-seeking FDI would increase both exports and imports (Sun, 1999; Kandiero and Chitiga, 2006; Li

et al., 2020). However, given that many value-added activities are taking place within the developing economy, the net effect would be a long-term change in the trade balance.

There exists literature which establishes a positive link between export, FDI and economic growth (Marino, 2000; Popovici, 2018; Anderson et al., 2017). Investments made by foreign-owned firms come with benefits, which include access to technology and the international market for both intermediate and finished goods and services. For the provision of export distribution networks and the knowledge required to reach international markets, FDI will set up a special group for domestic firms to export (Markusen, Venables, 1999; Orlic et al., 2018)

2.5.1.7 Effect on competition

The presence of foreign-owned firms in a developing economy like SSA, stimulates local competition that contributes significantly to increased efficiency, reduces cost and allocates resources more efficiently, leading to economic growth and development (OECD, 2002 ; Tsai et al., 2016). As firms strive to gain an edge over their competition, they tend to invest more capital in technology, R&D, plants and equipment, leading to increased output and more resourceful ways of achieving better efficiency (Hale and Xu, 2016; Demana and Murshed, 2018). The effect of FDI on competitiveness in developing economies may be especially significant in the case of services, such as telecommunications, retail and many financial institutions, where export is often not an option because the service must be manufactured where it is delivered (Iyanda, 1999; Anand, 2019; Chen et al., 2020).

According to Julius (1990), inward FDI flows to developing economies should be encouraged in that they serve both domestic and international benefits just like international trade. Economic growth and development are promoted in developing economies like SSA through more efficient ways in which production takes place at a cheaper price owing to increased competition (Nishioka and Olson, 2017; Rashid et al., 2017; Nuruzzaman et al.,2019). Inward FDI also serves as a major boost to creativity and competitiveness enabling firms in the host country to minimise costs (OECD, 1998).

2.5.2 The disadvantage of FDI to a host country's economy

Inward FDI into developing economies like in the SSA region, and much more than other forms of capital flows, has traditionally given rise to opposing opinions, since FDI includes managing the significant stakes of large firms (MNEs) over which the host countries' governments are believed to have little influence (Kurtishi-Kastrati, 2013; Anand, 2019; Esquivias et al., 2020). In developing countries, MNEs, due to their size and financial strength, tend to use this as leverage in their host community. Literature has made it clear that FDI, in most cases, may not be in the interest of the host country in the long term, and, hence, needs to be regulated. More recently, developing countries have become more suspicious of inward FDI due to widespread fears about undue international influence and negative impacts on national security, as revealed in regulatory reforms in some countries during the 1980s (Alfaro and Chauvin, 2016; Yahia et al., 2018). Moreover, there are policymakers who are very critical of inward FDI as they claim it can be detrimental, both politically and economically, for host countries like those in SSA. The economic impact includes reduction in R&D, investment, jobs, environmental impact etc. which has not shown inward FDI to have any significant disadvantage (Graham and Krugman, 1995; Javaid, 2016; Anarfo and Agoba, 2017; Dowlah, 2018).

There are expected benefits which come with inward FDI to a developing economy like SSA; for instance, technology transfer which if not utilised eludes them of economic growth and development. There are variables such as educational background, low technology level, lack of access to trade etc. which limits host countries from getting the full benefits of inward FDI. However, the degree of education, technological advancement etc. achieved by a developing economy better equips it to attract the presence of foreign-owned firms (Alfaro and Chauvin, 2016; Anand, 2019).

2.5.2.1 Negative impact of FDI on employment

In developing economies like SSA, inward FDI has the potential to create employment through direct hiring or indirect hiring. The direct hiring involves the recruitment of citizens to operate new equipment, which entails improving the overall local employment through the different kinds and number of jobs generated, income distribution, average wage rate, skill transfer and income distribution (Mickiewicz et al., 2000). Several critics of inward FDI to a developing economy suggest that not

every new job generated by the presence of a foreign-owned firm reflects the net employment gains. The spillover effects from direct hiring occur through the migration of skilled workers from MNEs to other sectors as well as establishing ties with service provides and suppliers, and through an increase in wages, which then eventually results in an increase in jobs through investments, savings and consumption (Asiedu and Gyimah-Brempong, 2008). FDI in a developing economy comes with a new type of management and technological skill which impacts employment depending on how the specialisation of labour, efficiency and economic development interact.

In addition to developing skills, technology, competitiveness and trade, FDI could have potential adverse effects on wages and jobs in the host economy by the amount of competition it brings; hence, local firms tend to reduce their number of staff to improve on their ability to compete. Inward FDI also affects the transfer of workers from existing to new firms, and, in some cases, results in job losses for those considered not suitable for the new environment.

2.5.2.2 Negative impact of competition

There are some things that are of concern to the host countries and that is that the subsidiaries of foreign-owned firms may have an economic advantage over their domestic competitors because of the parents' companies access of drawing on the funds that are generated abroad. These funds, in most cases, help subsidise their costs and could drive competitors out of business, allowing them to monopolise the market. These concerns appear to be greater in less developed countries or for relatively insignificant firms in industrialised countries.

2.5.2.3 Negative impact of balance of payment

There are two major areas of concern regarding the negative impacts of FDI on the balance of payments of a host country. Firstly, is the importation of a significant amount of foreign inputs that will result in a deficit on the current account of the paying host country. Secondly, a debit on the capital account from a foreign subsidiary to its parent company set against initial capital inflow.

2.6 Determinants of FDI: A Review of Literature

The following studies were reviewed to ascertain the factors that influence or hinder FDI in SSA and/or Africa.

2.6.1 Literature review (FDI)

According to UNCTAD (1998), the main factors that impact a country's capacity to attract FDI inflows are policy framework, economic determinants, and degree of business facilitation in the host country. The report further classifies economic determinants based on the motives of the foreign investors and they include resource seeking (cheap and unskilled labour, raw materials, physical infrastructure, technology); market seeking (market size, growth and structure, access to global markets); and efficiency seeking (regional integration and cost of inputs and other resources). Several empirical studies on the determinants of FDI have been conducted across developed and developing countries with an emphasis on macroeconomic conditions, institutional characteristics, and financial development (Asedu, 2002; Ajayi; 2006; Ayanwale, 2007; Brafu-Insaidoo and Biekpe, 2014; Okafor et al., 2017). The macroeconomic determinants of FDI normally, in this regard, are market size, real exchange rate, inflation, real interest rate and economic growth. Additionally, in economics and international business (IB), there are theoretical and empirical perspectives on the determinants of FDI (Sethi et al., 2003; De Macedo et al. 2009). The study of Dunning (2003) especially offers a 'rear-view mirror' insight into the history of theories of FDI. This suggests a genealogy about the structure of the firm, through the industrial organisation of a firm's foreign operations on the premise of internalising markets to the firms that are peculiar to an imperfect market competition with MNE as the core of the worldwide factory (Coarse, 1937; Dunning, 1958; Hymer 1960; Caves, 1971; Buckley and Casson, 1976; Bartels et al., 2009). Therefore, MNEs strive to maximise their international operations through spatially dispersed and networked industrial procurement, technology, development, marketing, and servicing systems (Fukao et al., 2003; Giroud & Mirza, 2006). The most significant operational framework within IB for explaining the reasons for FDI continues to be the 'eclectic paradigm' – the evolution of which Ferreira et al. (2011) has clarified between 1958 and 2000.

The Eclectic Paradigm Theory, first introduced by Dunning (1977; 1979; 1988), and then further explained by the same author (Dunning 2000, 2001), is illustrating why MNEs like FDI. It is also referred to as the OLI theory as it combines three distinct FDI theories which are Ownership (O), Locational (L) and Internalisation (I) articulating the dynamic relationship between firms' ownership advantage, countries'

location advantages and internalisation. According to Popovici and Călin (2014), ownership and internalisation advantages are considered more in microeconomic theory while locational advantages are embedded in macroeconomic theory, and they bestow better performance on MNEs compared to local firms located in a particular location. Furthermore, Dunning (1993) brought to bare 4 main FDI motives, consisting of 4 classifications: market seeking, resource seeking, efficiency-seeking and strategic seeking (Dunning and Lundan, 2008; Sârbu and Gavrea, 2014; Okafor, 2014).

Ownership advantages are firm-specific and refer to the MNE's tangible or intangible assets that give them a monopolistic advantage to contend with local rivals in the host country. These benefits include outstanding management and marketing expertise, superior technical know-how, increased access to raw materials and cheaper financing, economies of scale, premium brands, and patents (Denisia, 2010; Nayak and Choudhury, 2014; Gupta and Singh, 2017). It can, therefore, be posited that a nation enjoying economic freedom would appear to strengthen these monopolistic advantages that attract FDI in the region.

Locational benefits were overlooked when FDI theories first appeared. However, the wave of globalisation has made it one of the main theories of FDI inflows (Popovici and Călin, 2014). Locational advantages allow the firm to determine where it will work. The firm would appear to favour countries with economic, political, and social benefits. These country-specific benefits include, among others, natural resource endowment, infrastructure, economic and political stability, lower cost, sufficient telecommunications, and cultural diversity (Denisia, 2010).

The internalisation hypothesis centres on FDI's firm or industry-level determinants (Henisz, 2003; Dunning and Lundan, 2008; Santangelo and Meyer, 2017). The concept behind this theory is that development in the host economy is more efficient than depending on international markets through licencing and exports. The cost of transactions using an arms-length partnership is higher than handling MNE operations and relocating output. Hence, the cost of internalising MNE transactions is less costly among countries due to the existence of imperfect markets, thus increasing its profits (Nayak and Choudhury, 2014). Internalisation across national

boundaries triggers FDI and continues until marginal gain is equal to marginal cost (Moosa, 2015).

With enhanced interconnections within economic freedom, this is a key locational advantage in pulling FDI to host countries. Proof indicates that United States' MNCs are more likely to invest in countries that better defend intellectual property rights, have lower government interference in business activities, have lower levels of government corruption, and a better compliance of contracts (Du et al. 2008). Moreover, political and economic freedoms build trust in investors' minds as they are convinced that their choice of location will favour them in terms of a good rule of law, market transparency, regulatory efficiency and government size.

Therefore, the OLI requirements must be fulfilled simultaneously for FDI to take effect and for the company to benefit from lower costs and higher returns (Dima, 2010). Later, Dunning (1995) created a new definition of "alliance capitalism" to expand the OLI Paradigm's actual reach. This focuses on mutual confidence, responsibilities and relationship obligations (Voyer and Beamish, 2004). Thus, "the inclusion of economic freedom concerns became clear in its effect on the agents' trust level" (Caetano and Calairo, 2009. p. 67), enabling the country to be in a stronger position to pull FDI in its economy.

The importance of FDI in economic development has been highlighted by contrary opinions in economics. While some people see the use of FDI by MNEs as a probable source of economic growth, others see the activities of MNEs in poor countries as a threat to economic development. For example, new growth theories consider FDI to be a significant source of economic growth by promoting the transfer of technology, enhancing intellectual capital and organisations and as the spillover effects on domestic investment (Makki and Somwaru, 2004). At the other end of the divide, dependency theorists stress that FDI is one of the processes for the transmission of wealth from the South to North (Sau, 1976).

In general, it is agreed that FDI is a vital component between developing and developed economies and there is a considerable connection between FDI and global trade. Even though the impact of FDI on economic growth has been well researched, a review of the two reveals that the growth effect of FDI has also been well researched as well as to how it influences global trade. However, according to

Makki and Somwaru,(2004), the impact of FDI on economic development remains inconclusive. Firstly, where literature exists on the impact of FDI on economic growth, its findings, with regard to its effect on inequality and poverty, are mixed (Summer, 2005). Secondly, domestic investment in a host country is likely to be crowded-out by FDI inflow, and its success in promoting economic growth is based on level of investment, the strength of its backward and forward linkages, human resource and quality of institutions (Sumner, 2005).

There are instances where the results with regard to the impact of FDI on economic development are mixed due to reasons such as human resources, trade policy, and the quality of institutions of the host country. For example, Adeleke (2014) argues that the lack of quality of institutions is the reason why the volume of FDI to the region of SSA is low. This is also confirmed by Slesman et al., (2015), whose argument is hinged on the fact that an increase in investments brings about growth in countries with high quality institutions, whereas a negative effect is recorded in those with low quality institutions. However, not every scholar agrees that the quality of institutions plays a pivotal role in determining FDI inflow, Jadhav (2012), in the study of BRICS, argues that economic matters are much more important to determine FDI inflow when compared to the quality of the institution and political stability.

Caves (1996), suggests that several countries have made attempts to attract FDI because of the positive impact it has on the economy. This is because inward FDI brings with it managerial skills, increase in productivity, knowledge and technology transfer, international production network, access to the global market, and job creation. Findlay (1978) places much emphasis on the ability of FDI as a source of technology transfer because it leads to the transfer of advance technology to domestic firms. This notion is supported by Borensztein et al. (1998), considering that spillover of technology contributes more to economic growth than local savings. In contrast, economic development may be adversely affected by FDI, as its presence tends to crowd out local firms (Bitzenis et al., 2012). While Farole and Winkler (2014) posit that FDI is favourable for domestic firms, Agbloyor et al. (2014) posit that FDI hurts economic growth in 14 SSA countries. Furthermore, Adams and Opoku (2015), in their study of 22 African countries for the period 1981 to 2011, concluded that FDI had not had an independent impact on economic growth. On the

other hand, Frimpong and Oteng-Abaiye (2006), in their analysis of FDI and economic performance in Ghana, confirms there is no causal relationship between FDI and economic growth. Thus, these studies show no consensus on the effect of FDI on economic growth in African economies.

2.6.2 Empirical literature (FDI)

Several empirical studies have examined what determines inward FDI flow to various countries adopting various potential determinant variables and estimation methods. With a vast number of available studies on this subject, our review will be limited to a few within the region of Sub-Sahara Africa. Morisset (2000) in the study on 29 SSA countries using panel and cross-sectional data over a period of 8 years (1990-1997), posited that SSA countries can successfully attract FDI that is not dependent on market size or natural resources, but by improving their business environment. The author further concludes that by adopting FDI as an indicator not derived from any of these variables, trade openness and GDP growth rate can be adopted to boost market conditions for FDI. Consequently, Asiedu (2002) using cross sectional data on 71 developing countries (32 SSA countries) with averaged data over a 10-year period covering 1988 -1997 found high return on capital and infrastructure development promote FDI in non-SSA countries, whereas these factors do not have any effect on FDI in SSA countries. However, in both non-SSA and SSA countries, trade openness encourages FDI in both non-SSA and SSA countries. On the other hand, Bende-Nabende (2002), in the study of 19 SSA countries based on co-integration over a 30-year period covering 1970-2000, posits that liberalisation of FDI, market growth and export-oriented policy dominate the long-term determinants of FDI in SSA. These determinants are accompanied by trade openness, transparency, business size and exchange rates. In addition, the study suggest a broadening of export base, macroeconomic management, and liberalization of FDI on a long-run to improve the FDI positions of SSA countries.

Asiedu (2006) in the study of 22 SSA countries using annual panel data for the period 1984 – 2000 examined the impact of market size and natural resources vis-à-vis host country agencies, government policies and political uncertainty in attracting FDI. Her findings are that countries with large markets and endowed with natural resources tend to attract FDI. In addition, the study found, a trained population, strong infrastructure, macroeconomic stability, an effective legal system, openness

to FDI, political stability and reduced corruption also encourages FDI. This study further indicates that lack of natural resources in any country with developed institutions and a good regulatory framework may also attract FDI.

In another study, Onyeiwu and Shresta (2004), using 29 African countries between 1975 and 1999, employed fixed effects and random effects estimators to ascertain determinants of inward FDI. The authors found openness, GDP growth, external debt, natural resources index, and political stability positively. In contrast, at the same time, real interest rates, international reserves and inflation had adverse effects. On the other hand, Yasin (2005), in the study of 11 SSA countries between 1990 and 2003, posited that official development assistance (ODA) had a significant positive effect on inward FDI flows. The study in adopting panel data method also found index for political freedom, multilateral development assistance, civil liberties, GDP per capita growth rate and countrys' composite risk level of the region not significantly connected with inward FDI flows.

Asiedu (2004) in her analysis of SSA countries from 1980 –1989 and 1990-1999 argues that, over time, SSA countries appear to be less appealing to inward FDI in contrast to other developing countries owing to mediocre reforms. Despite the liberalisation of regulatory systems in SSA countries, strengthened infrastructure and reformed institutions to match up with efforts being made by other developing countries in attracting FDI. However, these efforts, relative to other developing countries, are regarded as negligible. Furthermore, the study suggests policy improvements need be both relative and absolute terms for SSA countries to be relevant in a global economy that is dynamic and competitive.

Ang (2007), using data collected from 1960-2005, adopted the two-stage least square methodology to examine the determinants of FDI in Malaysia. The authors found that GDP growth, financial development, macroeconomic uncertainty, trade openness, and government size all positively affect inward FDI flows. In contrast, real exchange rates and taxes both have negative effects. Similarly, , Suliman and Mollick (2009) studied 29 SSA countries using data collected between 1980 and 2003 to investigate determinants of inward FDI, found trade openness, GDP per capita growth, infrastructure, and literacy positively impact FDI. In contrast, civil rights, market liquidity and political rights all have a negative impact on FDI. On the

other hand, Lemi and Asefa (2003) undertook a study of the effect of political and economic instability on inward FDI flow to 32 African countries from source countries over a 13-year period from 1987 – 1999. Adopting total inward FDI flow from source countries, total US inward FDI, US non-manufacturing industries, and US inward FDI flow to Africa, they suggest that the effect of uncertainty on inward FDI flow to Africa depends on the form and sources of FDI.

Vijayakumar et. al., (2010) in their study of BRICS countries, conducted an empirical analysis using fixed effects and random effects panel estimators of data collected between 1975 and 2007. They posited that while Production Index, GDP growth, Trade Openness, the Infrastructure Index and Industrial remittances for workers positively impact while actual effective exchange rate and domestic investment negatively affect FDI. Whereas, Anyunwa (2011), in the study of African countries using data collected between 1980 and 2007, adopted estimates from the OLS and GLS to investigate the determinants of inward FDI. The author posited that FDI has a positive relationship with trade openness, urbanisation, international remittance, infrastructure, and government size. At the same time, it correlates negatively with GDP per capita, inflation, the index of political rights, inflation, exchange rate and financial development. Meanwhile, Sichei and Kinyondo (2012) investigated determinants of inward FDI for 45 African countries using data collected between 1980 and 2009, posited that natural resources, GDP growth, and trade openness positively impact FDI.

Kariuki (2015) examined the FDI determinants using the least square technique for 25 African countries, and data collected between 1984 and 2010 posited that inflation, stock market index, trade openness and investment all have a positive impact on FDI, while political, economic, and financial risks have a negative impact on FDI. However, Mijiyawa (2015) studied 53 African countries adopting the GMM system model to investigate determinants of inward FDI using data collected between 1970 and 2009. The author found that political stability, trade openness, GDP per capita, market size, and infrastructure have a positive relationship to FDI, with inflation negatively impacting FDI.

In a more recent study, Rodriguez-Pose and Cols (2017) established variables that determine what attracts FDI to a sample of 22 SSA countries. The authors found that

market size, natural resources, political stability, reduced corruption and efficiency in government are important determinants of inward FDI flows. Similarly, in his study, Akoto (2016) examined the causal relationship between FDI, exports and GDP in South Africa. Adopting SARB and VECM Granger causality method using quarterly data from 1960 to 2009, found FDI to have a long-term effect on rising exports. While in the short term, there exists a causal link between GDP and exports.

In addition, Gossel & Biekpe (2013), using quarterly data for the period 1995–2011, adopted TYDL methodologies and augmented Dickey and Fuller root tests to resolve the limitations of this methodology. They found that economic growth in South African is driven by fixed investment and trade rather than capital flows. They also noticed that portfolio inflows, not FDI, were incorporated into the country's trade-led growth. Magombeyi & Odhiambo (2018) examined the relationship between FDI and poverty in South Africa, analysing the period 1980-2014. Using the Autoregressive Distributed Lag Approach (ARDL), they found that FDI has a positive long-term effect on poverty reduction and a negative short-term effect on poverty reduction (when poverty is associated with infant mortality). However, there was no major impact on outcomes by using life expectancy and household spending and consumption as a proxy (in both the short and long term).

2.6.3 Key determinants of inward FDI

Foreign Direct Investment (FDI) studies have shown there are several reasons and theories that exist and that are proposed to explain the actions of MNEs and their interest in a location. These theories have also been evaluated in a large number of countries with different set-ups. There are studies which have looked at the macro-level factors of FDI which attract MNEs to a specific region or country (country-level). These factors include market size and growth, infrastructure, political stability and risk, trade openness, interest rate, and exchange rate. Whereas, there are other studies that did more of an evaluation on the micro-level factors, which are the firm-level reasons of the activities of MNEs. Dunning (1993) identifies the four major types of FDI which informs the motive behind every investment made by MNEs. They are a market seeking FDI whose objective is to replicate the production capacity of a firm in a host country abroad; a resource seeking FDI with the objective of MNEs taking advantage of the availability of natural resources and the cheap labour that is present in a host country; an efficiency seeking FDI whose objective

relates more with MNEs taking advantage of a type of specialisation that is inherent by the location of a production activity that is needed to achieve low cost production; and a strategic seeking FDI with the objective of taking advantage of the skills and availability of advanced technology with developed manufacturing competences. A review of country-level determinants is provided below;

2.6.3.1 Market-size and growth

The size of a market and its growth potential are the vital basis of a location advantage especially for a market seeking FDI in a particular region or country. MNEs seek to invest in a particular location with the intention of providing goods or services to the host region or country. This type of investment is also referred to as horizontal FDI whose objective is to replicate production in a host country for the purpose of serving the market; hence, the significance of market size and its potential to grow as a determinant (Hood and Young, 1990; Horstmann and Markusen 1992; Moosa, 2002; Kutan, & Yigit, 2006; Demirbag et al., 2007). Foreign-owned firms can be attracted to a market for several reasons, one of which is to serve the local market by providing goods and services, and hence they locate an operational base within the vicinity of the market to minimise transaction and production costs by avoiding trade barriers. This also provides the firm with the opportunity to produce goods and services that are adaptable to native resources and culture, needs or taste (Dunning and Lundan, 2008). In addition, foreign-owned firms may decide to locate their operations close to their suppliers and customers in a host country (Dunning and Lundan, 2008). Foreign firms will also consider the market size if the economies of scale favours export performance (Moosa, 2002).

Economic prospects have a positive impact on FDI inflows, and countries with high and sustained growth rates receive more FDI flows than economies with volatile or low growth (Hoang, 2006). Past growth rate is seen as a predictor of future market size (World Bank, 1998). It has also been found that a host country's recent growth rates are much more important for FDI inflows than the growth rates in previous periods (World Bank, 1998).There are several arguments which exist to describe the role that market size and growth has in attracting FDI, and some have a significant positive effect on inward FDI ((Nonnemberg & Mendonça, 2004; Hong, 2006; Sauvant, 2008 ;Suliman & Mollick, 2009; Wadhwa and Sudhakara, 2011; Kalyvas

and Webster, 2011), and for growth being a significant determinant for inward FDI flows (Agrawal, 2000; Nonnemberg & Mendonça, 2004)

2.6.3.2 Infrastructure

According to the World Bank (1994), Infrastructure in this context means transport (roads, airports and seaports, railways); telecommunication systems; information systems and availability of energy. For several developing countries and the LIC, infrastructure is observed as a limitation in which foreign investors also see it as an opportunity to attract foreign investment provided the government of the host country permits participation in that sector (Wadhwa and Sudhakara, 2011). Infrastructure helps to improve the efficiency of foreign and domestic investment and can thus stimulate FDI inflows. Some studies have identified that infrastructure for developing countries is far more important than for developed countries in attracting FDI (Kumar, 2001; Sauvant, 2008; Franco et al., 2010).

Developing countries are increasingly realising the importance of infrastructure, and thus the development of infrastructure has become a major agenda in developing countries. Although not many empirical studies have given considerable attention to the effect of infrastructure on FDI flows, the inclusion of variable(s) representing the level of infrastructure as an explanatory variable in studies investigating FDI determinants has been a common practice. Empirical studies have included infrastructure as an explanatory variable based on an array of measures to represent a country's level of economic growth. Some studies have made use of road or railway density as a measure of transportation infrastructure (Cheng and Kwan, 2000; Kinoshita and Campos, 2002); telephone lines per capita have been used as another measure (Asiedu, 2002; Kinoshita & Campos, 2004). Poor infrastructure is perceived as not just an obstacle to foreign investment, but as an opportunity (Odi 1997). In other words, a country with a standard and well-developed infrastructure increases its productivity potential for investments as it attracts FDI flows (Jordaan, 2004).

2.6.3.3 Political Instability / Risk

The lack of political stability in a host country is considered a high risk to which potential investors see it as a deterrent to inward FDI (Walsh & Yu, 2010). Generally, the risk factor of a country is placed in two broad categories, the political risk factor

and the economic risk factor (Moosa, 2002). The political risk in any host country that will have an impact on the performance of any foreign-owned firm may arise due to various reasons, such as riots, political coups, wars, labour unrest and a continued change in the rules and regulations that govern FDI (Moosa, 2002; Hood and Young, 1990). Also, where the host country is home to a vast amount of natural resources, the political instability is compensated for by the high returns, especially in the extractive industry, for example, Angola (Odi, 1997). The implication is that as long as investors believe they can operate with limited risk to capital and personnel, there is a tendency to invest further in such a location. For instance, very large companies, especially in the mining and extractive industry, can invest in their own form of infrastructure, which includes security, with the additional cost being taken care of from the export proceeds which come in hard currency.

While it is widely believed that a country's political instability will hinder inward FDI flows, few empirical studies have examined the relationship between political instability and inward FDI. Furthermore, the relationship between conflict and FDI has been investigated empirically by relatively few studies (Czinkota, et al.., 2010). These empirical studies with cross country studies and surveys are not conclusive and have produced mixed results (Agarwal, 1980; Walsh & Yu, 2010). Some studies found a negative relationship between inward FDI and political instability (Suliman & Mollick, 2009), whereas studies like Wheeler & Mody (1992), Jaspersen et al. (2000), Hausmann and Fernandez-Arias (2000) and Asiedu (2002) did not find any relationship between FDI inflows and political risk, whereas Edwards (1990) tried to distinguish between political violence and political instability to measure political risk. While political violence was found to be insignificant, political instability was found to be significant.

2.6.3.4 Trade Openness

Trade openness is the level to which a host country is open to trade, and this has an influence on inward FDI inflows. When a country introduces reforms to its trade policies and reduces its tariffs, then this can result in an increase in trade openness. It is measured using eight different indicators, but commonly as the sum of exports to imports as a ratio to GDP (Faroh and Shen, 2015). A high trade barrier can impact substantially on the transaction cost for a firm that is involved in exporting to a host country. Whereas, when there is a low degree of trade openness, MNEs can get

involved in import substitution (horizontal FDI) to avoid trade barriers, and a high degree can result in a rise in transaction costs to MNEs in vertical FDI (Busse and Hefeker, 2007; Liargovas and Skandalis, 2010).

In developing countries, trade barriers are significant and positively correlated with other types of policy defects, including exchange rate controls, and foreign investment restrictions. Such policy constraints may also deter inward FDI (Busse & Hefeker, 2007). There are several studies on FDI determinants which makes use of trade openness as an explanatory variable that is usually measured as total trade as a ratio of GDP. The relationship between inward FDI and trade openness is not conclusive as, in some studies, there is a significant positive relationship between inward FDI flow and trade openness (Noorbakhsh et al., 1999; Asiedu, 2002; Onyeiwu 2006; Abbott et al., 2012), whereas some others found a negative relationship (Wheeler & Mody, 1992) and lastly there were those who found no relationship (Nunnenkamp & Spatz, 2002)

2.6.3.5 Human Capital

The principle of human capital recognises that humans are as vital, if not more important, in terms of wealth creation than physical resources. It is commonly regarded as a key determinant of inward FDI; however, both human capital and FDI are known to be key drivers of economic growth (Noorbakhsh et al., 2001; Abbas, 2001). Nevertheless, the relationship between FDI and high-quality human capital can be said to be complementary in the context that high-quality human capital appears to attract FDI; furthermore, the involvement of foreign-owned firms is likely to increase the quality of the workforce in a host country because they provide local workers with education and training (Miyamoto 2003). There are several ways in which human capital influences the economy of a host country and these include the following: demographic change, industrialisations, flexibility, increased productivity and allocative efficiency (Heckman, 2005).

Though several studies acknowledge that human capital is important to attract inward FDI, empirical studies, on the other hand, do not show any evidence of that in developing countries. A review of studies which have adopted a set of developing countries find no relationship between human capital and inward FDI (Nunnenkamp & Spatz, 2002; Kinoshita & Campos, 2004), whereas a few found a positive

relationship between inward FDI and human capital (Noorbakhsh et al., 2001; Suliman & Mollick, 2009). It is noteworthy to state that studies which have found no relationship could have being hindered by the proxy that is adopted as an explanatory variable which has made it quite difficult. While some studies have adopted adult literacy as a proxy for human capital, others have used primary and secondary school enrolment.

2.6.3.6 Exchange rate

The exchange rate regime of a host country and its volatility can either influence or deter inward FDI. In literature, exchange rate as a determinant of FDI is studied as a core part by which the studies relate it to how it impacts on inward FDI. A quick survey of the previous studies shows that FDI inflows are stimulated by the devaluation of the local currency in a host country. In theory and empirically, if the exchange rate of a host country is statistically negative to inward FDI, that relationship is considered favourable. Literature has shown that the devaluation of a host country's currency can act as a supplement to inward FDI flows, whereas when there is an appreciation of the host country's currency, it can have an impact on inward FDI flows (Abbott et al., 2012). Devaluation of a local currency encourages a decrease in local production costs when compared to foreign currencies, thereby increasing the prospect of profitability for foreign investors willing to engage in exporting their products abroad. Therefore, when profit increases, it eventually results in attracting inward FDI.

According to the imperfect capital market theory, a depreciation of local currency in a host country eventually leads to increased investments from foreign firms (Froot and Stein, 1991). Furthermore, a substantial appreciation of the local currency would bring about increased prosperity of the local firms. Also, in an imperfect capital market, the internal cost of capital is usually lower than the cost of capital from foreign borrowing, and thus, as a result of the relative appreciation of the currency of the host country, substantial low-cost funds would be given to domestic firms to invest in the host country (Blonigen, 2005). The effect of the exchange rate on inward FDI depends mainly on the type of FDI, the characteristics of a firm, the motives of an investor and the characteristics of the sector where FDI takes place (Chen et al., 2006).

2.7 Development of Hypothesis

The focus of this section is to identify the variables used to test the hypotheses mentioned in several studies including in this study. The hypothesis reported in this study will be analysed and modelled in order to determine the level of significance of the predicted variable over a given time to check if the researcher should accept or reject a hypothesis.

2.7.1 Inward FDI and natural resources

There are several studies that have looked at the impact of natural resources on FDI flows, especially when it comes to Africa, and have found out that attraction to the continent of Africa is mainly resource seeking (UNCTAD, 2005; Dunning and Lundan, 2008).Though a large volume of the FDI that comes into the continent targets mineral resources because of their comparative advantage, the empirical literature on the impact of natural resources on FDI is contradictory. Among the foreign investors that Dunning and Lundan (2008) identify in their study, there are three types of resource seekers, namely those that are seeking expertise in management and technology, physical resources and cheap labour. Whereas Asiedu (2006) in his study found out that FDI flow is attracted by a large market and natural resources using a panel of 22 African countries. On the other hand, Basu and Sinivasan (2002) posited that there are several factors, including the policies that drive the investment by a host country, location advantages, and recent structural and economic reforms, which are to be found as the reasons for FDI flows into Africa and not just natural resources. Hence, there is a conclusion as to the real impact of resource abundance being prejudiced by measurement-related issues. Where the host country for the FDI inflow is home to a vast amount of natural resources, the political instability is compensated for by the high returns in the extractive industry, for example, Angola (Odi, 1997). This implies that, for as long as investors believe they can operate with limited risk to their capital and personnel, there is a tendency to invest further in such a location. Very large companies, especially in the mining and extractive industry, can invest in their own form of infrastructure, which includes security, with the additional cost being taken care of from the export proceeds which come in hard currency.

2.7.2 Inward FDI and Trade openness

When investments are market-seeking, FDI flow can be impacted by trade restrictions. This is because of the theory known as "tariff-jumping", which argues that if foreign firms have difficulty in importing their products into a host country, they should set up subsidiaries to enable them to serve their local market. Otherwise, a foreign firm whose investments are export-oriented may consider establishing a more open economy, because trade protections are accompanied by imperfections resulting in a high transaction cost related to exporting. Theoretically, a positive effect of trade openness has been confirmed by several studies including Asidedu (2002), Onyeiwu and Hemanta (2004) and Ang (2008). However, Charkrabarti (2001) argues that mixed evidence exists as it concerns the significance of trade openness measured by the ratio of exports to GDP when determining FDI as well. He argues further that the level of a country's openness to global trade is the most important determinant for FDI inflows.

2.7.3 Inward FDI and Market size / Population

For market size, the determination of market size by GDP or GDP per capita seems to be the most reliable determinant for FDI (Artige and Nicolini, 2005). Also, market-size hypothesis suggests that for efficient utilisation of resources and exploitation of economies of scale, a large market is required, because FDI tends to increase as the market grows (Charkrabarti, 2001). Market size of the host country has been commonly used as an explanatory variable in virtually all empirical studies in determining FDI. Jordaan (2004) argues that a large and expanding market will attract FDI, especially because of its great purchasing power. In this way, firms can get a high return on their capital and receive more profit from their investments. However, Neubaus (2006) argues that market size showed a significant positive impact on horizontal FDI but has no significant effect on vertical FDI, hence the impact of market size cannot be generalised.

2.7.4 Inward FDI and Infrastructure development

There are divided arguments as to what impact infrastructure has on FDI flows both theoretically and empirically. Poor infrastructure in the rail system, roads, telecommunications, and electricity, according to Odi (1997) and Marr (1997), is argued to be not just an obstacle but an incentive to attract foreign inflows. In other words, a country with a standard and well-developed infrastructure increases its

productivity potential for investments as it attracts FDI flows (Jordaan, 2004). Furthermore, a positive relationship between the level of infrastructure development and FDI flows was found by Asiedu (2006), Ang (2008) and Asiedu and Lien (2011). In like manner, Al-sadig (2009) in his theory suggests that a high degree of urban build-up sends a signal of infrastructural and economic development that attracts foreign investors.

2.7.5 Inward FDI and Human capital / Labour

The importance of cheap labour in appealing to MNCs is agreed upon by the advocates of dependency theory as well as those of modernisation theory, although with different consequences. However, there is no agreement on the role of wages and how it affects or attracts FDI inflow. The results reveal that a host country with very high wages tends to discourage FDI inflow due to it having no significant effect. Charkrabati (2001) argues that of all of the potential determinants of FDI, the use of wages as an indicator of the cost of labour has been the most controversial. Empirically, research has found the relative cost of labour to be statistically significant, especially for foreign investment in intensive labour industries and export-oriented subsidiaries (ODI, 1997). However, when wage rates vary from one country to another, the skills of the labour force have an impact on the decision of the location of FDI. The goal of every government when attracting FDI is so that jobs can be created, new technologies can be introduced, and, most importantly, that there will be economic growth and skill acquisition. The result of this is that domestic income increases through the taxation of wages, profits of foreign companies and spillover effects, which results in the improvement of human capital and the introduction of advanced technologies.

2.7.6 Inward FDI and Exchange rate

In line with the theories of economic exposure and an overvalued exchange rate, FDI inflows are negatively impacted by a real exchange rate. The economic exposure theory argues that the flow of new capital into a country is discouraged by the exchange rate risk, and is compelling foreign firms to either utilise expensive local financial markets or recycle funds locally within the host country. An overvalued exchange rate theory, on the other hand, argues that FDI flows are discouraging the appreciation of the real exchange rate, which undermines the existing FDI stock (Goswami and Shrikhande, 2001).

In line with these theories, empirical evidence, such as that by Ang (2008), has found out for Malaysia that FDI inflow is discouraged by the appreciation of the real exchange rate, thereby confirming that an overvalued currency has an impact on a country's ability to compete globally. In contrast, Yol and Teng (2009) argue that firms will not invest in countries with very weak currencies based on the currency area test. Their argument is further revealed by an empirical test on this theory which revealed a strong positive effect on FDI by the real exchange rate.

2.7.7 Inward FDI and Inflation rate

Inflation as an economic factor, and as an indicator of macroeconomic instability and considered as a probable risk to investors, means that a high inflation rate can lead to currency devaluation, thereby reducing purchasing power and the value of real earnings on investments within a host country (Wadawa and Sudhakara, 2011). Inflation occurs when an increase in the money supply is funded by government spending.

High inflation makes investing in a host country unappealing as it makes lending expensive and it impacts interest rates (Daniels et al., 2009). High inflation rate in a host country encourages outward FDI because it encourages the cost of productions in the host market and reduces the return from domestic investment (Wang and Wong, 2007; Williams, 2009). By implication, a high inflation rate in a host country discourages inward FDI especially in developing countries and has been shown in the literature to have a negative relationship with FDI which is confirmed by Egwaikhide, (2008) and Niazi et al. (2011).

2.7.8 Inward FDI and political instability

Ranking political risk within the list of determinants of FDI inflow is unclear, but specific proxy variables (for example, the workdays lost due to strikes, holidays and uncertainties) have proved to be significant in several studies. Empirically, the relationship between FDI flows and political instability is not clear, as studies like Jaspersen et al. (2000) and Hausmann and Fernandez-Arias (2000) did not find any relationship between FDI inflows and political risk, whereas Edwards (1990) tried to distinguish between political violence and political instability to measure political risk. While political violence was found to be insignificant, political instability was found to be significant.

2.7.9 Inward FDI and Research and Development

The development of the endogenous growth theory has made innovation a central theme in recent studies of economic growth (Romer 1990). Literature has shown that the activities of R&D appear to be predominant in developed economies like the OECD countries. For instance, 60 percent of global expenditure for R&D in 2007 was done by United States, United Kingdom, Japan, France and Germany (UNECO, 2009). The reason for increased knowledge and technological innovation is that it tends to promote an increase in productivity in the developed economies. The knowledge and technological innovation created in one country, in general, can be transferred to another, thus R&D goes through channels like international trade and FDI. In general because of the active roles that MNEs have in R&D, they then develop, own and control a significant share of the entire worlds' advanced technology (Blomström & Kokko, 2003b). MNEs appear to be more active in R&D and are involved in a lot of in-house training programmes when compared to their domestic counterparts. Hence, they are more innovative and display a higher propensity in methods, management practice, and in the introduction of new and improved products (United Nations, 1992).

2.7.10 Inward FDI and Corporate Tax

There are several studies regarding the impact of tax incentives on FDI inflow, but they have remained inconclusive. While some studies have shown that corporate taxes have a negative significant effect on FDI inflows, others have found no significant effect on FDI. According to Justman, Thisse and Ypersele (2001), they found out that taxation is a determinant when considering the choice of country to invest in other than in the country of origin. Beck and Chaves (2012) in their study concluded that high income tax encourages FDI inflow from high tax countries to low tax countries, which is in contrast with the findings of Wijeweera et al., (2007) and Banga (2007) who found it to have a significantly positive effect on 9 developed and 13 developing host countries, respectively. On the other hand, Porcano and Price (1996), Yang et al., (2000), and Radulescu and Robson (2008) found no significant effect of corporate tax on FDI.

Empirically, De mooij and Ederveen (2003), considering the American market, reveal that a 1 percent rise in taxes on a company will lead to a decrease in FDI by 0.5 – 0.6 percent. Also using the Dumitrescu and Hurlin (2012) causality test, Odabas

(2016) found out in his study that there was a unidirectional causality from FDI net inflows to tax revenues. However, a possibility exists to show that a variable may affect FDI both negatively and positively; for example, trade barriers, tax, trade balance, labour cost and exchange rate. Which explains why in several empirical studies different combinations have been used, and due to a consensus on a theoretical framework to guide studies on FDI, no explanatory variables have been regarded as ideal determinants of FDI (Moosa, 2005).

2.7.11 Inward FDI and Interest rate

A lower interest rate for saving or a higher interest rate for borrowing in domestic market monetary policies limits people's ability to save and spend (Keynes 1979). This same philosophy applies to firms who are seeking to attract FDI because they are cheap. The relationship between FDI and interest rate follows the tenets of the portfolio theory, and the wealth distribution theory as well as the neo-classical theory that are describing how capital moves from countries with low interest rates to that of high interest rates under an efficient market condition (Densia, 2010). Interest rate is one of the main factors influencing investment, which is the reason investors consider its volatility when making decisions. Cavallari and D'Addona (2011) in their study discovered interest rate volatility to be a limiting factor for FDI. If the interest rate is lower than expected, then you should prefer to invest your money as investors find more benefit in positive interest rates (Modigiani, 1978) and how capital determines the demand, supply and allocation. Despite the argument for these theories, Onyeiwu and Hemanta (2004) found in their study that FDI inflows and real interest rate had a negative but non-compliant correlation.

2.8 Conclusion

This chapter seeks to investigate the key determinants of inward FDI especially to developing economies like SSA. A review of both the theoretical and empirical studies lays an emphasis on factors like ODA, infrastructure, political stability, bureaucracy, trade openness using cross sectional and panel data techniques on data sourced from WDI, UNCTAD, and WBES with varying and conflicting results.

Whereas, some SSA countries have been successful in attracting FDI because of their natural resources, some are based on their large market and others are based on a variety of factors. It is pertinent to state that to increase the benefits derived

from inward FDI, academics and policy makers will need to put in place strategies that will reduce the constraints and exploit the areas where they are doing well.

This has led to the adoption of 4 different estimation techniques (Pooled OLS, Random effects, Fixed Effects and sys-GMM) in chapter 6 to test Dunnings' (OLI) eclectic paradigm with the understanding that the result will eventually contribute to a wealth of knowledge of SSA countries.

CHAPTER THREE

ECONOMIC THEORIES OF FOREIGN DIRECT INVESTMENT

REVIEW OF LITERATURE

3.1 Introduction

This chapter will review theories of FDI under the following headings: (a) theories based on imperfect markets, (b) theories based on perfect markets, (c) other theories, and (d) theories based on other variables (Moosa, 2002). However, the overriding principle of this study is based on Dunnings' Eclectic Paradigm (OLI theory), which is the most significant FDI theory in economics and international business (Dunning, 1988, 2000) and will be explained extensively.

3.2 Theories assuming an imperfect market

Early theories have shifted the economic and international trade theory components to the transnational flow of capital (Mundell, 1957). In the studies of Hymer (1960, 1976) and Kindleberger (1969), they adopted two-country, two commodities, and two-factor methods, and assumed there were ideal market conditions. They questioned the economic treatment of FDI and the premise of ideal markets, proposing that businesses need to invest internationally to resolve imperfections in foreign markets. According to Kindleberger (1969), FDI cannot exist in a perfect market, and the factors and products market must be imperfect for FDI to occur. This line of thought has advanced the idea of market dominance – corporations investing internationally by using monopolistic advantages that have allowed them to mitigate the limitations inevitably created by the alienation faced in an international setting. This concept of market influence has remained in FDI theory until the present day, giving Hymer a reputation as a father figure in the growth of this area of scientific research. His sudden passing in 1974 prevented him from advancing his theoretical thoughts.

Hymer (1976) and Kindleberger (1969), in their separate studies, assume that there must be imperfections in the markets for commodities or factors of production to provide FDI (Dunning, 1993; Cleeve, 2008). Furthermore, in his study, Hymer (1976) confirms that foreign investment entails high costs and uncertainties inherent in the disadvantages that MNEs encounter because they are foreign. These involve the

cost of obtaining knowledge due to cultural differences and less preferential treatment by the host countries governments. Hence, MNEs would have to possess ownership advantages (e.g., innovative products, management expertise, and trademarks) to compensate for the drawbacks (Dunning, 1993). Furthermore, there exist five theories that are based on imperfect markets. They are the industrial organisation hypothesis, product life cycle hypothesis, internalisation hypothesis, location hypothesis and the eclectic paradigm. These theories assume that firms that invest in a foreign country have some comparative advantages over the local firms in the host country (Agarwal, 1980; Moosa, 2002; Faeth, 2009).

3.2.1 Eclectic (OLI) paradigm

More recently, cross-border activities of Multinational Enterprises (MNEs) have become the most researched topics in international business and economics. These activities include the transfer of technical know-how and managerial skills when created, which grants them access to be used eventually as theories relating to economic development (Dunning and Narula, 1993). There are several theories which try to explain the reasons and objective of why MNEs exist. In addition, the following questions are raised. What informs their decision on the type of foreign investment to make? Why do they go abroad to produce? How is their choice facilitated by their level of information? (Dunning, 2000; Johnson, 2004; Danakol et al., 2017). Furthermore, in trying to explain these theories and answer the fundamental questions, only one theory in international business, formulated by J.H. Dunning in 1973 and 1979, became very popular. His paper sought to examine and understand why the eclectic paradigm could explain FDI and the operations of MNEs with its policy consequences and negative reviews (Meyer, 2004), which eventually contributes to the literature of international production operations undertaken by MNE and the role of FDI.

In the analysis of MNEs, which borders around the main theories of international business, the eclectic paradigm proposed by Dunning (1988) is one of them. The eclectic paradigm incorporates elements from previous theories. They include the monopolistic advantages theory, internalisation theory, location theory, and investment development path theory (Hymer, 1960; Buckley and Casson, 1976, 1985; Dunning, 1958, 1980, 1993). This theory explains the international economic activities of MNEs, including location choice and mode of entry into the market. The

core objective of the eclectic paradigm was to enhance the viewpoint of foreign-owned companies to establish a structure that is focused on three advantages: Ownership, Location and Internalisation (OLI). The OLI paradigm is structured in order to understand the scope and trend of MNEs operations, which may be hampered by the failure or existence of OLI advantages, which have been proved to be a universal tool for many scholars in more than two decades (Dunning, 2000; Dunning and Lundan, 2008). According to Itaki (1991), the eclectic paradigm works more as a scientific method than as a theory that is used to evaluate the operations of MNEs empirically.

Dunning (1977) initially proposed the eclectic paradigm by emphasising the three conditions to be met before a firm goes ahead to engage in FDI; otherwise, their best option will be to engage in exports (Lim, 2001). However, in creating the framework, Dunning hypothesised that if affiliates of a foreign-owned firm are successful abroad, it would have been due to the foreign-owned firms' specific effect, which he described as the ownership-specific effect or the ownership "O" advantage. Additionally, the difference in productivity due to the O-advantage is assumed to occur under the premise that intangible assets would have been transferred from its parent company (Dunning, 1988; Yuefang et al., 2013). Conversely, he found out that the affiliates of foreign-owned firms became less successful both financially and in performance when compared to their parent company and a little better than their competitors in the host economy. This occurrence of the non-transferable impact on the home countries' economy is what Dunning termed the location-specific effect or location "L" advantage exhibited by the difference in productivity (Dunning, 1998; Yin et al., 2014). Dunnings' focus was on the host countries' economic space; therefore, to understand how foreign-owned firms function abroad, he broadened the O-advantage and L-advantage to accommodate the activities that involve value addition. For instance, the O-advantage and L-advantage refer to ways wherein a firm organises production and potentially utilises resources at different locations. Whereas, the extent of foreign-value added activities, which are essential for leveraging ownership (i.e., must internalise assets and not sell or licence it), is referred to as internalisation (Dunning, 2000; Denisia, 2010; Sandhu and Gupta, 2016).

According to the eclectic paradigm, the degree and sequence of producing abroad will be measured by the competitive advantages (i.e., derived from firms' ownership, proximity to assets capable of generating revenue) of firms in one country over the others (i.e., its competitors), locating the firms' operations abroad and addressing the firms' capacity to incorporate and rationalise markets to generate assets. Furthermore, the importance of each advantage and the relationship between them, according to Dunning (2000), is determined by the circumstance and it changes when it moves across different countries and with the types of value-added activities in varying sectors. The eclectic paradigm can also describe the concentration and sequence of trade. Dunning (1988, 2000) suggests that a firm will import and export goods and services from its manufacturing base in its home country. This often occurs when it has discovered that the potential benefits of producing and using their ownership-specific advantage were higher than those serving an international market from a location abroad. The degree to which exports have been internalised within firms or marketed to third parties will represent the relative transaction costs of the two types of operation to international markets (Dunning, 2001; Wadhwa and Sudhakara 2011).

Additionally, the degree to which firms import goods and services instead of those manufactured at a domestic location will depend on the relative position of the bound assets provided by the exporting and importing countries and the relative O advantages of the importing company. The effect of the "O" advantage of a firm and the "L" advantage of a country, in addition to the cost and benefits of acquiring or leveraging these two versions of advantages through intra-company rather than through the inter-company transnational transactions-trade theory, needs to be further enhanced (Dunning, 2001; Wadhwa and Sudhakara 2011).

3.2.1.1 Ownership advantages

Ownership advantage is regarded as a quality that a firm owns that is unique compared to its rivals in the foreign market. They include patents, advanced technology, managerial skills etc., and that makes the firm profitable in the future (Dunning and Lundan, 2008). In line with the eclectic theory, FDI will on occur when the benefits of exploiting these advantages from a foreign market are more than the opportunity cost. Dunning (2000) posited that the literature identifies three main kinds of "O" specific advantages. They come in the form of monopolistic advantages

as identified by Bain (1956) and Hymer (1960). By creating a barrier to entry, this can also be portrayed as a form of "O" advantage, as posited by Caves (1971, 1982) and Porter (1980, 1985). Ownership advantages should be transferable from one nation to another, including product innovation, marketing skills, technology, increased efficiency, managerial knowledge and experience. These advantages result in a goods and factor markets' imperfection and allow foreign firms to earn more at home than local firms (Kindleberger, 1969). That hypothesis, however, does not explain why FDI is preferred over exports or licencing (Agarwal, 1980). Moreover, it does not explain why businesses want to invest in one country and not the other (Moosa, 2002). Lastly, those that relate to managerial skill, which is to identify and coordinate resources and capabilities globally and utilise these to advance the firm's long-term interest, can also be seen as an "O" specific advantage.

3.2.1.2 Location advantages

The location advantage explains what informs a firm's decision to situate its investment in a foreign country. These countries possess advantages that boost their attractiveness to investors because they serve as a determinant of production by foreign firms. Furthermore, these location "L" specific advantages can be in the form of natural resources, a large domestic market, raw material, labour, and physical infrastructure to FDI. A firm with a unique ownership advantage must be profitable to utilise its advantage in combination with the location-specific advantage that is existing in a country; otherwise, the foreign market will be best served with exports (Dunning, 2000).

Location advantages exist in every area with low wages and other factors of production. A firm may participate in FDI by building factories in a country where natural resources are in excess. For instance, if ferrous is the core material needed for production in a process, it makes economic sense to site a factory near the iron ore in the host country. These reasons explain why companies engage in FDI irrespective of the risks associated with organising production operations abroad (Moosa, 2002; Demirbag et al., 2007). In theory, the preference for locating FDI in any country, whether new or chronological, depends on the set-out objectives of the investment and is not just dependent on the ease of production (Dunning, 1998).

In addition, geographical location is considered a significant factor enabling the transfer of knowledge between MNEs and their foreign affiliates. Therefore, the location advantages of the host country act both as a determinant of the activities of MNEs and as a source of new knowledge that is considered to be endogenous due to the spillover effects. In addition, by operating in many countries, MNEs have access to localised knowledge that can then be used to improve their competitive advantages. Consequently, as a new source of knowledge, ideas and capabilities, subsidiaries play an essential role in this process (Zanfei, 2000). Several authors have shown that most of the innovation activities are carried out outside the parent company.

3.2.1.2.1 Market Seeking

This occurs when a foreign firm decides to invest in a country because of the size of its market so that serving the production and distribution will be directed at the intended target. Foreign firms who engage in this form of investment tend to be active exporters; hence, going abroad saves them operational cost, high tariffs and barriers associated with exports (Dunning 2008, Franco et al. 2010). There are reasons why foreign firms decide to invest abroad through this form of investment, which are nearness to suppliers and customers, reducing the cost of production and transportation costs, adaptability of a product to the taste and culture of the host country, and then responding to major competitors' investment abroad otherwise known as the bandwagon effect (Dunning, 2008). An example of this is the additional investment of US $417 million in BMW South Africa for the X3 model sport utility vehicle in 2016. A market seeking FDI can also be referred to as a "tariff jumping investment" (Geda 2006; Velde, 2006; Kalyvas and Webster, 2011). The location of production facilities of a firms' major supplier or competitor is also another reason to engage in market seeking FDI as tailing them to new markets will help to develop new markets or to maintain their brand (Franco et al., 2010). There are some market seeking variables that influence the decision on where to locate FDI and these are real wage cost, market size, market growth, tariffs, and regulations.

3.2.1.2.2 Natural Resource Seeking

Every country or region is known to have one form of natural resource or another in abundance, which is why the location of subsidiaries by foreign firms is not a surprise. Its availability has an influence over why it is a determining factor for firms

that are seeking to invest in a host country outside of the investors' home county (Dunning, 1993; Kudina and Jakubiak, 2008). Considerably, according to Dunning (2008), there are 3 forms of natural resources in a host country that a foreign firm may be interested in acquiring and exploiting and they include, firstly, raw materials and physical infrastructure, for example minerals, power and telecommunication. The second is driven by the need to seek cheap resources in locations considered to be intensive in production and services, for example, developed economies. Thirdly, acquiring managerial skill, instant knowledge, technical know-how, and advanced technology have always been the major forms of activities of FDI in developing countries, such as those located in Sub-Sahara Africa, especially for those countries rich in natural resources (Kalyvas and Webster, 2011). However, the source of natural resources, skilled workforce and high-quality physical infrastructure alone is not enough for them to decide upon the location of FDI, but rather it is the formal and informal institutions that often play a significant role (Seyoum, 2011). Some other variables, in this context, that influence the decision to locate FDI are the quality of physical and natural resources, government restrictions, and tax holidays.

3.2.1.2.3 Efficiency Seeking

This motive for this form of investment is cost reduction in the production of a good or service; hence, a foreign firm is encouraged to explore new areas of competitiveness. Efficiency seeking FDI is mainly undertaken by firms engaged in production and distribution whose home countries have relative high labour costs (Sauvant, 2008); hence, starting an operational base where the cost of labour is low is considered a locational advantage. Firms who engage in this are usually large MNEs who have several years of experience in cross-border activities, and they are of two forms. Firstly, there are the MNEs who want to take advantage of economies of scale, customer demand, government policies etc. and are most likely to take place in countries with similar economic structures and income levels. Secondly, they want to take advantage of the various factor endowments in those countries that have abundant natural resources, labour and technology. Expenditure in labour-intensive manufacturing industries and core product industries tends to occur in developing economies, while investments in technology-intensive and information-intensive industries tend to occur in industrialised economies. It is an important determinant when a foreign investor is considering a location due to its rate of

inflation. A low inflation rate encourages inward FDI as it shows economic stability (Coskun, 2001; Kok and Acikgoz Erosy, 2009). Some efficiency-seeking FDI variables that influence the decision on where to locate FDI includes EPZ, cost of production, educational training, and reduced restrictions on trade and subsidies.

3.2.1.2.4 Strategic Asset Seeking

The motive of this investment is for foreign firms to acquire wholly or partly the asset of an existing firm to protect the "O" advantage as a long-term plan with the aim of strengthening their global competitiveness (Dunning 2008). These assets could include technology, innovative capacity, organisational systems, marketing and management skills etc. However, the focus of most strategic assets that are seeking FDI is on the technology and information-intensive sectors (Dunning, 1993). This form of FDI enables firms to have **a** globalised standing, and it is used to advance a company's strategy to create assets like technology in a foreign market (Faeth, 2009). In addition, the MNEs can enjoy other foreign production-related benefits, such as the common governance of diversified cross-border activities, the opening up of new markets, creating R&D synergies, lowering transaction costs, spreading administrative overhead and risk costs. Some strategic asset seeking FDI variables that influence the decision to locate FDI include the following.

3.2.1.3 Internalisation advantages

This is the acknowledgement by a firm with ownership specific advantage deciding to invest in a foreign country with an immobile location-specific advantage, instead of licensing or exportation and this answers the question of why FDI is used by the firm. By implication, it occurs when a firm decides that production can be done internally, in which way the firm maximises its profits from an ownership advantage in an effort to surmount market imperfections. Dunning (2000) argues that firms tend to maximise profits using existing assets internally through foreign affiliates, rather than embark on FDI, as in several cases that are involving cross border M & A, gaining market dominance, and achieving a low cost of production etc. The choice of a transfer of ownership advantage is determined by internalisation advantages. MNEs are able to avoid the transaction costs associated with enforcing contracts and risk as well as saving costs through internalisation.

Existing studies affirm that FDI inflow differs significantly from one given country to another and in the same state over time (Dunning, 2000). Considering the effect of FDI on domestic investment (DI), researchers do emphasise the implications of OLI (Ownership, Location, Internalisation) variables in their study. For example, the ownership advantage may enhance a firm's ability and readiness to be part of its value chain (i.e. production, distribution, and R&D.) across or within countries. At the same time, the location advantages relate to the individual countries capabilities, macroeconomic stability, strategies and guidelines (Dunning and Lundan, 2008; Saini and Singhania, 2018).

On the other hand, internalisation advantages emerge from "the exploitation" of external market imperfections. These include a drop in downside risk and transaction costs to make knowledge more effective and decrease state-generated imperfections such as foreign exchange controls, tariffs, and subsidies (Stefanovic, 2008; Anyanwu, 2011; Abass and Mosallamy, 2016). It is worth noting that in most developing countries, policymakers' thinking is that FDI is no longer seen as "parasitic" (Imoudu, 2012). In this sense, since the early 1980s, mainly less developed countries (LDCs) have made efforts to optimise the benefits of FDI spillovers (Araujo et al., 2017). As a result, a substantial increase in inward FDI from $ 24 billion (24% of total foreign investment) to $ 178 billion (61% of total foreign investment) in 1990 and 2000 was reported and reached US$ 578 billion in 2010 (UNCTAD, 2011). However, operating in developing countries is highly challenging for these MNEs, particularly the transfer of income retained from host countries. However, MNEs are mainly aware of how to behave on the contractionary policies of host countries benefiting from their subsidiaries worldwide (Prasanna, 2010).

3.2.2 The investment development path

Several theories have been developed since the 1960s' to give reasons why firms engage in direct investments. A combination of three of these theories, i.e. Industrial Organisation, locational, and Internalisation theories in the 1970s' resulted in the J.H. Dunnings' eclectic paradigm. The eclectic paradigm posits that the extent, geography, and industrial composition of foreign production undertaken by multinationals depends on the interaction of three sets of independent variables – competitive advantages otherwise known as the OLI (Dunning, 2000). The first competitive advantage is Ownership (O) specific advantage, also known as the

monopolistic advantage of an enterprise. The second is Location (L) advantages which explain the advantages that determine where an enterprise situates its investment. The third is the Initialisation (I) advantage, which informs the choices enterprises make in engaging in FDI. According to the eclectic paradigm, all three advantages are required before there will be FDI.

In determining the relevance of the eclectic or OLI paradigm in explaining changes in the international position of countries as they go through different stages of development elaborates the nexus of FDI and economic development, which the investment development path theory can explain. This theory is based on series of structural changes, which entails the existence and the inward and outward FDI (Dunning, 1981; Dunning and Narula, 1996; Dunning et al., 2001). Thus, investment development path (IDP), which was first introduced by Dunning (1981, 1991) as a dynamic approach within the OLI (Ownership, Locational, Internationalisation advantages) paradigm, explains the relationship between economic development of a country (GDP per capita as a proxy) and net investment position (gross FDI stock, i.e. gross outward stock minus gross inward stock) as a path to economic development. Based on the theory, during the developmental phase of a country, the configuration of OLI advantages of foreign firms that might invest in that country and the local firms within that same country to invest overseas undergoes changes and its possible to identify both the reasons for the change and its effect on the growth path of the country (Dunning, 2001).

IDP theory identifies five stages which a country might pass through, and in the first four stages, the path follows a J-curve. It then wriggles in the fifth stage, beyond which part the reliability of the GNP and NOI (Net Outward Investment) as a guide to a country's competitiveness is questionable.

- ***Stage 1***; is also regarded as the pre-industrialisation stage, has inward FDI to be Negligible or low in value, domestic market is small, inadequate infrastructure, poorly educated labour force, undeveloped legal frameworks and flows are meant to take advantage of country's natural resources. Whereas outward FDI is either Negligible or non-existent, MNEs prefer to

export and import and non-equity relationship with domestic firms. Development of location-specific advantages, for example, basic infrastructure, which leads to;

- ***Stage 2*** increases Inward FDI, the target is consumer goods and infrastructure in the emerging domestic market. Inward stocks rise faster than GDP, but as for Outward FDI, Negligible or non-existent, MNEs prefer to export and import and non-equity relationship with domestic firms.
- ***Stage 3*** Inward FDI is low, reduced growth rate hence lower than outward FDI. Domestic firms' ownerships advantages are on the increase and are more firm-specific than country-specific. In a domestic market, domestic firms considered to be stronger appear to be more competitive. In developed countries, firms engage in the market, strategic seeking and resource-seeking in less developed countries.
- ***Stage 4***, firms in host countries become net outward investors. Firms with foreign ownership advantages become more important these home country-specific ownership advantages, increasing the propensity of MNEs to internalise trade and production.

3.2.3 Industrial organisation hypothesis

There are several theories that have been developed to explain the existence of MNCs and what motivates them to invest in another country outside of their base. Hymer (1976) argues that in a world of perfect competition and free entry, FDI will not occur. In addition, he argues that the monopolistic advantages and entry barriers result in the imperfect final output that brings about the existence of FDI. Rather than export or licence their technology, a foreign firm will prefer FDI as a mode of entry which also gives the firm the ability to avoid barriers like transport cost and tariff, thereby maximising profit. However, the disadvantage of licencing a foreign firm’s technology to another entity in a foreign market includes losing its influence (leverage), an improper valuation of technical knowledge and an inability to reach a proper contract between the licensee and the licenser because the trade of such a technology is absent in a regular market.

3.2.4 Internalisation hypothesis

The theory of internalisation was originally developed by Coarse (1937) whose intention was to explain the reason for economic activities co-ordinated within firms.

It was founded to demonstrate how MNEs organise their internal activities, which enables them to develop firm-specific advantages and explain the choice of FDI for licensing and exporting. Furthermore, it focuses on the reasons for international transactions of intermediate goods organised based on hierarchies instead of standardised market transactions.

Buckley and Casson (1976) argue that a firm will participate in foreign investment if the net profit of its joint ownership of domestic and international operations is greater than that provided by the market. In addition, it is often difficult to use the market to arrange transactions involving intermediate goods as it provides an opportunity for an incentive for firms to circumvent the market. Thus, the internal market is formed by the establishment of a corporation that unites separate transactions under common ownership. However, when this internalisation is extended across borders by FDI, an MNE is formed. Buckley and Casson (1976) in their study also posited that both industry-related factors and industry-specific factors contribute to the internalisation of markets. Industry-related factors contribute to the internalisation of the knowledge market, whereas industry-specific factors contribute specifically to the internalisation of markets for intermediate goods.

3.2.5 Location hypothesis

According to Hotellings (1929), the location hypothesis suggests that market size or the price that buyers are willing to pay for a product determines where firms tend to locate their business. The location hypothesis also suggests that the existence of FDI is as a result of the foreign immobility of some development factors such as natural resources and labour. Also, empirical findings and theoretical developments in location theories have emphasised several factors that inform the decision of the industrial location of firms, such as availability of raw materials, cheap labour, market size, transport facility, taxes and general utilities (Badri, 2007). For example, the locational advantage of low salaries is one of the forms of changes in the cost of location-related production factors. The amount of wages and pay rates in the host countries is relative to those in the home countries and thus is a major determinant of FDI. High-wage countries like the United States, therefore, keep investing in low-wage countries with labour-intensive industrial production such as Bangladesh.

Low wages are not the only form of factor production that is considered as a locational advantage but are part of some other inputs of production. For example, a manufacturing factory in the host country could be built close to an input, such as bitumen, if such a natural resource is one of the significant inputs for the production process. In this way, a locational advantage that involves expenses related to the transportation of that natural resource from its natural location to where it will be used can be reduced significantly. This is a form of locational advantages, as the shipping costs for minerals from where it is mined to where it is used could be significantly reduced. An industry could also prevent the delays in supplying mineral deliveries. Another underlying input of production is investment capital, especially when capital markets are segmented (Dunning, 1998; Love and Lage-Hidalgo, 2000; Yang et. al. 2000; Moosa, 2002).

3.3 Theories assuming a perfect market

There are three theories formulated to describe why firms tend to invest abroad, which fall under this assumption of perfect competition. They are the differential rates of return hypothesis, the diversification hypothesis, and the market size hypothesis.

3.3.1 The market size hypothesis

The theory of market size assumes that the amount of FDI in a developing country depends on the size of the host country whose characteristics, such as market growth and size, and the existence of competitors, affect the decision of the FDI location (Li and Guisinger, 1992; Moosa, 2002). This theory is applied at the macro level, indicating that inward FDI is a function of the market size of the host country, such as GDP. A huge market in the host country can help foreign investors cut fixed costs per output unit, capture production-scale economies and reduce the total cost of supplying the local market (Shatz and Venables, 2000; Lim, 2001; Moosa, 2002)

The theoretical model of this hypothesis is founded on the neoclassical theories of domestic investment, which suggest that domestic firms increase their investment in relation to sales. According to neoclassical models, firms increase their investment in reaction to sales. There are studies that support the relationship of FDI to the revenues of international subsidiaries or GDP (Moosa, 2002). The following reasons, however, raise doubts about the significance of the market size-to-FDI relations: 1) statistics on output, GDP and related measures, particularly in developing countries,

are subject to significant measuring errors; 2) the neoclassical theory of domestic investment makes unfounded assumptions; (3) contrary to an export-oriented FDI, FDI undertaken for the production of consumer goods in the host country is likely to be influenced by the size of the local markets, and, yet, in the real world, it is difficult for statistical reasons to distinguish between the various forms of FDI; and 4) considering that the market size hypothesis is based on the neoclassical theory of domestic investment, it should focus on the investment that only includes plant and equipment expenditures; however, FDI statistics do not distinguish between plant and equipment expenditure and other investment firms, such as financial assets and inventories.

The hypothesis, however, has some disadvantages. According to Agarwal (1980) and Moosa (2002), the use of the macro-level market size variable has little theoretical basis than the use of sales by foreign firms. However, data on the sales of foreign companies is generally not available in the host country. For this reason, most studies apply macro-level variables to measure the size of the market. In addition, the size of the market tends to affect the FDI that aims to serve the domestic market, not FDI produced for export (Agarwal, 1980; Moosa, 2002).

There are empirical studies of this hypothesis which show that a positive relationship exists between the market size of a host country and the location of inward FDI (Schneider and Frey, 1985; Bajo-Rubio and Sosvilla-Rivero, 1994; Billington, 1999; Morisset, 2000; Globerman and Shapiro, 2002; Trevino et al., 2002; Egger and Winner, 2005; Kottaridi, 2005; Asiedu, 2006; Ramirez, 2006; Wijeweera and Clark, 2006). On the other hand, Lipsey (2000), Filippaios et al. (2003), and Radulescu and Robson (2008) find some existence of a negative relationship between inward FDI and market size, which implies that inward FDI is attracted to smaller economies rather than larger economies.

3.3.2 The differential rates of return hypothesis

This is an initial attempt to describe the flow of FDI (Moosa, 2002). This model is based on the Hecksher-Ohlin concept that a capital abundant country engages in the export of capital-intensive commodities abroad. The Heckscher-Ohlin model was based on the premise that goods vary in relative factor intensities, and countries differ in relative factor endowments, which, in turn, contributes to foreign factor price

differences. A capital-abundant country with lower returns invests in capital-scarce countries with higher returns on capital and lower returns on labour with the intent to maximise expected profits; consequently, the FDI flows from countries with lower capital returns to countries with higher capital returns (Hufbauer, 1975; Jonathan and Collin, 2006; Vintila, 2010).

Furthermore, this hypothesis assumes risk neutrality, which implies that FDI and domestic investment are perfect substitutes or that FDI in one country is a perfect substitute for FDI in any other country (Moosa, 2002). Additionally, the hypothesis refers to the profits over the entire investment period, whereas the profits reported refer to the profits over a year (Agarwal, 1980; Moosa, 2002; Vintila, 2010). It also doesn't explain why a company engages in FDI rather than a portfolio investment (Moosa, 2002). Finally, the model assumes that the FDI's aim is to maximise profits. There are other reasons, however, for firms to invest abroad, especially in the short and medium run, such as achieving higher economies of scale, avoiding trade barriers, expanding their market in the host country, etc. (Agarwal 1980; Moosa 2002;Vintila, 2010)

The drawback of this theory is that capital flows only in a single direction, i.e., from countries with lower yields to countries with higher yields. It also cannot explain why a country has FDI inflows and FDI outflows simultaneously to and/or from another country (Moosa, 2002). Another issue is that the theory relates FDI to the rate of return on the predicted income, and the empirical tests are based on the rate of return on the actual benefit. Recorded profits do not accurately represent the anticipated income or real income because they do not reveal the impact of tax rates, transfer costs, accounting procedures, etc. (Hufbauer, 1975; Agarwal, 1980; Moosa, 2002).

Empirical studies which test this hypothesis do not offer strong support. However, Reuber et al. (1973), using US manufacturing investment in seven developing countries, found that US investment and the rate of return in the host country are not associated for five countries. A positive and significant relationship is, however, observed in two countries between the two variables being considered.

3.3.3 The portfolio diversification hypothesis

According to the theory of portfolio diversification, while making investment decisions, the assumption of risk neutrality is relaxed and then investors consider not only the rate of return on capital but also the inherent risk involved. In hindsight, the hypothesis assumes that FDI is guided not only by expected return rates but also by risk and that MNCs seek to reduce risk by diversifying their investments across different countries (Agarwal, 1980; Moosa, 2002; Dunning & Lundan, 2008).

Although this concept is useful in understanding international portfolio investments, this hypothesis alone is not enough to understand why MNCs favour FDI over portfolio investors (Agarwal, 1980; Moosa, 2002). In addition, it cannot explain why firms tend to produce abroad in certain industries, while firms in other industries do not (Hufbauer, 1975; Agarwal, 1980). The variance in the rate of return is used to measure risk, which is not reliable since the rate of return is calculated from reported profits, which are not equal to actual profits (Moosa, 2002; Dunning & Lundan, 2008). Hymer (1960) argues that it is not only the differences in return rates that induce capital movements but also the differences in investor risk preferences. He also elaborates on portfolio diversification on the roles of barriers to capital movement and imperfections in the capital markets, which would affect capital flows between countries. These barriers and imperfections may arise due to the following reasons, such as government controls over capital flows, future uncertainties in exchange rates, information asymmetries and imperfect information, and taxation and profit repatriation controls.

3.3.4 Product life cycle hypothesis

According to the theory, an increase in demand for manufactured products after the Second World War resulted in MNCs creating new products used for domestic consumption and exporting their surplus to foreign markets where they enjoy a monopolistic advantage. The theory was developed by Vermon in 1966 to explain certain types of FDI by companies based in the US and Western Europe, but in 1971 it was used to explain both FDI and trade. Vernon suggests that invention, growth, maturity and decline are the four stages of the production cycle. The speciality of this product enhances the chances of the firm investing abroad and exporting from there to retain its power of monopoly. This explains why it is also categorised as the three stages in the product life cycle, which are sales of a new product in the domestic

market (product demand), export of a product due to standardisation (competitive environment) and the establishment of subsidiaries in other countries to find cheaper inputs and labour with the aim of lowering costs (location of production).

3.4 Other Theories

3.4.1 New Trade Theory

The emergence of the New Trade Theory occurred in the 70s and 80s. Its key feature was pioneered by Krugman (1979, 1980) and seen as an alternative of classical trade theories with the model which considers market imperfections and product differences before being extended to include MNCs and FDI (Helpman 1989, Markusen and Venables 1998). The foreign investor, in this case, takes into consideration location to invest based on comparing the advantage of the production of goods in different countries and being close to the local market with concentrating it in order to achieve the production of the same product at a reduced cost (Johnson, 2005). There are three models developed within this theory: Horizontal FDI, Vertical FDI, and the knowledge-capital model. In Horizontal FDI, MNCs produce the same product in different locations to improve their access to the host country's market. It describes the ease of how investments flow from one country to another because of their similarity in size and factor endowment. Vertical FDI, however, in a perfect competition framework, seeks to locate the different stages of production based on differences in factor prices and factor endowments across countries, assuming a negligible trade cost between countries (Helpman and Krugman, 1985). This framework allows firms to become MNCs by splitting their activities into various levels of skilled labour, usually located in headquarters and production, where more of the unskilled labour is located where it is very cheap. Knowledge-capital model integrates the two models where the commercial cost, obstacles for investments and combined production factors of the Horizontal and Vertical models of FDI are developed by Markusen (1996, 1997). This model has the advantage of trade and investment completely liberalised for the host country to increase wealth.

3.4.2 The ‘New’ New Trade Theory

Trade theory traditionally argues that a country gains from the exportation of goods and services which they are comparatively good at producing, while they import from other countries their goods and services particularly from those countries that have expertise in producing. However, this theory does not define the entire trade patterns

which led to the emergence of the New Trade Theory as pioneered by Paul Krugman (see Krugman 1979, 1980) to address the market imperfections and product differences while taking the location of investors more into consideration. Recently, there is an extension of the New Trade Theory, which places an emphasis on the trading activities of individual companies by linking trade to innovation and efficiency. This firm-based approach is known today as the ’New’ New Trade Theory, with the elements of this framework being able to analyse how companies differ in the fixed and variable cost of trade, economies of scale, productivity and imperfection etc., which has been discussed by scholars and policymakers for many years before the idea was made formally into a theoretical model known as the "Melitz style models" (Melitz, 2003). The Melitz model takes into consideration the internal processes used to determine the mode of entry and exit from a market by assuming a fixed cost of exporting, thereby providing an explanation as to how different firms coexist within an industry.

Empirically, Bernard and Jensen (1995) found out that among the firms who engage in trade export a fraction of their output, just as only a fraction of the firms' input are imported. Also, the firms that export and use imported inputs and engage in foreign direct investment tend to be larger, more efficient firms, pay higher wages, and have more capital and skilled labour than the firms that are not involved in global markets. Moreover, firms involved in international markets are inclined to grow faster than those who are not (Benard et al., 2003; Bernard et al., 2009; Eaton et al., 2011; Kasahara and Lapham, 2013). Similarly, the choice of technology adopted by a firm is informed by their trading activities, as they tend to adopt newer production technologies and engage in import and export related spillover effects (Baldwin and Gu, 2003; Keller, 2004; De loeker, 2007, Lileeva and Trefler, 2010; Bustos, 2011; Aw et al., 2011; Benard et al., 2011).

3.5 Theories based on other factors.

Scholars use a few factors to explain Foreign Direct Investment (FDI) and how it affects economic growth and development.

3.5.1 Government regulations

A firms’ decision to invest in a foreign country appears to be more complicated than just determining what form of investment has to be made, if any, because policy

legislation influences the various stages of the investment decision cycle (Benito and Gripsrud, 1992; Faeth, 2009). According to Lizondo (1990), when there is a change in government regulation, it is expected to significantly impact the expected returns of the MNE depending on how the risk can be converted to a reward (Lizondo, 1990). Most governments introduce policies that seek to promote and discourage inward FDI by providing inducements, on the one hand, and deterrents, on the other. These inducements may be in the form of financial and tax benefits, government promotional programmes, and administrative support for foreign investors, while disincentives would be in the form of limits on the activities of firms like introducing trade barriers.

3.5.2 Political risk/stability

The gradual movement of emerging countries towards a global economy has seen them seek for a larger share of inward FDI despite the perception that such opportunities are accompanied by significant challenges and political risk. In both developed and developing economies, political risk is regarded as a significant impediment to doing business as it limits the flow of capital hence the need for MNEs to define and analyse political risks in order to manage them. According to Lucas (1990), political risk is such a critical factor in limiting the flow of capital, and for this reason, large FDI outflows from politically stable economies are used for investments in politically unstable countries despite the huge political risk associated with it (Haksoon, 2010).Therefore, the way investors assess this risk informs their decision to invest in a foreign country.

Political risk can be related to the threat that interference of government through internal or external conflict poses to the business operations of a foreign investor. It implies that an unexpected change to the legal and fiscal framework in a host country because of instability in government makes the investment climate and economic outcome of the investment very unpredictable. The scope of threat to businesses may vary from discriminatory treatment to seizure of assets which eventually may deter investments (Reis, 2001; Kim, 2010; Horska, 2014).

In addition, the existence of corruption as a result political instability in a country often discourages the flow of FDI. Therefore, to improve the effectiveness of government, there has to be an improvement in the quality of public services, civil

servants' capacity, and independence from political pressures (Kaufman, Kraay, & Mastruzzi, 2009). An example is when a country's government imposes restrictions on the repatriation of capital, and the cash flow received by the parent MNE will be adversely affected. The location decision of FDI can be affected by the policies relating to local participation in manufacturing operations and acquisitions of domestic firms (Hood and Young, 1990; Moosa, 2002; Sethi et al., 2002).

According to Horska (2014), political risk can be classified into three main groups: country-specific risk (e.g cultural and institutional risk), firm-specific risk (e.g governance risk) and global-specific risks (e.g terrorism).

3.5.3 Tax policies

In theory, the assumption is that higher taxes discourage both local and foreign investments, although results from some empirical studies have proven otherwise. According to Demirhan and Masca (2008), domestic and foreign tax policies affect FDI and its activities, and this relationship is discussed further by Scholes and Wolfson (1990) who argue that increased taxes can lead to increased pre-tax returns in a general balance-sheet framework (because of lower capital stock), without any meaningful effect on post-tax returns (Scholes & Wolfson, 1990). Furthermore, the combination of taxation and the provision of goods and services for the public decides the location of FDI (Tiebout, 1956), and a dampened relationship between the level of taxes and the volume of FDI located in that country.

3.6 Conclusion

There are several theories which aim to address the cause and intent for the creation of MNEs by answering the question of the motivation behind national firms relocating abroad to produce and get involved in other forms of investments. These theories on international trade and business over time have tried to answer the fundamental questions of what motivates companies to invest abroad and what type of investments do they engage in without global acceptance, which was until Dunnings' OLI theory was postulated (Dunnings, 1973; 1979). For instance, the industrial organisation theory developed by Hymer (1976) to explain the existence and motivation of MNEs to invest abroad, identify the existence of monopolistic firm specific advantages and entry barriers. It further states that MNEs would rather invest abroad (i.e through FDI) than export or licence their technology to avoid losing

leverage and maximise profits. Whereas the theory of internalisation as originally developed by Coarse (1937) and further studied by Buckley and Casson (1976) argue MNEs will prefer to invest abroad vide FDI than to export than to licence their technology which is in conformity with the industrial organisation hypothesis. In addition, Hennart (1982) suggests MNEs can organise the combination of firm-specific advantages across several locations to influence FDI. In contrast, Rugman (1981) and Dunning (1992) argue internalization theory in general is inadequate to explain the structure and level of foreign production firms. Furthermore, location hypothesis suggests market size and development factors i.e natural resources as what determines foreign investments. This is further emphasised by the new trade theory as founded by Krugman (1979,1980) which suggests MNEs consider location to invest, that is based on comparing the advantage of producing the same good in different countries especially close to its market to reduce cost. An extension of this hypothesis to the 'new' new trade theory places emphasis on trading activities of individual firm by connecting trade with productivity.

In all the eclectic paradigm or John Dunnings' OLI (Ownership, Location and Internalisation) framework makes provision for a comprehensive framework for defining and examining the significant factor(s) that motivates firms to produce abroad. The eclectic functional relevance of the eclectic paradigm has been reviewed repeatedly in different circumstances in international business and turned out to accurately describe the behaviours of MNEs. Hence, the reason why it is used as the theoretical framework for this study as it encompasses all the theories.

CHAPTER FOUR

FOREIGN OWNERSHIP AND FIRM PERFORMANCE

REVIEW OF LITERATURE

4.1 Introduction

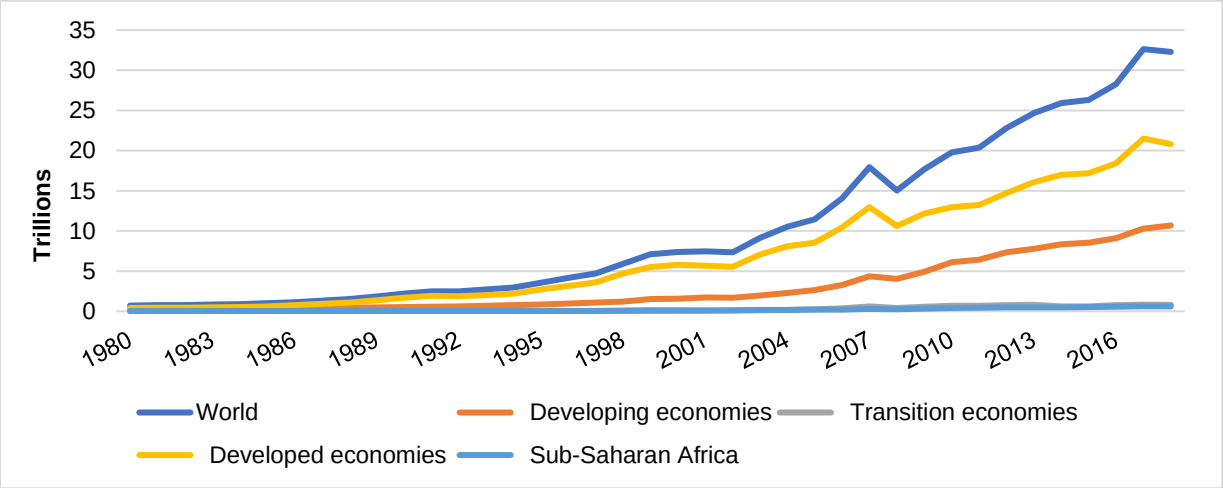
The impact of foreign direct investment (FDI) on firm performance has long been a subject of interest to policymakers and the academic literature. This is even more so in recent years, as policymakers have gradually liberalised their policies to encourage foreign investment, as they continue to experience a more favorable (both direct and indirect) effect on host countries' firms and economic growth (Beugelsdijk et al., 2008; Gelübcke, 2013; Okafor, 2014). The key role of FDI in economic growth and development, especially in developing and transition economies, continues to remain an important issue in international business strategy (Görg and Greenaway 2004). This trend and distribution of FDI worldwide, as shown in Figure 4.1, motivates the study of the impact of FDI on national economies and the empirical testing of the presence of foreign-owned firms vis-à-vis domestic owned firms.

In 2018, inward FDI flow and stock to SSA countries reached $1.3 trillion and $32 trillion, respectively, with inward stocks increasing by an average of $14 trillion, creating over 79 million jobs by foreign affiliates and subsidiaries in the three years leading up to the financial crisis (UNCTAD 2016). Furthermore, the globalisation of economic systems has brought about an increase of capital investments in the form of FDI, whereby the acquisition of government-controlled and privately owned firms has resulted in the increase of foreign-owned firms (Duoma et al., 2006; Dunning and Ludan, 2008; Hintosova and Kubikova, 2016). Eventually, as the ownership structure increases in capacity, these firms have continued to remain dominant and a significant force in shaping the global economy whose activities will remain under continuous scrutiny (Qian, 1996; Dunning and Ludan, 2008; Jusoh, 2015).

In addition, the volume of global inward FDI is on the increase, particularly in the last three decades, and even more so with developing and transition economies who have increasingly become important targets for FDI (Anh et al., 2018). This case is

not different for countries in Sub-Saharan Africa as it is in other countries in developing and transition economies. For instance, in the last 30 years, data from the United Nations Conference on Trade and Development (UNCTAD) confirms an increase of 13-fold, 21-fold, and 92,000-fold respectively, in FDI stocks of developed, developing and transition economies. On the other hand, the region of SSA saw a 17-fold increase in FDI stocks which is better than what was achieved globally and in developed economies (UNCTAD, 2018). Despite this rapid increase, academics and the policy-oriented literature have submitted the viewpoint that FDI is not without some cost to the host country. However, studies, such as Raff and Wagner, (2004); Bonin et al., (2005); Alfaro and Chen, (2012), have provided enough submissions to confirm the positive influence of foreign ownership on micro and macro-economic indicators of the host economy. This ranges from the transfer of technology, human capital development, international trade, economies of scales, financial resources, advanced managerial techniques etc.

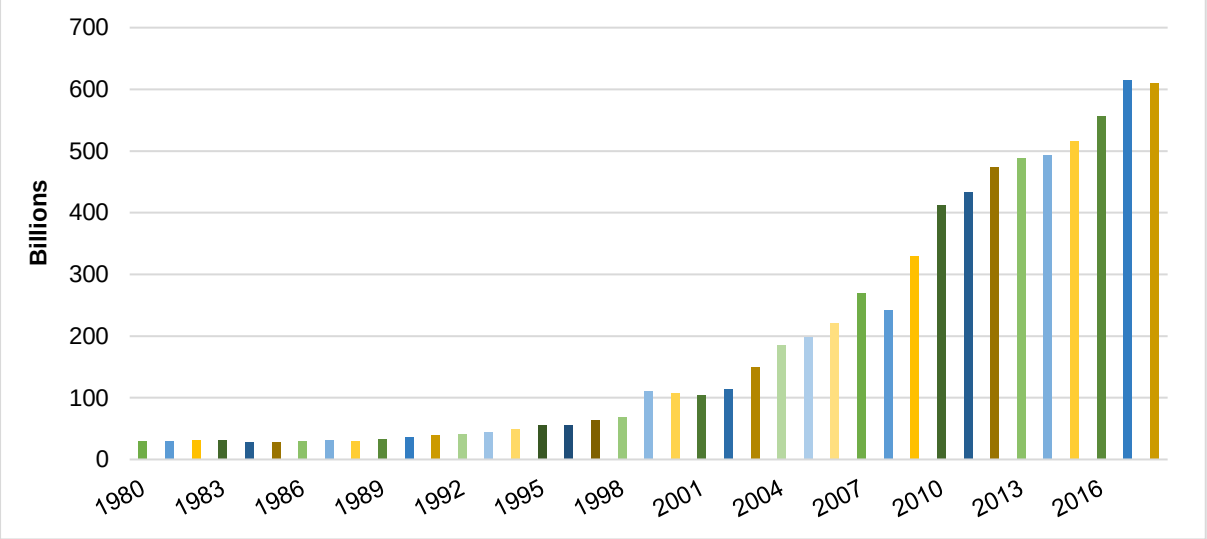
Figure 4.1: FDI inward stock for global economy



Source: UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics).

Given the impact of FDI on a host countries' economy and its effect on the ownership and performance of firms, it then becomes imperative to determine how ownership advantages bring about increased productivity and efficiency. These advantages include advance technology, human capital development (training), international trade (networking), economies of scales, financial resources, and advanced managerial techniques (Dunning and Lundan, 2008; Phung and Hoang; 2013).

Fig 4.2: FDI instock for Sub-Sahara Africa



Source: UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics).

Although the region of SSA has challenges in infrastructure, a complex geography, and relatively volatile political and economic landscape, it is still an easy place to do business, considering the fact that countries, such as Mauritius and Rwanda, are ranking 25th and 41st globally (World Bank, 2018). Therefore, this chapter will discuss the ownership structure of foreign-owned firms in SSA and how it impacts their performance. In addition, this chapter will further reveal to what degree of ownership will foreign-owned firms perform better than their domestic counterpart in terms of productivity, profitability, and export propensity.

4.2 Concept of foreign ownership and firm performance

Several studies over the years have examined whether foreign-owned firms perform better than their domestic counterpart and are arriving at different conclusions. According to Vaughn (1995), a firm is said to be foreign owned if at least 10 percent of its domestic operations is owned by an investor whose intention is to control the use of its asset. This occurs when there is movement of capital across international lines in the form of direct investment, with the investor deploying its firm-specific advantages to improve the production capability of another firm in another country (Babu and Sekhar, 2015). Foreign ownership can include all forms of foreign investments in the form of capital, technology, management etc. that gives ownership and control over an institution in a foreign country (Alfaro and Chen, 2012; Okafor et al., 2015).

Foreign ownership incorporates all forms of foreign investments that are in the form of capital, technology, management etc. that gives ownership and control over an institution in a foreign country. Due to the provision of managerial ability, access to foreign markets, technology, and several other benefits, it is commonly believed that a firm with some form of foreign ownership performs better than its counterpart, which is domestically owned, especially in developing economies. The efficiency of foreign owned firms is a function of the considerable availability of economic resources in their home countries (Nachum and Rolle, 1999; Barney and Aikan, 2017). Therefore, these resources are important factors in the firms' abilities to gain ownership advantage and be a force to be reckoned with in foreign markets (Dunning, 1977, 1988; Nachum and Rolle, 1999; Barney and Aikan, 2017).

On the other hand, firm performance is characterised by how successful a firm has been within a more competitive environment. However, researchers often confuse efficiency with productivity, but there is a distinction between them when a firm is productive and when it is efficient. While productivity refers to the amount of work completed at a given period, efficiency is a much wider concept that may include productivity, continuity, and quality (Abu-jared, et al., 2010). A productive and efficient firm makes use of limited resources at its disposal to achieve an organisational objective, and when this occurs, that firm arguably has performed well (Campbell et al., 1970; Lusthaus and Adiren, 1998; Gavrea et.al., 2007). Furthermore, a firm's performance is dependent on its level of efficiency and the market where it operates and it is measured to assess its performance (Bharadwaj, 2000; Duoma, et al., 2006; Lindemanis et al., 2019). This informs researchers on why strategic managers describe firm performance as the ability of a firm to realise and attain its goals using all the firm's resources both productively and effectively (Daft, 2000, Limone and Miranovic, 2013). However, some will argue that firm performance is the aggregate of successes obtained by all units engaged in the objectives of the organisation over a specific time frame aimed at an intended stage or to an overall extent (Ling and Hong, 2010).

In developing economies, the presence of foreign-owned firms tends to influence competitiveness or performance for a variety of reasons. Some include access to international markets, modern technology, and several other benefits, which informs a researcher about why a foreign-owned firm performs better than its domestic

counterpart (Doms and Jensen, 1995; Chhibber and Majumber, 1999; Arnold and Javorcik, 2005; Aydin et al. 2007; Okafor et al., 2015). Similarly, through foreign ownership, firms in developing economies contribute to economic development because of effective management techniques, technology transfer, employment growth, and access to the international market (Anyanwu, 2012). There are also suggestions in endogenous growth models that technology is a fundamental factor of production that leads to economic growth and development, and this is directly linked to the performance of foreign-owned firms (Mengistu and Adams, 2007; Awolusi and Adeyeye, 2017).

Similarly, foreign-owned firms in developing economies use investments in knowledge and technology to bridge the gap with developed economies, increasing the absorptive capacity of the host economy. This implies that the impact of foreign-owned firms in a developing economy depends on the absorption capacity of the economy in terms of technology, an increase in capital, and human development (Mengistu and Adams, 2007). Furthermore, the performance of foreign-owned firms in a host country is a function of the considerable availability of economic resources in their home countries (Nachum and Rolle, 1999; Tolentino, 2010 and Boateng et al., 2015). Therefore, these resources are important factors in the firms' abilities to gain an ownership advantage and be a major player in international markets (Dunning, 1977, 1988; Nachum and Rolle, 1999; Saikia et al. 2017). However, this submission is in tandem with Dunnings' OLI theory which describes the role of ownership advantage in the performance of foreign-owned firms. However, substantial empirical studies investigate the factors that are responsible, which is an important gap in the study of foreign ownership and performance, particularly at the firm level.

In the literature, arguments exist that within industries and countries, it is expected that foreign-owned firms are likely to be more productive and profitable than domestic firms (Chhibber and Majumdar, 1999; Halkos and Tzeremes, 2007; Aydin et al., 2007). The hypothesis partially supports this claim on firm size and performance with other claims that foreign-owned firms possess tangible assets that are firm-specific (for example, branding and technological advancement) and intangible assets (for example, networking, managerial ability, and marketing). As a result, foreign-owned firms by affiliation with domestic firms grant them the right to

use these tangible and intangible assets, resulting in an increase in performance compared to domestic firms, despite the same amount of input (Yudaeva et al., 2003; Halkos and Tzeremes, 2007). However, there are scholars who suggest otherwise; for instance, Aitken and Harrison (1999) posit that foreign investment had a negative effect on the competitiveness of wholly domestic firms in the same sector. This assertion is supported by Huang and Shiu (2009) who posit that domestic owned firms performed better than foreign-owned firms because they were better informed about their local environment. On the other hand, Barbosa and Louri (2005) and Greenway et al., (2014) acknowledge that foreign ownership has an impact on firm performance, but the question remains to what degree? These ambiguities and lack of a consensus are the reasons for this study.

4.2.1 Review of literature

According to Dunning (1977), ownership advantage within foreign-owned firms enables them to compete in international markets. Foreign firms have superior attributes that include, but are not limited to, superior financial advantages, product variety, international trade links, marketing, and international business experience (Agarwal and Ramaswami, 1992; Mohammed and Suod, 2008; Bartels et al., 2014). These advantages are the important factors of performance which describe the differences among firms given that they enable the conditions (such as economies of scale, stronger customer base, stronger market position) necessary for a successful and a more efficient firm (Hawawini et al., 2003; Makhija, 2003; Bilyk, 2009; Lindemanis et al., 2019). The prevalence of these attributes within foreign-owned firms suggests that such firms are expected to show better financial performance, better productivity, and a wider network area for exports. In addition, recruiting and maintaining a skilled labour force compared to domestic firms in the host country makes competition almost non-existent (Lundan, 2010; Selvam et al., 2016), especially in the developing economies of SSA.

Douma et al. (2006) in their study of firms in India using firm-level data, found the effect of foreign ownership on firm performance to be positive, as foreign shareholders tend to play a major role in monitoring and lowering agency costs. Similarly, Choi et al. (2012), while examining the performance of Korean firms with regard to board membership, found foreign ownership to be positively linked to firm performance, indicating that an increase in foreign ownership would increase firm

performance through an independent monitoring of controlling shareholders. In addition, Yudaeva et al. (2003), in the study of Russian firms, found foreign-owned firms to be more profitable than domestic firms, as technology and better management enable the former to have advantages over the latter. Sarkar and Sarkar (2000), on the other hand, used MBVR and Tobin's Q as firm performance indicators on a sample of 1,567 private sector Indian manufacturing firms from 1995 to 1996 and stated that foreign investment had a positive impact on the company's performance.

Chibber and Majumdar (1999), in their examination of 1001 private sector firms in India for the pre-1991 and post-1991 periods, found that foreign ownership had no impact on firm performance (ROA) in the pre-1991 period. However, foreign ownership positively impacted on firm performance measured in the post-1991 period only after achieving a 51% majority shareholding. This implies foreign investors are able to apply their advantages to positively improve labour , capital and technological markets in India compared to locally owned firms. Gurbuz and Aybars (2010) studied a panel of 205 non-financial listed companies in Turkey for three years (2005-2007). They found that foreign ownership increases firm performance to the degree above which an increase will adversely affects investment and efficiency, and therefore does not increase profitability of firms as measured by ROA. That is, there exist a non-linear relationship between foreign ownership and firm performance although there is a positive relationship between them. Furthermore, the non-linear relationship is ascribed to Turkeys' distinct economic climate, which makes a certain degree of indigenous ownership essential in firms' operations.

On the other hand, Phung and Le (2013) found foreign ownership to have a negative impact on firm performance in an emerging market. This is because it is unable to play an oversight function in corporate governance structures as foreign investors suffer from knowledge asymmetry and foreign ownership is not concentrated. However, Gedajlovic et al. (2005) examined how foreign ownership impacts the structure and percentage of shares owned by foreign investors in Japanese manufacturing firms and they found no association between foreign ownership and profitability as measured by ROA. This is in line with the result obtained by Kumar

(2004), whose examination of an unbalanced sample of 2,478 listed manufacturing firms in India found that foreign ownership had no impact on firm performance and was calculated using ROA and ROE as proxies. Literature has also identified several variables that have been identified and adopted to examine how foreign ownership affects firm performance, especially in developing economies (Blomström and Sjöholm, 1999; Peck-ling et al., 2015). However, there have been very few studies of such in SSA (Moez et al., 2015; Baliamoune-Lutz and Lutz, 2018), hence the essence of this study, which will examine what degree of foreign ownership will bring about an increase in profitability, productivity, and export propensity in SSA firms.

As stated earlier, previous studies have often related foreign ownership with better ***profitability*** compared to domestic firms (Halkos and Tzeremes, 2007). Related literature, such as Bonin et al., (2005) & Alfaro and Chen (2012), supports this premise by finding foreign-owned firms to be more profitable and they show signs of better sales growth than domestic firms. With the former study employing the propensity score matching estimation, performance was responsible for the transfer of technology (Bonin et al., 2005) and financial linkage with home countries of the foreign-owned firms (Alfred and Chen, 2012). By employing OLS regression with industry dummies, Douma et al., (2006) & Zeitun and Gang (2007) reported similar findings in India and Jordan, respectively. Foreign ownership in these developing nations was found to have improved both in financial performance and their risk of default. This was due to the better financial contribution, managerial and technical expertise (Douma et al, 2006; Lundan, 2010) as well as the ability of foreign shareholders to exercise better control of the firms (Zeitun and Gang, 2007). Therefore, based on previous studies in developing economies, and the lack of sufficient data, this research expects to investigate to what degree, foreign ownership of firms in SSA will impact positively on financial performance or profitability (Ongore and K'Obonyo, 2011; Moez et al.,2015; Moez et al., 2015; Baliamoune-Lutz and Lutz, 2018)

Another major determinant of foreign ownership and FDI that is explored in related literatures is the role of ***productivity*** (Dimelis and Louri, 2002; Gelubcke, 2013). For instance, Claessesns and Djankov (1999) who adopted OLS and random effect estimations reported a positive association between foreign ownership and labour productivity among firms in the Czech Republic within 5 years. This finding supports

Gelubcke's (2013) findings, who employed the generalized linear model and a different performance measure of labour productivity for a sample of German manufacturing firms in 2007 and 2008. Mass privatisation and an associated wage premium with respect to foreign-owned firms were the main reasons for this relationship in the Czech Republic and Germany (Claessesns and Djankov, 1999; Gelubcke, 2013). Also, there are other factors responsible for the relationship of foreign ownership and productivity as identified by Zhang et al., (2013), and they include an increase in the intensity of research and development present in foreign-owned firms. Supporting this premise in previous studies, this research expects a similar pattern in SSA; particularly with foreign firms from the developed nations where better firm-specific advantages tend to exist (Nachum and Rolle, 1999; Dunning and Lundan, 2008; Bandick and Karpaty, 2011).

Another significant factor responsible for increased performance in foreign-owned firms is in their ability to improve skills acquisition in their workforce better than their domestic counterparts (Huttunen, 2007). This is achieved through better financial ability (Alfred and Chen, 2012) and technological sophistication (Bandick and Karparty, 2011; Bykova and Lopez-Iturriaga, 2018). For instance, Bandick and Karpaty (2011) in adopting the difference-in-difference method suggest that an increase in foreign ownership will result in a corresponding increase in the demand for skilled labour, hence an increase in productivity. This supports the findings in studies such as Hijzen et al., (2013) and Koch and Smolka (2018), where foreign ownership has been reported to show a similar relationship with employment growth, particularly in high-skilled jobs. A similar relationship has also been reported between foreign ownership and intensity and the incidence of providing training to workers in transition economies from 2002-2009 (Alili, 2018). In line with the literature, this research study expects foreign-owned firms to employ more educated workers and provide better training than domestic firms, resulting in increased productivity.

In addition, this study intends to establish what form of relationship exist between foreign ownership and the ***export propensity*** of foreign-owned firms. Bykova and Lopez-Iturriaga (2018) explored the export potential of 500 Russian manufacturing firms from 2004 to 2014. The study employed the GMM estimate and found that foreign-owned firms performed better concerning exports given their advantage in

advanced technological and financial resources. This finding is similar to the submission of similar studies such as Raff and Wagner (2004); Filatotchev et al., (2008); Boddin et al., (2017), where a variety of estimation methods, such as OLS regression, MM-Estimations, and the propensity score matching estimators, have been adopted. However, foreign equity and foreign control were recognised as the main reasons for improved export intensity in the Central and Eastern European countries (Filatotchev et al., 2008). Thus, this research study will propose the existence of a positive impact between higher propensity to export and foreign ownership at firm-level in SSA. This suggests that foreign-owned firms have a higher propensity to export than their domestic counterparts.

4.2.2 Empirical literature

Several empirical studies discussed the effect of FDI and the presence of foreign-owned firms on productivity, profitability, and export in a host country. Lipsey (2004), in his comprehensive review of the impact of FDI on exports and factor demand in the home country and productivity, wages, and growth in the host country, argues that while there is good evidence that foreign-owned firms are more profitable and pay higher wages, their impact on domestic firms is far less obvious. Whereas Görg and Greenaway (2004) found mixed evidence in the efficiency and spillovers to be largely dependent on the available data and methodology adopted for the study in their comprehensive literature survey. On the other hand, Wooster and Diebel's (2010) study of developing countries reveals that those adopting firm-level data are especially likely to discover negligible or even negative spillover effects from the involvement of foreign-owned firms. Görg and Strobl's meta-analysis (2001) found proof of publication bias, which indicates that the proof is much more mixed than the published review reveals. Their research implies that analyses on productivity spillovers appear to get published when results are statistically significant (i.e. either positive or negative) and suggest further that available studies may not be entirely indicative of what has so far been discovered on this subject. The assertion is that results of some of these studies which may have being statistically insignificant did not make it to publication, hence were never subjected to scientific scrutiny.

An example of a recent cross-country industry study is by Fillat and Woerz (2011) who investigated the relationship between FDI and productivity growth for both developed and developing countries. Their industry data came from a number of

sources, such as the OECD's International Direct Investment Database and the UNIDO Industrial Statistics Database for eight sectors, 28-35 countries for the period 1987-2000, resulting in a highly unbalanced data of 8 industries . However, they found some positive relationships between FDI and productivity for specific industries, especially when certain requirements are met, such as high investment and export orientation. Aitken and Harrison (1999) found a limited impact of foreign ownership on domestic business competitiveness and not only on the smallest firms in their seminal contribution. They also measured the aggregate impact of a foreign presence in Venezuela and found it to be a small fraction of the normal annual GDP growth. In other contexts, it has been found that the impact of foreign ownership in Africa, especially Sub-Saharan African countries vary from what other countries experience (e.g., Asiedu (2002) with respect to FDI determinants). For Morocco, Haddad and Harrison (1993) find lower productivity dispersion in industries where foreign firms are concentrated but find no evidence that foreign firms are accelerating productivity growth in domestic firms. In Ghana, Waldkirch and Ofosu (2010) found that the presence of foreign-owned firms had a positive effect on productivity, although this does not seem to translate into wages. Görg and Strobl (2005) used an important feature of Ghanaian data to investigate the impact that the previous experience of a manager working for a foreign firm had on productivity. They found that there exists a positive impact, but only if the job experience has been in the same industry.

For Mexico, Blomström (1986) and Blomström and Wolff (1994) are the first to present proof of a strong link between foreign investment and productivity using the 1970s and 1975 Industrial Censuses. More recently, Jordaan (2005 and 2008) used the 1993 Industrial Census to find that foreign ownership has a positive impact on labour productivity, especially in the high absorption capacity industries in which foreign ownership is concentrated. For Indonesia, Blalock and Gertler (2009) using panel data from 1988 to 1996 found that the entry of foreign firms brought about an increase in productivity. In that case study, firms with a substantial investment in R&D and whose employees are very knowledgeable can adopt technology resulting in increased productivity. Furthermore, firms with a gap in technology benefit less than firms with weak technical competence. Arnold and Javorcik (2009) using propensity score matching combined with a difference-in-difference approach on

microdata from an Indonesian census of manufacturing, found that newly purchased and privatised foreign-owned firms show higher productivity growth than the domestic control firm even a few years after takeover. They point to major firm-level restructuring following acquisition, which improves investment, jobs, and wages. While some studies discuss the concerns that affect intra-industry efficiency and spillovers, contributions by Javorcik (2004) for Lithuania and Kugler (2006) for Colombia address the possibility of inter-industry spillovers. This is partly due to the relative lack of knowledge on intra-industry spillovers and awareness of the significant forward and backward linkages that MNEs frequently establish in the countries in which they are engaged. Both Javorcik and Kugler confirm the lack of productivity effects within the same sector but find evidence of substantial spillovers to local suppliers (backward links). Liu (2008) in the study of firms in China found an increase in both productivity levels and productivity growth as a result of a foreign presence in a sector and found a negative (short-run) impact from the former, possibly due to the investment needed to benefit from foreign technology, and a positive (long-run) impact for the latter, which is likely as the new technology is incorporated into the production process. Xu and Sheng (2012) analyse the spillover effects of FDI on domestic Chinese firms for the period 2000-2003, taking into account several econometric challenges, such as the endogeneity of input choice and concurrent bias, and find that domestic firms vary significantly in the degree to which they benefit from FDI. Unlike Jarvorcik and Kugler, they found evidence that spillovers occur from forward linkages when firms procure better quality intermediate inputs or equipment from upstream foreign firms.

While adopting the use of data from the Enterprise Survey to examine the relationship between the foreign countries ownership role of the international sector and competitiveness is uncommon, data has been used extensively to analyse other issues. For example, Eifert, Gelb and Ramachandran (2008) used early survey years to evaluate the relatively poor output of sub-Saharan African firms and they blame them mainly for the high cost of indirect inputs, whereas Diarra and Marchand (2011) show that when corruption is a major constraint on the firm's operation, its willingness to comply with the regulations falls and the likelihood of bribery increases. Clarke, Li and Xu (2013) examined the determinants of employment growth in developing countries. They concentrate on firm characteristics such as size

and age, different facets of the market climate, and agglomeration. The latter is more critical than the former, as they notice considerable heterogeneity across firms. Farole and Winkler, (2014) used a cross-section to analyse the determinants of the export status of 35,000 firms in 76 low- and middle-income countries and they discussed how location determines the possibility of exporting by taking into account both the firm-level characteristics and the agglomeration indicators. They argue that firm determinants are crucial in non-core regions, while agglomeration indicators are more relevant in core regions when it concerns regional investment as they impact export participation significantly.

4.3 Foreign ownership and its impact on developing economies.

There are instances where a host country has expressed concern about the entry model of an investor, especially when the acquisition of a domestic firm appears harmless to economic development but is not beneficial (Aydin et al., 2007). This is because acquisitions in the past did not foster competitiveness but instead transferred ownership and control to foreign hands from domestic ones (Alfred and Chen, 2012; Selvam et al., 2016). The main reason why changes are made in the status of a firm is for a potential benefit to be achieved, which is a significant factor. Nevertheless, the trade unions were frequently in opposition (Gelubcke, 2013; Cory, 2015). Alternatively, the entry route for FDI in the research of foreign ownership of firms has widely being investigated and there exists available data in order to form an opinion on it (Singh, 2017).

Traditionally, MNEs are in a constant search for opportunities where they can utilise their technical expertise and resources to increase their market share and profits especially in developing countries (Okafor, 2014). This has resulted in the transfer of technical skill and capital to domestic firms in developing countries from experienced MNEs and eventually this will lead to a structural change in its ownership (Dunning and Lundan, 2008; Driffield et al.,2018). Therefore as firms consider these ownership changes, they are intrigued at the attraction of capital and advance technologies which inward FDI results to and then leads eventually to the economic development of the host community (Onida and Crino, 2007; Driffield et al., 2018).

Huang and Shiu (2009) argue that foreign investors might have better technical, financial, or human skills, experience or resources that offer them more reputation

and credibility than local investors would. Analysis of Indian firms by Chhibber and Majumdar (1999) found that foreign-owned firms had, relatively, a superior performance when the return on sales was used to assess performance. Arnold and Javorcik (2005) studied the causal relationship between foreign ownership and plant productivity in Indonesia and indicated that foreign ownership would lead to substantial improvements in the productivity of the acquired plants. Aydin et al., (2007) examined Turkish companies and showed that foreign investment positively affected financial performance. On the other hand, there exists literature which states otherwise. For instance, in a host country, there are domestic entrepreneurs who performed better that foreign-owned firms because they were more informed about their local environment than foreign investors (Huang and Shiu, 2009), which may ultimately contribute to better results.

Following the review of the related literatures with respect to the effect of foreign ownership and firm performance in SSA, this research study also expects a positive relationship with a chosen aspect of firm performance as obtainable in developed countries given the existence of the financial resource advantage, economies of scales, and international trade exposure that would tend to stifle the competition from the domestic firms (Dunning and Ludan, 2008).

4.3.1 Foreign ownership and Firm productivity

The economic development of a country is driven by the growth of its private sector, especially by the phasing out of less productive firms for more productive ones (Caves, 1974). Therefore, making a firm more productive becomes a key reason for analysing economic growth and development. These productivity gains are often associated with technological benefits based on the presence of foreign investments, as domestic firms lack creative capabilities and usually lag affiliates of foreign-owned firms (Javorcik, 2004; Waldkirch, 2015). In addition, there are benefits in promoting inward FDI in developing countries when considering firms' productivity. These gains are transmitted to the economy through spillovers, and this is achieved through two main mediums: intra-industry and inter-industry productivity spillovers (Javorcik, 2004; Lin et al., 2009).

4.3.1.1 Intra-industry or horizontal spillovers

This occurs when the productivity in domestic firms increases due to foreign-owned firms being in the same sector. They can take place through three different productivity mechanisms: labour mobility, competition, and demonstration effect.

Labour mobility is one of the mechanisms in horizontal spill-overs, and it is an avenue which requires MNEs to play an active role in training and educating local employees more than their domestic counterparts. In so doing, these employees become acquainted with technologies and the manufacturing methods of foreign firms. Eventually, this increases the likelihood of domestic firms recruiting skilled employees who had previously worked for a foreign firm and not only know about the new technology but are willing to disseminate knowledge while working in a domestic firm resulting in productivity spillovers, as skilled workers tend to transfer knowledge and technical skills to domestic firms or establish their own firms to compete in the same economy (De Mello, 1997; Lipsey, 2004; Javorcik, 2004; Adali and Yuksel, 2017). It is important to note that MNEs, in this case, tend to offer a high wage to entice the best local employees and keep them within their organisation, but the disadvantage is that these skilled employees end up being their competitors . Saggi (2002) in examining the effect of labour mobility on firm performance in domestic firms argues that there exist challenges in how an evaluation is done as it requires a monitoring of employees to measure the effect on the productivity of other employees; hence, it is not surprising that there is a lack of detailed studies on this aspect.

The pressure of competition is another mechanism in horizontal spillovers which occurs when MNEs enter a domestic market. The entry of foreign-owned firms to a market can encourage competition and put pressure on domestic firms to be more productive. Competition is an opportunity for domestic firms to make productive use of current resources or to implement the use of new technology. In this circumstance, domestic firms are compelled to defend their share of the market by increasing their level of competitiveness. However, the argument goes that the market power of domestic firms can be limited by competition, in that competition affects the productivity of domestic firms, and if the level of profit is greater than the productivity effect, competition from foreign-owned firms can result in negative spillovers to domestic firms. Markusen and Venables (1999) argue that the entrance

of foreign-owned firms into domestic markets decreases the sales of domestic firms, contributes to the departure of certain domestic firms, and restores the sales of the remaining firms to zero benefit.

Lastly, ***Demonstration effect*** is another mechanism in horizontal spillovers that is dependent on the role that the affiliates of MNEs play in a domestic market, and it is done in two different ways. Cheung and Lin (2004) in their study suggest that although R&D and innovation indirectly influences the activities of domestic firms, the spillover effect is strongest in an external design patent (minor innovations). This confirms the theory that the introduction of superior products from foreign affiliates inspires local inventors to carry out R&D leading to new inventions in a host country. Therefore, as domestic firms make improvements in their production processes and management skills, then this results in improved productivity and efficiency. Secondly, domestic firms may use imitation or reverse-engineering technology directly to learn about products and advanced technology from foreign firms. This influences the positive effects of domestic firms and increases their level of productivity as well as their ability to compete (Blomstrom and Kokko, 1998; Gorg and Greenway, 2001; Khalifah and Adam 2009). Furthermore, the affiliates of foreign-owned firms in a host country can learn how to acquire, produce, sell, handle, and adopt technology from MNEs in their home country, which impacts on productivity spillovers. Hence, the importance of the demonstration effect rises with the similarity of the products manufactured by foreign-owned firms.

Literature has shown that MNEs are in constant search of opportunities where they can utilise their technological expertise and resources to increase their market share and profits especially in developing countries (Pérez-Villar and Seric, 2014). The result has been the transfer of technical skill and capital to domestic firms in developing countries from experienced MNEs and eventually it leads to a structural change in its ownership. As firms consider these ownership changes, they are intrigued at the attraction of capital and advance technologies which come with inward FDI that leads eventually to the economic development of the host community (Lipsey and Sjoholm 2005, Pérez-Villar and Seric, 2014). Furthermore, the entry of MNEs coming into a country offers both direct benefits (like new capital, human capital, income growth, exports, intermediate demand for products) and indirect benefits (like productivity spillovers, knowledge externalities) to boost

economic development and increase the tax revenue in a host economy (Blomström et al., 2000; Görg and Strobl 2004; Takii 2005; Lipsey and Sjoholm 2005; Suyanto 2010). Their arrival also puts domestic firms under pressure because of increased competition and motivation by foreign-owned firms to improve on their productivity. In theory, there are suggestions that economic benefits from inward FDI not only increase productivity in domestic firms through technological development, but also improve efficiency (Takii 2005; Takii and Ramstetter, 2005; Pérez-Villar and Seric, 2014, 2015).

The introduction of advanced products by foreign-owned firms tends to accelerate the diffusion of new technologies to domestic firms in a host country. These advanced products and technologies from foreign-owned firms and their affiliates also tend to encourage and stimulate local innovators to undertake research and development (R&D) to promote local innovations by their presence. Hence, this is the reason why the productivity gains of domestic firms are often associated with increased technological benefits based on the presence of foreign investment, as domestic firms lack creative capabilities and usually lag behind foreign-owned firms and their affiliates.

4.3.1.2 Inter-industry productivity or vertical spillovers

This occurs when foreign-owned firms encourage an increase in the productivity of domestic firms across different sectors and this takes place through vertical linkages. For instance, there is the transfer of technology which occurs across backward and forward linkages, that is, a backward linkage (from a buyer to seller) and a forward linkage (from a seller to a buyer).

Backward linkage

The significance of backward links in relation to FDI in developing economies has been researched thoroughly in literature, but the one that stands out is the theoretical examination done by Rodriguez-Claire (1996). According to his concept, the influence of MNEs in a host economy is contingent on its relative tendency to generate backward linkages when compared with its domestic counterpart. However, there is also another theory in the literature which argues that MNEs presence in a host economy brings about competitiveness and linkages (Markusen and Venable, 1999). The definition of a firms backward linkage is the ratio of employment

generated to direct labour employed by the firm (Rodriguez-Claire, 1996). There are two ways in which MNEs derive benefits from a host economy,

a. Increase in productivity of domestic firms thereby resulting in increased wages.
b. Enhance the production capacity of domestic firms through forward linkages by encouraging them to produce more complex end products.

Forward Linkage

This is described as the value added in the gross export of intermediate goods consumed or exported by a host country expressed as a percentage of total gross exports. It is worthy to note that between 1995 and 2011, the percentage of domestic value added (DVA) in gross exports of intermediate goods in many developing economies has reduced significantly despite the increase in gross exports. Forward linkages reflect how parts of the rely on an industrys' output whereas the reflection of backward linkage is on the degree to which an industrys' output is reliant on inter-sectoral supplies. (Millar and Blair, 2009). However, literature suggests forward linkages can't occur in their simplest form because they are the outcome of existing backward linkages. As a result, demand must exist in order for forward linkages to take place.

4.3.2 Foreign ownership and firm profitability

There is a common belief that domestic firms do better than foreign-owned firms in their own communities because of their loyal customer base and vast knowledge of their local market. Consequently, for a foreign-owned firm to compete and perform better, it must own some firm-specific advantages. Several studies have suggested that firm size matters in the profitability of an organisation, because very large corporations take advantage of their size and high earning capacity to get more investment opportunities especially capital-intensive ones compared to their competitor which is domestically owned. It then becomes arguable that if the ownership structure (both domestic and foreign) of a firm then has an impact on profitability, the debate then shifts to in what way and to what degree, and this continues to linger as inconclusive.

However, it is noteworthy to say, that in the performance of their daily operations in different countries, foreign-owned firms do incur some costs while entering that

foreign market. Therefore, its success is hinged on its ability to manage its operating cost, which is an inherent advantage due to its own specific advantages that it utilises abroad to lower its cost or increase its profitability when compared to other competitors (Dunning, 1973, 1980, 1988). The profitability of a firm can be defined and measured in several ways (Tangen 2003). In one way, it is simply defined as a ratio of operating profits as a ratio to sales, with the size of firms being recognised in several literatures as a factor in determining the profitability. Furthermore, according to Ross et al., (2002), it is measured as return on sales, i.e., profit margin, which is defined as the ability of a firm to survive falling prices, competition, obligation, or a future decline in sales. It is pertinent to note that several studies have looked at the ownership structure of firms (including foreign ownership) and how it impacts on firm profitability; this study intends to contribute to the knowledge of how these further relate to economic growth and development. For instance, Moez et al., 2015 in examining the effect of ownership on profitability in financial institutions in Tunisia found that foreign ownership had a positive and significant effect on profitability using ROA and ROE as their measurement. Similarly, Ukaegbu (2014), when investigating Africa, found that there exists a positive relationship between the size of a firm and profitability, which can be attributed to several factors, which include advanced technology, highly skilled managers etc.

In the case of Sub-Sahara Africa, which is constituted by developing economies, Foreign Direct Investments (FDI) is the core of its economic development. These investments, which are in the form of capital and expertise, are used to acquire major stakes in domestic companies, which gives the investors the advantages of diversification and the economy some form of liberalisation. These firms, due to their new ownership structure, are then able to compete for bigger opportunities through cost reduction. However, there are still arguments posed that assert that larger firms, unlike smaller ones, are able to make more profits because of their market share, expertise, economies of scale (Amato and Amato,2004; Dogan, 2013), and access to capital at a lower cost than domestic firms which are considered smaller.

The ownership structure and size of firms are found in the literature to have an impact on profitability, hence its performance, which is the reason behind the increase in a number of debates as this issue has remained inconclusive. There are studies which suggest that very large firms with good financial positions tend to take

on equally large and more profitable investment opportunities obviously because of their capacity (Bayyurt, 2007; Shubita & Alsawalhah, 2012; Dogan, 2013). There are studies which suggest in their findings that firm size and performance have a positive relationship (Ozgulbas et al., 2006; Pelegrin and Bolance, 2008; Saliha & Abdessatar, 2011). On the other hand, studies have also shown that firm size has a negative relationship with performance (Becker-Blease et al., 2010; Banchuenvijit, 2012). However, some studies have asserted that firm size does not affect the performance of firms (Humera et al., 2011; Domanoviae at Jovanovic; 2017).

In the study of 40 Indian public firms, Gupta (2005) found that foreign ownership has influenced an improvement in labour productivity, expenses, and profitability growth rate substantially. Whereas, in his study of firm ownership and performance in German firms, (Weche Gelübcke 2013) he asserts that, though foreign-owned affiliates performed better that German-owned affiliates, profitability, on the other hand, trended in the opposite direction. Konings (2001) found out that foreign-owned firms did not perform better financially when compared to domestic ones in the study of firms in Romania and Bulgaria using firm-level data. Levine (2004) confirms the importance of foreign ownership on the performance of domestic banks by showing that barriers to entry of foreign banks have a positive impact on net bank interest margins.

Similarly, Ben Naceur et al. (2007) found that changes in the profitability of privatised firms negatively correlate with state control and positively correlate with foreign ownership, which shows the importance of foreign participation. Lin and Zhang (2009) found that banks partly acquired by foreign companies are more successful than those which kept their ownership structures. Wu and Strange (2000) found that foreign insurers have an important role in maximising revenues by promoting investment and improving profitability when they have easy access to capital markets. However, other researchers concluded that the entry of foreign capital negatively affects profitability. Indeed, the results of Claessens et al. (2001), based on a sample of 80 developing countries, indicate that foreign entry improves the implementation of national banking markets. However, easing restrictions on entry may reduce domestic banking profits (Boubakri et al., 2005). According to Lensink and Naaborg (2007), banks with a low degree of foreign ownership are more

profitable and able to raise more net interest revenues than banks with a high degree of foreign ownership.

Other literature on this field extensively studied foreign ownership in order to explain the importance of the presence of foreign investors as a key to economic performance (Megginson, 2005). The vast literature offers several explanations for these patterns, and yet the issue remains totally unresolved. Gupta N. (2001, 2005) and Lars and Trond (2003) found that firms partially privatised seem to be more successful than fully privatised firms.

4.3.2.1 Determinants of firm Profitability

While the various theories have tried to shed light on the reasons why some firms are more successful than others, and a significant amount of research has been considered and examined, different factors may have an effect on firm efficiency, and, therefore, the topic of firm profitability continues to be a true, important and an infinite topic that draws the interest of many scholars and professionals (Porter 1980; Teece, 1981; Olson; 2002; Chan et al., 2003; Nunes and Serrasqueiro, 2015). Several studies exist in industrial organisation on firm profitability and its determinants, with more recent ones identifying two schools of firm profitability. In industrial organisation, a lot of emphasis is based on the market structure being a key determinant of a firm's performance. The competing models are the structure-conduct-performance model and the firm effects model.

The Structure-Conduct-Performance (SCP) theory

SCP theory developed by Mason (1949) and Bain (1951), assumes that the extent of concentration of an industry in a market influences the behaviour and the profitability of a firm (Hawawini et al., 2003; Pervan et al., 2019). In other words, a firm's conduct and performance are defined by a firm's influence on its market structure. By leveraging on their market influence, complicit firms can fix prices at a level that guarantees extra-normal income, and several studies (Jeong & Masson, 1990; Hirsch et al., 2014; Odusanya and Yinusa, 2018, Pervan et al., 2019; Sahabuddin and Synthia, 2020) have shown a positive impact on the profitability of the firm. According to this theory, an inefficient firm stands the chance of remaining in the market and will not face the risk of being thrown out as long as the market remains concentrated (Fu and Hefferman, 2009). The consequences of these frameworks are

that, under these circumstances, deceptive agreements and inefficient business practices between firms are less expensive to sustain, and lead to increased profits and monopolistic rents (Goldberg and Rai, 1996; Al Alhassan et al., 2016; Odusanya and Yinusa, 2018). In addition, market concentration and R&D are activities that form part of the SCP theory of firms.

Firm effects theory

This theory argues firm-level attributes results in profitability, including management quality and organisational structure. The basic assumption in firm effect theory is that firms are heterogeneous within the industry. Demsetz's (1973) superior firm hypothesis notes that their efficiency level can differentiate firms, and that the more efficient firms have a competitive advantage over their less efficient competitors, which is likely to impact profitability. The superior firm hypothesis creates a positive relationship at the firm level between efficiency and profitability. By taking these points further, Jovanovic (1982) postulates that only efficient firms remain on the market and that less effective firms would ultimately leave the market. There is an array of studies like Jovanovic and Russeau (2008), Gavetti et al. (2012), Coad et al. (2013) and Lemi and Wright (2020) that are dedicated to the study of the firm.

In the literature, there is a consensus that both the SCP and firm effect theories are conceivable indicating both sector and firm effects to be statistically significant. Although empirically both schools of thought are not mutually exclusive, there still exist a dispute concerning the relevance of both schools. This is because, while the SCP theory at its core excludes the impact of the determinants of profitability at firm-level, the firm effect theory both firm and sector effects co-exist (McGahan and Porter, 2002; Slade, 2004). In addition, the significance of how both the SCP theory and firm effects theory impact on welfare is contradictory. For instance, while the SCP theory views the inequalities of profitability across sectors as indication of market inefficiency (implication of deficient social wellbeing), on the hand, in firm effects theory where there exist deficiency in welfare, it is often not associated with increase in profitability. The rationale is that market operations are very competitive, and prices equals marginal cost. Therefore, an increase in profitability is associated with high market concentration but not always as a result of it, that is in the debate of

how a sector or firm effect impacts of profitability drive is significant in how competition policies and formulated and executed.

4.3.3 Foreign ownership and Exports

Dunnings' (1977) OLI paradigm has had a lot of influence on FDI theories, as its importance is entrenched in its ability to define the framework of the MNE's decision on whether or not to engage in local production or use exports to reach foreign markets. These decisions also include investing, licensing, and exporting, as determined by OLI advantages on the MNE and host country. Furthermore, FDI is the channel by which domestic firms get the capital required for investment, superior managerial skill and advance technology, which can be transferred to create employment in a host country and increase their ability to export using the MNE's network (Hanson, Mataloni, and Slaughter 2005; Ekholm, Forslid, and Markusen, 2007). Prospects like these bring about economic growth and development and an increase in productivity in domestic firms (Asiedu, 2002; Adams, 2009; Assuncao et al., 2011).

In general, MNEs serve as a channel for the movement of capital to an economy. For instance, a country with abundant capital decides to export goods considered to be capital intensive or move such capital to a country where it will achieve a higher return on that capital and reduce the cost of labour until factor prices are equal (Jonathan and Colin, 2006; Vintila, 2010; Ezeoha, 2012; Nnadi and Soobaroyen, 2015). It is also a shared view that FDI in promoting exports in a host country supplements the capital of domestic firms involved in exports and technology transfer used in making available new products. FDI also opens up new global networks and provides a platform for training its workforce. Arguments also exist that FDI may bring about the transfer of technology that is inadequate or unsuitable for manufacturing in the host country; thereby, reducing the volume of exports and hindering domestic firms that would have become exporters. This will, in turn, not encourage the development of the host country's comparative advantage as the focus will then be on cheap local raw materials and labour (Gorg and Strobl, 2001; UNCTAD, 2002; Desai, Foley and Forbes, 2008).

In generally, foreign-owned companies are more likely to engage in export than domestic firms, and, when they do, a large share of their output is what is exported

(Kneller and Pisu, 2004; Helpman et.al, 2004). In their study of exports and economic growth in South Africa, Sunde et al. (2017) assert that there exists a causal relationship between economic growth, FDI and exports. Blonigen et al., (2014) argue that FDI can be driven by the existing export networks of local firms and in their study they found empirical evidence in French manufacturing firms. Manova et al., (2015) posit that FDI can promote exports and economic growth by mitigating firms' financial constraints. They found out that foreign-owned firms in China have better export performance than domestic firms.

4.3.3.1 Determinants of Export tendency

Two major theories provide the basis for the classification of export performance, split into internal and external factors, and they are the contingency and resource-based theories. Internal determinants are evidence-resourced based theories that centre on how a company's fundamental performance is sustained by the competitive edge that is created by a distinct pool of resources (Conner and Prahalad, 1996). This theory also describes the key issue of how a firm can achieve high performance compared to its rivals that are operating in the same market while suggesting that performance is a result of the firm exploiting its competitive advantage (Dhanaraj and Beamish, 2003). It, therefore, argues that a firms' export performance is based on its firm-level activities. On the other hand, the external determinant, otherwise known as the contingency theory, suggests that environmental factors determine a company's schemes and export performance (Cavusgil and Zou, 1994). Therefore, this theory considers exports to be a firm's strategic response to the interplay of both internal and external factors (Yeoh and Jeong, 1995; Robertson and Chetty, 2000).

a. ***Internal Factors- Resource-based factors***

   The rapidly increasing liberalisation and successive performance difficulties encountered by exporters give an idea behind scholars' interest in the relationship between export performance and a firms' marketing strategy (Douglas and Craig, 1995; Leonidou et al., 2002). Resource-based factors are those based on the firms' export business approach that is currently used as a determinant of their export tendencies. Furthermore, the literature has identified other firm-specific variables that are commonly used as determinants of exports. They are firm size, years of experience in global

trade, market orientation and firms' core competencies (Aaby and Slater, 1989; Zou and Stan, 1998; Moen, 1999; Cadogan et al., 2002).

b. External Factors – Contingency Theory

There exists an argument which describes the opportunities and threats that international markets pose to firms' export performance. According to Erramilli and Rao (1993) and Styles and Ambler (1994), the attributes of international markets that influence export performance are shared culture, market competitiveness, and federal regulations. Therefore, the determinants of export performance appear to be conditioned by political and legal factors as well as shared culture, which is in line with the argument made by Cateora (1996), who posited that external environments are dependent on the political and socio-cultural factors. Similarly, Robertson and Chetty (2000), in their study in determining a link between export performance and the context of a firm's operation, found that the performance of firms is based on their operating environment. However, Brouthers et al., (2009) in their study found no clear and unambiguous guidelines exist for evaluating a firm's export efficiency despite exhaustive studies on exporting.

4.4 Conclusion

In recent decades, the surge of inward FDI to developing counties gave rise to the number of studies to examine the impact of foreign owned firms in host country and how their presence has influenced efficiency of domestic firms as it differs in between countries. This chapter tries to explain its concept and discuss selected performance indicators (i.e., Productivity, Profitability and Exports) and their determinants with the aim of comparing same with their domestic counterparts in the region of SSA. Furthermore, a review of a wide range of empirical studies on foreign ownership and firm performance found some forms of contradictions, while some studies show that foreign ownership influences firm performance positively (Javorcik, 2004; Waldkirch, 2015), some conclude it does not (Aydin et al., 2007) and the last group say it has a negative effect (Le and Phung, 2013).

A review of the empirical literature reveals a tremendous amount of room for a contribution on this topic, especially in the analysis of foreign ownership and firm

performance in Sub-Saharan Africa. This is because very little empirical work has been done to examine the level of influence foreign ownership has on firm performance in SSA. For instance, Ferris and Park (2007) in their study found 40 percent foreign ownership to be the peak of firm performance in Japan, hence the contribution of this chapter makes it an important source of information for Chapter 7 to build on.

CHAPTER FIVE

SUB-SAHARA AFRICA – OVERVIEW AND TRENDS

5.1 Introduction

Sub-Sahara Africa (SSA) is part of the African continent geographically located in the south of the Sahara. It has 49 constituent countries (35 of which are classified as least developed by the United Nations [UN-OHRLLS, 2012]) with a combined population of more than 862 million in 2010 (Michalowski, 2012) and 1,005 million in 2015 living in an area of 24 million square kilometres (World Bank, 2016). A vast area of desert defines the Northern part of the region with very little vegetation, humid and hot tropical condition in the Western and Central part, then the Eastern part by a dry and cool highland climate. As a result, SSA is very diverse in every aspect of culture, politics, history and environment, with the smallest country Sao-Tome and Principe, occupying 1,001 Km2. In contrast, the largest country by landmass is the Democratic Republic of Congo, occupying over 2.2 million Km2 (Gopal and Tyler, 2010). However, using population as a metric, the smallest country in SSA is Seychelles, with only 92,000 residents, while Nigeria resides the largest population of over 185 million as of 2015 (World Bank, 2016).

The region of SSA has a GDP per capita based on purchasing power parity of $2,281, compared to $6,672 in East Asia and Pacific, $3,229 in South-Asia, $7160 in the Middle East and North Africa, $13,687 in developing Europe and Central Asia and, $11,192 in Latin America and the Caribbean (World Bank, 2012a; Michalowski, 2012). The nations of Nigeria and South Africa have the largest economies in SSA, accounting for 50 per cent of the total GDP in 2018. On the other hand, Seychelles, with $16,390.82, has the highest sum in terms of GDP per Capita, which is ten times greater than the average of SSA ($1,589) and 75 times higher than the country with the lowest, i.e. Burundi $271 (World Bank, 2019a). In 1970, the region of SSA had an average real GDP growth rate of 0.7 per cent underpinned by a rise in oil prices and ODA resulting in negative growth in GDP per capita after two decades. Real GDP per capita decreased by an average of 0.9 per cent in the 1980s and 0.4 per cent annually in the 1990s, and by 1999, SSA real GDP per capita was around 5 per

cent less than what it was in 1970 (Asiedu, 2002, 2004; Ajayi, 2006; Bartels et al., 2014).

According to Tyler and Gopal (2010), several countries within SSA were under the administration of the European colonial masters in the nineteenth century. However, during the process of decolonisation, there were developmental challenges faced by some of the countries due to socioeconomic issues as well as ethnic and religious conflicts. Hence, at the end of the colonial era, it was expected that the economic activity of independent SSA countries would bring about positive results, which turned out to be the opposite. Prior studies like Clague et al. (2001) and Lem (2005) investigated the impact of colonisation on democracy in SSA, and how political transitions has not resulted in considerable economic development. Furthermore, by 1980s' several countries in SSA witnessed growing protectionism, a decline in commodity pricing, poor macroeconomic and adverse trade policies resulted in decline of economic growth (Iyoha, 1999; Zouhaier and Fatma, 2014). However, between 2000 and 2008, some countries within the region changed strategy, implementing trade reforms which brought about an annual increase of 2.6 per cent in the growth rate of real GDP per capita.

The African Economic Outlook report of 2010, shows the region suffered a decline in real GDP per capita moving from 2.473 per cent in 2008 to -0.4 per cent in 2009 due to a steady growth of an impoverished population, drop in commodity pricing and a decline in export prices resulting in deterioration of trade thereby weakening the national economy of some SSA countries. Nevertheless, the region bounced back to record a 2.2 per cent GDP per capita in 2010, a rebound from a recession SSA witnessed the previous year (World Bank, 2012). Additionally, by the end of 2015, it was estimated that 14 per cent of the worlds' population reside in SSA, with every 4 out of 10 living below $1.90 a day, which is three times the number in East Asia and a fifth of that of South Asia, meaning the region is home to the highest number of poor people globally (World Bank, 2018). Moreover, when compared to non-SSA countries, poverty is still regarded to be substantially higher in SSA, with the average poverty rate being approximately four times that of non-SSA countries. More troubling is that poverty rate remains on the increase despite the region being endowed with abundant natural resources. They include a 32 per cent share of global bauxite, 6.3 trillion cubic feet of natural gas reserves and 63.2 billion barrels of

crude oil which plays a critical role in its development as economic opportunities lie in investments as of 2015 (Kapijipanga and Bokosi. 2016).

5.2 Role of Inward FDI in Sub-Sahara Africa

The studies conducted by Crossman and Meleman (1991), Bado and Salmartein (1994) and Romer (1995) suggests that inward FDI is essential and a critical factor in the production cycle of technology transfer and distribution. Inward FDI helps to promote the adoption of new emerging technologies used to develop new and miscellaneous consumer goods. Its role in economic development has been reaffirmed in alternative economic perspectives. For example, new growth theories consider inward FDI a significant driver of economic growth by promoting technology transfer, spillover effects on domestic investment, enhancing human capital and institutions (Makki and Somwaru, 2004; Classen et al.,2011; Mahmoodi and Mahmoodi, 2016). On the other hand, Sau (1976) suggests that dependency theorists see inward FDI as a process for moving productive capital from South to North. This type of reasoning, including those who share common ground, accepts that inward FDI is an essential connection between the developed and developing worlds. In the literature, Martinez and Fontura (2019), describe a substantial overlap and connection between inward FDI and global trade as a result of globalisation, where production processes are broken up to numerous processes in different locations (or countries) and are linked by service linkages resulting in the formation of transnational production systems with varying levels of complexity.

The role of FDI and its impact on growth in developing economies has been well researched, following the former of these two viewpoints. However, the influence of FDI on economic growth remains uncertain and unexpected. (Makki and Somwaru, 2004). Firstly, where FDI enhances economic growth, it has mixed results on poverty and inequality (Sumner, 2005). Secondly, FDI can overcrowd domestic investment, and its performance in promoting economic growth depends on several conditions (such as the level of financial development, the strength of its backward and forward linkages and human capital and institutional quality). One potential reason for such mixed results regarding the development effects of FDI is the disparity in conditions such as the institutional consistency, trade policy and human resources of the host countries. An example of such consistency is suggested by Slesman et al. (2015), that capital inflows improve growth "only in countries that are above the optimum

threshold for institutional quality, whereas those below report negligible or even negative effects." Similarly, some argue that institutional quality is the main reason Sub-Saharan Africa (SSA) has not benefited as a region. For instance, Ahmed (2013) found increase in growth per capita in SSA countries with quality institutions (i.e. integrity of the legal system, protection of intellectual property, interference in politics and rule of law by the military) and governance, whereas those with issues witnessed stagnation economic volatility.

Furthermore, Dupasquier and Osakwe (2006) also list weak governance as one of the many reasons for the region's lack of competitiveness in attracting FDI. Likewise, Esew and Yaroson (2014) underscored the value of the same aspect, except in the case of Nigeria. However, not everyone shares the primacy of institutional variables over other determinants of FDI inflow. For example, in the sense of BRICS, Jadhav (2012) argues that economic factors matter more than institutional and political factors. Although it is not easy to attribute to any single factor in the context of SSA, there has been an increasing trend in FDI inflows, particularly since the 1990s. In addition, the FDI source in the area is changing from conventional sources to new ones. As a result, rivalry to attract FDI between host countries is now also followed by rivalry, on the other hand. The nature and composition of the FDI are also evolving. In particular, the long-neglected infrastructure has attracted the attention of Chinese FDI, and there is a strong connexion and potential for complementarity between Chinese FDI and trade (Agbelenko et al., 2012; Renard, 2011).

Moreover, unlike FDI from the West, which is "dominated by private companies with minimal risk appetite and little long-term commitment," Renard (2011) notes that FDI from China is "made to establish long-term ties with governments." With these changes in the pattern, source and composition of FDI, scholars are becoming more optimistic about the region's growth prospects (Dupasquier and Osakwe, 2006). However, in reality, there is also a warning against unwise optimism, based on concerns such as a renewed scramble for Africa, as some see the new partners (mainly China) as neo-colonial forces (Asongu and Aminkeng, 2013). However, the institutional impact of FDI is equally worthwhile as its growing influence. More FDI inflows could improve institutional quality; this would be a plus for long-term economic development. On the contrary, if further FDI inflows impair institutional

efficiency, any positive growth impact should be ignored as it overstates the benefits of FDI.

In any case, the systemic effects of FDI need to be adequately covered. Economic research has so far focused on the influence of FDI inflows on economic development, the (reverse) effect of economic performance on FDI inflows, and the role of institutional quality in attracting FDI. Generally, the influence of FDI on institutional efficiency has been ignored for a long time. However, this pattern has recently changed, and a growing number of studies has taken up the topic. For instance, various studies have investigated the causality of FDI to institutions and concluded that FDI increases the institutional efficiency of the host (Kwok and Tadesse, 2006; Ali et al., 2011; Dang, 2013; Long et al.,2015). Furthermore, the results of Olney's (2013) study support the opposite view – that "countries are competitively undercutting labour market expectations" in a traditional bottom-up contest. Similarly, seven facts at the grassroots level and in the sense of Africa, Lee (2014) witnesses how bilateral (FDI) agreements between governments on both sides (globalisation from above) and the resulting (tolerance for) globalisation from below weaken the accountability of many African governments to their citizens and thus worsen the living conditions of the poor.

FDI can influence the institutional efficiency of the host, presents circumstantial evidence of multinationals bribing developing-country governments, and tests for the difference between the institutional effects of the North-South FDI and the South-South FDI. No significant institutional impact of the North-South FDI is found, but the South-South FDI has a significant negative institutional impact (particulate FDI). Although the difference between the two forms of FDI appears to be mild (not robust to different specifications) according to Demir (2016) in the first study to discuss the problem of FDI heterogeneity and to evaluate its existence. However, considering the disaggregation of FDI in the North-South and South-South elements, the approximate impact in both cases is the average effect – distributed over many host countries. In statistical terms, the calculated slope parameters are not host-specific. Indeed, it has allowed the possibility of a differential institutional effect of FDI in resource-rich versus resource-poor host countries. However, given the wide range of host countries, there is still a possibility for resource-rich SSA countries to be characterised by different criteria than other host countries in the resource-rich

group. Therefore, it is better not to assume homogeneous parameters for any set of countries, including the SSA countries.

Of all the themes involving (the determinants or effects of) FDI, relating inward FDI to structural change is perhaps the rarest (Jensen, 2006; Kang and Lee, 2011). Things are much worse from the point of view of emerging (SSA) countries; Jensen (2006) focuses on the transition economies of Central and Eastern Europe, while the focus of Kang and Lee (2011) was on OECD countries in general and Korea in particular. Though the need to industrialise is one of the key factors behind the race to attract FDI, it seems like the reverse is happening, at least in SSA. According to De Vries et al. (2015), it is now a stylised reality that Africa has experienced a declining share of manufacturing in total value-added and jobs since the 1990s. In a related account, Rodrik (2015) finds that SSA is one of the world's hard-hit regions of 'premature deindustrialisation, which he describes as a striking find since "... Sub-Saharan African countries are still impoverished and generally viewed as the next frontier of labour-intensive export-oriented manufacturing ... "(p. 16). However, neither study looked at the role of FDI in explaining such a systemic change. This is because the studies investigates how changes in the relative share of the manufacturing sector in SSA are linked to variations in FDI inflows. Even in studies investigating the FDI-growing nexus, the probability of a host-specific answer is rarely published. Therefore, in the economic development of nations, the need to attract FDI to developing countries, especially those which make up Sub-Sahara Africa (SSA), is not new.

Several worldwide agencies, such as the World bank, recognise FDI as one of the essential tools used to fight poverty. They encourage developing countries to develop strategies to promote their growth (Asiedu and Lien, 2011; Udin et al., 2018). Furthermore, a review of IMF reports reveals GDP growth would be 5 per cent in a third of SSA countries by 2019. Policymakers and scholars need to continue exploring how the impact of inward FDI will impact the region of SSA and the economic performance of constituent countries. Although economic growth performance in SSA has not been encouraging in the last 20 years, owing to the negative per capita growth, drop in real GDP per capita by a yearly average of 0.9 per cent because of weak macroeconomic policies, declining prices of commodities and changes in terms of trade (Iyoha, 1999). However, there was a turn-around at

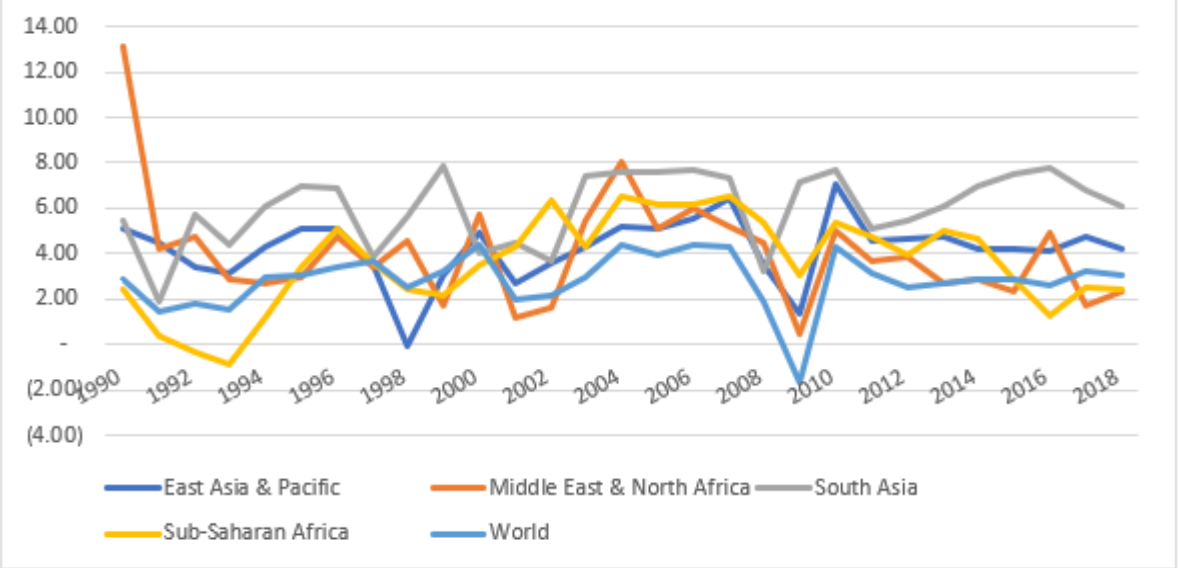
the turn of the century from 2000 to 2008 due to improved terms of trade, resulting in improved rates climaxing at a 2.2 per cent increase in real per capita output (World Bank, 2012). This action has led to the confirmation of several studies which suggests inward FDI as being a more effective source of technology, knowledge, capital, and skills transfer to the host country as unskilled workers are employed to fill vacancies created by skilled workers whose higher wages have attracted by other MNEs (Driffield and Taylor, 2000; Webster, 2013; Tang and Altshuler, 2014). Furthermore, the use of output from foreign firms as input to provide access to relatively cheaper and more reliable inputs for domestic firms also explains why the increase in FDI inflow in developing economies like the region of SSA (Taglioni and Winkler, 2016).

The region of SSA is resident to the highest number of resource-rich countries in the world, with 25 percent of the worlds mineral deposit and over 5 percent of oil and gas resources, which makes it the primary driver of FDI in the region as a whole (World Bank, 2015). However, the abundance of natural resources has not resulted in economic growth or enhanced the welfare of its citizens because sourcing them requires enormous capital, hence resulted in the flow of people, capital, technology, goods, and services through world trade (Farole and Winkler, 2014). This may not be far from the inability of several SSA countries to meet the strict conditions outlined by lenders in Europe and western nations, which has affected the ability of several SSA countries to access loans from traditional sources. Hence, their openness to other investors from developing or emerging economies exploit resources in exchange for cheap loans while targeting desired infrastructural development (Sautman and Hairong, 2007; Alves 2013; Cooke et al., 2015). This has informed the reason why from 1995, inward FDI to SSA increased by a factor of 30, grown by a rate of 7.5 times in high-income countries, and 10 times faster than global GDP since 1995 (World bank, 2014a). Nevertheless, due to the prolonged surge in commodities and the extractive industry being capital-intensive, substantial amount of this inward FDI flowed to SSA countries regarded as resource-rich.

The strategic investments made by developing countries, also regarded as emerging economic powers like China, have encouraged other countries like India, Russia, Brazil, Malaysia and other emerging economies to invest in SSA countries. India, in particular, has a strategy that takes advantage of its economic ties with African

nations in the British colony to invest in specific countries in the region and do business in more than 20 African countries (Teslik, 2007; Basu, 2010; Alam et al.; 2013). Although, this model is seen by De Lorenzo (2007) as an attempt to bring back the neo-colonial era because of its perceived exploitative tendencies. However, with an increase in bilateral trade from under $11 Billion in 2000 to $210 Billion in 2013, a total FDI of $500 million in 2003 to $53 billion in 2016, makes China, India and Brazil the largest trading partners to SSA, with China considered to be the significant investor (UNCTAD 2017). At the same time, China is changing the terms of its engagement, increasingly casting political and military ties into economic connections, looking to do the same with SSA are other countries like Turkey and Russia (Bughin et al. 2019).

Figure 5.1: Average GDP growth rate of developing economies.



Source: UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics).

In 2016, there was a sharp decline, and a projected growth rate of 3.5 per cent in 2018, data made available by the World Bank and International monetary fund put the growth rate of SSA at 2.4 per cent in 2018, a slight decline of 0.2 per cent when compared to 2017. Compared to other developing economies like the Middle East and North Africa with 2.38 per cent, East Asia and Pacific with 4.17 per cent and South Asia with 6.10 per cent appear low compared to other developing economies like the Middle East and North Africa. However, the same cannot be said when considering the average GDP growth rate for the same regions from 1990 to 2018,

as this will reveal SSA to have the lowest growth rate of 3.60 per cent, (as shown in fig 5.1.)

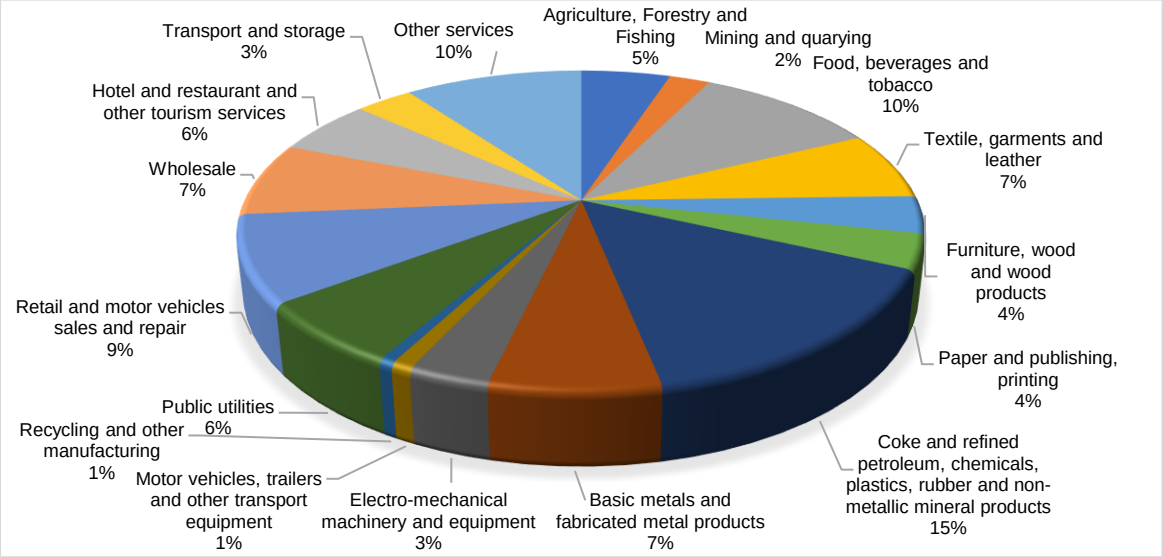
5.2.1 FDI sectoral distribution

There is minimal information about the sectoral composition of inward FDI in Africa, and by extension SSA, however, there are indications that suggest investments and inward FDI flows are concentrated in the primary sector, with manufacturing and services being vital sectors (UNCTAD, 2003; Ahmed et al. 2011). Within SSA, South Africa, and more recently, Ghana, Tanzania and Uganda have recorded rapid increases in inward FDI to the manufacturing and services sector (Pigato, 2000; Bende-Nabende, 2002; Ahmed et al., 2011). In addition, a survey of 19 different SSA countries[1] and 2402 firms, Coniglio et al. (2015) deduced that investment of MNEs was more present in the extractive industries with 17.31 per cent, while recycling and other manufacturing sectors have the least investment of 0.58 per cent as illustrated in fig 5.2.

The illustration clearly shows that the natural resource sector receives more inward FDI with very little being received by manufacturing sectors that offer skills, technology, and access to markets (Pigato, 2000; Ezeoha and Catteneo, 2011; Coniglio et al., 2015). The SSA region is rich in natural resources like gold, diamond, oil and gas, copper etc., with half of the worlds platinum and chrome reserve remain untapped. However, available data indicates it contributes less than one per cent of exports in global manufacturing (Darley, 2012).

[1] Uganda, Kenya, Ghana, Tanzania, Nigeria, Cameroon, Ethiopia, Mozambique, Madagascar, Senegal, Cape Verde, Zambia, Mali, Lesotho, Rwanda, Malawi, Burundi, Burkina Faso, Niger

Figure 5.2: Sectoral composition of FDI in 19 SSA countries



Source: Coniglio et.al., (2015)

5.2.2 Investment pattern of Inward FDI in SSA

In 1970, SSA performed better in terms of inward FDI when compared with other economies like South Asia, East Asia and Pacific, and Latin America and the Caribbean. Due to economic and political instability, infrastructural deficit, shortage in human capital and poor implementation of reforms affecting the region, SSA countries combined were only able to attract a little more than 5 per cent of global inward FDI two decades later (Cotton and Ramachandran, 2001; Asiedu, 2004; Ajayi, 2006). Nonetheless, national government of some SSA countries began to put in place policies directed at attracting FDI, hence the fortunes of the region began to change. For instance, Zambia, Tanzania and Mozambique made remarkable turn-around in their circumstances regarding inward FDI due to policy changes related to privatisation, the defence of property rights and emphasis placed on the rule of law (Jenkins and Thomas, 2002). According to reports from UNCTAD, availability of natural resources determines the positive growth pattern of investments in several SSA countries. This is because exploiting them brings about economic development but on the other hand, over reliance on natural resources can result to a resource-rich country vulnerable to commodity price changes. Hence, to reduce these exposures of SSA countries to commodity pricing, concerted efforts are being made to review existing policies targeted at lowering the high barriers to FDI (UNCTAD, 2016). Hence, to reduce the exposure of SSA countries to adverse commodity pricing and ensure investments in natural resources bring about economic

development, UNCTAD (2016) identifies reviewing the methods of engaging MNEs in the ownership structure of firms.

Farole & Winkler (2014) found SSA countries were unable to take advantage of investments in natural resources to establish links between MNEs and local economies particularly in value-added aspect of promoting local supply chains. They emphasised that producing spillovers from FDI is challenging, especially for developing economies with low existing capacity, and that the task for expanding local firms and sectors is left to the authorities through spending in education and investment in human capital. The absence of links and spillover from projects in mining, oil and gas exploration and exporting negatively impacted on several SSA countries as they were limited to revenue generation instead of economic development which is not sustainable on the long-run.

5.2.3 Recent developments in regional trade : AfCFTA

The African Continental Free Trade Area (AfCFTA) was established in 2018 with 28 countries on its roll, that is 26 SSA countries excluding Nigeria and South Africa as they were not prepared to sign the agreement on that day. However, as at the end of the 31st AU summit meeting later that year, 49 countries including South Africa had joined with Nigeria being a signatory but not a member as negotiations with stakeholders are still ongoing. The vision of AfCFTA, envisages liberalising trade of critical services, removing the tariff of most goods, resolving non-tariff barriers that may hamper continental trade, and ultimately establishing a continental single market with free labour and capital movement. However, to achieve this vision, there are critical questions policymakers had to consider.

a. What are the potential benefits of the AfCFTA for all African countries?
b. How will AfCFTA promote economic growth and development within the continent of Africa ?
c. How AfCFTA will assist in the acceleration and advancement of democracy, good governance, peace and security in the region of Africa?
d. How can AfCFTA lead to the economic transformation and industrialization of the continent of Africa

According to the reports of the UNECA (2017), structural transformation and economic growth is at the heart of the plan of regional development in the continent

of Africa, hence the execution of AfCFTA is prioritised in order to eliminate poverty, enhance intra-regional trade, and promote sustainable growth and development (AU, 2015).

In the last two decades, African countries have made significant progress in expanding intra-regional trade by 8 percent between 1995 and 2014 (WTO,2015). However, when this performance is compared to other regions like Asia, North America and European Union whose intra-regional trade are 52 percent, 50 percent and 70 percent respectively, 18 percent becomes very small (WTO, 2015). But the establishment of AfCFTA is expected to have macroeconomic and distributional consequences as it stands to significantly boost intra-African trade, particularly if member countries tackle trade-including physical infrastructure, logistical costs, and other trade facilitation hurdles. Though, this will vary from one member state to another, as the more diversified economies and those with more robust logistics and infrastructure will appreciate trade integration comparatively more. Several studies conducted by economic researchers within UNECA predict AfCTA will boost growth, drive industrial development and improve welfare (Karingi and Davis, 2016). Nonetheless, Hoekman and Njinkeu, (2016) in their study express concerns for susceptible economies or smaller countries suffering the negative effects of premature liberalisation and fiscal revenue losses especially from tariff reductions which are limited on the average with a few exceptions. Moreover, an increase in trade integration will necessitate a temporary rise in income inequality.

Trade integration, reduction in cost of transportation and advances made in information technology has led to the increase in global expansion of firms in developing countries thereby bringing about economic transformation. Thus, MNEs whose quest for raw materials, cheap labour, intermediate inputs as well as market growth tend to relocate their production to host countries like African countries. As a result, inward FDI and GVC participation in developing economies like African countries (which includes members and signatories of AfCTA) witness rapid economic development. This trend of increased inward FDI flows, combined with the rising fragmentation of global production, provides some opportunity for African countries to industrialise and modernise their economies. An example of how GVC promotes economic growth and development is China, whose current domestic value added in its export increased by 17 percent between 2000 and 2011 (UNECA,

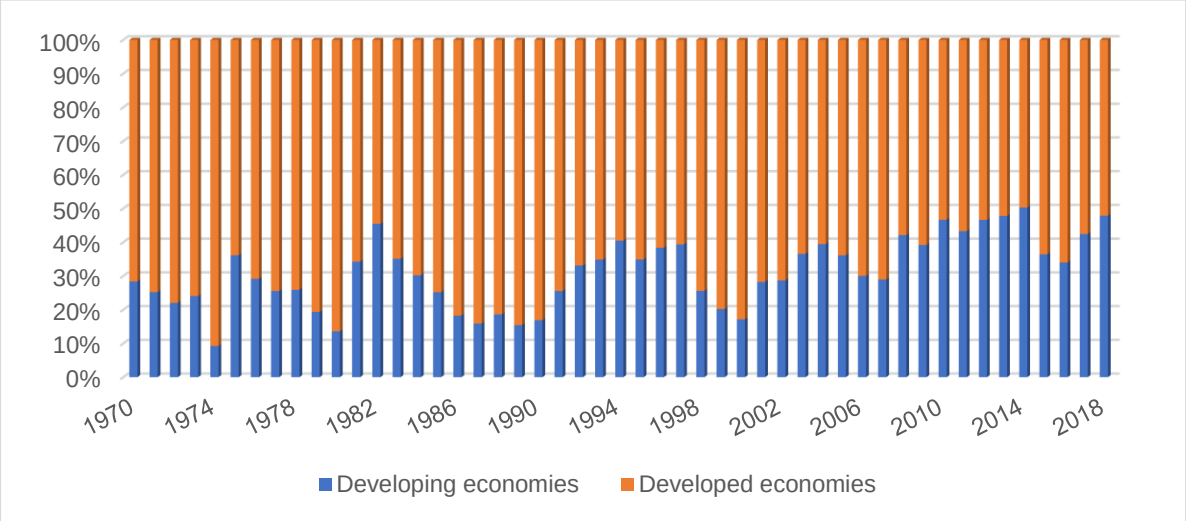
2016). Hence, with 50 percent of global trade taking place within GVC, the expectation is that countries in Africa who are gradually getting connected to GVCs as main suppliers of raw materials and manufacturers of low value goods, currently operating at the bottom of the ladder in a GVC move up the ladder to promote economic development. According to UNECA (2015), Africa countries export 80 percent and import 50 percent of intermediate goods hence regarded as mere exporters of raw materials and intermediate goods low value addition.

According to UNCTAD (2019), results indicate that policy initiatives should concentrate on reforms to fix non-tariff country-specific bottlenecks in addition to tariff reductions. Therefore, to ensure that all member states share the benefits of regional trade integration, policymakers should be aware of the transition costs that integration can entail. In addition, trade policies should be paired with structural reforms to increase agricultural productivity and competitiveness for less developed, agricultural-based economies.

5.3 Trend of Foreign Direct Investment

A review of global inward FDI shows developing economies in 1970 received 28 per cent, which has since increased to 47 per cent as of 2018 (as shown in fig 5.3), sending a signal of a shift in capital by MNEs from developed economies. In 2000, there was a surge in inward FDI flows which resulted in an all-time high of over US$1.0 trillion. However, it declined by over 51 per cent owing to a slowdown in major industrial economic activities, especially in cross-border M&A and also a decrease in stock market activity. Furthermore, following a terrorist attack in 2001 in the United States of America, the slowdown in economic activities was made worse. Over a dozen countries were impacted significantly as the economies of the three most prominent countries in the world fell into a recession. However, economic activities around the world picked up in the following years.

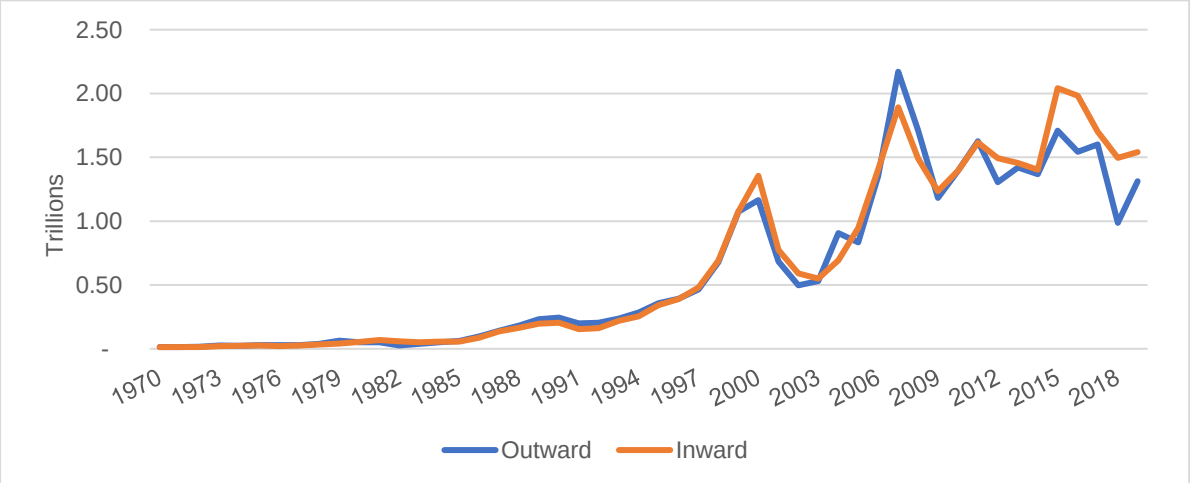
Figure 5.3: Share of inward FDI to developing and developed countries.



Source: UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics).

The movement of capital increased, and by 2007 global outward FDI and Inward FDI flows had reached $2.17 trillion and $1.89 trillion, respectively, following 4-year consecutive years of high economic growth and strong corporate performance in many parts of the world, as illustrated in fig 5.4 (UNCTAD, 2008). However, due to global financial crises in 2007-2009, there was a decline in investments worldwide, with global outward FDI falling by 21 per cent in 2008 and a further 31 per cent to $1.18 trillion in 2009.

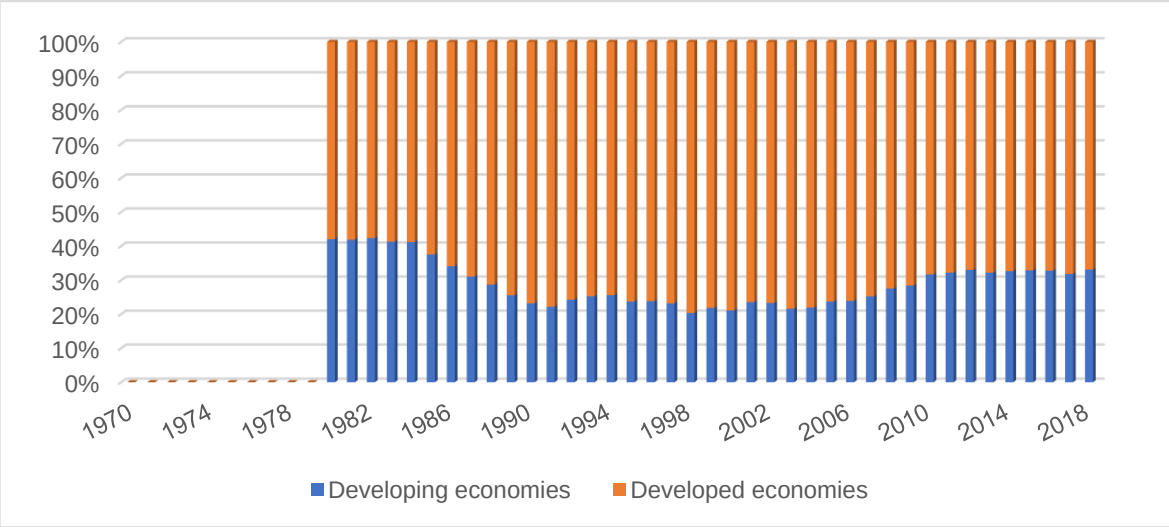
Figure 5.4: Outward and Inward FDI flows in developing economies.



Source: UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics).

On the other hand, global inward FDI suffered a total loss of 45 per cent to close with $1.23 trillion by the end of the year in 2009. More so, as activities slowly began to pick up amidst policy uncertainty for investors and an increase in geopolitical risks, inward FDI flows declined significantly in 2014 once again. Data made available by UNCTAD (2018) also show developed economies from 1970 to 2007 attracted over two-thirds of global inward FDI flow, whereas developing and transition economies were recipients of the balance one third, (as shown in fig 5.5). Despite this, developing economies continued to grow with outflows rising to a record level of US$253 billion mainly because of outward expansion by Asian MNEs, especially from China and Hong Kong (UNCTAD, 2008).

Figure 5.5: Share of inward FDI stock in developing and developed countries.



Source: UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics).

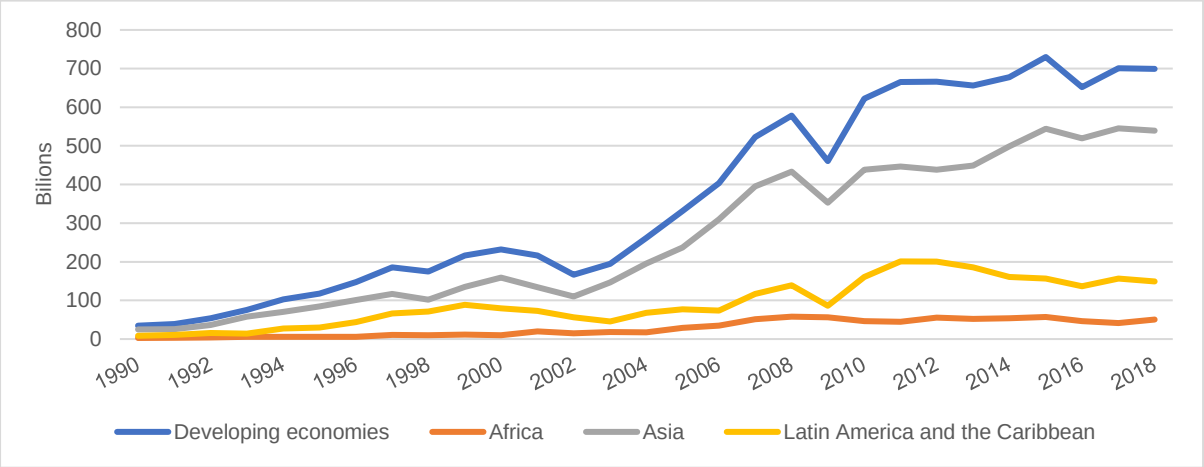
Furthermore, between 1980 and 2018, the geometric growth of inward FDI stock (investments) in developed economies was from $407 billion to $21,512 billion, whereas that of developing economies within the same period was more of a steady growth from $295 billion to $10,934 billion in 2018 as shown in figure 5.5. This is consistent with the fact that MNEs, apart from their home countries, tend to have more of their investments in locations where there is political stability, steady currency, availability of technology and capital.

5.3.1 FDI trends in developing economies.

The last three decades witnessed a steady rise in the net inflow of global FDI flow from US$205 billion in 1990 to a value of US$1.3 trillion in 2018 with inward FDI

flows averaged US$991billion in three decades (refer to table 2.1). While inward FDI flow for developing economies from 1990 remained upward and steady, developed economies fluctuated between 1990 and 2018. According to UNCTAD (2019), the activities of MNEs in cross-border mergers and acquisitions had been responsible for this trend, thereby confirming the assertion of Asiedu (2004), Ajayi (2006), Anyanwu (2011) and Okafor et al. (2015) that movement of capital is skewed to developing economies especially SSA. In 2018 specifically, the SSA region witnessed stable economic growth, had investment ready SEZs, put business facilitation measures, made substantial investments in automotive, finance, and renewable energy, contributing significantly to this upward trend (UNCTAD, 2019). Although the decline was witnessed globally in 2018, the SSA region saw to a 12 per cent growth in inward FDI flow due to diversified investment in Kenya and a significant.

Figure 5.6: Inward FDI flows to developing economies



Source: ©UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics).

In addition, developing economies have shown significant growth by over 200 per cent in the last 20 years, attracting 37 per cent of global inward FDI, with Asia being the driver in 2018, as illustrated in fig. 5.6 (UNCTAD, 2018). However, a slowdown in economic activities forced MNEs to source for much cheaper locations to do business, resulting in their expansion to low-wage economies. Furthermore, FDI inflows suffered a drastic worldwide decline of 37 per cent in 2009 owing to a contraction in equity investment, intra-company loans and re-invested earnings due to the global financial crises, recovery picked up in 2010 with half of global FDI inflows going to developing and transition economies after a six-year consistent growth (UNCTAD, 2010). Despite this sharp decline of FDI inflows in 2009, Africa

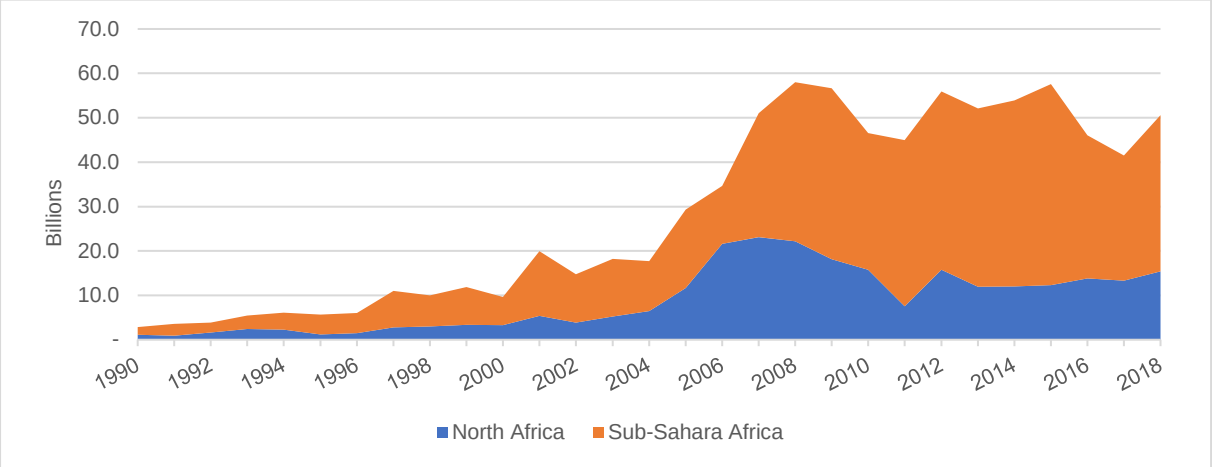
only lost 19 per cent of its share due to contraction in global demand and falling commodity prices.

It is pertinent to note that MNEs from developing and transition countries have consistently been increasing their investments in the past few years, especially those from China, India, Malaysia, and the Gulf Cooperation Council is among the most active (UNCTAD, 2010). Also, investments to developing economies have indicated Asia were beneficiaries of 72 per cent of (30 per cent of global) and Africa 14 percent (6 percent of global) of inward FDI stock. However, by 2018 Asia maintain their share of inward FDI stock to developing economies while that of Africa continued with a steady decline to 8 percent (3 percent of global). Therefore, the continent remains a fertile ground for foreign investors who have shown this by the continued positive growth in investment. This is confirmed from available data, that apart from when the world suffered a financial crises in 2008, the continent of Africa only had a decline in investment once in 1984 due to a refund of external borrowings.

5.3.2 FDI trends in Africa

Inward FDI flows to Africa peaked in 2008 with $58 billion, and by 2018 it closed with $51 billion, of which SSA countries was a recipient of 70 percent (as shown in figure 5.7). Furthermore, a review of this value against inward FDI flows of $138 billion, $60 billion and $42 billion received by China, Brazil and India in 2018, shows an increase of 1 per cent and 6 per cent for China and India. Whereas a decline of 10 per cent was recorded for Brazil in the previous year unlike SSA countries who received $35 billion and an increase of 25 per cent as illustrated in figure 5.8.

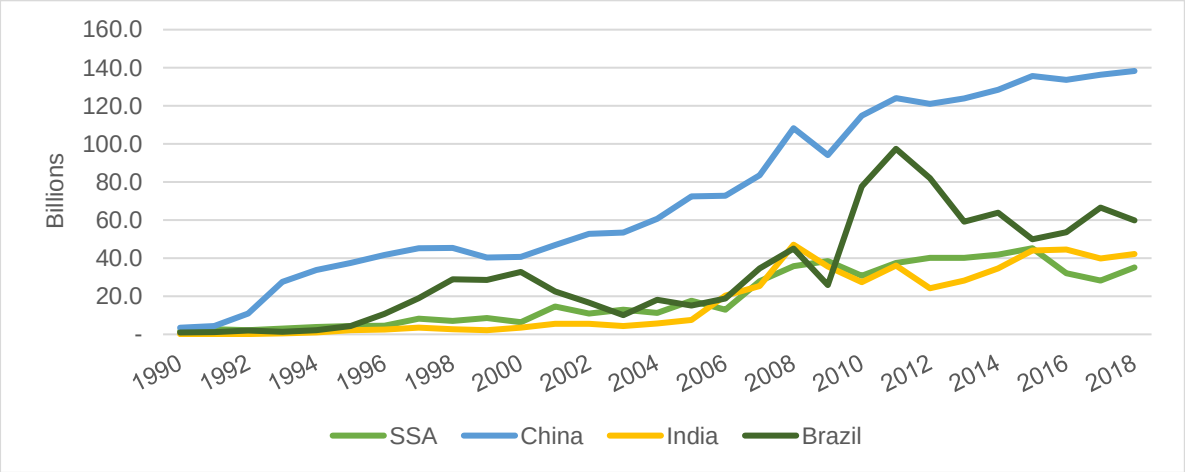
Figure 5.7: Trend of Inward FDI flow to SSA and North Africa



Source: ©UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics).

It is important to note that interest in China, India and Brazil were identified because of the increasing role they play as investors in the world and in SSA countries. As of 2016, China, India and Brazil were second, seventh and ninth largest economies globally, and with recent changes in the direction of the flow of inward FDI, MNEs from this three countries tend to be expanding their global presence.

Figure 5.8: Inward FDI to SSA, China, India and Brazil (1990 -2018)

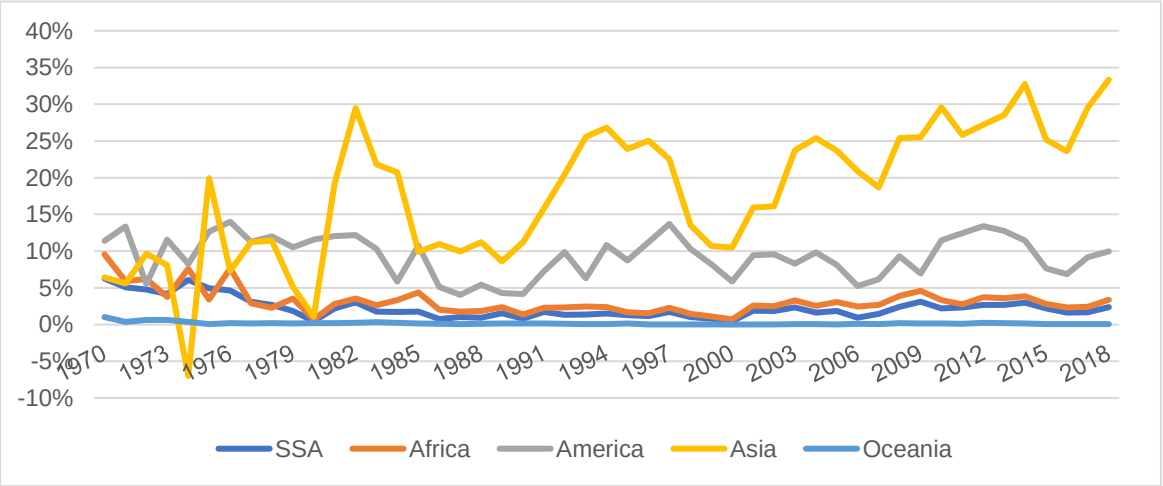


Source: ©UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics).

Additionally, in 2018 the continent of Africa attracted about $51billion inward FDI flow, an increase of 11% from the previous year owing to the $14 billion received in the oil and gas sector, a commendable performance when compared to 7 per cent increase in developing economies. This inflow came as a result of Egypt being a net exporter of gas, the diversification of Moroccos' economy resulting in new investment

in finance and renewable energy. Tunisia, Sudan and Algeria all witnessed increases in inward FDI flow as a result of activities in oil exploration and automotive industry respectively with investments coming from China, Rep. of Korea (Hyundai) and USA (Ford). Nevertheless, data reveals that performance of SSA countries in terms of inward FDI flows when compared to the volume of that to other developing economies, like Asia (73%) and Latin America & Caribbean (21%), it reveals that Africa as a continent is performing well below expectation (fig. 9).

Figure 5.9 : Trend of Global inward FDI for Africa, SSA and Asia (%)



Source: UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics).

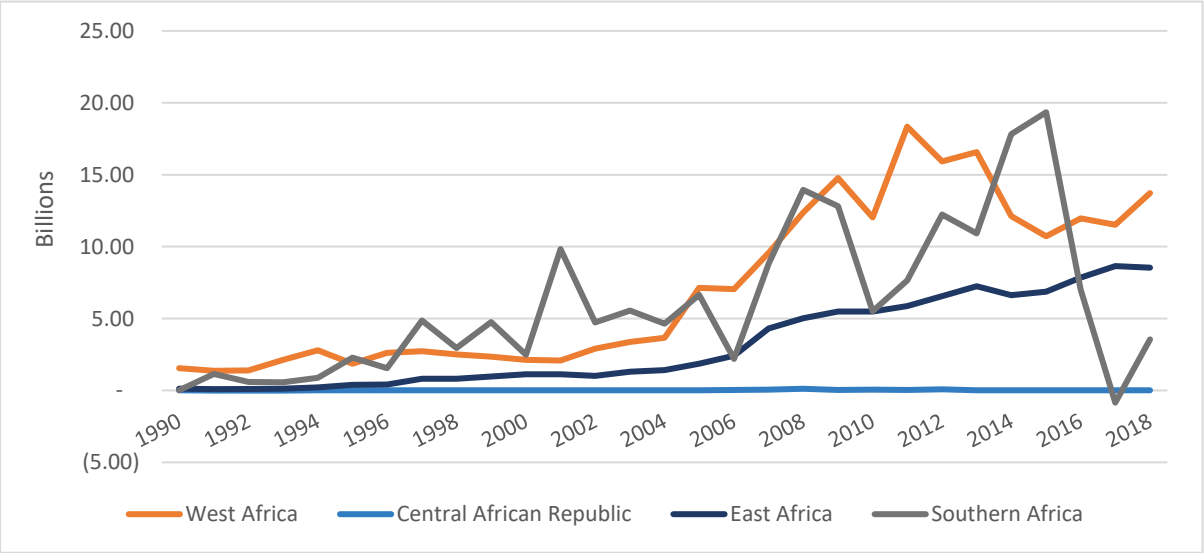
5.3.3 FDI trends in Sub-Sahara Africa

The continent of Africa and region of SSA both accounted for 10 and 6 per cent share of global FDI flow respectively in 1970. In spite of the significant improvement of inward FDI flows over the years, they only control 3 percent and 2 percent global share of inward FDI respectively as of 2018. This implies that both the continent of Africa and the region of SSA increased in volume but reduced in controlling share globally resulting in academics and policymakers questioning reasons for this (UNCTAD, 2018). Additionally, the region of SSA is said to have witnessed steady growth of inward FDI flows, that is an average of 15 per cent since 1970, though when compared to other developing economies, it remains meagre despite the return of capital in the region (Pigato, 2000; Ajayi, 2006; Pease and Clark, 2007). According to UNCTAD (2019), SSA encountered a challenging economic climate with a stronger US dollar in 2018. This resulted in a slowdown of global trade and stricter financial conditions, exposing the vulnerabilities in some constituent countries like Angola, South Africa, and Nigeria, hence the slow growth. Similarly, UNCTAD

(2019), describes low business trust and policy uncertainty brought about weak construction activity, and many challenges in the mining sector resulted in sluggish growth in Africa. The merchandise exports grew by 5.6 per cent to $94 billion, especially with its Top 5 partners China, Germany, USA, UK, and Japan being responsible for 50%.

More recently, studies have shown that inward FDI flows to developing economies like SSA target parts of a value chain that are skilled labour intensive or areas with increasing technologically intensive activities (Driffield, 2009; Webster, 2013; Okafor, 2014). This is revealed by the way MNEs from both developed and developing economies continue to expand within the region especially from top 20 countries. An example is MNEs from China, driven by quest for mineral resources and opportunities in M & A target SSA countries. However, it is worth noting that a bust in commodity pricing affected inward FDI flows to SSA, resulting in a decline of 28 per cent to $28.5 billion in 2017 as in fig. 5.8 but by 2018, things change with significant FDI inflows into the region.

Figure 5.10 Inward FDI to regions within Sub-Sahara Africa



Source: ©UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics).

In figure 5.10, inward FDI flows to West, Central and Southern Africa, all experienced a decline in FDI flows due to the depressed economy in Nigeria, CAR and South Africa. In all, an uncertain and underperforming sector in Southern Africa and large sums transferred out of Angola plus significant sums invested in mining copper (UNCTAD, 2019) added up to result in the decline. However, there was

significant growth of $7.6 billion in the case of East Africa, especially in the case Ethiopia who received an inflow of over US$ 3 billion .

Western Africa

Inward FDI flow to Nigeria dropped by 43 per cent as investors appear to be cautious over disputes between MNEs and government relating to forex operations and the upcoming national elections in 2019. Similarly, the region's second-largest oil exporter, Angola witnessed its economy shrink by 1.8 per cent as oil production suffered a significant drop. Merchandise exports grew by 17.8 per cent, composed of fuel export to China (a major importer) which is about 97 per cent (put at $18.7 billion). Its services on the other hand reduced by $631 million. Hence, inward FDI flow closing at a loss of $6.5 billion shows a continued pattern of continued capital loss over a consecutive 3-year period, with household consumption reaching 54 per cent of total household consumption.

Eastern Africa

Inward FDI flow to East Africa remained largely unchanged at $9 billion with Ethiopia shrinking by 18 per cent from $4 billion to $3.3 billion despite being the largest recipient of FDI. Kenya on the other hand, grew by 27 per cent from $1.3 billion to $1.6 billion with investments coming into hospitality, chemicals, manufacturing, and oil exploration. Uganda achieved a historic height in investment growing by 30 percent due to investments in hospitality and oil and gas sectors. While inward FDI flows to Tanzania was stable and grew by 13 percent.

Central Africa

Inward FDI flow to Central Africa was considered stagnant in 2018 because owing to the meagre growth of 0.05 percent from $8.95 billion to $9.365 billion. The Rep. of Congo received over $4.3 billion owing to mainly oil exploration and production while intercompany loans from current investors accounted for another high proportion. Also, sustained investments in mineral resource of the country, was responsible for $1.5 billion inward FDI flows to Congo Dem Rep, resulting in a 21 percent net increase (that is $270 million). According to UNCTAD (2020), Congo DRC holds nearly 50 per cent of cobalt reserves globally and was responsible for 70 percent of

global supplies in 2018. Therefore, remains a main source of investment in the nation.

Southern Africa

Southern Africa recovered from negative inward FDI flow of $925 million to $4.2 billion due to investments and largely from intercompany loans by existing investors. There was significant investments made in the automotive industries by Germany (BMW), Japan (Nissan) and a Chinese based auto maker in addition to investments made by and Irish firm- Mainstream renewable energy. With a current negative inward FDI flow of $7.0 billion annually, inward FDI flow continued to slide in Angola (the second largest exporter of oil and gas in SSA) owing to repatriations of profit by MNEs to their parent company. This is in addition to the significant decline witnessed in its oil and gas sector. Other countries like Mozambique was a beneficiary of $400 million largely due to intercompany transfers and new equity investments. South Africa grew its economy by 0.9 per cent as it recovered from a second-year technical recession, partially due to improvement in manufacturing and agricultural activity. Table 5.1 outlines a 4-year average to identify the top 15 countries in terms of inward FDI flow to SSA.

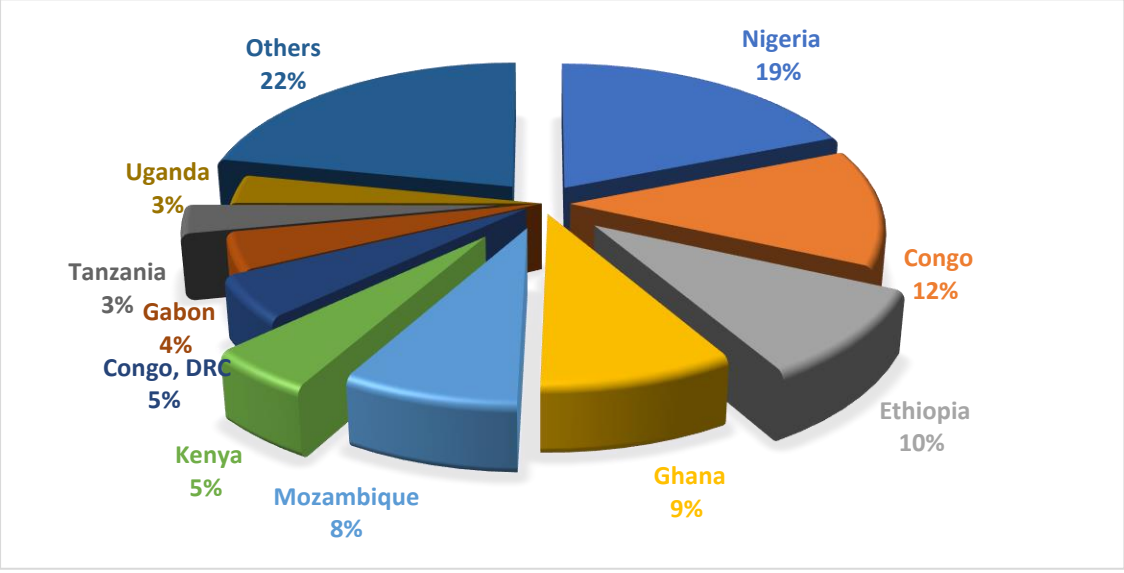
Table 5.1: Inward FDI flow to Top 15 SSA countries (1990-2018): 4-year average

Location	1990-1993	1994-1997	1998-2001	2002- 2005	2006- 2009	2010- 2013	2014- 2018
SSA	**40,325.47**	**56,356.40**	**97,597.36**	**161,884.72**	**265,211.82**	**440,268.15**	**546,585.71**
S . Africa	**10,194.05**	**14,400.20**	**36,398.60**	**67,479.27**	**115,289.93**	**163,647.13**	**139,205.89**
Nigeria	**10,429.40**	**17,443.95**	**23,156.48**	**28,531.71**	**42,094.56**	**62,228.95**	**85,718.83**
Mozambique	**62.32**	**354.61**	**1,148.04**	**2,265.04**	**3,153.34**	**11,372.92**	**33,731.32**
Ghana	**376.76**	**880.08**	**1,458.01**	**1,902.66**	**4,555.54**	**14,969.22**	**29,749.56**
Congo	**672.61**	**1,047.14**	**1,698.79**	**2,491.01**	**5,994.90**	**9,411.56**	**18,072.69**
Congo, DRC	**557.04**	**547.97**	**628.45**	**1,471.79**	**4,615.58**	**12,813.94**	**21,229.67**
Angola	**1,742.23**	**2,996.08**	**7,456.36**	**15,321.52**	**17,019.59**	**38,058.57**	**27,825.44**
Ethiopia	**129.87**	**244.98**	**943.67**	**2,233.12**	**3,642.14**	**5,151.41**	**15,166.16**
Zambia	**2,782.31**	**3,274.75**	**3,901.57**	**4,872.58**	**6,887.98**	**9,803.98**	**18,358.90**
Tanzania	**398.8**	**632.75**	**2,337.97**	**3,730.68**	**6,405.37**	**11,061.43**	**13,072.86**
Kenya	**685.53**	**742.3**	**874.14**	**1,054.28**	**2,611.81**	**7,506.36**	**11,953.82**
Equa. Guinea	**64.93**	**296.69**	**1,179.36**	**3,204.21**	**5,537.64**	**11,532.17**	**13,543.75**
Uganda	**21.86**	**301.45**	**755.97**	**1,541.25**	**3,837.68**	**7,122.65**	**11,327.18**
Others	**12,207.74**	**13,202.98**	**15,659.93**	**25,785.63**	**43,565.75**	**75,587.85**	**107,629.64**

Source: UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics).

In terms of investments, there was a sharp growth of inward FDI stock in developing economies because of higher profitability, improved performance, and a healthy economic growth in 2010. In addition, $152 billion was invested in LDCs with 7 of the top 10 beneficiaries accounting for two-thirds located in SSA, four of them (Angola, Equatorial Guinea, and Zambia) being natural resource exporting countries receiving more than half of total FDI to LDC. This pattern goes in line with the growing influence of MNEs around the world especially in developing economies (UNCTAD, 2011b). Furthermore, 39 SSA countries had a growth of $33,796.19 million with the focus of investors on the top 10 receiving 66 % in 2018. They are Nigeria ($6,401 million), Congo ($4,315.25 million), Ethiopia ($3,310.30 million), Ghana ($2,989.00 million), Mozambique ($2,677.73 million), Kenya ($1,625.92 million), Congo DRC ($1,616.79 million), Gabon ($1,379.07 million), Tanzania ($1,055.99 million) and Uganda ($1,055.35 million) represented in (Fig 5.9). Whereas in 2010 just after the financial crises had hit, it was 41 countries that witnessed a growth of $77,953.87 and the top 10 receiving 91 per cent, that is $71,250.06 with $40,814 million and $13,168 million being invested in South Africa and Angola, respectively. Figure 5.11 illustrates the breakdown of inward FDI stock

Fig 5.11: Inward FDI stock for top ten SSA countries in 2018



Source: UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics)

5.4 Factors affecting economic development in Sub-Sahara Africa

Economic development is a widely researched topic that includes various concepts, theories, critique, and studies. A variety of literature has been done on economic development; however, a consensus has not been reached. For instance, economic growth and development are being used interchangeably by scholars of the economic society, but both concepts are different. While economic growth measures the volume of commercial transactions, i.e., measuring the size of a nations' economy expressed in GDP and GNP, economic development involves an increase in the production level of a nations' economy, including the improvement in the standard of living and technological advancement (Coulibaly et al., 2018).

Additionally, studies have found several factors attract FDI to a region or country and this study will emphasise the most conclusive motive an investor considers in a host country as described by Dunning (1980, 2000) in his eclectic or OLI paradigm of FDI. Among these are policy/political and economic factors which include market size (Vijayakumar et al., 2010 and Mohamed and Sidiropoulos, 2010; Iamsiraroj, 2016; Alvarado et al., 2017); production costs, economic stability or instability, infrastructure services, financial, tax incentives (Biwas, 2002; Asiedu 2006; Hossain, 2016; Kumari and Shama, 2017; Saini and Singhania 2018), political instability, corruption, factors related to institutional structure (Asiedu, 2006; Mohammed and Sidiropoulos, 2010; Asamoah et al., 2016); openness of the economy and market growth (Botrić and Škuflić, 2006; Asiedu 2006; Aziz and Mishra, 2016; Cantah et.al., 2018; Asamoah and Mensah, 2019; Akadiri et al., 2020). The significance of each of these variables in attracting FDI is strongly linked to investors' motives for making this investment. Dunning and Lundan (2008) can be categorised into four: Market-seeking, efficiency-seeking, resource-seeking and strategic asset-seeking FDI.

5.4.1 Human Capital

The principle of human capital acknowledges that human beings are very important, more so when compared to physical capital when it comes to the creation of wealth. They are regarded as an important source for which funding can be derived, which eventually affects growth and development and equality between countries. According to Heckman (2005), higher efficiency, effectiveness, resilience, cultural shifts, and industrialisation are ways in which human capital can impact on any economy. From literature, it has been determined that education and healthcare are

major aspects of human capital responsible for a major contribution to human wellbeing (Appleton and Teal, 1999). Furthermore, a significant number of literatures have found evidence of a skilled population being a major determinant of economic growth (Mankiw et al., 1992; Brunetti et al., 1998; Fayissa and Nsiah, 2010). On the other hand, some other scholars disagree with these outcomes (Benhabib and Spiegel, 1994; Krueger and Lindahl, 2001).

5.4.2 Political stability

The political climate and the level of democracy, including civil liberties and rule of law plays a significant role in any country, especially in developed countries. In the case of developing economies like SSA, democracy tend to have varying impacts, unable to explain economic growth and development. While Deger et al. (2012) finds that political institutions, like democracy, have little definitive influence on economic growth (Kormendi and Meguire, 1985; Scully, 1988; Grier and Tullock, 1989; Lensink et al., 1999; Lensink, 2001). However, because there are certain studies linking democracy to economic growth, a common consensus exists that due to lack of leadership and a lot of institutional failure in the region of SSA, there is every likelihood that a low level of economic development will be recorded. The challenges that come with lack of leadership is political uncertainty, intolerable level of corruption and weak institutions, as suggested by Brautigam and Knack (2004).

5.4.3 infrastructure

In developing economies like SSA, industrialisation is regarded as an essential key to its economic growth and development. Hence to attract the best of foreign investors, concerted efforts will be made by national governments to create environments that will ensure training of human capital, political stability and provide basic infrastructure (Alfaro et al., 2008; Gui-diby and Renard, 2015; Slesman et.al., 2015). Conventional infrastructure, otherwise known as essential service relates more to power, ICT (telecommunications), transportation etc (Roller & Waverman, 2008). Sub-Sahara Africa over the years, has remained one region in dire need of basic infrastructure. Ranked as the lowest compared with other developing economies is enough reason to recognise SSA as lagging behind in industrialisation and economic development. Several studies posits to infrastructural development being a positive contributor to economic growth especially the increasing use of mobile telephone and also telephone lines per 100 (Roller and Waverman 2001;

Jenkins and Thomas, 2002; Waverman et al.,2005; Kathuria et al., 2009, and Lee et. al., 2009; Kinda , 2010). However, some other scholars feel otherwise, particularly Guetat & Drine (2007), whose study of how ICT affects growth performance of MENA countries suggests a negative impact in SSA and no impact for MENA. This result is consistent with Anyanawu, who found im his study that ICT infrastructure had a negative and statistically significant effect on economic growth in China.

5.4.4 Official Development Assistance (ODA)

Foreign Direct Investment (FDI) is regarded as the main source of technology transfer and economic development, as such, there exist several studies which has looked at how developmental aid affects growth in developing economies which has remained unsettled. In their study of SSA countries Fayissa and Nsiah (2010) posited that ODA not only had a negative impact on economic growth but it was also negligible while Borensztein et al. (1998) and Lensink and Morrissey (2006) to mention a few posited that ODA has a positive impact on economic growth. Of note is the study of Anyanwu (2011), whose review of the impact of foreign aid on 53 African countries over a period of 43 years based on five-year average end periods from 1958 to 2001 posited that ODA had a positive impact on economic growth.

5.4.5 Inflation rate

The relationship between inflation and Economic growth and development will always be a subject of both theoretical and empirical research because of its importance in developing monetary policies (Seleteng, 2013). The rate of inflation in a country is a significant factor that impacts economic growth and tests the failure of market stability as well as the consistency of monetary and fiscal policies and therefore of macroeconomic stability. In general, there exist a linear relationship between inflation and economic growth and it can be positive, negative, or indifferent depending on the context of money which is either as a complementary or substitute to capital (Mundel,1965; Sidrauski,1967, Stockman, 1981; Fischer, 1983). For example, the findings of Abou-Ali and Kheir-El-Din (2009) show that inflation has a major negative impact on economic growth. Vinayagathasan (2013), on the other hand, suggest the primary objective of macroeconomic policies is a low and stable inflation rate in addition to high economic growth. This is because inflation impacts on economic growth and tests the failure of market stability as well as the

consistency of monetary and fiscal policies and therefore of macroeconomic stability (Khan and Senhadji, 2001; Seleteng et al., 2013; Ibarra and Trupkin, 2016).

5.4.6 Institutional framework -Structural reforms

A lot of interest shown by economist in determining the relationship between institutional framework and economic growth applicable to modelling techniques aimed at social and economic development policies. Several results have highlighted the positive influence of institutions on economic development and vis-à-vis leads to improved quality of host countries institutions (Dixit, 2009; Docquier, 2014; Bruinshoofd, 2016). How these institutions respond to change in economic situation while deploying these policies and also reshaping the economy to grow in this circumstance.

The institutional structure, for instance, voice and transparency, political stability, government effectiveness, regulatory efficiency, the rule of law, corruption regulation, government repudiation of contracts, expropriation risk, property rights and bureaucratic quality –is another significant source of literature-highlighted growth (Knack and Keefer, 1995; Hall and Jone, 1995). Basu and Srinivasan (2002) identify the capacity of governments to implement structural reforms as a fundamental element for the attraction of FDI. The presence of sound monetary and fiscal policies, adequate exchange rate policies and support for the development of the private sector send strong positive signals to investors.

5.4.7 Demographic

Demography, including demographic growth, population density, migration are and age distribution and urbanisation / urban population, are factors that affect economic growth (see Kormendi and Meguire, 1985; Brander and Dowrick, 1994; Kelley and Schmidt, 1995; Bloom and Williamson, 1998; Kalemli-Ozcan, 2002). For instance, when population growth is high, it may negatively affect economic growth affecting the dependence ratio, expenditure, and saving behaviour and quality of human capital countries (Petrakos et al., 2007). However, results are again uncertain since research has recorded no (substantial) association between economic growth and demographic changes (e.g. Grier and Tullock, 1989; Pritchett, 2001). Liao (2011) illustrates the significance of the demographic shift as a driver for economic growth and shows that more than a third of Taiwan's production growth over the last four

decades can be traced to its demographic transition. Forouheshfar et al. (2020), in their study of MENA countries, 50 per cent of its population is under 25 years, and youth unemployment is very high, suggest a better economic performance can be achieved from a productive financial sector. Furthermore, this efficiency can lead to an 8 per cent reduction in unemployment for the youngest group.

5.4.8 Prices of commodity

In commodity-dependent countries like the one located in SSA, commodity prices as a determinant for economic growth and development become very significant. The benefit associated with adopting international prices to examine the impact of natural resources is because their actions usually remain unchanged (Deaton and Miller, 1995; Collier and Goderis, 2012). However, the debate on the causal relationship between commodity prices and economic growth remains because booms and bust have occurred overtimes. Harvey et al. (2017) point out that a small variety of commodities generates a large proportion of government revenue for many countries, and empirical evidence suggests that a gradual reduction in commodity prices will lead to long-term stagnation. Whereas Collier and Goderis (2008) suggest in their study that a commodity boom will lead to short-term growth and therefore lead to a long-term recession, suggesting the presence of a "resource curse", which is a clear departure from other studies.

Deaton and Miller (1995) found a significant rise in their study due to higher commodity prices in their study of Africa. Likewise, Arezki and Gylfason (2011), in their study, found the growth of non-resource GDP and commodity prices to be positive statistically significant in their study of 158 countries. Furthermore, Deaton (1999), whose study focuses more on African economies, which depend significantly on commodity exports, found that increasing commodity prices would favour African countries as exporters and not as importers.

5.4.9 Trade openness

In developing economies, mixed results originate from theoretical and empirical arguments regarding the impact of trade openness on the economic growth of SSA, of which technology transfer, competitive advantage, and information dissemination are amongst the various channels. A vast number of the literature has found that economies that are more accessible have grown faster (Sachs and Warner, 1995;

Dollar and Kraay, 2000; Arezki and Gylfason, 2011 Alagidede & Ibrahim, 2017; Huchet-Bourdon et al., 2018). At the same time, some scholars question the veracity of results from previous studies, especially on the grounds of adopted methods and estimation (Levine and Renelt, 1992; Rodriguez and Rodrik, 1999; Vamvakidis, 2002; Eicher & Kuenzel, 2016).

However, in the study of selected SSA countries, Fowowe (2008) found no significant effect of trade openness on economic development. Whereas Baliamoune (2009) posited that the impact of openness to trade of countries in Africa is dependent on their income level. It tends to positively affect countries with higher incomes and adverse effects on countries with lower incomes.

5.4.10 Foreign Direct Investment

In developing economies like SSA, the provision of capital for investment purposes and its impact on economic growth and development cannot be overemphasised. This is because FDI is considered the most significant predictor of economic growth and development, so much empirical works are being done. However, findings have not been conclusive (Levine and Renelt, 1992; Auerbach et al., 1994; Sala-i-Martin, 1997; Fowowe, 2008; Abou-Ali and Carmeci, 1995; Okafor, 2014). It has been found to bridge funding gaps, create employment, increase efficiency, boost competitiveness resulting in the making of valued goods (Yousaf et al., 2008).

5.4.11 Government expenditure

In developing economies like SSA, one key factor that affects economic growth and development is government spending, which can be either positive or negative impact depending on the degree. According to Loayza & Soto (2002), the national government's role in economic growth is protective and beneficial. However, there are instances where it becomes a burden, especially if high taxes are imposed, usurping the roles of the private sector, misrepresents business incentives and use revenue generated to sustain an inefficient public service. On the other hand, Barro (1996), in the study of 100 countries for a 30year period of 1960 to 1990, found low government expenditure enhances economic growth, lower fertility, life expectancy and, the rule of law.

5.4.12 Human Development Index (HDI)

The traditional methods of measuring economic development are GDP or GNP. However, using income or output is inadequate to measure development, according to Hicks and Streeten (1979). They further argue that so long as the basic needs are met, social and human indicators human and social indicators that augment GNP appear to be more promising. Furthermore, they suggest HDI as the most relevant indices currently used to measure social and income dimensions.

HDI is consist of three indicators; life expectancy (Health), number of years spent in school (Education) and living standard (Income). It was developed to measure human development as a necessary attribute or economic development vehicle (Anand & Sen, 1994). Incorporating all three stages of development while comparing HDIF and HDI across several countries, Hou et al. (2014) found that disparity was most significant in regions that rank the lowest, which are SSA and South Asian countries.

5.5 Foreign Direct Investment in South Africa

FDI in South Africa plays a significant role in its economic growth and development by increasing venture capital stocks, helping local job creation and increasing technology transfer. Although, more recently it has remained low compared to other emerging economic powers (Ntembe and Sengupta, 2016; Magombeyi and Odhiambo, 2018). Since the mid-1970s' economic growth in South Africa has been unsatisfactory as its annual GDP growth rate continued to decrease from 3.0 per cent in the 1970s to 1.4 per cent in the 1990s and the last ten years, an average of 1.8 per cent (UNCTAD, 2019). This decreasing growth rate remains a critical constraint to the countrys' growth potential as it has remained weak persistently and since 2011 continued to register declining growth. With a reserve of 6,000 tons, South Africa is currently regarded as the largest producer of gold in Africa, producing about 160,000 kgs annually (Garside, 2020). Therefore, it is not far-fetched that large deposit of mineral resources and mining activities informs where South Africa derives its capital, gross savings, and foreign investments. However, its history of riots, massacre and foreign debt from 1960 to 1985 resulted in increased capital outflow; hence foreign investment remained very unstable until its independence in 1995 when inward FDI flow resumed but has stayed below 3 per cent of GDP (Farole and Winkler, 2014; Magombeyi and Odhiambo, 2018).

Foreign investment is needed to achieve developmental goals such as industrial development and reduction in poverty, among other policy changes. The government also collects tax revenue that is vital in delivering public services and fund development programmes. However, South Africa needs to revisit its relationship dynamics in the light of evolving global, regional, and economic policies. Hence, this informed the launch of DTI (Department of Trade and Industry) in 1997, which introduced FIG (Foreign Investment Grant) to stimulate foreign investments in manufacturing. Foreign investors are paid up to 15 per cent for shipping new machinery worth R3 million per organisation from abroad to enhance the quality of life of an average citizen, promote foreign investment and economic development. Because improved macroeconomic conditions, market-size advantage, and abundant natural resources had not encouraged foreign investors to show interest in creating or acquiring domestic firms in South Africa (Musakwa and Odhiambo, 2019).

The relationship between Foreign Direct Investment (FDI) and economic growth plays a significant role in economic development. However, despite various academic research on FDI and economic growth, very few studies have investigated the impact of FDI on the economic development of South Africa. Albeit those different views exist in literature as to the role of FDI in economic development. Therefore, to proffer how SSA countries can leverage on FDI to bring about economic development, South Africa was selected as a sample country. The choice of South Africa is because it is considered a middle-income country that is highly developed compared to other SSA countries and it has the features of a developing and developed country combined. Therefore, its participation in value chains and its capacity to attract inward FDI flows is of interest to design a model for other SSA countries.

The new government adopted the 1980s' policies to encourage the inclusion of South Africa back to the international community to ease off sanctions and tackle the debt default that had impacted inward FDI flows (Cross, 2003; Hanival and Maia, 2008). In 1995, after attaining independence and faced with low savings, the need arose to improve the much-needed economic goal and development. Hence, the incoming government committed itself to implement policies to attract FDI to complement domestic savings, which is expressed in several economic plans. These

plans included the 1996 Growth, Jobs and Redistribution Plan, the 2006 Accelerated and Shared Growth Strategy for South Africa, the 2010 New Growth Direction and the 2030 National Development Plan, all targeted at economic growth, poverty alleviation, job creation and wealth redistribution.

Economic policies initiated were aimed at attracting FDI through the growth of a vibrant, sustainable, and attractive investment industry and direct policy initiatives encouraging foreign investment (Alves, 2013; Subramanian and Jonsson, 2014). There were reforms done in support of a favourable business climate, have been followed through sound industrial policy; support for competitive industries; bilateral and multilateral investment aimed at raising market access for South African goods; a regional integration initiative; trade liberalisation; and the establishment of special economic zones (UNCTAD, 2013; Strauss, 2015). Direct intervention reforms were made and the development of a detailed Investor Guide to provide information to prospective investors; regulatory reforms through Policy changes have resulted in a steady rise in FDI flows to South Africa (Moris et al., 2012; Shepard et al., 2016)

As a result of significant government reforms introduced during economic instability, inward FDI flows as a percentage of GDP began to face an upward trajectory from 1995 after being depressed for 14 years before then (World Bank, 2019). Furthermore, the average share of FDI to GDP between 1995 and 2018 was 1.48 per cent, and the largest inward FDI flows occurred in the following years, 2001, 2005 and 2008, with 6%, 2.5% and 3.4%, respectively. Despite high fluctuations in terms of greenfield investment but with an upward trend, South Africa had an average of 6 per cent inward FDI flows from 1995 to 2018 (UNCTAD, 2019). Although inward FDI flows improved from 1995 to 2018, South Africa faced many challenges that have delayed FDI inflows. These include restrictive labour policies, low economic growth, lack of expertise, misaligned BITs with socio-economic conditions, restrictive labour policies and burdensome regulatory and administrative requirements (UNCTAD, 2018). To attract and leverage inward FDI, South Africa had to implement a broad policy to liberalise trade and capital accounts, raise investment from domestic and foreign sources, then provide the economy with enough time to adapt to these and a smooth transition (Hviding, 2006).

The government also took other steps to promote trade liberalisation to boost the country's participation in the world economy through trade, including removing the stringent policies that affect the outflow of foreign currency and complex tariff systems. Economic reforms have been made to the trading system to incorporate the economy of South Africa into the global economy (Nowak and Ricci, 2005; Hyiding, 2006). In 1990, the government of South Africa abolished the old tariff system by reducing tariff rates and eliminating export subsidies to increase trade. An agreement was also signed or improved upon with regional partners Government also signed or improved with regional partners and global partners (Hviding, 2006). Ten years later, South Africa launched the industrial development zone (IDZ) to attract FDI, export-oriented industries, especially in the manufacturing sector (Erasmus, 2011). These changes undoubtedly opened up South Africa's economy to the international community to attract foreign capital to increase the productive capacity of local firms for economic growth and development, expertise, and technology spillover to domestic firms (National Treasury, 2011).

The industrial policies in South Africa are aimed at promoting a dynamic and cohesive policy whose structure aligns with broad economic development agenda, creating a clear space for new investment contribution. The government also adopted the National Industrial Policy Framework (NIPF) in 2007 to diversify South Africans' industries to reduce their dependency on conventional commodities, thereby building a knowledge-based economy and inclusive economic growth. As part of strategies for economic development, the government adopted procedures to modernise the procedure of business registration resulting in the enactment of the Companies Act of 2008, which came into force in 2011. The act provides for the consolidation, mergers and acquisitions, modalities for rescuing financially troubled companies, and forming the companies and intellectual property commission and takeover regulation panel. It also provides that companies have the freedom to make changes in specific requirements based on circumstances. In addition, there are no limitations placed on foreign firms on the acquisition of domestic firms in South Africa with remittance of dividends done with limited restriction, provided they remain financially stable afterwards. Whereas in the case of interest payments, they will be subject to exchange rates.

In 2009, foreign firms willing to raise not more than 300 per cent of foreign capital from the domestic market did not require any authorisation from the South Africa Reserve Bank (National Treasury, 2011). South African companies with 75% foreign interest could access standard credit and financial assistance without restriction. Furthermore, to attract FDI and stimulate economic development South African government entered several Bilateral investment treaties (BIT) after its independence. Negotiations of these agreements were signed to provide a basis for inward FDI flow and secure outward FDI flows. According to UNCTAD (2015), over 40 of these agreements were signed with less than 50 per cent in force; hence a review was initiated, which resulted in a report requesting that BITs be fashioned in line with constitutional obligations domestic policy.

5.5.1 Overview of Foreign Direct Investment in South Africa

The public and business environment received the incoming government of Cyril Ramaphosa well because he campaigned against corruption and poor governance in public institutions, signalled an end to political instability and sparked hope among civil society and industry. Although South Africa possesses a robust democratic institution that provides a basis for general compliance to transparency standards, perceptions of corruption in public services remain relatively high. The country also ranked an average of 67th position out of 180 countries in years 2013 to 2017 in the Transparency International Corruption Perception Index. Similarly, South Africa ranked an average of 6th position (out of 54 countries) in the Mo Ibrahim Index of African Governance in the years 2013 to 2016. South Africa is an advanced Upper Middle-Income Country (MIC), and its economy is ranked 3rd in Africa, after Nigeria and Egypt. However, its main problem of governance relates to corruption in the procurement of public goods and services and the lack of resources at the local government level. In addition, South Africa, with a per capita income of $5,260 ranks 6th in the SSA region, still faces the difficulties of a dual economy: unemployment, high poverty, and income inequality. In general, the country boasts of a well-developed market playing a major role in the region as an economic superpower contributing around 50 per cent of the regions production output. South Africa has a diversified economy with the service sector being its primary source of its GDP as it increased from 53 per cent to 73 per cent between 1980 and 2016. The countrys' dominant role in Southern Africa, has a significant presence in Foreign Direct

Investment (FDI), telecommunications, utilities, and retail services in the region as its economy is closely connected to its neighbours through a common customs union.

In the last two decades, South Africa has been going through the process of de-industrialisation due to the intensified import competition from Southeast Asia, skill shortages in domestic labour markets, higher energy prices, high labour costs, and elimination of subsidies and tariff safeguards. The manufacturing and service sectors are predominantly concentrated in large cities, with little to no manufacturing and services development in urban areas and poor neighbourhoods, indicative of South Africa's 'Dual Economic.' Agriculture has decreased in relative significance in three decades, but not as strongly as manufacturing, from a very low base, from 5.8 per cent of GDP in 1980 to 2.4 per cent of GDP in 2016. According to Havards' Economic Complexity index2 in 2015, South Africa's economy ranked 64th out of 124 countries (compared to Indonesia, Vietnam, and Argentina ranked 62nd, 67th and 69th, respectively) as the economy exhibits a moderate degree of precision, mainly due to a relatively diverse manufacturing sector.

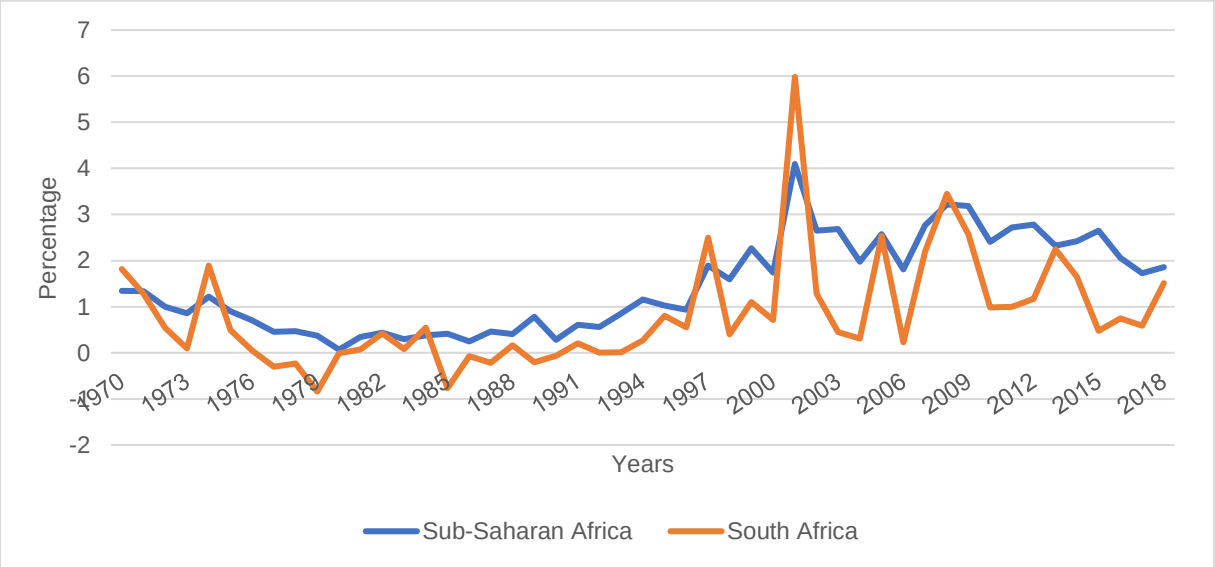
South Africa is a leader in the regional integration of Southern Africa and is actively involved in several regional initiatives, with trade relations gradually increasing in recent times. However, even though the country has not completely taken full advantage of deeper regional economic integration, it continues to experience many obstacles that restrict its ability to leverage regional integration prospects. These restrictions relate to deficits in infrastructure, including roads, rails, generation and transmission of energy, port and production of common watercourses for the benefit of regional member countries. Others include delay in trade facilitation and non-tariff barriers to which if the country wants to boost regional trade and international integration, investments be made in infrastructure and reduction of trade barriers be made.

5.5.2 Trends of FDI in South Africa

Inward FDI flows in Africa majorly originate from Europe, led by UK, France and Netherlands, South Africa, and the USA, accounting for more than 50 per cent (UNCTAD, 2016). Among African countries, South Africa is one of those that is not only a recipient of a significant amount of inward FDI flows but a source of FDI flows to other African countries (UNCTAD, 2019). Data made available by UNCTAD

(2019), as illustrated in figure 5.12 shows inward FDI flows as a percentage of GDP into South Africa (compared with SSA) stayed sluggish from 1980 to 1994 in response to the policies that the government rolled out in favour of FDI. Between 1970 and 1994, the average percentage of inward FDI flows to GDP was 0.21 per cent, with a negative of 0.12 per cent reported in 1980 then an increase of 0.09 per cent in 1981 (World Bank, 2019). Furthermore, within this same period, there were negative inflows recorded in 1977 – 1980, 1985 – 1987, 1989 – 1990, while the other years were positive (World Bank, 2019).

Figure 5.12: Foreign direct investment, net inflows (% of GDP) from 1970-2018

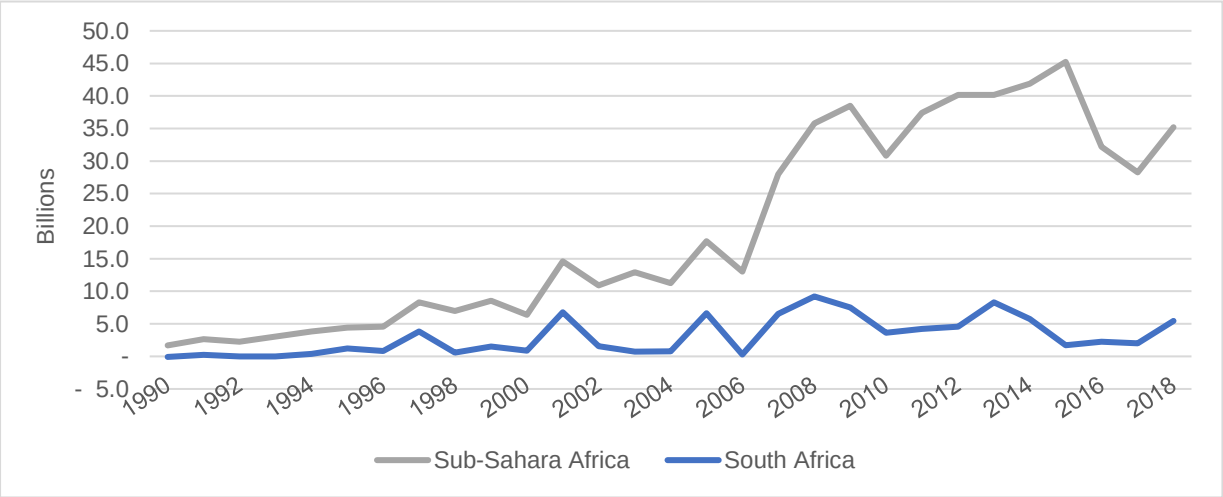


Source: World Development Indicators (2019)

In 1995, South Africa was the destination for 94% of portfolio investment to SSA (Muchie, 2000). Afterwards, inward FDI flows have remained very volatile in the following two decades as the economy navigates through currency fluctuations and a global recession. FDI volatility is due to the vulnerability to commodity price variations because South Africa's FDI is primarily associated with its export sector (UNCTAD, 2016). However, emphasis is being placed on the financial and manufacturing sector and its recent increase in the last ten years (UNCTAD, 2018). Following the nation's independence in 1995 and the incoming government's policy, inward FDI flows needed to close the domestic investment gap increased. Despite the country's low savings rate-limiting investment capital, FDI plays a pivotal role in economic development.

According to UNCTAD (2019), inward FDI flows in South Africa recorded a significant recovery where substantial investment in renewable energy and the automotive industry increased from $2.0 billion to $5.3 billion from many years of low-level inflows. In 2001 and 2002, inward FDI flows decreased by $6.5 billion and $730 million due to the weakening of the South African Rand by 37 per cent against the United States dollar, which contributed to increased investment risk and capital flight. By 2006, inward FDI began increasing again see figure 5.13.

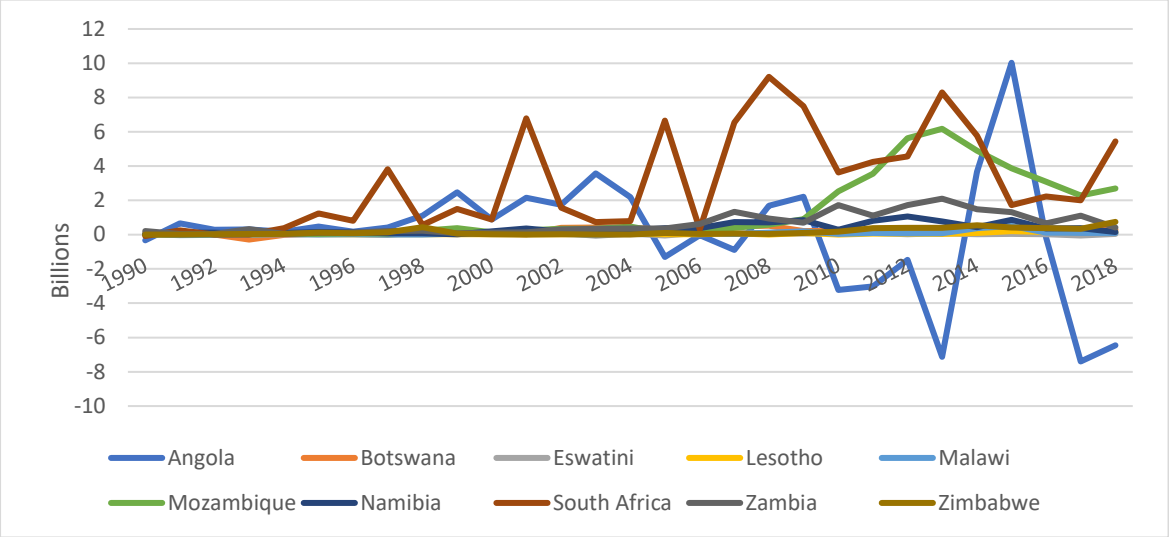
Figure 5.13: Inward FDI flows for South Africa and Sub-Sahara Africa



Source: UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics).

Furthermore, of the total inward FDI flow of $17.9 billion to Southern Africa in 2015, FDI flows to Angola was a record $8.7 billion owing to intracompany loans. An unimpressive economic performance resulting from low oil prices and high energy cost has driven South Africa's FDI to $1.8 billion, which happens to be the lowest in 10 years, as shown in figure 5.13.

Figure 5.14: Inward FDI flows into Southern Africa.



Source: UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics).

As oil prices continued to fall in 2016, South Africa fell into a technical recession with a decline in GDP of 0.3 per cent in the fourth quarter of 2016 and 0.7 per cent of the first quarter in 2017 mainly due to poor performance in trade and manufacturing; however, mining and agriculture recorded some improvements (UNCTAD, 2019). By implication, South Africa helps balance the haemorrhaging witnessed in Southern African countries as illustrated in fig 5.14.

In South Africa, greenfield FDI declined by $700 million from to $3 billion from 2003 to 2005 and increased by 33 per cent in one year and closing with $11 trillion by 2008. However, this optimistic trend did not last long as it suffered a decline of 52 per cent in 2009, a marginal increase of 16 per cent in 2010 and a recovery of $6.7 billion in 2011 (UNCTAD, 2011). In general, greenfield inflows increased steadily from 2006 to 2009, with subsequent increases reported between 2011 and 2018. These trends reflect the global commodity price surge between 2006 and 2009 (Wöcke and Sing, 2013). However, due to poor linkages and spillover effects, FDI targeting a certain commodity had minimal or even negative effects on economic development in South Africa (Bezuidenhout, 2009). Hence, the absorption ability may have played a minimal role. In addition, inward FDI flows in South Africa increased from $798 million to $6.6 billion owing to rising FDI in natural resources fuelled by commodity prices and the acquisition of ABSA by Barclays bank of the United Kingdom in 2005 (UNCTAD, 2006).

The illustration of Table 5.2 reveals a 5-year annual average from 1993 to 2018 of inward FDI flows as a percentage of GDP for BRICS (Brazil, Russia, India, China, and South Africa) and SSA. The average inward FDI inflows as a percentage of GDP from 1970 to 1994 was 0.21 per cent as against 1.48 per cent recorded from 1995 – 2018 with 1997, 2001, 2005, 2008 and 2009 reporting very high inflows of 2.50, 5.98, 2.53, 3.45 and 2.58 per cent respectively while the lowest inflows of 0.40, 0.31, 0.23 were recorded in 1998, 2004, 2006 respectively (World Bank, 2019). Similarly, from table 8.1, using a 5-year annual average, FDI as a percentage of GDP from South Africa never exceeded 2.1 as it fluctuated between 0.83 and 2.14 which is better than that of India and Russia, comparable with the region of SSA but significantly lower than Brazil and China (Wöcke and Sing, 2013). Consequently, between 2009 and 2010, annual growth was 0.6 per cent negative and marginally improved in to 0.9 per cent growth in 2013. South Africa also recorded one of the lowest inward FDI flows as a percentage to GDP of 1.02 in 2011 relative to other developing countries, such as Chile 7.0 per cent and Malaysia 4.3 per cent (Wöcke and Sing, 2013).

Table 5.2: Foreign direct investment, net inflows (% of GDP) from 1970-2018

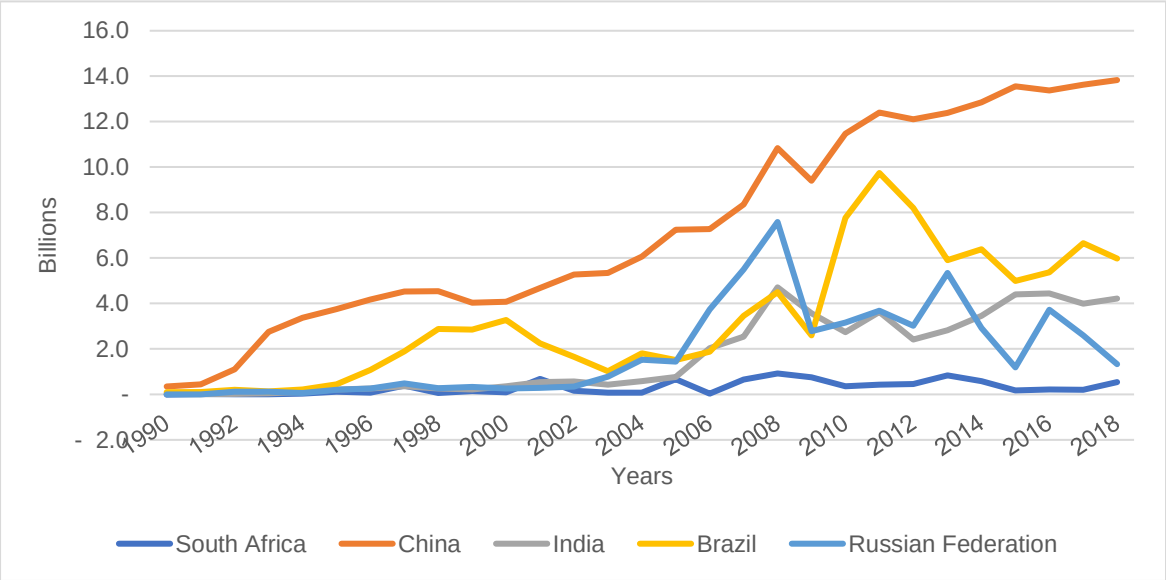
Country	1993-1997	1998-2002	2003-2007	2008-2012	2009-2013	2014-2018
Brazil	1.04	1.72	2.55	3.43	3.97	4.18
China	5.29	4.94	4.49	4.21	3.98	3.76
India	0.51	0.60	0.63	0.67	0.76	0.79
Russian	0.57	0.72	1.01	1.11	1.17	1.13
South Africa	0.83	0.90	1.07	1.05	2.14	1.89
SSA	1.17	1.32	1.54	1.69	2.32	2.47

Source: World Development Indicators

In 2018, the BRICS countries (Brazil, Russia, India, China, South-Africa) remained a leading source of FDI among emerging investor countries, with flows increasing from $7.0 billion in 2000 to $ 261 billion in 2018, accounting for 18 per cent of global totals (UNCTAD, 2018). The rise in large outward flows from Africa in 2018 was mainly due to large flows from intercompany accounts, the mining and wholesale sectors, and healthcare products. This is unfavourably contrasted with other BRICS countries with

positive inflows in 2006, with Brazil, India, Russia, and China earning $18.8 billion, $20.3 billion, $37.4 billion, and $72.7 billion, respectively (OECD, 2019).

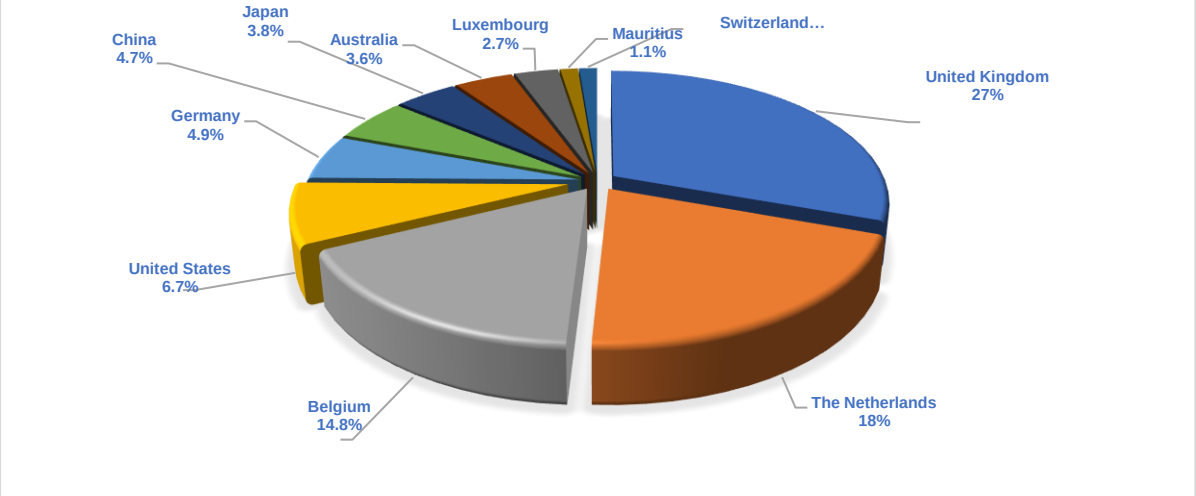
Figure 5.15: FDI inflows in BRICS from 1990 to 2018



Source: UNCTAD, FDI/MNE database (www.unctad.org/fdistatistics).

Between 2008 and 2017, South Africa witnessed a decline in FDI inflows closing at negative 83 per cent which is a significant reduction when compared to reported growth of China, India, Brazil and Russia of 2, 8, 39 and 66 per cent respectively (OECD, 2019; UNCTAD, 2019). Whereas, in general, South Africa witnessed an increase in FDI inflows, the values have remained very low compared to other BRICS countries. Similarly, FDI flows in Africa increased by 11 per cent due to expanding diversified investment, resource-seeking investments, and the doubling of FDI flows to South Africa from $2 billion to $5.3 billion, a 165.8 per cent increase over the previous year (UNCTAD, 2019).

Figure 5.16: Percentage of Inward FDI flows to South Africa by country in 2017



Source: South African Reserve Bank, Quarterly bulletin June 2019

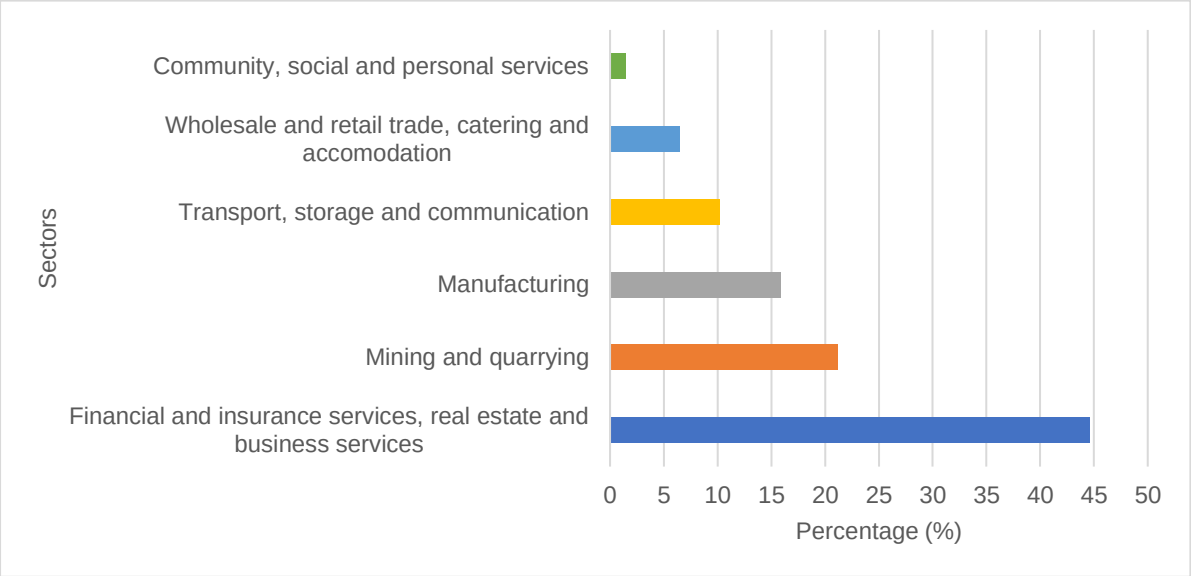
In greenfield FDI projects from 2017 to 2018, South Africa witnessed an increase of 270 per cent in its investment from $745 million to $2,074 million. It increased its investment in other African countries by 160 per cent from $106 million to $292 million. In addition, net cross border M&A sales increased from $417 million to $1,033 million and purchases increased from $7 million to $31 million. In 2018, FDI outflow witnessed a significant decrease of $10 billion, with the purchase of 53 per cent of Moroccos' largest insurer for $1 billion by Salem Emerging Markets, South Africa, considered the largest investment in the continent. On the other hand, Ghana became the largest recipient of FDI in 2018, owning to the largest M & A deal of 50 per cent share in Asanko Gold, an Accra based gold mine operator for $185 million by Gold Fields Limited (South Africa). Figure 5.16 illustrates the breakdown of inward FDI to South Africa by country.

5.5.3 Sectoral Analysis of Foreign Direct Investment

In the review of literature on the impact of inward FDI on economic growth in South Africa, FDI was not found to affect South Africa's economic growth and a critical analysis of the economic sectors receiving FDI inflows reveals why. The manufacturing sector in South Africa, considered a significant sector in the economy despite its reduced GDP contribution due to fundamental changes in the economy in 1993, has not received enough attention (Strauss, 2015). It should also be noted that FDI investment in the finance sector dropped sharply after 2008, even though its overall economic contribution increased during the same time (Strauss, 2015).

In 2019, figure 5.17 reveals the breakdown of investment made to key sectors of the economy. Furthermore, it shows financial and insurance services with real estate and services with the largest share of investment 44.6 per cent with mining and quarrying attracting 21.2 per cent, manufacturing 18 per cent etc. According to Austen (1987), who posits that mining traditionally offers the highest income and incentive to receive allocations of fixed investment relative to other commodity and export industries. This is confirmed by Strauss (2015), who verifies though mining has no longer been one of the main contributors to GDP, over the past ten years, it was found to hold a significant share of FDI since 2010 (see Fig. 5.15).

Figure 5.17: Sectoral Investments of FDI in South Africa



Source: South African Reserve Bank, Quarterly bulletin June 2019

In terms of merchandise trade, South Africa witnessed a 5.6 per cent growth rate to $94 billion in merchandised exports, with 78 per cent of total exports being manufactured goods, fuels, ores and metals (UNCTAD,2019). Furthermore, the 5 major partners in terms of exports are China $8.5 billion, Germany $6.7 billion, USA $6.4 billion, UK $4.8 billion and Japan $4.5 billion.

5.5.4 Brief overview of inward FDI and Global Value Chains in South Africa

In the past two decades, key issues have emerged as to the role of foreign investments by MNCs (in case of manufacturing firms) and lead firms (in case of retail markets) who acquire their influence from a combination of factors that include brand name ownership and control of technologies (UNCTAD, 2013). However, a

reduction in trade barriers and information cost, change in the mode of communication and transportation has affected the way goods and services are produced and exchanged. This is evident because over 50 per cent of manufactured goods for trade are intermediate goods for further processing in other countries. Although not all firms participate in global trade but participate in GVCs as suppliers, hence still form part of the network of firms necessary to deliver a good or service (Pietrobelli and Rabellotti, 2011).

GVC expansion has somehow increased the role inward FDI plays in host economies, which has resulted in the development of mechanisms to link FDI with GVC. Because it involves the whole process of research and development of a good or service to the final destination, the consumer (Shepard, 2015 and Cattaneo et al., 2010). These production activities hitherto performed in proximity are fragmented into various countries to exploit their comparative advantage for profiting (Johnson and Noguera, 2012). Although developing countries face challenges in linking and upgrading within GVCs, such complex networks have led to why the debate on trade development needs to be revisited.

Several works of literature tend to recognise the impact of integrating into a value chain using trade data generated for manufacturing industries to develop proportions for export and import penetrations. However, it has been discovered that these ratios have many challenges relating to double counting, where the value of the intermediate product is recognised more than once while crossing over international boundaries. Also, it should be said that firms willing to exploit their technological advantage by proving the international market with what they have produced can choose to either export, license their technology or serve the market through their local partners. MNCs have shown a preference for internalising some transactions to keep their innovations from being duplicated because of the imperfection of markets for technology and the requisite very costly process to sell technology to outsiders.

The concept of Global Value Chain (GVC), according to UNCTAD (2013), is the sequence of all functional activities necessary in the process of creating value of a good or service in more than one country. GVC is a critical way to organise production, investment and trade in various sectors. GVCs allow domestic firms and developing countries to get involved in a global economy, expand their export

potentials and an upsurge in competitiveness. The benefits derived from the participation in GVCs are multifaceted, starting from the firm-level where GVCs encourage efficiency of participating firms, providing them with opportunities for skill acquisition to economic growth and development at the macro-level (ESCAP, 2015). It's important to note that each firm within a GVC specialises in a particular task, with the lead firm bringing together all the various tasks and organising inputs of goods and services to bring about a product that will be delivered to the customer.

5.5.4.1 Literature review

Anyanwu (2012) states that FDI is a major agenda on every developing country's drive for economic growth, attributed mainly to advantages that FDI brings to the economy such as jobs, finance, etc. The collapse of political bottlenecks has encouraged investments across national borders with firms that are based in different countries depending on each other for various production processes along the global value chain (Amador and Cabral, 2014). In addition, Draper (2013) notes the disadvantage of African countries in not being included in the GVCs unless as suppliers of the raw materials and minerals. This is a disadvantage to African countries considering that UNCTAD (2013), confirms that involvement in GVCs is a significant driver of economic development.

Gitonga (2012) notes the importance of BITs in protecting foreign investors, both legal and transferability of finance. The UNCTAD (2013) report underscores the importance of how a product may pass through various industries and how an industry can be part of a value chain. Draper (2013) notes how China has utilised its position in the value chains to drive economic development. He further examines how recent trends like the climate change debate are redefining how big markets like the EU are looking to cut global value chains to shorter distances and how African countries who are anticipating joining the GVCs should study this trend in developing their trade policies to their advantages.

Draper and Lawrence (2013) have assessed that MNCs usually fashion out their GVC strategy and location on a long-term basis. They discuss how African countries seeking to join the GVCs should drive policies towards improving infrastructure and increasing skilled labour among their citizens. These are variables that influence the MNCs in making their choice of host countries for FDI. Blonigen (2005) discusses

how presumptions of the enormous influence of tax policies of a country influence FDI have been whittled down by recent studies. Further, Hallward-Driemeier (2003) also discusses how BITs is paraded as a precursor to improved FDI. This research, however, contends that there is little evidence to back up this recurrent assertion. Bellak (2013) asserts that preceding research is lacking in establishing the significance between BITs and FDIs. The researcher, however, confirms that most BITs are signed to improve FDIs. Bellak (2013) further points out that the major drive for FDIs are profit and improving the resources, marketing and efficiency.

Hallward-Driemeier (2003), in their analysis of the impact BITs on a countrys' policy, note that the major challenge is the sovereignty of the host country. Because usually, the countries do not assess the consequence of the BITs on the obligations it imposes on the country and the rights it confers on foreign investors. They state that this defect accounts for the 264 cases at the ICSID as of May, 2014. Khor (2014) states that this has led some countries like India and South Africa to revise their BITs or be revoked. He further noted that the dispute resolution channel that allows investors to sue governments at the ICSID is contained in most BITs.

Tralac (2013) note that the "fair and equitable treatment" clause in most BITs, allows foreign investors to seek compensation against countries when conditions under which investment was made, are altered. Spalding and King (2013) cite an example of how Kenya may be subject to compensation claims by foreign mining companies for terminating mining licenses in the country's interest. Stephenson and Carroll (2009) also assess how the expropriation clause in BITs may be utilised by foreign companies who may claim indirect expropriation because of strict regulations of a sector. South Centre (2010) study BITs from the perspective of the free transfer clause and note the scepticism of developing countries with this clause, considering the adverse effects capital flight can have on their growing economy.

Tralac (2013) further assessed the dispute resolution mechanism as one of the attractive provisions for foreign investors to resolve at the ICSID level. They acknowledge that most foreign investors are not warm to the idea of resolving disputes with a country through that country's legal system. However, Khor (2014) note the disadvantages of this form of dispute resolution in that it is dominated by a few big firms and usually riddled with conflicting interest and arbitrary decisions.

Tralac (2013) cites the example of South Africa as a country which in resolving this provides that dispute may only be resolved at a South African court.

The research emphasises that countries that encourage FDI should do so with a long-term plan of empowering domestic capabilities. Gitonga (2010) cites the example of China as a country that requires the sharing of technology information as a way of driving domestic capacity to catch up with leading firms in the GVC. Tralac (2013) also cites the example of South Africa as a country that has improved its BITs system by overhauling unfavorable practices to the country and foreign investors.

5.5.4.2 GVC Participation

More recently, promoting economic development requires engaging a more modern pattern of trade and investment with participating in Global Value Chains (GVCs). Although trade-in-tasks is becoming more common than trade-in-final goods in several parts of the World, what is obtainable concerning firm-level engagement vary from sector to sector, just as it is from region to region.

Understanding how value chains function internationally means drawing from countries' experiences the entire fragmentation process from the beginning to regional and international level. Global Value Chains (GVCs) describes how a network of firms at different layers operate across several countries. However, these countries need to address their efficiency in the area of logistics before seeking to benefit from GVC participation (Memedovic et al. 2008). More recently, some literatures have been able to demonstrate how the efficiency of logistics and strong institutions can drive GVC participation using econometrics and factor content methodology (Pathikonda and Farole 2016)

GVC participation can neither be said to be a good or bad development. They provide low-cost means of linking firms to global trade networks and aligning their activities with their comparative advantage, resulting in developing countries benefiting from employment and income effects. GVC participation run the risk of locking firms or countries into specific activities hence hindering upgrading over time. The analysis of GVC participation cannot be done using a single method, hence empirical literature on trade have suggested a range of data sources and methods to map and measure GVCs. There are custom statistics on preceding; international

trade statistics on parts and components; international trade data combined with input-output tables and firm-level studies (Amador and Cabral 2014).

In his study (Pananond, 2015) argue that rise of EMNEs with early development as supplier firms within a GVC, contribute more nuances to the development of FDI motives. It is believed there has been knowledge gains through the understanding of FDI motives by analysing international expansions of MNEs from developed economies. Narula (2012) argues that the more sophisticated locational assets in developed economies, especially knowledge, infrastructure enable domestic firms to accumulate more firm-specific assets.

As a result of solid competition enforced through transparent institutions, MNEs from advanced economies are often known to possess firm-specific assets like superior technology and managerial skills well-organised brand names, allowing them to occupy high valued positions along the GVCs. Whereas, firms from emerging markets often are integrated into GVCs as suppliers and exporters because of their cost-based advantages derived from natural resource-intensive stages of the value chain. And as they expand globally, they may not have the luxury of making independent choices towards FDI due to their position in the value chain and dynamic relationship with the lead firm.

5.5.4.3 Dunnings (OLI) framework groups FDI motives into four categories;

1. Natural resource seekers invest abroad to acquire specific resources that do not exist or exist at a higher cost in their home country. These resources range from physical (oil and gas) to labor (skilled and unskilled), technological and managerial capabilities.
2. Market seekers invest abroad to supply goods or services to new markets or the ones they previously served through exports.
3. Efficiency seekers are driven by the need to rationalise and gain from common governance of geographically dispersed activities through economies of scale and scope or through the benefits of different factor endowments in different countries.
4. Strategic assets seekers to augment existing or to obtain new ones that contribute to long-term competitiveness.

5.5.4.4 Motives for FDI and positions in GVCs (How FDI enable firms to get on GVCs).

a. Suppliers are domestic firms from emerging economies integrated into GVCs, responsible for low-value-added manufacturing and other standardised production activities. This is because firm-specific assets from emerging market firms are constrained by a lack of sophisticated knowledge infrastructure in their home country. These firms rely more on cost-advantages derived from lower cost for factors of production.
b. Domestic supplier firms should consider global expansion as part of their upgrading trajectory. Operating in multiple value chains at domestic and global levels allows firms to engage more freely in functional grading activities (Navas-Aleman, 2011), thus enabling supplier firms to take part in higher value-adding activities of GVC. The motive of FDI, in this case, is more likely to concentrate more on strategic asset accumulation in more advanced economies.
c. In this scenario, internalisation decisions of EMNEs are much more complex as it reflects the need for EMNEs to upgrade its firm-specific assets (knowledge and infrastructure) through strategic asset seeking.
d. Natural resource seeking and efficiency-seeking types of investment in which EMNES leverage their few firm-specific assets in other emerging economies to benefit from cost advantages seem the most viable options. These investments are unlikely to cause any conflict between supplier and lead firms as the lead firms also benefit from the diversification of supply sources and further cost efficiency.
e. Becoming active in a higher value-added area of value-chain is harder for EMNEs because it requires upgrading and jeopardising the existing relationship that emerging market suppliers have with their lead firms.
f. Upgrading is the ability to make better products (product upgrading) to make products more efficiently (process upgrading)

5.6 Conclusion

Sub-Sahara Africa region in the last four decades has witnessed a steady reduction in the flow of foreign capital compared to other developing economies who are making considerable developmental progress. Despite the amount of inward FDI that

has being infused into the region, there has been no significant impact on local investment nor enhanced economic development in the region. In addition, the region still faces socio-economic crises, political instability, and persistent lack of development even when many foreign governments have made efforts to expose themselves to foreign capital . This chapter in particular identifies some critical factors which influences the activities in SSA critical to the overall framework of this thesis and provide a basis for individual empirical chapter. Although studies have looked at the role of inward FDI on economic growth, it is important to examine the current effect it has on economic development in SSA. This will be achieved by a critical review of determinants of FDI in SSA (Chapter 6), degree of foreign ownership of firms in SSA (Chapter 7) and determining the effect of location, skilled labour and technological change in South Africa (Chapter 8).

CHAPTER SIX

FOREIGN DIRECT INVESTMENT IN SUB-SAHARA AFRICA

DATA ANALYSIS AND RESULTS

6.1 Introduction

This chapter examines the determinants of inward FDI into the region of SSA and discuss how the different hypotheses of FDI have informed its activities within the region. The investigation was done using panel data techniques over different sample sizes and time. The details of sample size, variables used, methodology and adopted size will all be described in detail. The findings indicate GDP growth rate, internet subscription, exchange rate, trade openness and government effectiveness as positive determinants of FDI in the region. Whereas human capital development, labour force and mobile telecom subscription, exchange rate, inflation, and political stability have a negative impact on FDI in the region, exchange rate, inflation, and political stability have a negative but insignificant impact on FDI.

6.2 Synopsis of Study

This section estimates inward FDI flows by using a panel data analysis on a sample of 47 SSA countries. The findings indicate in part what previous studies have identified as determinants in SSA, remarkably human capital development, labour force and mobile telecommunication impacted negatively on inward FDI flows to the region.

6.2.1 Development of hypothesis

The hypotheses are formulated in accordance with Dunnings' (1998) OLI paradigm with an emphasis on locational advantage. In the literature, it is argued that natural resources, infrastructure, exchange rate, market size, human capital and country risk are the factors that influence the structure of inward FDI flows (Tsen, 2005; Okafor et al. 2015).

6.2.1.1 Market size and Inward FDI flows

The most reliable way to measure the size of a market is either by GDP growth rate or GDP per capita (Artige and Nicolini , 2005). There are arguments that an

expanding market tends to attract FDI (Jordaan, 2004) and in the last 2 decades several studies have shown that there exists a positive relationship between FDI and market size. Therefore, when adopting GDP growth rate and real GDP as proxies in this study, it is expected that a positive relationship will exist between inward FDI flows and market size.

H_1: Market seeking: Inward FDI flow is positively related to market size.

6.2.1.2 Exchange rate and Inward FDI flows

The World Bank and IMF in their separate proposals suggest the removal of subsidies, currency devaluation and trade liberalisation as a nexus for development (Anyanwu, 1992). In the literature, the economic exposure theory argues that exchange rate risk discourages inward FDI flows as an overvalued exchange rate impacts negatively on a country's ability to compete globally (Yol and Teng 2009). For example, a weak exchange rate in a host country results in low prices which then encourages investments in assets and equipment by MNEs (Walsh and Yu, 2010).

H_2: Market seeking: Inward FDI flow is negatively related to exchange rate

6.2.1.3 Natural resources and inward FDI flows.

In developing countries, the abundance of natural resources attracts FDI (Dunning and Lundan, 2008), especially where productivity and critical infrastructure are low. Furthermore, the countries that are rich in natural resources attract FDI but divert investment from their manufacturing sectors and hinder economic growth (Zoega and Gyfason, 2001; Robinson et al., 2002). Rent in natural resources and oil are used as a proxies for resource seeking advantages.

H_3: Resource seeking: Inward FDI flow is positively related to abundant natural resources.

6.2.1.4 Infrastructure development and Inward FDI flows.

The availability of good infrastructure increases productivity and there is the potential for investments as it attracts inward FDI (Asiedu, 2002; Jordaan, 2004; Lien, 2011). SSA is currently experiencing a severe crisis in infrastructure development which includes provision of internet facilities and power outages and interruptions in power supply. Therefore, to measure how the provision of infrastructure impacts on infrastructure development and by extension FDI to SSA, internet services and

electricity which has been used severally as proxies (Makoni, 2014; Okafor, 2017) will be adopted.

From the literature, it is expected that inward FDI will have a positive relationship with infrastructure; however, the quality varies from one country to another with data being a constraint (Ang, 2008; Al-Sadiq, 2009).

H_4: Resource seeking: Inward FDI flow is positively related to infrastructural development.

6.2.1.5 Human capital and Inward FDI flows

The quality of a workforce or human capital, i.e., educated and uneducated in a country, is a very important factor that determines inward FDI into a host country particularly when firms are considering an increase in productivity. However, the metrics of human capital as a variable can be problematic in empirical studies due to the several indices being employed in contemporary empirical literature in identifying its impact on FDI (Islam, 1995). For instance, Srinivasan (2011) suggests the attainment of a higher level of education in a host country's workforce had a positive influence on inward FDI. While Lucas (1990) and Cleeve et al. (2015) suggest in their studies that irrespective of educational attainment inward FDI has a positive effect on human capital. Furthermore, Cellini (1997) used Secondary school enrolment as proxy, Barro and Lee (1994) and Borensztein et.al. (1999) on the other hand adopted the average years of secondary schooling for males. Hence, the reason for this variable to be considered challenging. In the case of this study, human capital index sourced from the World Bank will be adopted.

H_5: Resource seeking: Inward FDI flow is positively related to human capital.

6.2.1.6 Trade openness and Inward FDI flows

In the literature, host countries with a higher degree of trade openness and a stronger connection to the global economy tend to attract foreign investments (Asiedu, 2002; Ang, 2008). In other words, host countries with harsh trade policies and capital controls tend to discourage inward FDI, hence receive a small share. In the literature, Onyeiwu and Hermanta (2004) and Adhikary (2011) suggest a positive effect of trade openness on inward FDI and the likelihood of comparative advantage influence inward FDI. This is in line with previous literature, Braunerhjelm & Svenson

(1996) and Chakrabarti (2001) who suggest movement of capital in and out of a country is a significant factor of inward FDI.

$H_{6:}$ Market seeking: Inward FDI flow is positively related to trade openness.

6.2.1.7 Inflation rate and Inward FDI flows

High inflation rate in a host country hinders inward FDI especially to a developing country (Egwaikhide, 2008). Also, a high inflation rate makes lending expensive which impacts on interest rates, therefore negatively affects inward FDI. Literature has suggested that it leads to currency devaluation and eventually to a reduction in the value of real earning on investments in the host country (Wadawa and Sudhakara, 2011). For MNEs, the recurrent fluctuations in the cost of goods and services suggests an unstable macroeconomic climate, therefore it raises the perceived risk of investing in a host country.

H_7. Market seeking: Inward FDI flow is positively related to low inflation rate.

6.2.1.8 Country Risk and Inward FDI flows

The analysis of country risk is used to anticipate potential concerns in cross-border capital transfers, to assess future risks by accounting for different factors such as political, social, both macro and microeconomic, as well as nations' ratings and other metrics of economic performance (McGowan and Moeller, 2009).

Political risk, transfer risk, exchange rate risk, sovereign risk, and economic risk are categories of country risk. According to Nordal (2001), these categories connect with one another and in some cases, one may have an impact on another . Although, each of this category hinders investment either directly or indirectly, this study will focus on political risk whose relationship with inward FDI is still in dispute (Asiedu, 2002). While some academics describe political risk as the general government's interference in corporate transactions (Kobrin, 1978). Others see political risks as distinct instances of new actions done against the interests of a certain institution, or as a combination of the two (Root, 1972).

H_8: Country risk is negatively related to country risk (political stability).

6.2.1.9 Government effectiveness and Inward FDI flows

The assessment of service delivery and the civil servants who supply them, as well as their degree of independence from political pressure, is measured by government effectiveness. This according to Pajunen (2008), serves as an attraction for a host countrys' economic growth and informs their decision on inward FDI. In addition, the credibility of a host governments policy commitments, as well as the quality of policy formulation and implementation boost inward FDI especially when it can influence inward FDI by assure good governance (Globerman & Shapiro, 2002), establish a sound regulatory environment (Globerman & Shapiro,2002) and combat corruption (Buchanan, Le, & Rishi,2012). To measure government effectiveness, governance indicators are used to analyse and compare state of governance at the regional and global levels and expressed using an index from -2.5 (weak) to 2.5 (strong).

H_9: Inward FDI is positively related to Government effectiveness.

6.3 Determinants of FDI in SSA

In the literature, several factors have been identified to determine the inward FDI flow to a region with varying results based on the period and the variables used as proxies, all achieving different outcomes. As stated earlier, the essence of this chapter is to determine what informs a firms' decision to locate its business in a foreign country. Hence, the location advantages based on Dunnings' eclectic (OLI) principle will be adopted to identify variables that will impact significantly on inward FDI in SSA countries. The variables identified for this study are market growth, market size, exchange rate, foreign exchange, natural resources, human capital development, labour, infrastructure, inflation trade openness, country risk and government risk (refer to table 6.2).

6.3.1 Research Methodology

This section outlines the adopted research design and the form of estimation. It will identify the sample countries, describe the variables selected for this research, outline the preliminary analysis of the data, and then specify the model and its estimation.

6.3.1.1 Data collection

Data collection is a method of gathering information from several sources, which allows researchers or users to find answers to relevant questions through the testing

of the hypothesis, analysis, findings, and evaluating desired outcomes. Data collection can be categorised into two forms, which are primary data and secondary data collections. While primary data collections involves the process by which the researchers or users of the data collect their own information, secondary data collections involve the researchers or users of the data to transcribe already documented data from other relevant sources, such as newspapers, magazines, world data, banks, hospitals, schools, and so on. For the purpose of this research, the method of data collection employed is secondary because the target variables were pulled out from World Bank – World Development Indicators.

6.3.1.2 Sample countries

The study makes use of data from 47 SSA countries, as outlined in Table 6.1, with Comoros and South-Sudan being the only countries excluded because of the limited amount of data available, which will result in them being outliers.

Table 6.1: Sample Countries

Angola, Benin, Botswana, Burkina-Faso, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, Rep. of Congo, Congo DRC, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Ivory Coast, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mauritius, Mozambique, Namibia, Niger, Nigeria, Rwanda, Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, Somalia, South-Africa, Sudan, Swaziland, Tanzania, Togo, Uganda, Zambia, Zimbabwe

Source: Authors' compilation

6.3.1.3 Description of variables

This study makes use of data on proxies of fifteen variables (as referenced in pages 149-152) all sourced from World Bank Indicators (WDI) and United Nations Conference on Trade and Development (UNCTAD) over the period of 14 years (that is 2004 to 2018) for 47 Sub-Saharan Africa (SSA) countries as outlined in Table 6.2. The variables include Foreign Direct Investment (FDI) measured in (net BOP, US dollars), it represents the sum of equity capital, reinvestment of earnings and other forms of capital. Gross Domestic Product (GDP) which is the sum of gross value added by resident manufacturers in an economy in addition to any product taxes less subsidies not incorporated in the value of products. This is measured as the percentage growth of the economic activity of target countries, an increase in GDP means a substantial growth in the economic output. Exchange rate, this is the

amount of local currency that can be exchanged for one US dollar, this captures the price of foreign goods relative to the domestic goods. On the other hand, foreign exchange reserves, held by monetary institutions which includes foreign currency deposits, special drawing rights (SDRs), monetary gold and reserve position in IMF measured in billions USD. Also, GDP per capita (constant 2010 dollars), defined as GDP divided by midyear population, calculated without making deductions for depletion of natural resources or deductions of fictitious assets. Data are in 2010 USD and captures the standard of living in each SSA country. In addition, the countries' level of economic and social development was captured by the Human Development Index (0 - 1), this measures knowledge, decent started of living, long and healthy life otherwise regarded as basic dimensions of human development. There are four indicators used to calculate the index; life expectancy at birth, average and expected years of schooling and gross national income per capita and used to rank human development of countries. Next is income from natural resources, which measures the money generated by the country through natural resources as a percentage of GDP. Then there is inflation captured by consumer price index, reflects annual percentage change in cost to the average consumer of obtaining a unit of good and service which maybe fixed or altered over a period such as yearly. The Laspeyres formula is frequently employed. After this is labour force participation rate refers to a proportion of the population economically active in a specified period. In other words, the active workforce of a nation's economy usually 15 years and above who provide labour to produce goods and services. The next is the mobile phone subscribers (per 100 people), a proxy for infrastructure identifying subscriptions to a public mobile telephone service that provides access using cellular technology. The indicator includes number of active prepaid lines, all mobile subscriptions that offer voice communication and excludes USB modems, subscription to public mobile data services, telepoint, radio paging and so on. In addition, internet users as a percentage of population, a proxy for infrastructure which identifies individuals who have made use of the internet within 90 days from any location. The usage can be by mobile phone, digital TV, computer , games machine and so on. Then there are oil reserves (billion barrels), which captured the volume of crude oil located in the SSA. Also, trade openness which is measured as an addition of exports and imports as a percent of GDP. Then political stability index describes the level of social protest that poses a threat to the government of a

country ranked from (-2.5 weak; 2.5 strong), Finally, the government effectiveness index measures the quality of public and civil services, policy formulation etc. ranked (-2.5 weak / less effective; 2.5 strong/ more effective) as outlined in Table 6.3.

Table 6.2: Description of variable

Variable	Description
LFDIL	Foreign Direct Investment (FDI), net (BOP, US dollars)
LGDPGR	Gross Domestic Product Growth rate, percentage
LEXC	Exchange rate: local currency units per U.S. dollar
LFOREX	Foreign exchange reserves including gold, billion USD
LRGDP	GDP per capita, constant 2010 dollars
LHDI	Human Development Index (0 - 1)
LNRR	Income from natural resources, percent of GDP
LINF	Inflation: percent change in the Consumer Price Index
LLAB	Labour force participation rate
LMOB	Mobile phone subscribers, per 100 people
LINT	Internet subscriptions, percent
OIL	Oil reserves, billion barrels
TRD	Trade openness: exports plus imports as a percent of GDP
POL	Political stability index (-2.5 weak; 2.5 strong)
GOV	Government effectiveness index (-2.5 weak; 2.5 strong)

Source: Authors' compilation

Table 6.3: Definition of variables

	Description	Source
Inward FDI flows (Dependent variable)	Foreign Direct Investment (FDI), net (BOP, US dollars)	World Bank
Market seeking motives		
Market growth	Annual GDP growth rate in percentage	World Bank
Market size	Per capita GDP, constant 2010	World Bank
Exchange rate	Local currency units per U.S. dollar	World Bank
Foreign Exchange	Foreign exchange reserves including gold, billions USD	World Bank
Information Technology	Internet users, Percentage of population	Word Bank
Resources seeking motives		
Natural resources	Income from natural resources as a percentage of GDP	World Bank
Human Capital Development	Human Development Index (0-1)	World Bank
Labour	Labour force participation rate	World Bank
Infrastructure	Mobile phone subscribers, per 100 people	World Bank
Natural resources	Oil reserves, billions barrels	World Bank

Efficiency seeking motives		
Inflation	Percentage change in consumer price index	World Bank
Trade openness	Sum of export and import as a percentage of GDP	World Bank
Other variables		
Country risk	Political stability index (-2.5 weak; 2.5 strong)	World Bank
Government	Government effectiveness index (-2.5 weak; 2.5 strong)	World Bank

Source: Authors compilation

6.3.1.4 Preliminary estimation: Descriptive statistics and correlation

Table 6.4 below outlines the summary of the descriptive statistics (mean, standard deviation, minimum, and maximum observation) of the variables employed. The essence is not to test hypothesis but give a summary of the sample data set employed for this study. In this study, we anticipate a non-linear relationship between selected variables hence they are converted into natural logarithms in line with theory and previous studies (Buckley et. al. 2007). Logarithms are employed when data sets are skewed (i.e., variables with extremely high values), especially when modelling non-linear relationships which is the case in this study. Starting from the dependent variable Inward FDI proxied by (log of FDI), its mean is $5.34 with standard deviation of $1.90 meaning that the amount of dispersion from observation is minimal to a great extent, and the average of economic growth (GDPGR) is $1.49 with a standard deviation of $0.17 explaining very low disparity among the observations and its mean. Furthermore, the independent variables include exchange rate which has an average of $5.05 within the maximum and minimum value of $22.63 and -0.10 with a standard deviation of $2.22 explaining a low measure because of variability among the observations. On average, foreign exchange reserve has a mean of $-0.21 billion; and a standard deviation of $1.63 billion. Furthermore, the average of real GDP per capita growth (LRGDP) is $3.25 with a deviation of $5.60, which means that there is little dispersion among its observation. On average, the mean of inflation is 1.49% CPI with a very low standard deviation of 1.12% CPI. The mean rate of labour force participation is 3.11 with a 1.58 rate of dispersion among the observation. Also, the average of mobile user subscribers is approximately 7.25 with a deviation of 4.62. For oil reserves in billions, the average is $110.50 billion with a standard deviation of 1027.88 indicating a very high disparity among the observation. Finally, trade openness has an average of 69.1% of GDP, and a standard deviation of 56.1% of GDP which denotes a high variability of the observations from one another.

Table 6.4: Summary statistics

Variable	Observations	Mean	Std. Dev.	Min	Max
LFDIL	668	5.34154	1.901662	-3.4548	9.21316
LGDPGR	609	1.4907	0.7177	-2.5257	3.63759
LEXC	668	5.05215	2.227756	-0.1054	22.6288
LINT	250	-2.1526	1.618796	-4.6052	1.45395
LFOREX	293	-0.208	1.63386	-3.912	3.44999
LRGDP	607	3.25802	4.597912	-4.6052	9.92881
LHDI	673	0.68509	1.880736	-2.3026	6.15146
LNRR	593	2.03712	0.932075	-0.7985	4.08799
LINF	617	1.494	1.116809	-2.3026	4.81673
LLAB	652	3.1183	1.576561	-4.6052	4.40806
LMOB	641	7.25531	4.620138	-1.5607	14.0519
OIL	660	110.559	1027.878	-1239.1	21027.5
POL	646	15.2677	20.06874	-2.7	60
TRD	400	69.1625	56.06853	0.01	376.22
GOV	360	-0.8952	0.563812	-1.85	0.65

Source : Authors' compilation

6.3.1.5 Correlation matrix

This section of the analysis looks at how the correlation test can be used to explain how the variables selected are statistically related. The correlation matrix in Table 6.5 reveals the relationships between the variables as the main purpose of the test is to determine the potential existence of multicollinearity, and the results do not indicate the presence of one between the selected variables.

Table 6.5: Correlation Matrix

	LFDIL	LGDPGR	LEXC	LINT	LFOREX	LRGDP	LHDI	LNRR	LINF	LLAB	LMOB	OIL	TRD	GOV	POL
LFDIL	1														
LGDPGR	0.2074	1													
LEXC	-0.2128	-0.1832	1												
LINT	0.2597	-0.1288	-0.306	1											
LFOREX	0.7398	0.1933	-0.3137	0.2586	1										
LRGDP	0.323	-0.1184	-0.0048	0.4467	0.3727	1									
LHDI	0.3894	-0.1266	-0.1618	0.6946	0.4643	0.8372	1								
LNRR	0.3148	0.0835	0.2546	-0.4309	0.2677	0.0654	-0.1926	1							
LINF	0.0564	0.1576	-0.2867	-0.2453	0.1735	-0.4037	-0.3973	0.1699	1						
LLAB	0.2064	0.2259	-0.2179	0.0315	0.3965	-0.3458	-0.2466	0.0379	0.2652	1					
LMOB	0.2551	-0.11	-0.1053	0.5228	0.2574	0.2428	0.4517	-0.025	-0.2035	0.0027	1				
OIL	0.3385	-0.1799	0.1209	0.0713	0.3797	0.332	0.1866	0.3756	-0.0506	0.0501	0.0387				
TRD	0.1373	0.0184	-0.1166	0.0583	0.1922	0.4663	0.2849	0.1616	-0.1403	-0.0126	0.1558	0.1764	1		
GOV	0.2225	0.1502	-0.6982	0.5683	0.3526	0.1713	0.461	-0.488	0.064	0.3019	0.3732	-0.1951	0.1222	1	
POL	0.0916	-0.0127	-0.3958	0.5111	0.1043	0.6951	0.6713	-0.2466	-0.2994	-0.2471	0.3819	0.059	0.5504	0.5631	1

6.3.2 Models and Estimation techniques

The study makes use of annual data for the period 1996 to 2014 and modelling of a panel of 47 SSA countries divided into four regions namely West, East, Central and Southern Africa. The grouping of SSA countries based on region is to analyse and model the impact of inward FDI on economic development. Secondly, the study makes use of both static and dynamic models to establish the relationship between the various factors that determine FDI. The static model estimators used include the Pooled Ordinary Least Squares (POLS) and Random Effects (RE) estimators. The Fixed Effects (FE) estimator fails to recognise heterogeneities across panels while the RE estimators are capable of recognising panel heterogeneities based on the Hausman specification test. On the other hand, for dynamic estimators, the system Generalized Method of Moments (sys-GMM) was used but rejected based on the Hausman specification test.

6.3.2.1 Panel data technique

The use of panel data in the estimation of econometric models has gained so much popularity because of its benefits in quantitative research (Hsiao, 2007). Panel data, also referred to as a longitudinal technique, is a distinct way of pooling observations that are at least in two dimensions; that is in a cross-section dimension of the entities (firms, individuals, households and countries etc.) defined by *i* measured in time-series dimension defined by *t* (Davis, 2002; Baltagi, 2013). There are two types, micro panels which have many cross-sectional observations, N over a short-time period, i.e., between 2 - 20 years. Secondly, there are macro panels that deal with a small number of countries, N over a large period T, i.e., between 20 -60 years. However, whether it is micro or macro panel data they can either be balanced or unbalanced panel data. Typically, the benefits of using panel data is that it helps the researcher to get additional information about the data, and it allows for the control of individual heterogeneity and variability with more degrees of freedom. The study also has an advantage of less collinearity among the variables as well as the efficiency of its econometric values (Hsiao et.al., 1995) unlike a time series or cross section data where it runs the risk of achieving a bias result by not controlling for heterogeneity. Furthermore, panel data, unlike cross sectional or time series analysis, is able to control for time invariant and cross-sectional variables. Lastly, panel data is able to construct and test complex behavioural theories, control for the impact of missing

variables and expose dynamic relationships (Heckman et al., 1998, Nerlove, 2002; Hsiao et al., 2006).

To successfully analyse the impact of various factors on FDI in sub-Saharan Africa, the model below was constructed:

$$\mathrm{LFDIL} = \mathrm{f}(\mathrm{X}) \qquad (1)$$

$$\mathrm{LFDIL_{it}} = \beta_0 + \beta_i \mathrm{X_{it}} + \mu_{it} \qquad (2)$$

Where $\mathrm{X_{it}}$ represents all the explanatory variables such as LFDIL, LGDPGR, LEXC, LINT, LFOREX, LRGDP, LHDI, LNRR, LINF, LLAB, LMOB, OIL, TRD, GOV and POL; μ_{it}= Error term; and β_i = the parameter for the estimation of all the explanatory variables.

Since the variables were collected for SSA over a certain period of time, the collected data is panel data; thus, this study incorporates techniques to analyse a model with panel data; that is, pooled Ordinary Least Square (pooled-OLS) or Least Square Dummy Variable (LSDV) regression estimation, Fixed Effect estimation (FE), and Random Effect estimation (RE). As defined by Kennedy (2008), panel data has an observation on the same elements or units in different time periods. There are multiple units (e.g., individual, firms, state, countries, etc.) in the panel data, each of which has a repeated measurement at different time periods (e.g., days, weeks, months, quarters, and years). Panel data model may be static or dynamic. But this study only considered the static model. Static panel data regressions as defined by Baltagi and Cameron and Trivedi (Baltagi, 2008; Cameron and Trivedi, 2009) allow for the individual study behaviour to take place in a repetitive environment. If Y is the variable of interest (i.e., dependent variable), then the static panel data models are described by

$$\mathrm{Y_{it}} = \alpha_i + \mathrm{X_{it}}\beta_i + \mathrm{V_{it}}, \qquad (3)$$

$$\mathrm{i} = 1, \dots, \mathrm{N(individuals)}, \ \mathrm{t} = 1, \dots, \mathrm{T(time)}$$

Where: Y_{it} is the dependent variable of individual *i* in time *t*, X_{it} is the *it*-th observation on *k* explanatory variables, β_i is the parameter vector, α_i denotes the unobserved individual-specific time-invariant effects, and the residual disturbance term V_{it} has

zero mean, constant variance, and is uncorrelated across time and individuals. Depending on the nature of α_i, the static model can be grouped into a Fixed and Random Effect Model. Fixed effect model assumes that α_i are an individual fixed parameter that may or may not influence the predictor variables while the random effect model assumes that α_i are random variables that are uncorrelated with the explanatory or predictor variables included in the model (Oscar, 2007). Unlike the fixed effect model, the random effects model has assumed the variation across entities to be random, and the crucial distinction between the random and fixed effects model is whether the unobserved entity effect embodies elements that are correlated with the regressors in the model, and not whether these effects are stochastic or not (Green, 2008, p.183).

6.3.2.2 The model

Pooled OLS is a normal linear regression without the fixed or random effect model properties, and the model estimates the intercept and slopes of regressors without taking into account the individual (SSA region in this case) and/or time effects. Its basic scheme is to test the aforementioned explanatory variables on FDI. The model takes the form of equation 4, that is

$$\log \mathrm{FDI}_{it} = \beta_0 + \beta_i X_{it} + \mu_{it} \qquad (4)$$

Where X_{it} represents all the explanatory variables such as LFDIL, LGDPGR, LEXC, LINT, LFOREX, LRGDP, LHDI, LNRR, LINF, LLAB, LMOB, OIL, TRD, GOV and POL; μ_{it}= Error term; and β_i = the parameter for estimation of all the explanatory variables.

But if only the country (four regions of SSA in this case) effect is taken into account, then there will be an introduction of dummy variables into the regression; hence, the pooled OLS becomes the least squared dummy variables (LSDV). Thus, equation 4 becomes

$$\log \mathrm{FDI}_{it} = \beta_0 + \beta_i X_{it} + \mu_{it} + \log \gamma_i (\mathrm{dummy})_{n-1} + \mu_{it} \qquad (5)$$

Where X_{it} represents all the explanatory variables such as LFDIL, LGDPGR, LEXC, LINT, LFOREX, LRGDP, LHDI, LNRR, LINF, LLAB, LMOB, OIL, TRD, GOV and POL; γ_i are the coefficient of n – 1 dummy entity included in the model μ_{it}= Error

term; and β_i = the parameter for estimation of all the explanatory variables. Equation 5 is used to evaluate the effects of the sub-divided region in SSA (West Africa, East Africa, Southern Africa and Central Africa) on FDI performance.

Fixed effect model, without dummy variables, only examined the entity differences in the intercept. It does not take into account the error component across the entity (country). It was designed to study the actual courses of changes within an individual or entity. The structured model then follows:

$$\log FDI_{it} = \beta_0 + \beta_i X_{it} + \mu_{it} \quad (6)$$

Where X_{it} represents all the explanatory variables such as LFDIL, LGDPGR, LEXC, LINT, LFOREX, LRGDP, LHDI, LNRR, LINF, LLAB, LMOB, OIL, TRD, GOV and POL, and μ_{it} is the error term.

The Random effects model examines how the entity and/or time influences the error variances, as such the structured model includes both the between error (individual error) and the within entity error (time component error).

$$\log FDI_{it} = \beta_0 + \beta_i X_{it} + u_{it} + \varepsilon_{it} \quad (7)$$

Where X_{it} represents all the explanatory variables such as LFDIL, LGDPGR, LEXC, LINT, LFOREX, LRGDP, LHDI, LNRR, LINF, LLAB, LMOB, OIL, TRD, GOV and POL, u_{it} is the individual error term and ε_{it} is the time component error term.

Generalized Methods of Moments is commonly used to estimate panel data especially for large data set, where N > T.

$$\log FDI_{i,t} = \beta_t X'_{i,t} + \varepsilon_{i,t} \quad (8)$$

where $X_{i,t}$ is a column vector of K and represents all the explanatory variables such as LFDIL, LGDPGR, LEXC, LINT, LFOREX, LRGDP, LHDI, LNRR, LINF, LLAB, LMOB, OIL, TRD, GOV and POL, and $\varepsilon_{i,t}$ is the residual component of county i at period t. Also, β_t in this equation is a column vector of K coefficients with the suffix on β indicating the coefficient are time varying.

6.3.3 Estimation and Discussion of Results

This section will discuss results derived from the empirical analysis of determinants of FDI in the region of SSA and that of the 4 sub-regions individually. This research has found the use of panel data to be of immense benefit as discussed in Wooldridge (2002) and Baltagi (2005). Hence the study first makes use of pooled OLS which is then applied to the fixed effects and random effects estimation. The strategy is to estimate the trend model and assign a dummy variable in the analysis as the model specifies in equation 8.

$$LFDI_{it} = \alpha_0 + \beta_1 X_{it} + \varepsilon_{it} \quad (9)$$

Where $LFDI_{it}$ = dependent variable, X_{it} = control variables and ε_{it}=stochastic.

Furthermore, the study also makes use of other basic models for the analysis of the panel data and these include the fixed and random effects model presenting consistent estimators in the analysis of the sub-regions. Also, when considering the explanatory variables in SSA, apart from using pooled OLS, fixed effects and random effects model for the analysis, the one step Generalized Method of Moments (GMM) estimation was employed because it is normal to have a panel data set with a few time periods and a large number of cross-sections. In this research, the time variant has been removed on the cross section. Table 6.6 presents the LSDV estimates for the subregions. The results are significant and consistent. GDP growth rate has no impact on FDI across the four regions. While real GDP is associated with a reduction in FDI flows in East and Southern Africa. Similarly, real GDP leads to a falling of FDI in central and West Africa, but the impact is insignificant. Exchange rate changes bring about a contraction in FDI in East Africa, while it appears to be responsible for no significant changes in FDI in Central, West and Southern Africa. For internet subscriptions, it is likely to cause a reduction in FDI across all four regions except when this impact is not significant. As Foreign exchange increases, FDI will increase in all regions but the increase is only significant for East Africa. This means that FOREX has a significant and positive impact on FDI flows in East Africa only. The impact of HDI on FDI flows is positive as expected for East, West and Southern Africa. It is expected that the quality of human capital in an economy will attract a good amount of FDI. But the impact is not significant for Central Africa. Natural resource rent is responsible for high FDI flows in East Africa only, and is

insignificant in the other three regions. While inflation leads to a fall in FDI flows in East and Central Africa only and is having no significant impact in the other regions. Labour force has no significant impact on FDI in all four regions. Consequently, mobile telecom subscription induces a high amount of FDI in East Africa as expected. But mobile telecom has no significant impact on the investments in the other regions. While oil reserves account for a high amount of FDI in West Africa, it does not in the other regions where it registers no significant impact. Trade openness does not significantly determine changes in FDI in all four regions. However, government effectiveness and political stability have a positive impact on FDI in Eastern Africa only. This means that the quality of governance matters in explaining the level of foreign investments in the region. However, both have no impact on FDI in other regions.

Table 6.6: LSDV Results for the Regions. Dependent Variable = LFDIL

Variables	East Africa	Central Africa	West Africa	Southern Africa
LGDPGR	0.023	-(1.020)	-(0.060)	0.113
	-(0.199)	-(0.199)	-(0.216)	-(0.185)
LEXC	-1.373***	-(7.126)	0.138	-(0.732)
	-(0.285)	-(1.991)	-(0.252)	-(2.554)
LINT	-(0.212)	-(1.506)	-(0.352)	-(0.636)
	-(0.134)	-(0.339)	-(0.311)	-(0.287)
LFOREX	2.499***	0.235	0.180	1.304
	-(0.589)	-(0.502)	-(0.636)	-(0.774)
LRGDP	-7.340***	-(0.542)	-(0.807)	-53.04*
	-(1.453)	-(0.854)	-(0.646)	-(16.760)
LHDI	22.49**	-(2.244)	14.79*	70.19*
	-(8.182)	-(4.621)	-(7.240)	-(24.890)
LNRR	1.060***	-(0.350)	0.591	-(3.152)
	-(0.260)	-(0.381)	-(0.713)	-(1.646)

LINF	-1.554***	-0.397*	-(0.034)	
	-(0.364)	-(0.056)	-(0.142)	
LLAB	-(0.174)	-(6.149)	-(2.318)	
	-(3.005)	-(5.358)	-(6.066)	
LMOB	2.149**	2.683	1.728	
	-(0.861)	-(0.638)	-(1.084)	
OIL	-	-(0.653)	1.452*	
		-(0.414)	-(0.715)	
TRD	-(0.004)	-(0.016)	0.011	
	-(0.010)	-(0.008)	-(0.020)	
GOV	-2.011*	2.451	1.070	
	-(1.024)	-(0.656)	-(1.222)	
POL	1.747***	1.903	-(1.502)	
	-(0.388)	-(0.477)	-(0.979)	
Year Dummies	yes	yes	yes	
Constant	72.06***	68.08	22.72	436.3**
	-(21.3300)	-(33.23)	-(29.81)	-(136.8000)
Observations	50	28	45	11
R-squared	0.9380	1.00	0.94	0.9400

Figures in parenthesis are standard errors.

* Statistically at 10%, **Statistically significant at 5%, *** Statistically significant at 1%,.

Table 6.7: Fixed Effect Results for the Regions = LFDIL

Variables	East Africa	Central Africa	West Africa	Southern Africa
LGDPGR	0.0602	-0.0512	0.0887	0.0849
	-0.125	-0.115	-0.245	-0.135
LEXC	-0.53	-0.704	1.28	0.513
	-3.027	-3.133	-1.609	-0.565
LINT	-0.323	-0.966**	0.0635	
	-0.227	-0.227	-0.209	
LFOREX	3.469***	0.037	-1.453**	
	-0.624	-0.734	-0.395	
LRGDP	-8.497**	1.883	8.199**	
	-3.111	-3.477	-2.317	
LHDI	31.78	1.185	-48.54**	
	-17.7	-20.12	-11.06	
LNRR	-0.385	-0.49	0.379	
	-0.227	-1.064	-0.671	
LINF	-1.145**	-0.0619	-0.422**	
	-0.389	-0.199	-0.112	
LLAB	-2.268	9.445	-35.45	
	-7.884	-10.76	-25.29	
LMOB	3.907*	1.819	0.515	
	-1.704	-0.989	-0.956	
OIL		-0.319	-1.252	
		-1.102	-1.141	
TRD	-0.00311	-0.0331	0.0455**	
	-0.0149	-0.0233	-0.0115	
GOV	-1.165	0.0363	1.094	

	-1.767	-2.099	-0.844	
POL	1.177**	0.16	-0.228	
	-0.419	-1.006	-0.384	
Year Dummies	yes	yes	yes	
Constant	90.07	-48.09	46.29	3.921*
	-47.14	-72.91	-96.79	-1.836
Observations	50	28	45	112
R-squared	0.837	0.874	0.876	0.019
Number of country id	6	5	5	8

Figures in parenthesis are standard errors.

* Statistically at 10%, **Statistically significant at 5%, *** Statistically significant at 1%,.

Source: Author's compilation

Table 6.8. Random effects Results for regions = LFDIL

Variables	East Africa	Central Africa	West Africa	Southern Africa
LGDPGR	0.0229	-0.063	-0.0602	-0.0625
	-0.165	-0.109	-0.278	-0.107
LEXC	-1.373***	-0.908	0.138	-0.0994
	-0.19	-2.085	-0.169	-0.564
LINT	-0.212*	-0.848***	-0.352**	
	-0.122	-0.179	-0.155	
LFOREX	2.499***	0.154	0.180**	
	-0.544	-0.585	-0.0865	
LRGDP	-7.340***	3.208	-0.807	
	-1.325	-1.975	-0.677	
LHDI	22.49***	-3.519	14.79***	

	-7.053	-9.97	-3.231	
LNRR	1.060***	-0.752	0.591**	
	-0.198	-1.006	-0.237	
LINF	-1.554***	-0.0608	-0.034	
	-0.223	-0.154	-0.191	
LLAB	-0.174	7.194*	-2.318	
	-3.088	-4.317	-6.193	
LMOB	2.149*	2.054***	1.728**	
	-1.27	-0.599	-0.788	
OIL		0.039	1.452***	
TRD	-0.00442	-0.0302**	0.0112	
	-0.00712	-0.0151	-0.0228	
GOV	-2.011*	-0.694	1.070**	
	-1.039	-1.405	-0.453	
POL	1.747***	-0.00341	-1.502***	
	-0.489	-1.008	-0.452	
Year Dummies	yes	yes	yes	
Constant	72.06***	-52.77	20.19	5.944***
	-22.6	-39.59	-33.05	-1.406
Observations	50	28	45	112
Number of country id	6	5	5	8

Figures in parenthesis are standard errors.

*Statistically at 10%, **Statistically significant at 5%, *** Statistically significant at 1%,

Source; Authors' compilation

6.3.4 Empirical findings

This section presents the analysis of the main model across different techniques as reported in Table 6.9 with a log of FDI as the dependent variable and the studied explanatory or independent variables. The dependent variables were to assess the principal factors that influence inward FDI in SSA. In testing for H_1, this study found the impact of inward FDI flows on market size (as proxied by two variables) and vice versa to vary across the four techniques. Firstly, GDP growth rate had a positive impact on inward FDI flows across all estimating techniques (pooled OLS, FE, RE, and system-GMM) but only statically significant at 90 percent confidence level with a coefficient of 0.26 under pooled OLS. This result indicates a 26 percent increase in inward FDI flow due to a 1 percent increase in economic output. The implication is that foreign investors are attracted to committing their investment efforts in the region when they are certain that there is a chance for high growth in economic activities, which is similar to the findings of Rasiah et al., (2017). Similarly, foreign exchange and inward FDI flows are significant and positively related at a 99 percent level of significance with a coefficient of 1.46, 0.98 and 1.40 using pooled OLS, FE and RE techniques respectively, while it is positive and insignificant based on system-GMM technique. The implication is that a 1 percent increase in foreign exchange is associated with an increase in inward FDI flow into the region of SSA region by 1.46 percent, 0.98 percent, and 1.40 percent respectively which signifies a more than proportional increase in FDI. In addition, foreign exchange reserves of a country often serve as a signal to the strength of the economy to withstand exchange rate shocks which often hits the economy of several countries within the region of SSA As such, a strong FOREX reserve comes as a good signal to foreign investors. Therefore, H_1 is accepted. However, the analysis found real GDP to have a positive influence on inward FDI flows and vice-versa using FE and GMM techniques but statistically significant at 99 percent confidence level with a coefficient of 1.00 adopting one-step GMM technique. Whereas the influence of real GDP on inward FDI flows was negative when pooled OLS or RE techniques are adopted and statistically significant at 95 percent and 90 percent confidence level with a coefficient value of -0.86 and -0.67 for pooled OLS and RE techniques respectively. The implication is that real GDP has a positive as well as negative impact on inward FDI flows in SSA. In addition, it could also lead to a rise in FDI by up to 1 percent according to the GMM estimates which are as expected as a higher income earned

by the citizens of a country boosts economic activities including the welcoming of new foreign businesses into the economy. These findings are in agreement with the study by Buckley et al. (2007). To test ***H2***, the study looked at the impact of inward FDI flows on exchange rate and vice-versa, and the findings across all techniques is that exchange rate has a negative impact on FDI inflows to the region of SSA, also was found to be statistically insignificant which is similar to the findings of Ajayi (2006). It then implies that an increase in FDI inflow to the region of SSA is encouraged by a reduced exchange rate. Therefore, ***H2*** is accepted.

H3 was to test the impact of inward FDI flows on natural resources and vice versa the findings are that natural resource rents as well as oil reserves, which were used as proxies, had a negative insignificant impact on inward FDI flows in the region of SSA; hence, ***H3*** was not accepted. On the other hand, ***H4*** was to test for the impact of inward FDI flows on infrastructure and vice versa, as proxied by mobile telecom subscribers, and was found to be significant at 99 percent confidence level with a coefficient of -1.3 while having a negative effect on inward FDI flows based on pooled OLS and appeared to be insignificant in both Fixed and Random effects. This result was not expected as mobile telecom usage should lead to an increase in inward FDI flows. Therefore, H_4 is not accepted. However, when internet subscribers is used as a proxy for infrastructure the findings was significant at 95 percent confidence level with a coefficient of 0.28 and 0.36 based on pooled OLS and RE respectively. Therefore, an increase of inward FDI by 1 percent will result in an increase of internet subscribers by 28 percent and 36 percent based on the two estimators. Hence, ***H4*** is accepted.

H5 was to test for human capital, proxied by labour participation, and its impact on inward FDI flows was found to be negative and statistically significant at 99 percent confidence level with a coefficient of -8.52 and -6.63 based on pooled OLS and RE estimators respectively and 95 percent confidence level with a confident of -10.36 based on FE estimator. This entails that the quality of labour available in SSA adversely affects inward FDI flows which is in line with the study by Bartels et al. (2009). Specifically, a 1 percent rise in labour force will lead to a reduction in inward FDI flows by up to 10.36 percent, meaning it is highly elastic. Therefore, ***H5*** is not accepted. Furthermore, the human development index, though not statistically significant, contributes to inward FDI flows based on pooled OLS and Fixed effects

but had an adverse effect based on Random effects. It implies that a 1 percent increase will result in a 2 percent increase. Therefore, the well-being of citizens in the region of SSA contributes to an increase in inward FDI flow.

H_6 was to test the impact of inward FDI flow on trade openness and finding is it had a positive impact and is 95 percent statistically significant based on RE, while being statistically insignificant based on pooled OLS and FE. Therefore, ***H_6*** is accepted. This illustrates the fact that the more a country in the region is open to the global economy the more inward FDI flow is witnessed in the region of SSA. This could be explained by the fact that import demand for some foreign products often leads to the establishment of manufacturing plants in the consuming country which boosts FDI inflows and agrees with the study of Pradhan (2017). **H_7** was to test for the impact of inward FDI flows on inflation and the findings are negative and statistically insignificant to inward FDI flow in all three techniques. This implies that an increase in risk or a perceived risk adversely affects investments in SSA, and that ends up affecting inward FDI flows. Therefore, **H_7** is not accepted. This is supported by the study of Trevino and Mixon (2004). The quality of institutions represented by political stability has a positive impact on FDI in SSA. This explains the fact that foreign investments respond to the political environment in Sub-Saharan Africa which will ensure a smooth running of the business without the encounter of violence or crisis related to leadership changes. On the other hand, government effectiveness, which is also a proxy for the quality of institutions, appears to have no impact on FDI inflows in the region.

In summary, the three variables, human development index, income from natural resources and inflation, do not significantly predict FDI across the four techniques. Also, labour force participation rate and mobile phone subscribers have negative and significant impact on FDI. Still on the table, the coefficient of oil reserves (negative), political stability (negative), and government efficiency (negative) do not significantly measure the effects of FDI on the SSA region, whereas trade openness had a significant and positive impact on FDI under the RE model with a coefficient of 0.00731 at the 95 percent significance level. This value indicates that the small increase by 7 percent in FDI is resulting from a unit increase in trade flows of the region.

Furthermore, in Table 6.9, the specific effects of the SSA region were captured under four subcategories, namely East Africa (reference category), Central Africa, West Africa, and Southern Africa, and the effects indicate that Central Africa, and West Africa have 14.59 percent and 19.54 percent more improvement in FDI when compared to East Africa, while Southern Africa has 34.6 percent less improvement in FDI when compared to East Africa. Also, the goodness-of-fit value indicates that 79.1 percent and 36.0 percent variations in FDI can be explained by all of the predictor variables. In addition, under a post estimation analysis, the p-value (>0.05) of the Hausman test is an indication that the RE model is the best suitable model between FE and RE. Hence, the result obtained from FE and pooled OLS can be used for inferences.

Table 6.9: Results for the main model across all techniques. Dependent Variable = LFDIL

Variables	Pooled OLS	Fixed Effects	Random Effects	One step GMM	Two step GMM
LGDPGR	0.260*	0.117	0.201	0.000	1.812
	-(0.148)	-(0.087)	-(0.148)	-(0.000)	-(1.224)
LEXC	-(0.076)	-(0.812)	`	0.000	-(0.580)
	-(0.075)	-(0.527)	-(0.073)	-(0.000)	-(0.688)
LINT	0.280**	-(0.159)	0.363**	1.39e-09**	-(0.554)
	-(0.138)	-(0.215)	-(0.146)	-(0.000)	-(1.271)
LFOREX	1.459***	0.983***	1.397***	0.000	6.133
	-(0.215)	-(0.221)	-(0.374)	-(0.000)	-(5.528)
LRGDP	-0.860**	2.686	-0.670*	1.000***	3.242
	-(0.328)	-(1.560)	-(0.375)	-(0.000)	-(4.386)
LHDI	1.032	1.947	-(0.230)	-3.33e-08**	-(37.080)
	-(2.652)	-(4.757)	-(2.785)	-(0.000)	-(31.260)
LNRR	-(0.000)	-(0.684)	0.050	0.000	-(9.569)

	-(0.177)	-(0.452)	-(0.254)	-(0.000)	-(10.300)
LINF	-(0.300)	-(0.076)	-(0.287)	-(0.000)	2.346
	-(0.189)	-(0.105)	-(0.227)	-(0.000)	-(2.171)
LLAB	-8.517***	-10.36**	-6.631***	-3.70e-08**	-(11.120)
	-(1.878)	-(4.695)	-(2.379)	-(0.000)	-(10.710)
LMOB	-1.272***	0.261	-(0.448)	-(0.000)	3.111
	-(0.421)	-(0.619)	-(0.306)	-(0.000)	-(3.311)
OIL	-(0.007)	-(0.049)	0.007	0.000	10.410
	-(0.103)	-(0.284)	-(0.085)	-(0.000)	-(14.760)
TRD	0.006	0.005	0.00731**	0.000	0.039
	-(0.004)	-(0.013)	-(0.004)	0.000	-(0.036)
GOV	0.110	0.982	-(0.026)	9.45e-09*	-(8.203)
	-(0.493)	-(0.671)	-(0.584)	-(0.000)	-(8.519)
POL	-(0.281)	-(0.226)	-(0.603)	-(0.000)	-(1.731)
	-(0.360)	-(0.672)	-(0.474)	-(0.000)	-(3.245)
Central Africa	1.459**				
	-(0.618)				
West Africa	1.954***				
	-(0.303)				
Southern Africa	-3.456***				
	-(1.058)				
Year Dummies	Yes	Yes	Yes		
L.LFDIL				-1.36e-09**	0.00998
				-5.98E-10	-0.523
L2.LFDIL				1.36E-09	-1.68
				-8.41E-10	-1.782
Constant	51.45***	33.18	38.99***	1.30e-07**	0

	-9.289	-24.42	-12.43	-4.70E-08	0
Observations	129	129	129	115	110
R-squared	0.791	0.36			
Number of country id		17	17	17	16
	POST ESTIMATION				
Hansen (P value)				0	0.16
AR (2) P value				0.003	0.454
Sargan (P Value)				0	0.053
Hausman (P value)		0.2111			

Figures in parenthesis are standard errors.

* Statistically at 10%, **Statistically significant at 5%, *** Statistically significant at 1%,.

Source; Authors' compilation

6.4 Conclusion

FDI constitutes an important part of economic activities in Sub-Saharan Africa and contributes to employment creation and revenue for the governments in the region. However, a number of factors are responsible for the level of FDI that flow into the region over time. Past studies have been conducted on variations of such determinants and how they influence FDI in the region. This study differs by putting together different categories of FDI determinants covering market seeking, resource seeking efficiency seeking factors. The study makes use of data covering the period 2004 to 2018 for 47 Sub-Saharan Africa countries and adopts the Pooled OLS, Fixed and Random Effects estimators and the system GMM. The findings of the study reveal that GDP growth rate, internet subscription, foreign exchange, trade openness and government effectiveness are drivers of FDI on the region. While labour force and mobile telecom subscription, exchange rate, inflation, and political stability have a negative impact on FDI in the region. In addition, human capital development had a positive influence, Exchange rate, inflation, and political stability on the other had had a negative but insignificant impact on FDI.

The study makes a few policy recommendations. Firstly, it suggests that the governments of Sub-Saharan countries should work towards improving the business environment by ensuring that there is effective governance in the form of efficient public services, as this will support the smooth running of business. Secondly, as trade openness has been capable of attracting more FDI in the region, it is advised that various countries in the region should remove barriers to international trade such as tariffs and embargoes on imports.

This study is limited in that it is not suitable for policy recommendations in individual countries. Hence, it suggests that individual country studies be carried out to serve policy purposes in various Sub-Saharan countries. This is because of limited data to analyse some variables and SSA countries being very diverse, Future studies may also consider investigating a non-linear relationship among the factors that determine FDI in the regions.

CHAPTER SEVEN

FIRM PERFORMANCE IN SUB-SAHARA AFRICA

DATA, METHODOLOGY AND RESULTS

7.1 Introduction

This chapter examines the impact of foreign ownership on the performance of firms in Sub-Sahara Africa with emphasis on productivity, profitability, and their export potential. The analysis in this chapter is influenced by the discussion in chapter four, which informs the researcher on the need to examine how the ownership structure impacts on the performance of foreign owned firms in SSA. The empirical analysis is carried out using the cross-section OLS (least square dummy variable) technique and propensity score matching on 11,695 firms spread across 39 SSA countries over a period of 2001 to 2016. Furthermore, the analysis will use some firm specifics, such as age of firm, infrastructure, number of employees and bureaucracy, to ascertain the performance of firms that have less than 50 percent foreign ownership, on one hand, and firms with 50 percent foreign ownership or more on the other. Detailed explanation of the hypothesis tested, methodology used, and variables employed will all be described before the assessment is done. The findings show that foreign ownership positively influences firm performance.

7.2 Firm performance

The definition of firm performance varies considerably; however, its concise definitions can be benchmarked in terms of financial performance, management accounting indicators or by using the perceived performance approach. Financial performance can be measured as profitability, percentage of sale, return on asset, capital employed, earnings per share, or return on investments (Grossman, 2000; Hsu et al.2007), whereas management accounting indicators are measured as shrinkage (defects and stock reduction), workers renumeration (ratio of workers renumeration to sales), and productivity (ratio of payroll expenditures to output) (Wright et al., 2005). Similarly, the use of the “perceived” performance approach, which is also regarded as subjective performance, is measured based on the opinions of the senior management. Whereas this study defines it as (i) profitability

(profit per worker), (ii) productivity (output per worker) and (iii) export propensity (Selvarajan, 2007).

7.2.1 Firm specific features

Foreign owned firms (MNEs) are responsible for most of the technological development in the world today. Similarly, of all the expenditure done by the privately linked institutions that are involved in research and development (R&D) globally, 80 percent of it can be traced to MNEs (Dunning, 1992). These foreign owned firms require several firm-specific features which are giving them a significant ownership advantage over domestic firms, of which the scholars of economics and international business have suggested in several studies. These firm-specific features of MNEs include firm-size, capital, patents, sales growth, marketing strategies, technologies, and management skills, which are required to conduct economic activities in a host country (Dunning 1997; Helpman et al. 2004; Kogan and Tian, 2012).

In this study, the firm specific features are listed as the following:

1. **Age of firm:** The age of a firm is considered as years of the firm from its date of establishment. However, in some studies, it is measured as the age before it became foreign owned, i.e., before the increase in capital through FDI. Firm age is an important characteristic of any firm because their ownership structure, strategies, and processes have an impact on how they operate (Autio et al.; 2000; Turner et al.; 2013). While the younger firms struggle with getting resources, the older ones do not because of their high level of acceptability. Furthermore, while the young firms tend to be more open to organisational and strategic change, the older ones tend to be more rigid because of the high levels of organisation (Ruef and Scott, 1998; Barron et al., 1994; Le Mens et al., 2015; Carr et al., 2010). In fact, there are prior studies that have looked at the causal relationship between the degree of foreign ownership and firm age, as its attributes can affect the locational choices of FDI especially when related to cultural and geographic distances. For instance, Vu et al. (2019), in their study of 693 listed firms in Vietnam, suggested that younger firms were more dynamic and able to adapt to change in business environment and law, whereas Seck (2016), in the study of the

firms' response to trade facilitation, found out that firms, which are older, have a tendency to import more and export less than their younger counterparts.

2. **Firm size:** The size of a firm plays a vital role in its performance, and it is measured using the total number of employees in a firm. Empirically, it has been found to have a connection with a firms' capital structure in such a way that in seeking external financing, the size of a firm gives it leverage over its competitors (Kurshev and Strebulev, 2015). It has also been reviewed that firm size has a correlation with its capacity to absorb spillovers, with larger domestic firms being in a position to compete effectively with MNEs and to replicate their ways (Crespo and Fontoura, 2007; Jordaan, 2011).
3. **Export propensity** – This is a measure of a firm's ability to compete in the world economy (He et al., 2013). It is a percentage of Direct and Indirect exports. In the literature, a larger volume of exports and a higher level of productivity are characteristically associated with larger firms (Bonaccorsi, 1992). Furthermore, foreign ownership improves exports and is providing support in promoting global trade by supporting financial channels (Manova et al., 2015).
4. **Infrastructure** – According to Dunning (1977), infrastructure, amongst other variables, is a locational advantage which makes a country attractive to MNEs. Dunning (2001) further argues that firms tend to site most of their value-added activities in the locations that are the most profitable when considering the quality of the infrastructure. Narula and Dunning (2000) further argue that the locational advantage, created because of the availability of natural resources, institutions and infrastructure, informs the movement of MNEs. In this study, the aggregate of constraints in Transport, Electricity, and Telecommunication (categorised from 0-4 with 4 being severe) will be used to determine infrastructure constraint.
5. **Bureaucracy-** The quality of bureaucracy in any country is somewhat related to the strength of its various instructions located within that country. Busse and Hefeker (2007) argue that low inflows of FDI to a country were due to issues relating to internal and external conflict, ethnic tensions, corruption, law etc. In the literature, bureaucracy has been found to affect the inward FDI to developing countries. Kolstad & Todel (2002) suggest that stability of government, bureaucracy, and law and order did not affect inward FDI;

however, external conflict, ethnic tensions and democracy had a negative impact. This is also confirmed by Busse et al. (2007) in the study of 83 developing countries where government stability, corruption, quality of bureaucracy, conflicts, and law and order were significant determinants of inward FDI. This study utilises the aggregate of the degree of impact of customs, tax administrations, business licencing and permits. Labour regulations (categorised from 0-4 with 4 being severe) will be used to determine bureaucracy constraint.

6. **Exchange rate** - More recently, it can be shown that few studies have identified exchange rate as a microeconomic variable that has an impact on inward FDI. Cordon (1990) suggests that there is a positive relationship between exchange rate and inward FDI with the implication that a favourable exchange rate will attract investors, whereas Kyereboah et al., (2008) assert that exchange rate has a negative effect on inward FDI. Furthermore, Kosteletou and Liargowas (2000) can see no clear connection between FDI and exchange rate volatility.
7. **Number of employees** – The number of employees of a firm is dependent on the size of the firm, which also has a positive impact on knowledge transfer. Girma and Wakelin (2001), in considering the connection between size and the absorptive capacity of local firms, found that a significant number of skilled employees of small firms benefited more from productivity spillovers while those of large ones did not.
8. **Profitability** – This measures a firm's ability in the past to make returns and increase in size (Whetten, 1987; Glick et al., 2005). It is a general practice in the literature to measure performance, and, in most cases, financial performance is used to achieve that (Suchanek et al., 2014). Therefore, in this study, it will use profit per worker as a proxy for profitability, which is measured as Profit 1 divided by the number of employees in a fiscal year.
9. **Productivity** – Innovation, R & D, and investment in physical and human capital promote the development of technology that drives an increase in productivity (Mankiw et al., 1992; Romer, 1994). Therefore, countries with substantial investments in education, infrastructure and R &D tend to grow faster in technological development. Within the firm, if adequate investments are not made to improve the technical know-how, and resources are not

devoted to increasing the knowledge of managers, there will not be any growth. In this study, output per worker will be used as a proxy for productivity and it is measured as sales divided by the number of employees in a fiscal year

7.3 Summary of the assessment

For the assessment of foreign ownership, this study used the least square dummy variable (LSDV) technique on a sample of foreign owned firms in SSA. The findings have disclosed that the age of firms, state of the infrastructure, number of employees, government efficiency and the amount of foreign ownership have influenced the level of productivity and the amount of profitability of a foreign owned firm when compared to their domestic counterparts in SSA.

7.3.1 Development of hypothesis

The context for which the hypothesis was developed was based on the claim that foreign ownership influences firm performance positively. Dunning (1979) in developing the OLI theory, identifies superior performance as one of the specific advantages of foreign owned firms over their domestic counterpart because of their comparative advantage. These advantages include managerial experience, ease in moving profits and access to resources and large markets (Gelubcke, 2013; Lindemanis et al., 2019).

7.3.1.1 Foreign ownership and profitability

The financial development of a country has a significant impact on the performance of its firms, and, as a result, their growth, constraints, and performance all have a close relationship. In the literature, foreign owned firms leverage on their access to capital to venture into large projects and acquisitions which impacts positively on the firm's ability to expand and increase in size (Glick et al., 2005; Gonzalez et al., 2007; Arnold et al., 2008). In the literature, financial performance has been used several times as a measure of performance; hence, foreign owned firms are considered to be more profitable than domestically owned firms (Suchanek et al., 2014).

H_1: Foreign ownership has a positive and significant impact on a firm's profitability.

7.3.1.2 Foreign ownership and productivity

Innovation, R & D, and investment in physical and human capital promote the development of technology that drives an increase in productivity (Mankiw et al., 1992; Romer, 1994). Therefore, the countries that have made substantial investments in education, infrastructure and R & D tend to grow faster in technological development, evidenced by the increased output in the host economy (Hamida and Gugler 2009; Pfeiffer et al., 2014).

Within the firm, if adequate investments are not made to improve technical know-how, and if resources are not devoted in order to increase the knowledge of managers, there will not be increased output. In the literature, an analysis has shown that foreign owned firms were more productive than domestically owned firms (Yudaeva et al., 2003; Bragunisky et al., 2015).

H_2: Foreign ownership has a positive and significant impact on a firm's productivity.

7.3.1.3 Foreign ownership and export

The location of investment is vital when an investor is taking a decision to engage in local production, or making use of exports to reach foreign markets, which, in the theory, Dunning's (1977) OLI paradigm has had a lot of influence on. In general, foreign owned firms tend to export more than their counterparts that are domestically owned as they generate more output, which encourages them to export a large part because of the global connection (Helpman et al., 2004; Kneller and Pisu, 2004).

H_3: Foreign ownership has a positive and significant impact on a firm's export.

7.3.2 Research methodology

The information in this section provides details of the research design adopted in the investigation of how foreign ownership influences firm performance in SSA. The sample countries will be outlined, variables described, preliminary data analysis carried out and the model for the investigation will be described in detail and assessed.

7.3.2.1 Sample countries

The sample size for this investigation is based on available data, as firms in some countries had inadequate ones. Table 7.1 outlines the sample countries.

Table 7.1: Sample of countries

Country	Year	Country	Year	Country	Year	Country	Year
Angola	2010	Côte d'Ivoire	2016	Madagascar	2013	Senegal	2015
Benin	2016	Djibouti	2013	Malawi	2014	Sierra-Leone	2017
Botswana	2010	Eritrea	2009	Mali	2016	South-Africa	2010
Burkina Faso	2009	Ethiopia	2015	Mauritania	2014	South-Sudan	2014
Burundi	2014	Gabon	2008	Mauritius	2008	Sudan	2014
Cameroon	2011	Ghana	2014	Mozambique	2014	Swaziland	2016
Cape Verde	2009	Guinea	2016	Namibia	2014	Tanzania	2015
Chad	2016	Guinea Bissau	2005	Niger	2017	Togo	2016
Congo	2008	Kenya	2013	Nigeria	2014	Uganda	2014
Congo DRC	2013	Liberia	2017	Rwanda	2011	Zambia	2016

Source: Authors compilation

7.3.2.2 Description of variables

This study has gathered data from World Bank Enterprise Survey (WBES) as this has been used widely in the studies of economic development and international business (Jense et al., 2010; Harrison et al., 2014; Cuervo-Cazurra, 2016). Data is collected from sample countries within the region of Sub-Sahara Africa, and the identical sampling and standard survey instruments methodology (WBES, 2012) are utilised in sourcing the data. In the literature, according to Tangen (2003), the performance of any firm is viewed through various forms. For instance, Rose (1999) adopted return on assets and return on equity ratios to measure profitability, while Dhawan (2001) measured profitability as operating income to total asset. On the other hand, Ross et al., (2002) and Hintosova and Kubikova, (2016) adopted return of sales. However, this study follows the study method of Okafor (2014) who adopted profit per worker as a proxy for profitability. In addition, this study used firm-level data from WBES for the countries and years listed in Table 7.1 above.

In this study, profit per worker/employee (ppw) measures the profitability of one employee, and output/productivity per worker (opw), which identifies how the performance of an employee impacts on a firm's productivity (Bharadwaj, 2000; Okafor, 2014), will be used as the dependent variable. The reasons for adopting profit per worker/employee as a metric for measuring performance are because of its importance in strategic thinking and in comparing the operational competence/ productivity of firms within the same industry and as a proxy for the return of intangibles (Byan, 2007). Furthermore, when faced with rapidly evolving market conditions, companies, whose employees are embodied with the requisite pool of skills, will rely on their employees to predict potential issues, prevent production shutdowns, produce new products, and ensure quality (Kling, 1995).

The dependent and explanatory variables pulled from the source, to reveal firm performance, are highlighted below.

Dependent Variables

a. Productivity (log of output per worker):
b. Profitability (log of profit per worker):
c. Exports (as a percentage of total sales)

Explanatory Variables

a. Foreign (percentage ownership of foreign firms). Two categories are used to represent foreign ownership: foreign1 (0 if a firm has any foreign ownership) and foreign2 (1 if a firm has 50% or more ownership)
b. empl (number of employees)
c. agefirm (age of firm)
d. infra (infrastructure constraints)
e. bureau (bureaucracy constraints)
f. lowp (productivity – log of output per worker)
g. lppw (profitability – log of profit per worker)

To ensure uniformity, the local currency of each county was converted to USD at the official exchange rate.

Table 7.2: Description of variables

Variable	Description	Expected Outcome
Dependent		
		Positive
Productivity per worker, Log	Measures relatively the productivity per employee	
Profitability per worker, Log	Measures relatively the profitability per employee	Positive
Exports	As a percentage of total sales	Positive
Explanatory		
Foreign Ownership	Two categories (0, 1) to represent foreign ownership. Foreign1 (0 for firms with any type of foreign ownership) Foreign2 (1 for firms with 50% or more foreign ownership)	Positive
Employees	Number of employees in a fiscal year	Negative
Age of Firm	Age of firm from date of establishment	Positive
Infrastructure	Degree to constant infrastructure (Telephone, Electricity, Transport) ranges from 0 – 4	Positive
Bureaucracy	Degree to which Bureaucracy is a constraint (Customs and Trade, regulations, tax admin, tax rates, labour regulations) ranges from 0 – 4	Negative
Firm size (Dummy)	Used to determine the size of a firm as a function of the number of employees in that fiscal year	Positive
Host country (Dummy)	Used to determine country specific	Positive
Exports	As a percentage of total sales	Positive

Source : Authors compilation

Table 7.3 : Foreign owned firms in SSA countries

S/N	Country	Number of Firms	Percentage (%)	S/N	Country	Number of Firms	Percentage (%)
1	Angola	360	2.05	22	Madagascar	532	3.03
2	Benin	150	0.85	23	Malawi	524	2.98
3	Botswana	268	1.52	24	Mali	185	1.05
4	Burkina Faso	394	2.24	25	Mauritania	150	0.85
5	Burundi	157	0.89	26	Mauritius	398	2.26
6	Cameroon	361	2.05	27	Mozambique	599	3.41
7	Cape Verde	156	0.89	28	Namibia	582	3.31
8	Central African Republic	138	0.78	29	Niger	151	0.86
9	Chad	153	0.87	30	Nigeria	2,676	15.22
10	Congo	151	0.86	31	Rwanda	241	1.37
11	Côte d'Ivoire	361	2.05	32	Senegal	601	3.42
12	Djibouti	266	1.51	33	Sierra-Leone	152	0.86
13	DRC	529	3.01	34	South Africa	234	1.33
14	Eritrea	179	1.02	35	South Sudan	738	4.2
15	Ethiopia	848	4.82	36	Sudan	662	3.77
16	Gabon	179	1.02	37	Swaziland	151	0.86
17	Ghana	720	4.1	38	Tanzania	424	2.41

18	Guinea	150	0.85	39	Togo	150	0.85
19	Guinea Bissau	267	1.52	40	Uganda	762	4.33
20	Kenya	781	4.44	41	Zambia	350	1.99
21	Liberia	151	0.86	42	Zimbabwe	600	3.41

Source : WBES

Table 7.4: Correlation matrix

	ForOwn1	ForOwn2	Age of firm	Infrastructure	Bureaucracy	No of employee	Opw	Ppw
ForOwn1	1							
ForOwn2	0.907***	1						
Age of firm	0.0342***	0.0196*	1					
Infra	0.0312***	0.0326***	-0.0176*	1				
bureau	0.0766***	0.0604***	-0.00297	0.304***	1			
No of employee	0.0880***	0.0874***	0.0950***	-0.0125	-0.00961	1		
Output per worker	0.00273	0.00134	-0.00115	0.0181*	0.0226**	-0.00234	1	
Profit per worker	0.00201	0.000567	-0.00185	0.0178*	0.0225**	-0.00271	1.000** *	1

Note: * Statistically at 10%, **Statistically significant at 5%, *** Statistically significant at 1%,.

Source: Authors' compilation

Table 7.5: Descriptive statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
foreign1	17,581	0.19794	0.39846	0	1
foreign2	17,581	0.14937	0.35646	0	1
lopw	13,639	13.4057	2.9483	-4.8283	25.6161
lppw	12,697	12.9113	3.1718	2.77259	25.6161
agefirm	16,166	15.6728	14.4532	0	290
infra	16,479	1.91878	0.86518	0	4.33333
bureau	16,203	1.22474	0.83965	0	4
Noofemployee	17,581	60.8367	437.472	0	45000
exporta	17,581	0.17712	0.38178	0	1
exportb	17,581	0.08538	0.27945	0	1

Source : Author

7.3.2.3 Preliminary analysis of variables

A statistical analysis was done to test for normality of the dependent variables, productivity, profitability and export . However, It was observed that productivity per worker *(opw)* and profitability per worker *(ppw)* were not normally distributed hence a kernel density test was also done to test the dependent variables and transform them by using natural logarithms so they can follow a normal distribution as stated in both Table 7.6 and 7.7. After our regression, we reject the null hypothesis of output per worker for foreign1 because our F-test value of 435.9652 is greater than the F distribution at the 10 per cent (1.307), at 5 per cent (1.41164) and 1 per cent (1.87699). This implies that in our regression model, one or more of the independent variables is significant to the dependent variable in the regression model. Similarly, in the case of profit per worker, we also reject the null hypothesis of foreign1 because our F Test value of 193.05994 is greater than the F distribution at the 10 per cent (2.3031), at 5 per cent (2.996564) and 1 per cent (4.6071375). The same was conducted for fore output per work and profit per worker in foreign2 and the null hypothesis was rejected at 10, 5 and 1 per cent because the F Test values were greater. Sum

Ramset RESET test (regression equation specification error test), or OV (omitted variable) test is a statistical test used to examine whether or not a particular class of independent variable would add additional explanatory power to the model that is if there is any misspecification. Usually, the specific variables to be considered will be the second, third and fourth powers of age of firm, number of employees, export, infrastructure, and bureaucracy. To do this Stata generates the predicted values under this regression model as well as powers of the dependent variables to predict output per worker or profit per worker. If these powers add useful explanatory power to the model, then we should go back and consider adding powers to the independent variables. To go through all possible combinations of new powers of those independent variables, we use a stepwise regression technique, though controversial but it's one way to investigate which additional powers are the independent variables to add.

Consider a linear regression model like this;

$$logy_1 = \beta_0 + \beta_1 x_1 + \cdots . + \beta_n x_n + \varepsilon_1 \ldots\ldots\ldots\ldots\ldots\ldots 1$$

Then compared to when quadratic and interaction terms such as in equation (2)

$$logy_1 = \beta_0 + \beta_1 x_1 + \cdots . + \beta_n x_n + \beta_1 x_1^2 + \cdots + \beta_n x_n^2 + \varepsilon_1 \ldots\ldots\ldots\ldots\ldots 2$$

In our models of output per worker and profit per worker for foreign1, our analysis reveals that F statistic is 6.43 the p-value (Prob> F=0.0002) and 5.86 and p-value of 0.0003 which are all under the significance level. This implies that the independent variables do not jointly add all that much additional explanatory power to the model, so maybe its not worth considering them to the model. However, while our analysis adopted squared version of our independent variables and our model did not reveal any misspecification.

Also, in our examination, we analysed for t-test in lopw and lppw , our p-value reveals the rejection of the null hypothesis in foreign ownership (foreign1 and foreign2) and age of firm at 95% confidence interval level, infrastructure and bureaucracy as constraints at 90% confidence level with them being statistically

significant to productivity and profitability. Whereas we could not reject the null hypothesis for number of employees and export (p-value>0.1), hence statistically not-significant at 90% confidence level. By implication, increase in number of employees and export negatively affects productivity and profitability of foreign owned firms. Also, our regression with export as dependent variable, p-value < 0.05 of t-statistic for all the explanatory variables, hence we reject the null hypothesis at 95% confidence level.

Multicollinearity occurs when the explanatory variables are related to themselves such that those individual effects become obscured. The effect of this on our model is that it affects our explanatory variables when there is one by inflating the variance of the affected variables. Therefore, to test for multicollinearity, we adopt the VIF (Variance Inflation Factor) test, and the result is that all the explanatory variables for output per worker, profit per worker and export were all less than 5 as they range between 1.02 to 1.11, which implies there is no presence of multicollinearity (Gujarati, 2003).

Heteroscedasticity, this occurs when the variance of Y given X is not constant, that is as the variance of Y increases with X going to the other way, v(y/x). In general, we expect the error terms of the residuals to be homoscedastic which when violated creates a problem. In our examination , we adopt the Breusch-Pagan / Cook-Weisberg test and the idea for this is we regress the squared residuals from the original model from all the explanatory variables and test for the overall significance of the second regression. And if we find there is a joint significance then we conclude that the explanatory variables have an effect on the variance of the error term and therefore there is heteroscedasticity.

Furthermore, the Breusch-Pagan / Cook-Weisberg test for Heteroscedasticity was also done and the results from our regression shows that holding every other variable constant a unit increase of foreign ownership increases output per worker by 14.62 times and profit per worker by 14 59 times which increases to 14.66 and 14.63 times respectively for firms who are majorly foreign owned

7.3.3 Methods

Using the appropriate method in any research work is considered very important in answering the questions that need to be investigated (Adams et al. 2007). To

examine the degree of foreign ownership on a firm's performance, the Least Square Dummy Variables (LSDV) regression method and the Propensity Score Matching (PSM) are employed.

7.3.3.1 Least Square Dummy Variable (LSDV)

The essence of choosing the Least Square Dummy Variables (LSDV), as discussed in chapter six, is based on the country effects and fixed effects assumption that would be incorporated in the regression. LSDV estimator has the advantage of being able to control for unobserved heterogeneity based on the fixed effects assumption and country effects that would then be included in the regression and treated as parameters to be estimated together with the coefficients of the exogenous variables. In this study, it tests whether foreign ownership has a statistically significant impact on each of the three distinct firm-level performance variables, which include profitability, productivity and export propensity using the LSDV model below:

$$L = \alpha D+\beta F+\delta K+\varepsilon \qquad (7)$$

Where L is the performance indicator, D is foreign ownership, F is the matrix of observations for the control variables, K is the matrix of dummy variables by firm and sector, and ε is a disturbance term.

7.3.3.2 Propensity Score Matching

Propensity Score matching (PSM) is a technique developed in the 1980s with its roots in the conceptual frameworks that are dating back before the 1980s and used in the policy evaluation of the labour market only established in the late 1990s (Rubin, 1974; Rosenbaum and Rubin, 1983). It is a well-known technique that is useful for an evaluation in the absence of a random assignment, i.e., it is used to reduce the chances of selection bias – see, for example, Bryson (2002), Chang et al. (2013), Mallick et al. (2013), Borin and Mancini (2016), Bentivogli and Mirenda (2017), Boddin et al. (2017), and Akolaa (2018).

Frank et al. (2008) and Callahan et al. (2009), in their studies, have adopted this method because it provides a check on the conclusions of the regression models by reducing the risk of a bias in the sample selection. The basic strategy is to compare a sample of firms that are foreign owned with others to check any difference

statistically in a variable between them, for example profitability. However, to achieve an unbiased result, the treated and control group will have to be similar in some characteristics other than the treatment. Selecting a control group that meets these requirements is known as a matching strategy. This seeks to use non-experimental observed data to reproduce the process of experimental random sampling.

A sample matching approach takes into account three main parameters:

- the untreated and treated individuals or firms (average treatment effect for entire population)
- sample of foreign owned firms (average treatment effect for sample firms treated)
- sample of domestic firms (average treatment effect for sample of untreated firms)

The approach is to consider three main parameters for this study:

a. ATT: Average treatment effect for treated firms (these are foreign-owned firms)
b. ATNT: Average treatment effect for the non-treated firms (these are domestic-owned firms)
c. ATE: Average treatment effect in the sample population (these are the treated and non-treated firms)

PSM was included in this study to serve as a check for LSDV, because of the difficulties that are sometimes faced in the evaluation of models with heterogeneity, which is common in micro data for firm levels where the chances of sampling bias are inherent. Therefore, in this study, the PSM technique performs the function of assessing the LSDV regression models and determining the effect of foreign ownership on labour markets in SSA.

To achieve this, this study incorporates two additional outcomes (dependent variables):

a. the employment of more trained employees (considering the average years of training the firms' workforce).
b. the assumption of the firm training or not training its employees.

The relationship between the outcome variable and treatment variable is the core feature of the matching analysis. In this study, the outcome variable is taken as the sample of non-treated firms while the treatment variable represents a sample of foreign owned firms. Using the matching method, this study compared a sample of both groups to assess, for example, the existence of a significant difference in their level of productivity. This is to prevent the study producing a biased result until the control and treated groups match each other in all related characteristics other than treatment. The aim of the matching method is to use non-experimental data for experimental random sampling.

Potential model

Where Y_1 is outcome of firms with treatment, i.e. foreign-owned firms

Y_0 is outcome of firms without treatment, i.e., domestic firms

Y_1-Y_0 is fore

D_E {0,1} is treatment indicator

Y_0 if D =0 and Y_1 if D=1 is observed outcome

and X is a set of observable characteristics.

Therefore,

$$ATT \equiv E(Y_1 - Y_0 \mid D=1) = E(Y \mid D=1) - E(Y_0 \mid D=1)$$

$$ATNT \equiv E(Y_1 - Y_0 \mid D=0) = E(Y_1 \mid D=0) - E(Y \mid D=0)$$

$$ATE \equiv E(Y_1 - Y_0) = ATT.\ P(D=1) + ATNT.P(D=0)$$

Then observe participants and non-participants with the same characteristics:

$ATT: P(D=1 \mid X) < 1$

$ATNT: 0 < P(D=1 \mid X)$

$ATE: 0 < P(D=1\ X) < 1$

Then use the observed mean outcome of the non-treated to estimate the mean outcome while assuming the treated variables were not treated.

Propensity Score: $P(x) \equiv P(D=1 \mid X=x)$

Conditional treatment probability

Properties are (i); it is a balancing score

$$X \perp D \mid p(X)$$

Furthermore, PSM is a common method of estimating the causal treatment effect and it has an advantage of being able to cure selection bias as it goes beyond correlation analysis. The basic idea is to match a treatment group with a control group and measure the average difference in the outcome variable between those that participated and those who did not.

7.3.4 Empirical Results and discussions

Table 7.6 and 7.7 below presents the results of the least-squares regression analysis. The study adopted a simple baseline estimation technique to show how foreign ownership influences three levels of firm performance (productivity, profitability, and exports). The hypothesis is that foreign ownership brings about higher firm performance when compared to domestic firms in the same location. The study also considers control variables to reduce the risk of a potential omitted variable bias. All specifications include both country and firm size as dummy variables. Evaluation of the hypothesis is that foreign-ownership influences the performance of a firm; however, the degree of impact was determined by identifying firms with any level of foreign ownership (below 50 percent foreign ownership) and firms who are majorly foreign-owned (50 percent foreign ownership and above). Thus, the results were separated and presented in Table 7.6 and 7.7, and, in both tables, this study adopted the value 0 and 1 for firms with any form of foreign ownership (foreign1) and for firms that are majorly foreign owned (foreign2), respectively.

In Table 7.6, the investigation reveals that the relationship of *foreign1* and firm performance was positive and statistically significant (at a 99 percent confidence level) in each of their separate regressions with an impact coefficient of 0.444, 0.519, 10.83 for productivity, profitability and exports, respectively. This suggests that firms with any level of foreign ownership have an output per worker of 44 percent, profitability per worker of 52 percent and export propensity of 11 percent higher than those considered not to be foreign owned (domestically owned). On the other hand, in Table 7.7, the results of the investigation show that the relationship of *foreign2* and firm performance was also positive and statistically significant (at 99 percent

confidence level) in each of the separate regressions with an impact of 0.522, 0.592 and 7.924 for productivity, profitability and exports, respectively. It, therefore, suggests that firms with 50 percent or more in foreign ownership have an output per worker of 52 percent, profitability per worker of 59 percent and an export propensity of 8 percent more than locally owned firms. Therefore, it implies that workers in foreign owned firms with a dominant investor are more productive and profitable, but their ability to export declines.

Amongst the constraints in the sample, SSA, bureaucracy and infrastructure, which are control variables, are positive and statistically significant (at 95 percent confidence level and 90 percent confidence level, respectively) with a coefficient impact of between 0.0538 and 0.0592 and 0.0461 and 0.0439, respectively, for the productivity of foreign owned firms. The age of the firm was also found to be positive and statistically significant (at 99 percent confidence level) in each of the separate regressions with a coefficient impact of 0.0127, 0.0119 and 0.0337 for productivity, profitability, and exports. This suggests that age plays a role in foreign owned firms being more productive, profitable and that they then have a better export potential. This is while number of employees is negative and not statistically significant on productivity, which was unexpected.

In terms of export propensity (the share of exports in total sales), the effects of foreign ownership in their separate regressions, i.e., both *foreign1* and *foreign2,* were positive and statistically significant (at 99 percent confidence level).The results suggest that foreign-owned firms have an export propensity between 8 percent and 11 percent, which is more than domestic owned firms. In respect to the control variables, a contrasting result, from productivity and profitability, was obtained. While age of firm was found to be positive and it has a statistically significant impact on exports, the number of employees, which was negative and insignificant to productivity and profitability, appears to have a positive and statistically significant impact on exports. Furthermore, constraints like infrastructure was positive but not significant, but bureaucracy was positive and statistically significant (at 99 percent confident level) with a coefficient impact of between 1.283 and 1.393. This implies that foreign owned firms are more impacted by bureaucracy than their counterparts who are domestically owned. This cannot be far from the fact that foreign owned firms export more, hence they go through more administrative processes that their

local counterparts. Even more so is the fact that domestic firms will take advantage of local knowledge in minimising the impact of bureaucracy on their performance.

Overall, the regression analysis shows that the OLI theory's predictions of passing ownership benefits to international affiliates are backed by the evidence from the study's sample of Sub-Saharan African firms. In particular, the data shows that a firm's output based on efficiency, profitability and exports is substantially more for foreign-owned firms than their domestic counterpart. This refers both to firms with any degree of foreign ownership, *foreign1*, and firms with a majority of foreign ownership, *foreign2*. A further consequence of OLI's theory is that the transition of ownership advantages to an associate is at a cost. Evidence from the study is that foreign-owned firms in Sub-Saharan Africa are slightly more likely to be more productive, profitable and have a better network for exports.

Table 7.6: Regression result of firms with less than 50% foreign ownership

Independent Variables	Label	Dependent Variables			
		Productivity	Profitability	Exports	
Any foreign ownership (0,1)	foreign1	0.444***	0.519***	10.83***	10.54***
		-0.0474	-0.0546	-0.559	-0.575
Number of Employees	Empl	-3.66E-05	-2.96E-05	0.00173***	0.00173***
		-3.71E-05	-4.18E-05	-0.00044	-0.000445
Exports (as a % of total sales)	Export	-0.000843	-0.000563		
		-0.000777	-0.000904		
Age of firm	Agefirm	0.0127***	0.0119***	0.0337**	0.0454***
		-0.00127	-0.00145	-0.0152	-0.0155
Infrastructure constraints	Infra	0.0461*	0.041	0.278	0.451
		-0.0239	-0.0274	-0.285	-0.292
Bureaucracy constraints	Bureau	0.0538**	0.0506*	1.283***	1.237***
		-0.0247	-0.0284	-0.294	-0.303
Productivity (log of output per worker)	Lopw			-0.12	
				-0.11	
Profitability (log of profit per worker)	Lppw				-0.0638
					-0.103
Constant	_cons	14.62***	14.59***	-3.819*	-4.889**
		-0.126	-0.142	-2.202	-2.126

Country Dummy Variables	Yes	Yes	Yes	Yes
Firm size class dummy variables	Yes	Yes	Yes	Yes
Number of Observations	11,695	10,827	11,695	10,827
F	386.61	314.61	31.35	29.27
Prob. > F	0	0	0	0
R-squared	0.588	0.556	0.104	0.105
Adj. R – squared	0.586	0.555	0.1	0.101
Root MSE	1.905	2.113	22.713	22.503

Note: * Statistically at 10%, **Statistically significant at 5%, *** Statistically significant at 1%,.

Source: Author's compilation

Table 7.7: Regression result of firms with 50% or more foreign ownership

Independent Variables:	Label	Dependent Variables			
		Productivity	Profitability	Exports	
Any foreign ownership (0,1)	Foreign2	0.522***	0.592***	7.924***	7.798***
		-0.0537	-0.0618	-0.645	-0.663
Number of Employees	emply	-2.99E-05	-2.07E-05	0.00207***	0.00205***
		-3.71E-05	-4.18E-05	-0.00045	-0.000448
Exports (as a % of total sales)	export	-0.000405	-3.63E-05		
		-0.000769	-0.000896		
Age of firm	agefirm	0.0128***	0.0121***	0.0421***	0.0539***
		-0.00126	-0.00145	-0.0153	-0.0156
Infrastructure constraints	Infra	0.0439*	0.0384	0.259	0.444
		-0.0239	-0.0274	-0.288	-0.295
Bureaucracy constraints	bureau	0.0592**	0.0567**	1.393***	1.346***
		-0.0247	-0.0284	-0.297	-0.305
Productivity (log of output per worker)	lopw			-0.0587	
				-0.112	
Profitability (log of profit per worker)	lppw				-0.00419

					-0.103
Constant	_cons	14.66***	14.63***	-3.347	-4.539**
		-0.125	-0.142	-2.224	-2.146
Country Dummy Variables		Yes	Yes	Yes	Yes
Firm size class dummy variables		Yes	Yes	Yes	Yes
Number of Observations		11,695	10,827	11,695	10,827
F		387	314.67	25.7	24.3
Prob. > F		0	0	0	0
R-squared		0.588	0.557	0.087	0.088
Adj. R – squared		0.587	0.555	0.083	0.085
Root MSE		1.904	2.113	22.929	22.705

Note: * Statistically at 10%, **Statistically significant at 5%, *** Statistically significant at 1%,

Source: Authors compilation

Table 7.8 below describes the analysis of data for this study using propensity score matching (PSM). The findings of this method affirm the regression estimates derived from the LSDV technique on efficiency, profitability, and export propensity. In addition, PSM also checks for the robustness of the regression analysis done using LSDV. The analysis for both treatment variables (foreign1 and foreign2) indicates that the treatment effect (ATT) of foreign ownership is positive and statistically significant at 95 percent confidence level. In all cases, the magnitude of the effect is broadly comparable to the estimates of LSDV regression. For example, *foreign 1* hat estimated the impact of treatment on productivity (log of output per worker) is 44.3%, compared to 44.4% in the regression estimate which is statistically the same. Similarly, *foreign2* that estimated the treatment impact on productivity is 59.6% compared to the 52.2% regression estimate. Another example is *foreign1* that estimated the treatment impact on profitability (log of profitability per worker) is 51.9% compared to 51.9% in the regression estimate which is the same. In the case of *foreign2,* the estimated treatment impact on profitability is 68.6% compared to the 59.2 % regression estimate.

Based on the comparison of both results, it can be concluded that finding a statistically significant positive relationship between both foreign ownership measures and each of the three performance variables (productivity, profitability, and export) is robust in the estimator's choice. Thus, these findings indicate that foreign-owned firms in Sub-Saharan Africa do not vary to any consequential degree in offering instruction.

Table 7.8 : Propensity Score Matching result

	Variable	Sample	Treated	Controls	Difference	S.E	T- stat
Foreign 1	lopw	Unmatched	13.824425	13.28271	0.541713	0.689246	7.86
		ATT	13.824425	13.38155	0.442878	0.081755	5.42
	lppw	Unmatched	13.407818	12.79477	0.613053	0.076555	8.01
		ATT	13.407818	12.88919	0.518625	0.090498	5.73
	exporta	Unmatched	0.316973	0.14311	0.173864	0.007748	22.44
		ATT	0.316973	0.26048	0.056498	0.009812	5.76
	exportab	Unmatched	0.163599	0.06490	0.098695	0.005675	17.39
		ATT	0.163599	0.10736	0.056294	0.007541	7.47
Foreign 2	lopw	Unmatched	14.045860	13.28101	0.764852	0.078508	9.74
		ATT	14.045860	13.45035	0.595514	0.092756	6.42
	lppw	Unmatched	13.598689	12.80246	0.796227	0.087205	9.13
		ATT	13.598689	12.91273	0.685964	0.103148	6.65
	exporta	Unmatched	0.273058	0.16088	0.112179	0.008780	12.78
		ATT	0.273058	0.21807	0.054984	0.010733	5.12
	exportb	Unmatched	0.132213	0.76118	0.056095	0.006407	8.75
		ATT	0.132213	0.12332	0.008892	0.008072	1.1

Source: Authors compilation

7.4 Conclusion

This chapter was created to examine the impact of foreign ownership on the performance of firms in Sub-Sahara Africa. The objective is to ascertain if foreign owned firms were more productive and profitable and if they export more than their domestic counterparts. The analysis was carried out on two categories of foreign owned firms, those with less than 50 percent foreign ownership, on the one hand, and firms with above 50 percent foreign ownership, on the other hand. Analysis was carried out on a sample of 11,695 firms spread across 39 SSA countries over a period of 2001 to 2016 using the least square dummy variable (LSDV) and

propensity score matching (PSM) techniques. In addition, data was sourced from the World Bank Enterprise Survey (WBES). From the examination, the findings identified that firms with any form of foreign ownership were more productive and profitable than their domestic counterpart which validates the findings of Boardman et al. (1997) Colplan et. al. (2011), Nakamo and Nguyen (2013). This is because foreign owned firms' accessibility to enormous resources and better monitoring and management expertise. In addition, when the amount of foreign ownership is considered, it was deduced that those with more than 50 percent foreign ownership performed even better than those with less than 50 percent foreign ownership. This assessment negates the Tobins' Q theory of investment, which suggests that a decrease in firm performance is expected when the level of the foreign ownership of firms exceeds 40 percent. In terms of ability to export, foreign owned firms had the propensity to export between 8 to 11 times more than their domestic counterpart.

Although the findings have demonstrated that foreign owned firms perform better than their domestic counterparts in SSA, for investors to be attracted to the region, it is important to foster an environment that will be favourable in order to improve upon their domestic counterparts' ownership advantage via spillovers. This is essential in that several other developing economies are currently pursuing policies that are targeted at attracting inward FDI and these policies have been inspired by the economic gains associated with them. Examples of such are in East Asia and developed economies.

CHAPTER EIGHT

DOES GVC PARTICIPATION IMPACT ON INWARD FDI?

EVIDENCE FROM SOUTH AFRICA

DATA AND METHODOLOGY

8.1 Introduction

This chapter aims to conduct an empirical analysis of skilled labour and technological change (components of global value chains) in determining the location of inward FDI flows in South Africa. The focus of the chapter is on skilled labour and technological change within the context of factor proportions. In addition, the analysis seeks to test the location element of Dunning's (1998) OLI theory as it argues that the theory of factor proportions could contribute to a better understanding of the locational features of FDI. The main contribution of this analysis will be to provide valuable methods for analytical research by providing proof of the location of FDI as the study borrows and expands on the analytical techniques commonly linked with research in international trade. This chapter also seeks to test strategic asset seeking motives, a part of Dunning's (1998) OLI theory, which includes market and resource seeking motives.

8.2 Inward FDI, labour and technological change

The presence of MNEs in a domestic economy motivates investments to be made in education for both the public and private sectors. This is because individuals may desire to attain a higher level of education for the career enhancement offered by MNEs, and, on the other hand, governments might wish to encourage the absorption of skilled (educated) labour in order to benefit from potential FDI spillovers (Knowledge and technology transfer). Hence, the availability of skilled (educated) labour and Inward FDI and though they can result in potential growth independently, hypothetically, they strengthen each other via the "complimentary effect" (Checchi et al., 2007).

8.2.1 Synopsis of the study

The investigation into the role skilled labour plays in attracting investments to South Africa has employed three techniques. These are Pooled OLS, Panel (double fixed

effects) and GMM estimator on two samples: classification of labour – occupation (profession) and educational requirements (academic qualification). The findings are that, regardless of the classification of labour, the net exports' factor content and multi-factor productivity are essential in influencing investments in South Africa by supporting resource seeking, efficiency-seeking and strategic asset seeking motives for inward FDI. Although this study has found no empirical evidence to determine how factor proportions influence investments in South Africa, it has done so when labour is categorised by occupation. Also, findings did show a categorisation of labour by educational requirements, influencing investments into South Africa.

8.2.2 Development of Hypothesis

The framework for this hypothesis will be based on Dunning's (1998) OLI theory, whose strategic asset seeking motive is measured in terms of skill intensity. As it suggests, the theory supports the view that the increase of inward FDI to South Africa should be centred around highly skilled activities.

8.2.2.1 Skilled labour and inward FDI

The availability of skilled labour in any country has a significant impact on inward FDI. An increasing amount of literature suggests that a connection exists between skilled labour, productivity, and inward FDI (Driffield et al., 2009; Bandick and Hanson, 2009; Webster, 2013). Similarly, the availability of skilled workers is widely considered to improve the attractiveness of inward FDI, especially in developing countries, and the type informs the determinant of the type of labour (skilled or unskilled) of FDI (horizontal or vertical). Hence in countries where the industries are skill-intensive, MNEs invest in skilled labour, while low-skilled intensive industries get investments from low or non-skilled intensive MNEs (Urata and Kawai, 2000; Fung et al., 2002; Yeaple, 2003)*.*

H_1: Skilled labour has a positive and significant effect on inward FDI.

8.2.2.2 Global Value Chain and inward FDI

A litany of studies connecting GVC to inward FDI with Martinez-Galan and Fontoura (2013) suggests that a country's increase in GVC participation is positively linked with inward FDI stocks. The breakdown of the production process into multiple stages conducted in various countries helps identify the elements that contribute to efficiency in production, which are skilled labour and technology. Reimer

(2006,2011), in estimating for intermediate inputs traded internationally developed an approach for the computation of factor content of trade which has been tested empirically by Trefler and Zhu (2010). In determining the significance of GVC in determining factor content of trade, Reimer (2011), in his study of two factors of production in 14 countries and 57 goods, postulated that 17.7 percent and 21.5 percent of imported capital and labour respectively is really domestic, whereas 23.3 percent and 12.3 percent of exported capital and labour are genuinely foreign.

H_2: Value chain participation has a significant positive effect on inward FDI.

8.2.3. Research Methodology

This section provides an insight into the research design employed for this investigation. Firstly, the samples used for this analysis will be reported and then described. Secondly, a preliminary analysis will be done, and the model used for the investigation will be specified and estimated.

8.2.3.1 The factor content model

The factor content model, or the Hecksher-Orlin (H-O) model as it is originally called, was developed to incorporate features of production that the standard Ricardian model did not consider. That is, the disparity in technology across countries drives labour productivity. In the model, the technological disparity spurred favourable international trade. Although Eli Heckscher and his protege modelled this theory in the early 1920s and 1930s, some notable additions were made in the 1950s and 1960s by Jaroslav Vanek; hence H-O-V model was developed.

In the H-O model, capital and labour are presumed to be the two factors needed to produce goods and services. These two productive factors, i.e. capital and labour, enable adding a fundamental feature in production which is the variable factor proportions within industries. This feature describes how the ratio of capital to labour utilised in production varies significantly within a country with diverse industries. For instance, steel production requires more capital (i.e. plant and equipment) and fewer workers than a farming business that deals with cotton, which requires a limited amount of machinery and a significant number of workers who pick these kinds of cotton.

The H-O model defines the capital-labour ratio as the ratio of capital to labour utilised in a production process. The factor proportion model derives its name from these

varying ratios within industries. Thus, when a country produces two goods like the above example, steel production requires more capital per unit of labour ratio than cotton production. These factors also feature in the pattern of trade countries with varying amounts of endowments available for the production process. Hence, according to the H-O theory, when predicting trade patterns between two countries, a country with abundant capital will export capital-intensive goods and vice versa for a country with abundant labour.

Several studies like Trefler and Zhu (2010), Strehrer (2012) and Johnson and Nogurea (2012) all suggest the input-output technique by Leontief (1956) to be the most viable method of assessing the factor content contained in trade in the context of today's context of international production. In addition, with the collection of worldwide input-output tables by organisations worldwide, employing this paradigm has become increasingly viable.

According to Vanek (1968), the HOV model or Factor content of trade is derived by,

$$A.X = Ys.Y_w \qquad (1)$$

Where;

A = (*m* x *n*) matrix of factor requirements, indicating the amount required of each of *m* factors require to generate a unit of *n* output,

X = (*n* x *1*) vector of net exports of each sector i.e. exports less imports,

Y = (*m* x *1*) vector of local factor supplies

s = scalar derived by the ratio of local to global GDP

Y_w = corresponding vector of global factor supplies.

In addition, the study demonstrates that only under certain conditions the factor content of trade can be deduced from a comparative factor abundance as in eq .1. However, this approach has come under criticism from various authors, i.e. Leamer (1995, 2000) and Trefler (1995), due to the strong assumptions required to guarantee that factor content of trade precisely represents worldwide disparities in factor endowments. Subsequently, the acceptability of the factor content model has been re-established by understanding its meaning with the model retaining its

relevance as a technique of analysis in the study of international trade and its significance for FDI.

8.2.3.2 Sample of the study

The scope of this study ranges from 2010 to 2014. It generated data across the selected sectors and scope using the Input-Output table of South Africa. The table provides data for the factor requirement matrix (A), output, consumption, capital, net export and the production factors except for the labour categorisation. It used two different samples; the first is based on the classification of labour by education requirement of the occupation (skill level).

In contrast, the second is the classification of labour based on labour occupation. The classification follows the United Nations International Standard Classification of Occupations (ISCO88) and their corresponding skill level. The ISCO88 is used to ensure universality and comparison among countries. The ISCO88, classification of occupations consists of a legislator, senior officers, manager; professionals; technician, associate professionals; clerk, administrators; sales workers, services, shop; craft and related workers; plant and machine operator, assemblers; and elementary occupations with a corresponding skill level ranging from the doctorate holder, master and bachelor's degree, short-cycle tertiary education, post-secondary school non-tertiary education, upper secondary education, lower secondary education and primary education.

The study's input-output data was obtained from the Department of Statistics of the Republic of South Africa. Other data sources used in the study include United Nations Conference on Trade and Development, Quarterly labour force survey (QLFS) and quarterly employment statistics (QES).

8.2.3.3 Description of Variables

a. Total factor Productivity

The study computed the total factor productivity (TFP) by subtracting labour and capital growth from the output growth for each selected n-sector. This gives the total productivity index that is corresponding to the selected sectors of the input-output table. The input-output data was used to calculate each sector's productivity index coupled with a data series on productive labour hours. However, it was necessary to make certain assumptions to fill in the data for some sectors/industries.

b. Technical change

In this study, the measures of technical change are divided into two: Hick neutral and factor biased technical change. To measure the Hick neutral technical change in this study, it employed the factor composition of total factor productivity. This is expressed as,

$$FMFP = A.TFP \qquad (2)$$

A is the factor requirements from the input-output table. TFP is the total factor productivity changes for each selected sector.

The study used the proportionate change in relative factor intensity (FP) to measure the biased technical changes. This is derived by taking the factor content of each selected sector's output and dividing it by the factor content of output for the least skilled labour.

That is,

$$FCQ = A.Q \qquad (3)$$

Where A is the factor requirements and Q is the output for each sector. FCQ is then divided by the factor content of output of the least skilled labour to give the relative factor intensity (FP) (relative to the least skilled labour). PFI (proportionate change in factor intensity) is then given as the relative factor intensity change from the previous year.

c. Inward Foreign Direct Investment (FDI stock)

The variable used for this analysis is the stock value of inward FDI. FDI stock is the value of the share of capital and reserves (including retained profits) attributable to the parent enterprise, plus the net indebtedness of affiliates to the parent enterprises. It is approximated by the accumulated value of past FDI flows. Next, the study multiplies the inward FDI by the factor requirement (A) from the input-output table to give the factor content for inward FDI for each selected sector. Necessity demands that certain assumptions are set to derive the factor content of inward FDI for the selected sectors due to data unavailability.

d. Labour Requirements

After adding the different labour categories in the study, more data is needed to disaggregate the total labour requirements. Here the study obtained data on the total employments and gross earnings in about 111 occupational categories. The data was used to obtain a share of the occupational categories in the total payroll. This data was then applied to the total labour required to generate the data in the output, which then formed the basis of the classification into the different occupational and educational requirement categories using the United Nations International Standard Classification of Occupations (ISCO88) and their corresponding skill level.

e. Input-Output Variables

The input-output table provides data on the requirements for capital, labour and other factors of production in the sectoral and aggregate. It also provides data on the level of consumption and net export in the economy within the period of consideration. The study then multiplies the consumption and net export by their factor requirements to obtain the factor content of consumption and net export, respectively, for the selected sectors.

TABLE 8. 1: Summary of variables Description and Measurement

Variable	Measurement	Label
Factor content of inward FDI	-	FFDI
Factor content of net exports	$\text{factor requirement} * \text{net export}$	FNET
Factor content of consumption	$\text{factor requirement} * \text{consumption}$	FC
Factor composition of MFP	$\text{factor requirement} * \text{total factor productivity}$	FMFP
Factor proportions	$\frac{\text{factor demand}}{\text{least skilled labour}}$	FP
Proportionate change in factor intensity	$\% \Delta \text{ in FP}$	PFI

Source: Authors' compilation

8.2.3.4 Preliminary analysis

In the preliminary analysis, the study presents the descriptive statistics and analysis of the study variables using the mean, rank and correlation. These techniques were used to dissect the characteristics of the selected sectors in terms of the factors of

production that attract foreign direct investment, factor intensity, and factor productivity in each sector, and the interrelationship among the study variables across sectors. First, the study identified the characteristics of the inward FDI in South Africa between the years 2010 to2014 in order to understand the concentration of inward FDI under the different labour classifications. Table 8.2 presents the inward investment ranking of factor intensity relative to the least skilled labour and the factor content of FDI to consumption. Factor intensity relative to the least skilled labour shows the factors in abundance in the South African economy. In contrast, the inward FDI to consumption shows the factors that attract inward FDI. Results based on factor intensity relative to the least skilled labour show that skilled labour is in abundance in South Africa. In terms of the occupational classification, legislators, senior officers, managers, and professionals are ranked first and second, while forestry, fishing, coal and lignite, general and electrical machinery ranked bottom. This implies that South Africa is relatively less abundant in natural resources and basic capital equipment.

In terms of labour, according to the educational requirement, post-secondary school non-tertiary education, masters and bachelor's degrees ranked first and second, respectively. In contrast, forestry, fishing, coal and lignite, general and electrical machinery ranked bottom. Similarly, this implies that the South African economy is relatively more abundant in skilled labour and requires a high degree of skilled labour. Moreover, in the natural resource factor space, agriculture, other mining, and metal ores have high rankings. In contrast, in the capital factor space, the rank for capital, except motor vehicle, is also low. That said, inward FDI is focused more on the sectors that make use of financial services, and less on the sectors that make use of natural resources and then much less on the sectors that make use of capital.

Investigating the factor content of inward FDI to consumption, inward FDI stock is focused more on the sector that uses natural resources intensively. More specifically, this is forestry, agriculture, metal ores, other mining and coal and lignite. This is because these sub-sectors are ranked first, second, third, fourth and fifth, respectively, and whether labour is based on the occupational categories or educational requirements. This suggests that investment in the past is motivated by resource seeking. This is followed closely by the sectors that make use of financial services, and then sectors that make use of the capital factor. Worthy of note is that

the occupations that require a high level of education or professionals and the top occupations are ranked amongst the low production factors. As a result, the sectors that require a high level of education, for some reason, are not attractive to foreign investors.

Table 8.2: Rank of South Africa Inward FDI stocks by factor, annual means 2010-2014

Factor Description	Factor intensity relative to least skill labour	Factor content of FDI to consumption
With labour by occupational categories		
Agriculture	14	2
Forestry	20	1
Fishing	20	13
Coal and lignite	17	5
Metal ores	14	3
Other mining	11	4
General machinery	17	7
Electrical machinery	17	9
Motor vehicles	13	14
Renting of machinery	20	9
Financial intermediation	8	6
Auxiliary financial	9	11
Real estate activities	12	12
Legislator, senior officers, Manager	1	16
Professional	2	16
Technician, associate professionals	5	16
Clerk, administrators	6	16
Sales workers, services, shop,	4	17
Craft and related workers	9	17

Plant and machine operator, assemblers	9	19
Elementary occupations	n/a	17
With labour by educational requirement		
Agriculture	14	2
Forestry	20	1
Fishing	20	13
Coal and lignite	17	5
Metal ores	15	3
Other mining	11	4
General machinery	17	7
Electrical machinery	17	9
Motor vehicles	12	14
Renting of machinery	20	9
Financial intermediation	8	6
Auxiliary financial	9	11
Real estate activities	12	12
Doctoral	5	16
Master	2	17
Bachelor's degree	2	17
Short cycle tertiary education	11	17
Post-secondary school non tertiary education	1	17
Upper secondary education	5	17
Lower secondary education	5	17
Primary education	n/a	17

Source : Authors' compilation

Table 8.3 shows the mean annual percentage change of factor total productivity in South Africa. Fishing, auxiliary finance, metal ores, machinery, coal and lignite, agriculture, and other mining are the top seven sectors with a high multi-factor

productivity growth rate. Among the sectors with positive mean annual growth, more sectors are with natural resources while real estate and financial sector are in the ladder's bottom rank. Interestingly, the sectors that are intensive in the capital factor show a negative annual mean of MFP. Translating the interpretation to the factor composition of total factor productivity shows exciting patterns regarding the South African economy's factors. The results suggest that the highest MFP growth rate between the years 2010 to2014 is in sectors that use the output from the metal ores, agriculture, and other mining. Also, results show that high MFP growth is observed in sectors that use auxiliary financial and financial intermediaries' services. Surprisingly, except for sales workers, services and shops, all the occupation categories and skilled labour are associated with negative MFP growth. By implication, the sectors that make use of highly skilled or educated labour show a negative MFP. Similarly, negative MFP growth rates are observed in sectors whose occupation requires higher and professional degrees. This suggests that in the South African economy, inward FDI is focused on the sectors with highly skilled or educated labour but with low MFP growth rates and vice versa.

Table 8.3: Selected sectors with the highest and lowest MFP growth

Sectors with the highest mean MFP changes		Sectors with the lowest mean MFP changes	
Description	Mean % change 2010-2014	Description	Mean % change 2010-2014
Fishing	15.85%	General machinery	-0.18%
Auxiliary financial	11.78%	Motor vehicles	-1.51%
Metal ores	11.54%	Electrical machinery	-3.40%
Renting of machinery	10.51%		
Coal and lignite	10.26%		
Agriculture	8.04%		
Other mining	7.28%		
Financial intermediation	6.58%		
Forestry	4.89%		
Real Estate	3.06%		

Factor content of MFP changes

Description	**Mean % change 2010-2014**
Agriculture	10.22%
Forestry	1.72%
Fishing	0.25%
Coal and lignite	5.04%
Metal ores	11.48%
Other mining	9.02%
General machinery	-0.25%
Electrical machinery	-1.21%
Motor vehicles	1.00%
Renting of machinery	1.38%
Financial intermediation	6.82%
Auxiliary financial	9.24%
Real estate activities	1.82%
With labour categorised by education requirement	
Doctoral	-31.57%
Master	-3.69%
Bachelor's degree	-3.69%
Short cycle tertiary education	-0.16%
Post-secondary school non-tertiary education	-4.30%
upper secondary education	-2.87%
lower secondary education	-2.87%
primary education	-0.52%

With labour categorised by occupation

Legislator, senior officers, manager	-3.54%
Professional	-3.03%
Technician, associate professionals	-0.92%
Clerk, administrators	-0.78%
Sales workers, services, shop,	0.44%
Craft and related workers	-0.08%
Plant and machine operator, assemblers	-2.36%
Elementary occupations	-0.52%

Source : Authors' compilation

Table 8.4: Correlation Matrices for regression Variables

	FFDI	FC	FMFP	FNET	PFI	FP

Using Labour categories defined by educational requirements

FFDI	1					
FC	0.116237	1				
FMFP	0.577404	-0.106378	1			
FNET	0.553633	0.017602	0.364933	1		
PFI	-0.043694	-0.073031	-0.034838	0.022760	1	
FP	0.112304	0.741913	-0.026823	0.163915	0.005531	1

Using Labour categories defined by occupation

FFDI	1					
FNET	0.551565	1				
FC	0.290743	0.131714	1			
FMFP	0.767162	0.484316	0.145449	1		
FP	0.268521	0.320744	0.754676	0.193291	1	
PFI	-0.039283	0.022609	-0.068076	-0.028267	0.010430	1

Source : Authors' compilation

8.2.3.5 Model and Estimation Technique

This study employs the use of three techniques on two categories of labour – based on education and the other based on occupation for the period. Pooled OLS, Panel (double fixed effects) and GMM estimator were used for the research. The data was sourced from UNCTAD, ISCO88, QLFS and DOS of South Africa over a period of 2010 to 2014.

8.2.3.6 Model specification

In the literature, Webster (2013) and Driffield (2002) did propose an econometric model to understand the determinants of inward FDI's. However, the focus of Webster (2013) was more on skilled labour, education and production factors in general, and Webster also categorised labour into two. In line with the model as posited by Webster (2013), this study adopts the same model for investigation. The justification for following the model is because it aligns with the objective of this study. This study intends to categorise labour and examines the factor content (factors of production) of the relationship between inward FDI and its determinant. While presuming that a similar relationship has been used in these studies, the study

presents, as an initial step, the relationship between FDI and other determinants at the level of individual sectors:

$$FDI = \beta_0 + \beta_1 NET + \beta_2 C + \beta_3 TFP + \beta_4 FD + \beta_5 PF + e \quad (4)$$

Where ***FDI*** is the inward investment for each sector, ***NET*** is net exports for each sector, ***C*** is domestic consumption for each sector, ***TFP*** is total factor productivity for each sector, ***FD*** is relative factor demand for each sector, and ***PF*** is the proportionate change in relative factor intensity from the previous year for each sector. This model tries to explain the relationship between inward FDI, net export, consumption, proportionate change in the factor, factor demand and total factor productivity. It tries to explain inward FDI in terms of the location aspect of the OLI theory. It links inward FDI to net export to explain how resource seeking and efficiency-seeking promote inward FDI. This helps to proxy the pattern of specialisation in international trade.

Moreover, linking FDI to consumption captures the size of the market to explain the market seeking aspect of the theory. The relative factor intensity captures the demand for factors of production relative to unskilled labour. Two variables were used to proxy technical change to express the theory's knowledge-seeking aspect, which is proportionate to the relative factor and total factor productivity (using two factors for simplicity).

Expressing equation (1) in factors of production, this study multiplies (1) by the factor requirement (A) from the input-output table; this gives

$$A.FDI = \beta_0 + \beta_1 (A.NET) + \beta_2 (A.C) + \beta_3 (A.TFP) + \beta_4 (A.FD) + \beta_5 (PFI) + e \quad (5)$$

With the expression in (2), the econometric model for this study thus becomes

$$FFDI = \beta_0 + \beta_1 FNET + \beta_2 FC + \beta_3 FMTP + \beta_4 FP + \beta_5 PFI + e \quad (6)$$

FNET is the factor content of net export, ***FC*** is the factor content of consumption. ***FFDI*** is the factor content of inward foreign direct investment, which measures where

FDI is concentrated using some production factors in high proportion. ***FMTP*** and ***PFI*** are the factor composition of total factor productivity and proportionate change in relative factor intensity, proportionate change in ***FP***. These variables are used to measure technical change, although, more specifically, the latter measures a biased technical change. ***FP*** is relative factor demand/intensity that measures the effect of the demand for production factors relative to the least skilled labour. Moreover, $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5 > 0$ and that is the factor content of inward FDI that is expected to be positively related to the factor content of consumption, technical change, factor demand, and net export factor content.

8.2.4 Estimation technique

This study employed a combination of estimation techniques: Pooled Ordinary Least Square, Double Fixed Panel Least Square and Generalised Method of Moments (GMM). These techniques are used because they are suitable for cross-sections and they ensure the robustness of the results and findings. In the case of a conflicting result, more preference is given to the double fixed panel least square and GMM estimates.

8.2.4.1 Double fixed effects

The panel (double fixed effects), also known as the two-way linear fixed-effects or linear regression technique with unit and time fixed effects, has evolved into a preferred method by social scientists for estimating causality from panel data. This technique is often used to simultaneously correct for unobserved cross-sectional/ unit and time-specific factors (Bertrand et al, 2004; Angrist and Pischke, 2009). In this case, the addition of unit and time fixed effects allows for flexibility for un-observed confounders that are unit-specific (yet time-invariant) and time-specific (yet unit-invariant).

$$Y_{it}=\alpha_i + \gamma_i+\beta X_{it} +\varepsilon_{it} \quad (7)$$

for i=1, 2,……, N and t=1,2,……,T

here α_i represent unit fixed effects and γ_l represent time fixed effects.

8.2.4.2 GMM estimator

To enhance the performance of traditional estimation techniques (pooled OLS and fixed effects), a dynamic panel data technique, known as the GMM estimator. The

GMM estimator is employed particularly when the supplementary assumptions are unsuccessful. It is introduced to models with unobserved effects where the independent variable(s) are not purely exogenous even though unobserved effects are controlled for. The technique has the advantage of monitoring simple unobserved effects models, such as those in which unobserved heterogeneity interacts with observed covariates. Additionally, it is effective at estimating models that have a lagged variable and an unobserved effect when adjusting for autocorrelation. *Refer to 6.2.3.4.2*

8.2.5 Empirical findings

The empirical result from the estimation technique employed is presented in this section. Table 8.5 is presented in two, that is, it is representing the two samples based on the labour classification. Findings show that there is a positive relationship between the factor content of net export and the factor content of inward FDI at a 99 percent level of significance for pooled OLS and panel (double fixed effect) but has a 90 percent significance level for GMM when labour is classified by educational requirements. The impact coefficient is 1.055962, 0.985313 and 2.455685 for the pooled OLS, double fixed panel effect and GMM, respectively, which implies that a 1 unit increase in the factor content of net export generates an increase in inward FDI by 1.055962, 0.985313 and 2.455685 units while holding other variables constant. Similarly, when labour is classified by occupation, the findings show the impact coefficients given the fact that the same three estimators are 0.669979, 0.729031 and 2.367829, respectively, which means that a positive and significant relationship exists between net export and the factor content of inward FDI at 1 percent, 99 percent and 10 percent level of significance, respectively. By implication, a 1 unit increase in the factor content of net export generates an increase in inward FDI by 0.669979, 0.729031 and 2.367829 units given the Pooled OLS, panel (double) fixed effect and GMM estimators respectively, holding other things constant. This suggests that in both categorisations, the factor content of net export positively influences inward FDI significantly.

In addition, categorising labour by educational requirement shows a positive relationship between the factor content of consumption and inward FDI across the three estimators. Factor content of consumption is positive at a 95 percent significance level given pooled OLS and panel (double fixed effects) estimators;

however, the estimates from the GMM are not significant. The impact coefficient for the pooled OLS and double fixed panel effect are 0.088026 and 0.145473, respectively, which implies that a 1 unit increase in the factor content of consumption increases inward FDI by 0.088026 and 0.145473 units on average at a 5 percent level of significance holding other things constant. Similarly, the findings suggest that there exists a positive relationship between the factor content of consumption and inward FDI when labour is categorised by occupation. However, the relationship exists at different levels of significance. For instance, the relationship exists at 1 percent and 5 percent significance given pooled OLS and panel (double fixed effect) estimates, respectively, but is not significant according to the GMM estimate. The impact coefficient is 0.135900 and 0.144553, and it is significant at 99 percent and 5 percent level of significance. The coefficient implies that the 1 unit increase in the factor content of consumption generates 0.135900 and 0.144553 units in inward FDI based on the pooled OLS and double fixed panel effect. This suggests that the factor content of consumption promotes inward foreign investment irrespective of the categorisation of labour.

Furthermore, the three estimates show a positive and significant impact of the factor composition of total factor productivity on inward FDI at a 1 percent level of significance when labour is categorised both as an occupation and as educational requirements. The study observed that a technical change in the factor composition of total factor productivity (which implies a constant proportion of the factors of production) boosts inward FDI immensely. By implication, a 1 unit increase in the factor composition of total factor productivity increases the inward FDI by 623,299.2, 802,711.5 and 943,224.0 units on average for pooled OLS, fixed effect panel and GMM estimate, respectively, while holding other variables constant when educational requirements categorise labour. However, when labour is categorised by occupation then a 1 unit increase in the factor composition of total factor productivity results in an increase of inward FDI by 1,218,332, 1,234,096 and 953,789.2 units on average for pooled OLS, panel (double fixed effect) and GMM, respectively, holding other variables constant.

In contrast, the investigation shows that factor proportions have no significant impact on inward FDI. The implication is that the study shows no empirical evidence of relative factor intensity significantly affecting inward FDI when labour is categorised

by education. That is, the investigation shows that relative factor intensity has a negative and insignificant influence on inward FDI given pooled OLS and panel (double fixed effect) estimators, while it has a positive yet insignificant influence on inward FDI. On the other hand, when labour is categorised by occupation, a negative yet insignificant relationship exists between factor proportions and inward FDI across the three estimators. The suggestion here is that there is no evidence of a biased technical change impacting on inward FDI. However, the contrary is the case when labour is categorised by educational requirements as only the GMM estimates are positive.

In addition, the investigation reveals a positive and significant impact of PFI on inward FDI at a 1 percent level of significance given the GMM estimator. The implication is that a 1 unit increase in PFI results in an increase in inward FDI by 46,301.51 units on average while holding other variables constant. This suggests that when labour is categorised by educational requirement (skills), a bias of technical change towards labour boosts inward FDI.

Table 8.5: Categorisation of Labour

A. Categorisation by educational requirements

Cross-sectional (factors) included: 22

Total panel balanced observations: 110

Variable	**Label**	**Estimators**		
		Pooled OLS	Panel (double fixed effects)	GMM (Arellano Bond)
Dependent Variable: Factor content of stock of inward FDI	FFDI			
Constant	C	71047.42*** (25317.82)	36626.31 (26660.61)	
Lagged dependent Variable (FDI)	LFFDI			-0.059213 (0.089969)
Factor content of net exports	FNET	1.055962*** (0.198542)	0.985313*** (0.229450)	2.455685* (1.256923)

Factor content of consumption	FC	0.088026** (0.037058)	0.145473** (0.057198)	0.030136 (0.050877)
Factor composition of MFP	FMFP	623299.2*** (103508.2)	802711.5*** (105751.3)	943224.0*** (109905.0)
Factor proportions	FP	-5522.154 (4586.264)	-7063.043 (7248.090)	5344.001 (10199.53)
Proportionate change in factor intensity	PFI	-575.6801 (2214.990)	123.6924 (2263.044)	46301.51*** (15132.68)
R^2		0.501146	0.703956	
Adjusted R^2		0.477163	0.591534	
Explained sum of squares		204675.3	180909	
Residual sum of Squares		4.36E+12	2.59E+12	
F-statistics		20.89556	6.261735	
AR(2)				0.2156^

B. Categorisation by occupation

Cross-sectional (factors) included: 22

Total panel balanced observations: 110

Variable	**Label**	**Estimators**		
		Pooled OLS	Panel (double fixed effects)	GMM (Arellano Bond)
Dependent Variable: Factor content of stock of inward FDI	FFDI			
Constant	C	31782.30 (20052.14)	26229.32 (22409.96)	
Lagged dependent Variable (FDI)	LFFDI			0.105202 (0.149470)

Factor content of net exports	FNET	0.669979*** (0.180010)	0.729031*** (0.230730)	2.367829* (1.281003)
Factor content of consumption	FC	0.135900*** (0.044732)	0.144553** (0.072129)	0.162448 (0.050877)
Factor composition of MFP	FMFP	1218332*** (125761.3)	1234096*** (139513.4)	953789.2*** (215595.3)
Factor proportions	FP	-8719.339 (5810.542)	-8619.821 (9688.090)	-4849.964 (6739.863)
Proportionate change in factor intensity	PFI	-237.6230 (1824.575)	204.5313 (2080.926)	-142.6635 (15132.68)
R^2		0.666192	0.751517	
Adjusted R^2		0.650143	0.657156	
Explained sum of squares		168646.8	166948.1	
Residual sum of Squares		2.96E+12	2.20E+12	
F-statistics		41.51121	7.964289	
AR(2)				0.7473^

Note: * Statistically at 10%, **Statistically significant at 5%, *** Statistically significant at 1%,.

Note: Three estimators are employed for robustness. In the case of conflicting conclusions more premium is placed on the result of the double fixed panel and GMM, and a consistent result with the estimators indicates a more robust finding. ^p-values of the Arellano-Bond Serial Correlation Test indicate that the GMM results are free from serial correlation at a 10% significance level.

8.2.6 Discussion of results

The regression result as presented in Table 8.5 stipulates that this study employs three estimators, pooled OLS, panel (double fixed effect) and the GMM estimator. Two different regression samples were adopted for the estimation: the categorisation/classification of labour by education and occupation. The findings identify and explain essential features to South Africa's partners and foreign affiliates. In addition, it shows that the relationship between the factor content of net exports and the factor content of inward FDI is significant and positive irrespective of

the categorisation of labour by education or labour. This result is consistent with the three estimators at a 10 percent significance level. In line with some empirical findings, as identified in Blonigen (2005), this suggests that the net export of South Africa is concentrated in sectors with the same factor of production intensity as inward FDI. This result follows a priori expectation and implies that a net export's factor content is a significant determinant of inward FDI in South Africa. It further supports the resource seeking and efficiency-seeking motives for inward foreign direct investment.

Similarly, whether it is educational requirements or the occupations category of labour, there is a positive relationship between the factor content of consumption and the factor content of inward FDI based on the three estimators. However, the coefficients are significant only for Pooled OLS and double fixed panel and insignificant for the GMM estimator at a 10 percent significance level. This supports the a priori expectation and suggests a significant overlap between the market seeking and strategic asset seeking motives regarding inward FDI. In addition, based on the three estimators, the factor composition of multi-factor productivity is significant and positively related to the inward FDI's factor content at a 1 percent level of significance. This implies that whether labour is categorised by occupation or educational requirement, the factor composition of multi-factor productivity is an essential determinant of inward foreign direct investment in South Africa. These findings support both efficiency and strategic seeking motives for inward foreign direct investment.

The study further observed that the coefficients of factor proportions are statistically insignificant across the three estimators regardless of the labour classification. This suggests that there is no empirical evidence to support the fact that factor proportions determine inward investment in South Africa. Similar results are obtained for the coefficients of proportionate change in factor intensity when labour is categorised by occupation. The estimators presented an insignificant coefficient. However, when the educational requirements categorise labour, the Pooled OLS and double fixed panel estimates show insignificant coefficients.

In contrast, the GMM estimates show a positive and significant relationship between proportionate change in factor intensity and inward FDI at a 1 percent significance

level. This aligns with a priori expectation as GMM provides a dynamic estimate, which is expected to be related to factor proportions changes. This finding supports the link provided by Carr et al. (2001) and the empirical evidence of Mariel et al. (2009). It suggests further that efficiency-seeking and strategic asset seeking motives drive inward FDI.

In general, evidence shows that the factor composition of multi-factor productivity, the factor content of net exports, and the factor content of consumption are significant and positive determinants of inward FDI. As a result, it can engineer an increase in inward FDI. More specifically, skilled and educated labour and exogenous technical progress are essential factors of production in the economic activities of the South African economy that determine the concentration and focus of inward FDI in the economy. As a result, inward foreign direct investment is channelled to economic activities with skilled and educated labour, technical progress, and less highly skilled biased technical change. However, according to Haskel (2000), technical progress focused on economic activities with highly skilled labour only further strengthens the skilled labour across the whole economy.

8.3 Conclusions

This chapter is designed to examine how being part of a Global Value Chain can influence inward FDI to South Africa. The examination is set out to achieve two main objectives. Firstly, to evaluate and model the determinants of inward FDI by adopting Dunnings' OLI using factor proportions, and, secondly, to investigate if the participation of South Africa in GVC influences inward FDI. Analysis was carried out using pooled OLS, fixed double panel estimator and GMM estimator on a sample of selected sectors in South Africa for a 5-year period from 2010 to 2014. Data was sourced from United Nations Conference on Trade and Development (UNCTAD), United Nations International Standard Classification of Occupations (ISC088), Quarterly Labour Force Survey (QLFS) and Quarterly Employment Statistics (QES) and Department of Statistics for South Africa.

The finding of this study provides an understanding of the decision process of MNEs and their affiliates, especially where those elements of the Global Value chains are critical in the economy of South Africa. From the findings, the study can intuitively infer that skilled labour is in abundance and that the significance of technology

contributes tangibly to the participation of South Africa in Global Value Chain. The study also highlights the significance of skilled labour as an essential piece of the value chain for foreign affiliates in South Africa, which efficiency in production has also demonstrated to be significantly related to when engaging in strategic asset seeking.

These findings further imply that market-seeking, efficiency-seeking, and strategic asset seeking are the major motives for establishing international firms, plants, and partners in South Africa. The findings also reveal a significant relationship between net exports and inward FDI, which implies that an increase in inward FDI brings about an attendant increase in exports; hence, the amount of export can be used to predict inward FDI into South Africa, which is in line with the study of Akoto (2016) and Matlasedi & Ncanywa (2017).

CHAPTER NINE

CONCLUSION AND RECOMMENDATIONS

9.1 Introduction

The conclusion of this research is presented in this chapter and will be presented in the following way. The main objectives of the research will be outlined and reviewed, the adopted research methodology will be examined, contributions of the research will be outlined, and limitations of the research will be identified.

9.2 Summation of research objectives

The objective of this research is in 4 main components. The first is to critically review the relationship between FDI and economic development in SSA by examining past studies. The second objective is to identify macroeconomic determinants of inward FDI in SSA by categorising the determinants into market-seeking, resource-seeking and efficiency-seeking motives in line with Dunning's (OLI) paradigm. The third objective will be to examine the effect of foreign ownership on the performance of firms in SSA. That is to examine if foreign-owned firms are more productive and profitable. The fourth objective will investigate how GVC participation affects inward FDI in South Africa by identifying critical value chain elements that encourage investment using South Africa as a model country.

9.3 Research findings

Inward FDI into developing economies has soared in recent years but dwindled in the region of SSA. The United Nations Conference of Trade and Development and the World Bank has suggested that as inward FDI flows increase, it stimulates domestic investment and increases productivity and capital accumulation. These eventually result in the recipient countries increasing income per capita, citizens' welfare and an improved standard of living. Similarly, the increase of inward FDI has warranted an upsurge in the number of studies on FDI's role in economic growth. However, while prior studies have extensively discussed the role of inward FDI on economic growth, there are very limited resources on its impact on economic development in developing economies and especially of SSA, which informs the type of interest drawn from policymakers and academicians. Therefore, as a result several theories in international business have been developed over the years to

serve as a framework for studies relating to the topic of FDI and its impact in a host country. In addition, these theories are targeted at the justification for the choices made by MNEs in undertaking FDI, and what informs the selection of location and the mode of entry (Moosa, 2002).

Several researchers have postulated varying theories to explain the motivation and objective of MNEs. In addition, they try to answer the fundamental questions ascribed to the behaviour of MNEs across borders – the rationale, determinants, and the varying forms of investment by MNEs worldwide. This is done to identify and examine their advantages over domestic firms and how their presence can improve the socio-economic environment. Of all the theories developed by several researchers, that of Dunning (1973, 1979) stands out and continues to receive worldwide recognition. Dunning (1979), in postulating the eclectic (OLI) paradigm, integrated elements from previous theories, such as the monopolistic advantages, internalisation, location and theory of investment development path, to explain the degree and sequence of production abroad. These elements will be measured by the competitive advantages of firms in one country over its rivals, locating the firms' operations abroad and addressing the firms' capacity to incorporate and rationalise markets to generate assets.

FDI plays a significant role in the provision of superior managerial skill, capital for investment, and transfer of technology, while all the while creating jobs, increasing competitiveness, and expanding the export potential - all of which lead to economic development (Asiedu, 2002; Adams, 2009, Assuncao et al., 2011). In addition, FDI serves as a bridge to close up a gap created by inadequate savings rates while also bringing vital foreign exchange into the economy (Ajayi, 2006; Moreira, 2008; Mohammed and Sidiropoulos, 2010). As a significant component of economic activity in Sub-Saharan Africa, FDI contributes to job creation and revenue generation for regional governments. Nonetheless, various factors have recently contributed to the volume of inward FDI in the region. Several studies have been conducted to identify and examine different determinants and their impact on inward FDI in developing economies. However, only limited studies exist on determinants of FDI, the role of foreign ownership and the value chain participation nexus with inward FDI in a country or/and the region of SSA in a comprehensible way.

This study differs because it puts together FDI determinants in the categories, as identified by J.H. Dunning, covering market seeking, resources seeking and efficiency-seeking motives by adopting the pooled OLS, Fixed and Random effects estimators and the system GMM. Though SSA is regarded as the poorest region, with over 70 percent of its population living on less than $2.00 a day (WDI, 2016), the expectation is that labour will be abundant and cheap. Nevertheless, this research has identified that the labour force negatively influences inward FDI. Hence it implies that investors will only be attracted to a location where there is a skilled labour force and not just where labour is abundant. Although, some forms of existing technology can be upgraded, as revealed in the study of South Africa. In addition, limited studies have examined firm performance in SSA. This study's adoption of the Least Square Dummy Variable (LSDV) and Propensity Score Matching (PSM) methodologies have revealed that foreign-owned firms performed better and were more profitable than their domestic counterparts. Similarly, no study has attempted to link skilled labour and technology (essential components of value chains) and inward FDI using the factor proportions method. This investigation has further increased the knowledge of MNEs' behaviour towards highly skilled labour in South Africa, used as a model country for SSA countries to test the existence of the relationship between GVC and FDI.

After several years of decline in the economy of SSA, the years since 1990 have witnessed steady strides forward in the socio-economic life of the region; however, there is no evidence of the studies that have examined the factors that have contributed to the steady increase of economic development. The research contributes to the study of economic development analysis and identifies the elements that have contributed to the region's socio-economic environment. In addition, the results further reinforce existing literature on the significance of ownership advantage, location advantage, and internalisation advantage in Dunning's (OLI) eclectic paradigm as exhibited in MNEs and their subsidiaries/affiliates. This study's contributions to the literature have proposed important and intriguing policy implications for academics, investors, and entrepreneurs.

9.4 Policy implication

The findings of this study will highlight critical characteristics that will have important policy ramifications for researchers, professionals, and policymakers in bringing about economic development. The study relied on Dunning's (OLI) eclectic paradigm to identify the variables employed in the empirical analysis, all of which will influence inward FDI and promote economic development.

1. The study results suggest that the governments of SSA work together towards improving the business environment by ensuring effective governance in the form of efficient public services, as this will support the smooth running of a business.
2. Trade openness has been capable of attracting more FDI in the region; it is advised that various countries in the region of SSA should remove barriers to international trade, such as tariffs, trade subsidies and embargoes on imports.
3. National governments should make clear speeches that cast aside the aspersions of nationalism, racism, and bigotry. These lead to a lack of business confidence, discouraging would-be investors from bringing in foreign capital and reducing unemployment.
4. The governments of SSA countries should put in place measures to reduce the volume of imports and increase the intensity of exports by putting in place policies that will regulate exchange rates.

9.5 Research contribution

The interest in inward FDI and its impact on economic development has grown considerably in the field of international business, hence the array of studies that have come out of its study. This interest has resulted in the development of several theories of FDI; however, Dunnings (OLI) framework or the Eclectic paradigm is by far the most popular in international business. The theory, which combines a few other theories of internalisation and economics of trade, outlines the three main reasons that inform MNEs' decision to invest abroad. The reasons hinge on what ownership advantage they possess over domestic firms, the advantage of investing in a particular location and not another, and how lucrative the incomes earned are from leveraging on the assets (Dunning, 1980,1998). Hence, the theoretical framework of this study is based on Dunnings (OLI) framework or the Eclectic paradigm.

Similarly, the essence of inward FDI is to boost local investments and improve the well-being of residents in its host country. This is done by providing funds for domestic investment, strong management skills, and advanced technology transfer, all while reducing unemployment, increasing competition, and increasing exports. However, it is imperative to note that government policy initiatives of individual SSA countries impact determinants of FDI, which have concentrated on luring foreign investors/capital from abroad rather than using their economic framework. Until now, no study has investigated the role of inward FDI in the economic development of SSA, considering the relationship between determinants and its impact. This research investigated the determinants of inward FDI in SSA countries and found a large population to influence inward FDI negatively. This research has also shown remarkable improvement in skilled labour, unlike in the past, when over 85 percent of firms could not find skilled workers to fill in professional and managerial positions (Chandra et al., 2001). The findings of this research confirm the vision of AfCFTA, suggesting trade liberalisation and movement of capital to boost inter-regional trade.

In summary, the findings of this research are;

a. Market-seeking, efficiency-seeking and strategic-seeking motives of Dunnings eclectic (OLI) paradigm are the key motives MNEs establish firms, plants and partners in South Africa and not resources-seeking motive despite being a country with abundant natural resources.
b. Resource-
c. Identified the interest of foreign investors to be highly skilled labour as against cheap unskilled labour. This is because skilled labour and advance technology development results in improved firm performance.
d. Confirmed the abundance of skilled labour and significance of technology contributes to a large extent participation of South Africa in GVC.
e. Confirmed skilled labour as an essential piece of value chain, which translates to efficiency in production thereby demonstrating their significance when engaging in strategic asset seeking of Dunnings OLI.
f. Shown that an increase in foreign ownership results in an increase in firm performance. This implies that as foreign investors increase their stake in a domestic firm, that firm's performance (in terms of profitability, productivity and propensity to export) increases.

g. Shown that with highly skilled labour, the region can improve its position in the global value chain, from the bottom of the ladder (supplier of raw material) to the middle of the ladder by being a supplier of intermediate goods or producer of finished goods.

9.6 Limitations of this study

While the research has contributed to knowledge and yielded significant findings, the study had limitations. This research is limited because not all enumerated policies will suit individual countries.

Hence, the following.

1. Individual country studies are carried out to serve policy purposes in various sub-Sahara African countries.
2. Data availability constraints affect the sample size for analysis; however, various data sets are employed to address research questions.
3. Data availability also prevented research from being able to examine the drivers of sectoral FDI and its use to explain economic development.
4. Future studies may also consider investigating a non-linear relationship among factors determining FDI in the regions.
5. The research had to exclude variables like research and development, educational level, age of firms, and rail tracks per km.
6. Flexible use of complementary policy instruments to help attract inward FDI, especially in sectors with low factor content of inward investment.
7. The inclusion of South Africa in SSA will give a fair representation of the region as RSA is considered a more developed African country and tend to invest in the region more than some non-African countries.
8. Adjustment of economic agenda to suit investors, especially in sectors that use intensive output of natural resources and financial services.
9. There were challenges in isolating inward FDI from emerging economies from developed economies into individual SSA countries and sectors.

9.7 Areas of further research

In light of the study's shortcomings, several potential areas for further studies have been proposed.

These are studies to;

i. examine inward FDI into different sectors from emerging economies as it will complement existing knowledge about determinants of inward FDI in SSA.
ii. determine what degree of foreign ownership will firm performance begin to decline. That is to identify the peak.
iii. address the racial and gender disparities in South Africa's labour market, which is skewed more in the direction of one race.
iv. replicate findings of this research to evaluate firm performance using panel data. Such studies would aid in adjusting for nation, industry, and year impacts, as well as dynamic effects.
v. examine firm performance using alternative measures of business performance as this research adopted profit per worker.
vi. examine business performance in various industries as this research focused only on the manufacturing sector.
vii. incorporate some of the significant variables associated with the determinants of FDI, company performance, and economic growth that were not included in this analysis.
viii. research into the determinants of sectoral FDI or the influence of sectoral FDI on economic growth is another intriguing option.

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