THE EFFECT OF INSTITUTIONS QUALITY, HUMAN CAPITAL AND INFRASTRUCTURE ON FDI AND ECONOMIC GROWTH ON THE FIVE SELECTED ECOWAS COUNTRIES

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DOCTOR OF PHILOSOPHY
UNIVERSITI UTARA MALAYSIA
October 2018

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Thesis Submitted to
School of Economics, Finance and Banking,
University Utara Malaysia,
In Fulfillment of the Requirement for the Degree of Doctor of Philosophy

Kolej Perniagaan
(College of Business)
Universiti Utara Malaysia

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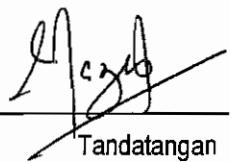|		
Tajuk Tesis / Disertasi (Title of the Thesis / Dissertation)	:	**The Effect of Institutions Quality, Human Capital & Infrastructure on FDI and Economic Growth on the Five Selected ECOWAS Countries**

Program Pengajian (Programme of Study)	:	**Doctor of Philosophy (Economics)**

Nama Penyelia/Penyelia-penyelia (Name of Supervisor/Supervisors)	:	**Assoc. Prof. Dr. Nor 'Aznin Abu Bakar**

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ABSTRACT

Strong institutions with sound human capital and infrastructure are very significant determinant of foreign direct investment (FDI)inflows and economic growth. Despite various researches on FDI inflows and economic growth, little has been done to examine the effect of human capital, institutions and infrastructure on FDI and economic growth especially on the five Economic Community of West African States (ECOWAS-5). ECOWAS-5 countries are mostly associated with dilapidated infrastructures, low literacy rates, corruption and politically unstable region. The main objective of this research is to study the relationship between human capital, institutions quality and infrastructure on FDI inflows and economic growth of the ECOWAS-5 countries for the period 1990-2015.The variables used in the analysis are gross domestic product, political terror scale, infrastructure, corruption, human capital, trade openness, inflation, real effective exchange rate, gross capital formation including the interactions of FDI with human capital and political terror scale. Panel data analysis was employed to analyse the relationship between FDI inflows and economic growth. Fully Modified Ordinary Least Square, Pool Mean Group and Dynamic Fixed Effect methods were employed in the estimation process. The results revealed a positive significance effect of human capital to FDI and economic growth.Corruption shows a negative sign to FDI inflows.Theinteraction effect appears to suppress the impact of FDI inflows on economic growth.On the other hand,infrastructure shows a positive relationship with FDI inflows. Therefore, it is suggested that policies must be devised to improve the quality of institutions, upgrade the standard of infrastructures and enhance the quality of human capital in order to attract more FDI inflows and economic growthof ECOWAS-5 countries.

Keywords: FDI inflows, human capital, institutions quality, infrastructure, economic growth, ECOWAS-5 countries

ABSTRAK

Institusi yang kukuh dengan modal insan dan infrastruktur yang lengkap merupakan penentu yang signifikan kepada aliran masuk pelaburan langsung asing (FDI) dan pertumbuhan ekonomi. Meskipun pelbagai kajian mengenai aliran masuk FDI dan pertumbuhan ekonomi, kurang kajian telah dilakukan untuk mengkaji kesan modal insan, institusi dan infrastruktur terhadap aliran masuk FDI dan pertumbuhan ekonomi terutamanya bagi negara-negara Afrika Barat (ECOWAS-5). Negara-negara ECOWAS-5 kebanyakannya dapat dikaitkan dengan keadaan infrastruktur yang usang, kadar celik huruf yang rendah, rasuah dan politik yang tidak stabil. Objektif utama kajian ini adalah untuk mengkaji hubungan antara modal insan, kualiti institusi dan infrastruktur terhadap aliran FDI dan pertumbuhan ekonomi di negara-negara ECOWAS-5 bagi tempoh 1990-2015. Pembolehubah-pembolehubah yang digunakan ialah Keluaran Dalam Negeri Kasar, skala keganasan politik, infrastruktur, rasuah, modal insan, keterbukaan perdagangan, inflasi, kadar pertukaran efektif benar dan pembentukan modal kasar. Pembolehubah interaksi antara aliran masuk FDI dan modal insan dan skala keganasan politik juga dimasukkan dalam analisis. Analisis data panel telah digunakan untuk menganalisis hubungan antara aliran masuk FDI dan pertumbuhan ekonomi. Kaedah *Fully Modified Ordinary Least Square, Pool Mean Group Mean Group* dan *Dynamic Fixed Effect* telah digunakan dalam proses penganggaran. Dapatan kajian menunjukkan kesan positif yang signifikan modal insan ke atas aliran masuk FDI dan pertumbuhan ekonomi. Rasuah menunjukkan kesan negatif ke atas aliran masuk FDI. Kesan interaksi didapati menghalang kesan aliran masuk FDI ke atas pertumbuhan ekonomi. Sebaliknya, infrastruktur didapati berhubung positif dengan aliran masuk FDI. Oleh itu dicadangkan supaya polisi perlu dirangka bagi meningkatkan kualiti institusi, infrastruktur dan modal insan untuk menarik lebih banyak aliran masuk FDI dan pertumbuhan ekonomi di negara-negara ECOWAS-5.

Kata kunci: aliran FDI, modal insan, kualiti institusi, infrastruktur, pertumbuhan ekonomi, negara-negara ECOWAS-5

ACKNOWLEDGMENT

"In the Name of Allah, the Most Beneficent, the Most Merciful"

All praise is due to Allah (SWT), the lord of the worlds who gave me the strength and courage to complete this research work. May the peace and blessings of Allah (SWT) be upon our beloved Prophet Muhammad.

First and foremost, i am indebted and also express my heartfelt gratitude to my wonderful supervisor, Associate Prof Dr Nor'Aznin Abu Bakar for her patience, professional guidance and excellent supervision throughout the PhD journey. Also, warm encouragement and thoughtful guidance of my supervisor is appreciated. Her encouragement and critique has really guided me along this path. I am deeply grateful to you because without your support, the road would have been significantly harder to tread.

Furthermore, my gratitude goes to the other members of my thesis committee: internal examiner,external examiner and the chairpersons for their excellent comments and helpful discussions toward improving the quality of my thesis.

I am indebted to my parents, who nurtured both my education and my upbringing, which has supported my life. A very special thanks to my loving, encouraging and supportive husband, Danmasanin Katsina. You have always been there for me. I am indeed fortunate to have you as my life partner, you're one in a million. Thank you also for your valuable advice and for always being so supportive of my work. I'm not forgetting my children Khalifa A. Muhammad Z, Zainab and my grandchild Maryam also my brothers and sisters especially, Engr Maijidda and Dr Uwani, thank you for your love and support without which I could not have managed to complete my thesis. Truly all of you have been the source of my unending joy and love, and you really understand that PhD journey is a tough academic journey that finally leads to major win.

The completion of this thesis which marks a milestone in my life, would not have been possible without support from my University; FUDMA, Katsina state. I am highly indebted to my Vice Chancellors, Deputy Vice Chancellors, Registrars, others too numerous to mention.

My deepest appreciation goes to my mentor, you set this pace for me, my two directors under the Ministry of Education; Mr and Mrs D. Ibrahim and Mr and Mrs Y. Ibrahim, i am indebted and most grateful to you in life, may Almighty Allah reward you.

Finally I appreciate the effort of Gen Abdulkareem. K and family, and others too numerous to mention, thank you all!

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CHAPTER ONE
INTRODUCTION

1.1 Background of the Study

Resources gap and globalization has enhanced the world flows of FDI since 1980s (UNCTAD, 2014). The neoclassical concept emphasizes majorly on the significant importance of capital accumulation on economic growth and endogenous growth concept reignites the debate between capital accumulations as well as its role on economic growth and equally on endogenous growth concept (Stiglitz and Hirofumi 1969; Solow, 1956). Similarly, Foreign Direct Investment (FDI) recovery was much in 2015, increased by 38% to about $1.76 trillion, which signifies the highest increase since the era of financial crises and global economic meltdown (WIR, 2016). FDI inflows of the developed countries stood at $962 billion because developed economies tipped the balance back to their favour with about 55% of FDI globally, down from 41% in 2014 (UNCTAD,2014).

Moving further, developing nations FDI inward almost increased to $765 billion that indicate a 9% increase higher than 2014. Asia continent FDI inflows stood at half a trillion dollars, which implies that Asia region constituted the biggest recipient of the global flow of FDI across the world. FDI flows to Africa, Latin America and the Caribbean dropped. Forging ahead FDI flows dropped by 10-15% in 2016, indicating the fragility of the world economy, dogged weakness of total demand, and sluggish growth was noticed in some commodity of some exporting nations with active policy measures to restrain tax inversion deals and a crash in MNE gains. Looking at the medium term, world FDI flows is assumed to increase growth in 2017 and more by $1.8 trillion in 2018, which will indicate an increase

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in world growth (UNECA, 2015). Also looking at African FDI flows, it stood at $54 billion in 2015, indicating a reduction by 7% over the previous year. An increase in FDI to the Northern African nations were noticed while sub-Saharan Africa including the Economic Community of West African States (ECOWAS), continues to reduce also central and west Africa. West Africa FDI flows reduced further by 18% by $9.9 billion, largely due to continuous reduction in Nigeria FDI inflows (UNECA, 2015). Concerning how sub-Saharan economy is been structured, agriculture remains backbone of most of the ECOWAS countries. According to UNCTAD (2010), primary sector constitutes mainly 40% of the GDP for the entire region including ECOWAS, while secondary sector constituted 25% and the regions tertiary sector constituted 35% approximately.

Accordingly, growth rate of ECOWAS countries continues to decline from 6.1% in 2014 to 4.2% in 2015, despite the success stories recorded in the 60s and 70s, ECOWAS continue to remain poor and this continue to take unwanted course. This is because the region is obviously getting poorer on a yearly basis. Thus, on average, Gross Domestic Product fails to significantly improve in ECOWAS sub region over the period 1965-1990. In contrast, the GDP growth of pacific and East Asia was found to increase by almost 5%. Similarly, the Latin American GDP grew close to 2% on annual basis (Easterly and Levine, 1997). According to Acemoglu and Robinson (2001), on average ECOWAS are poorer than some low-income nations, which indicate that the average growth over the years for this countries remain negative since 1965 and also there is 35-fold differences among per capita income level of this countries.

The graph below shows the GDP growth rate for some selected countries (Nigeria, Ghana, Togo, Senegal, and Cote D'ivoire) from 1990 to 2016. According to Figure 1.1, Nigeria recorded 6.3% growth rate in 2014 while it dropped to 4% in 2015. Ghana economic growth subdued led to 0.5% decrease in 2014 and 3.5% in 2015 while there is disparity among other selected ECOWAS members that is Cote d'Ivoire (9.5%), Senegal (5.4%) while countries that improved in 2015 is Togo (8.5%).
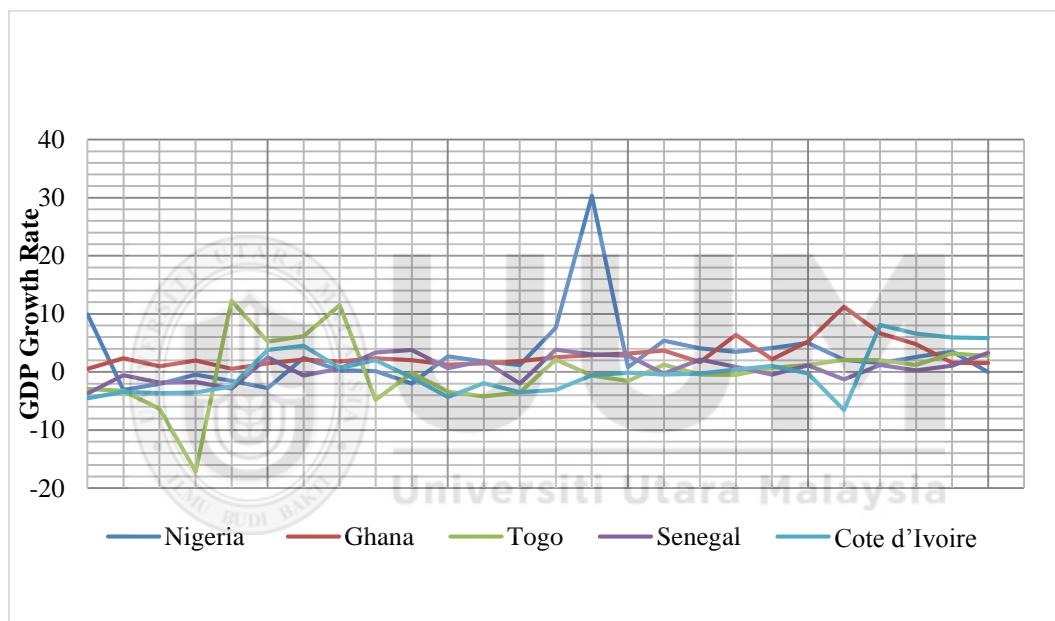
Figure 1.1: GDP Growth Rate for Selected ECOWAS Countries (1990-2015)

Sources: World Development Indicators.

In the 1990s, most sub-Saharan African countries began to embrace and attract foreign investors and expertise to their nations. The percentage of FDI to GDP as shown in Figure 1.2 shows that, the selected ECOWAS countries have not benefitted much from the global inflow of FDI. From the graph, Nigeria have the highest FDI inflow, which started increasing at increasing rate from the year 2000, and reach an all-time peak in 2011, then

started declining upto date. Ghana has the second largest FDI inflow in the selected ECOWAS countries, reaching its peak in 2011, and then continues to flow at the same magnitude. Togo, Senegal and Cote d'voire have the lowest insignificant FDI inflow among the five selected countries; this implies that other regions and continents across the globe have apparently benefitted much more in comparison with ECOWAS countries (UNCTAD, 2012).
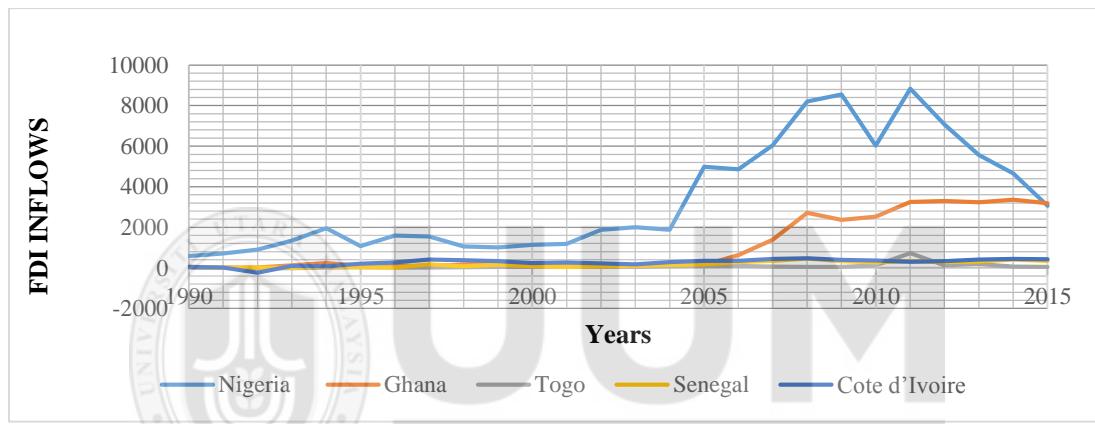
Figure 1.2: FDI Inflows to Selected ECOWAS Countries (1990-2015)

Sources: World Development Indicators.

Likewise again on looking at other determinants of FDI inflows like inflation, similar scenario appears. Generally, inflation in ECOWAS countries rose up in 2015, the inflation rate increased from 7% in 2014 to 8.3% in 2015, the general increase in inflation resulted from an unexpected inflation surge in Nigeria that rose from 8% in 2014 to 9.8% in 2015 while Ghana also experienced inflation surge by 15.3%. Surprisingly, deflationary trend was discovered in Senegal with 1.1% and 1.3% thus this trend leads to loss of revenue thereby stifling domestic demand and economic activity. The inflation rate in Togo was recorded at 0.30 percent in 2017. Inflation Rate in Togo averaged 0.71 percent from 2001

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until 2017, reaching an all-time high of 15.83 percent in 2008 and a record low of -26.77 percent in 2010. Inflation rate in Ivory Coast averaged 2.48 percent from 2000 until 2017, reaching an all-time high of 9.63 percent in 2008 and a record low of -3.84 percent in 2012. Specifically, to Fearon and Laitin (2003), high inflation, poor economic and other social indicators cause high infant mortality and low economic growth. In addition, weak institution and governance combined with high corruption are also the major source of poor performance (Ali, Fiess and MacDonald, 2010; Jakobsen and De Soysa, 2006).

According to Dunning (2002) institutional elements like good governance, control of corruption, rule of law, political stability and freedom of economic activities have been found to be more important pre-requisites for FDI inflow. The World Bank concluded that corruption is the main impediment to development and growth mainly because it weakens the rule of law and reduces economic growth and performances rates. From the aggregate governance indicators table in appendix 1(see page 157) Ghana have the highest voice and accountability ranking of 67.49, followed by Senegal with 57.64 while Nigeria, Togo and Cote d'voire have the lowest ranking of 35.96, 32.02 and 36.45 respectively. The regulation control ranking is also top by Ghana with 45 ranking while Togo and Nigeria are at the bottom with 12.02 and 18.27 respectively. Rule of law ranking is also top by Ghana with 54.81 while Nigeria is at the buttom of the rnaking with 13.94. Control of corruption index is top by Senegal and Ghana with 57.21 and 50.96 respectively while Nigeria has the lowest ranking of 13.46. Hence, the focus of multinational companies has apparently metamorphosed from market seeking and resource seeking to seeking and monitoring of efficiency. The figure below shows Corruption Perception Index for the five selected ECOWAS countries, from the graph all the selected ECOWAS nations corruption index

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remain very high with an average of 20-30 points, with Nigeria at the fore front, which indicate that corruption affects development and growth which inturn might likely impedes FDI inflows. Blackburn and Forgues-Puccio, (2007) proof further that corruption menace is a great impediment to economic development and growth in ECOWAS.
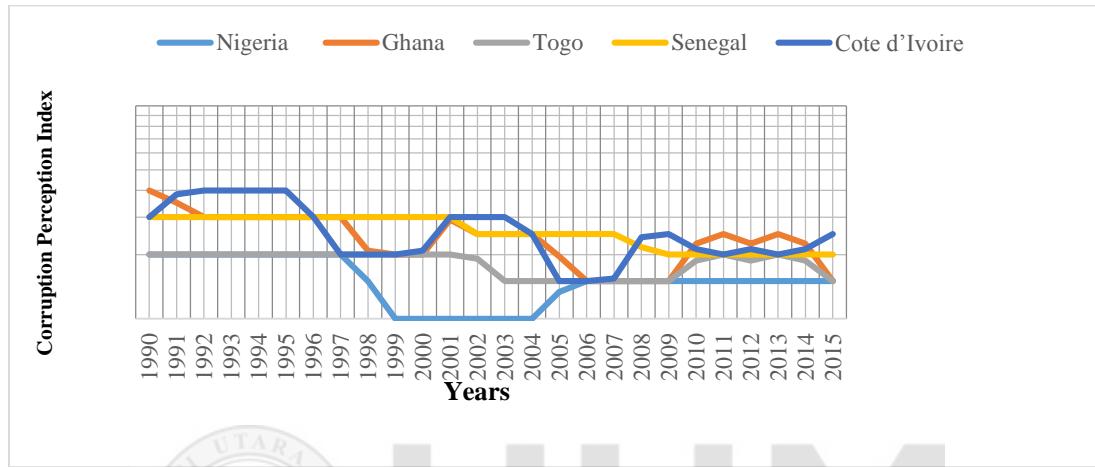
Figure 1.3: Corruption Perception Index for Selected ECOWAS Countries (1990-2015)

Sources: PRSG.2016

Another major challenge that might affect investor confidence and might impede economic growth within selected ECOWAS nations is political instability, which can be viewed from two dimensions (Alesina, Ozler, Roubini and Swagel 1996; Alesina and Perotti 1996). The political stability non violence ranking from appendix table 1, Ghana is on the top list with 40 while Nigeria have the lowest ranking of 6.67. The government effectiveness ranking is top by Ghana with 46 while Nigeria and Togo are at the bottom of the least with 12.50 and 12.98 respectively. Looking at figure 1.4, it shows virtually that all the selected ECOWAS countries are not economically stable using macroeconomic stability index computed by PRSG.This is because of the inceasant conflict and political unrest in the region (Political Terror Scale, 2016).
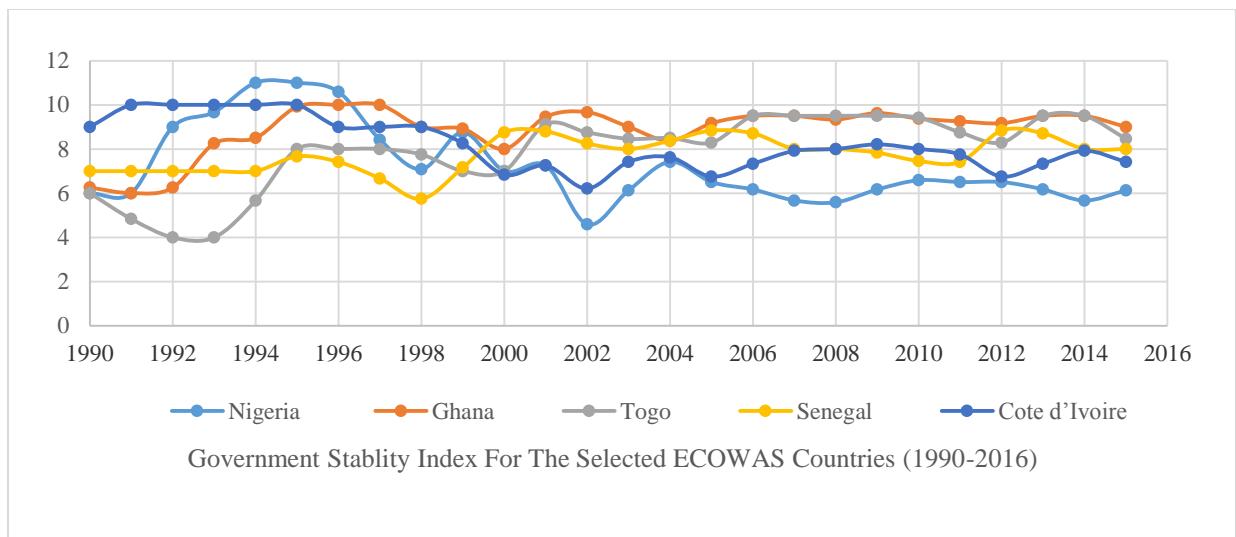
Figure 1.4: Government Stability Index for Selected ECOWAS Countries (1990-2016)

Sources: PRSG, 2016

The Global Financial Integrity (2015), indicated in their report that illicit financial flows from developing nations and emerging economics for the period of 2004-2013 lost about 7.8 trillion dollars in illicit financial flows from 2004 through 2013, while the illicit outflows increased to an average rate of about 6.5% annually, which doubled the world GDP. The illegal outflows of capital stem from crime, illicit activity, corruption and tax evasion. Probing further the increased in the illicit outflows is at an average inflation-adjusted rate of about 6.5% on yearly basis. According to the Global Financial Integrity (GFI,2015) ECOWAS nations grieved with the biggest loss of illicit outflows from the area, which stood at an average of 6.1% of global GDP annually, illicit outflows averaged at 4.0% of GDP. More so, the fraudulent misinvoicing of trade transaction indicated to be the largest part of illicit financial flows from developing nations amounting to 83.4% of all illicit flows.

In summary about $1.1 trillion of same illicit funds flows from developing nations in 2013 which was greater than the aggregate FDI and the net official development assistance received in that year. The illicit financial flows amounting to 83% of all illicit flows are a case in point (GFI 2015). Another egregious attitude of leaders in African include the former president of Senegal Abdoulaye Wade whom was alleged of spending $70 million instead of $25 initially budgeted for African Renaissance Monument (ARM) (Ly, 2010). Corruption has invariably spread to other lower levels, also looking at the cost of doing business in many developing nations has been attributed to the fact that business men often need to bribe officials of the government to obtain the required licences and get registered, Shleifer and Vishny (1993); Wei (2000) and often disrupts and discourages foreign direct investors mainly due to the fact it increases the cost of doing business (Wei, 2000). There is a synergy between government stability and political instability, which in turn will affect investor confidence negatively. According to Political Terror Scale (2016) computed by the white house and the amnesty international, it shows that virtually all the selected ECOWAS countries were ranked fourth on a scale of five. This indicated that, civil right is curtailed, and political violations are common occurences especially concerning the growing disenchantments of the civil population. Equally still disappearances, murder and inexplicable torture are on the increase on daily basis (UNCTAD,2015). Despite the fact that, these violations indicate some measure of generality, these regrettable terror levels physically and emotionally affect those with interest on lofty ideas and politics(McGowon,2016). Thus, there is inevitable need to turn the spotlight on the likely problems affecting FDI nexus growth, which includes institutional quality, infrastructure and human capital.

An Overview of Ecowas

The existence of ECOWAS came into being in 1975 with a membership of 15 countries: Benin, Burkinafaso, Cotedivoire, Cape Verde, Ghana, Gambia, Guinea-Bissau, Niger, Nigeria, Mali, Senegal, Sierra-leone, Guinea, Liberia, Togo (ECOWAS,1993). However, the region is experimenting a growth rate of population that is very high in the world, in 1950 the population was 70 million people increasing in 2010 to 300 million. Representing sub-saharan Africa with 40% by 2014 (ECOWAS,2003).

The population of ECOWAS is estimated by 2020 to over shoot to 430 million (ECOWAS,2007). The 45% population falls within the age gap of 15 years, and the prevailing yearly rate of growth is 4% - 4.5% and average yearly rates of growth of 3.5% (ECOWAS,2003)

The following are the aims and objectives selected guiding the regional body according to ECOWAS treaty pact 3a and 4f of 1993:

The establishment of an accepted market with the help of:

(a)Trade Liberalization/ Flexibility using abolition among ECOWAS members of acceptable code tariff levy on imports and exports.Also the abrogation of non-tariff restriction among ECOWAS members in aligning to institute free trade zone.

(b) Establishment of collective different tariff and a proportionate guideline of trade.

(c) Thorough elimination of all hindrances to permit goods, services, capital among all member nations and downright mobility of people apart from any constraint and permission to settle and stay apart from any impediment in the region.

(e) The establishment and acceptance of homogeneous guidelines such as financial, cultural, social and monetary union formation.

(f) Provision of perseverance, security and serenity among the member nations also boosting acceptable neighborliness(ECOWAS,1993).

1.2 Problem Statement

Despite the huge flows of FDI to Africa in the contemporary, FDI inflows symbolise exclusively a meagre inflows to ECOWAS (Economic Community of West African States) region (UNCTAD, 2015).On average Africa's FDI inflows improved from $2.2 billion in 1980 to $15 billion in 2004 while it stood at $54 billion in 2015(Anyanwu, 2015). ECOWAS world flows reduced from 2.3% in 1980 to 1.5% in 2004 also subsequent decrease were noticed in 2014 (UNCTAD, 2015). The continuous decline in these selected ECOWAS was illustrated (See figure 1.2). The per capita flows of ECOWAS region has decreased of recent (Anyanwu and Yameogo, 2015). According to UNECA (2015) economic growth rate of ECOWAS countries continue to decline from 6.1% in 2014 to 4.2% in 2015.Inability of ECOWAS to attract large FDI is largely linked with the hostile investment environment, which in turn is inextricably connected also with economic risks and political risks. Therefore, the affected risk emanated from different factors, which includes economic instability, corruption and fragmented markets (Morisset, 2001; Cleeve,

2008). One area that has not received special attention in terms of policy in ECOWAS nation is institutions and political reforms (Zubair, Bakar and Azam, 2017).

Cleeve (2008), indicated that in an attempt to establish friendly investment atmosphere, ECOWAS have tried to use some motivating tools to attract inflows of FDI, although some realized that a proficient entity (institutional credibility and political stability) is a significant factor in decision making process for FDI location strategy for multinational enterprise.Generally there is the notion that the inflow of FDI should surge ahead, though the inflow that reaches these ECOWAS region focused on small number of nations, mostly the enrich and resource base region (Anyanwu,2012). Variably, when distinguishing between other developing countries, ECOWAS quota in world record of FDI is meagre and not encouraging (ECOWAS, 2015). Moreover, the agitating issue facing FDI performance in ECOWAS is the incapability of human capital, lack of institutional quality, poverty level and lesser contribution from manufacturing sector (Zubair,et al 2017) .This is because the forces that strategically drives the growth of the economy is the development of institutions, financial liberalization, infrastructural quality and a friendly environment for business therefore corruption and institutions that are not functioning well impedes trade openness (Ndomo, 2009). Nonetheless, Human Development Report (2013) categorized ECOWAS region among the worst in the world adding that 48 years is the limit mostly for expectancy rate and 60 per cent of the population lives below the $1 poverty line. According to ECOWAS (2015) there is need for ECOWAS to strategize their technical and vocational education to improve their competency for employability in the region and also to enhance good certification of degrees and curricula in their schools. Reiter & Steensma, (2010) elaborated further that from 1980 to 2005 there is poor FDI

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inflow and the lack of priorities towards most of the stated objectives . ECOWAS in actual fact had a 56 percent illiteracy rate and a 19 percent secondary school enrolment rate as compared to the 36 percent and 45 percent in Asia (Anyanwu, 2004). Such low literacy rates inevitably have an impact on human capital development which contributes to the less attractiveness of the region for FDI inflows (Zubair,et al 2017).The Business ranking reports of world bank reveal that most countries in the region falls within the lower and middle income group (World Bank,2015).

Another important issue facing ECOWAS is bad governance and corruption (Blackburn and Forgues-Puccio 2007). According to Transparency International (2012), corruption index for all ECOWAS nation in contrast to other regions is very high, it is ranked as the corrupt region in the world. Invariably, Quartey (2012) made mention that in every kilometre of 100, there are seventeen controls from which, on average, $54 were collected as a bribe. He further identified this bribery problem as a major barrier to the movement of goods, people and services across the area. In addition, an average delay of 55 minutes per control point exists across the borders of each country within the region. The quality of governance speaks a lot about economic development and growth (Gani,2007). According to Owoye & Bissessar (2012), leadership fluctuations are recurrent and in almost all circumstances, these leaders desire to govern any country where institutions are very weak or do not exist. Because they cannot be held accountable, for their fraudulent conduct and misuse of office. With the nonexistence of operational checks and balances, corruption remains unrestricted over the past four or more decades in Africa (ECOWAS, 2015).

Another point to show that ECOWAS trade performance remain very low can be attributed to the fact that Industrial Growth Performance of African Countries for 1990–2010 shows that all ECOWAS countries fall within the catching up and infant stage group, which signifies that the performance and contribution of ECOWAS countries to the world trade is not very impressive (UNIDO, 2011). Quartey (2012) discovered that about 80 per cent of ECOWAS trade goes to the EU and US, which is mainly primary products then in return, most of the primary products will be transformed to finished goods and re-exported back to the ECOWAS countries for consumption. Import and Exports proportion for ECOWAS trade keep declining over the years regarding its quota to international trade for the past 33years (UNCTAD, 2014). The inability of African countries to fully embrace trade openness in their economic and developmental process is making them to participate somewhat marginally in the world economy (Osabuohien, 2007).

But the main issue is that some African countries have relatively small market sizes due to their population and per capita income which deter the inflow of FDI and also because most domestic markets in ECOWAS are fragmented and cannot effectively demand goods produced by the MNCs (Musila & Sigue,2006).The agonizing issue is the sector that attract FDI in ECOWAS unlike the Asia countries where FDI flows into secondary sector, in some ECOWAS countries FDI flows to the primary sector, these economies experienced decrease growth as the bid for their commodity have inelastic demand (Anyanwu,2006).

The outcome of the investigation on FDI flow from US to Africa by Nnadozie and Osili (2004) reveals that the performance of infrastructural quality on FDI is significantly low. Evidence from Anyanwu and Erhijakpor (2004) testify that mobile infrastructures, GDP

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and trade openness extremely increase inflows of FDI to Africa as against, export processing zones, capital gains tax and credit to the private sector which are negatively significant. Oladipo (2008) reveal that potential market size, the degree of export orientation, administering and enabling environment toward the contribution of infrastructural quality, human capital, and ensuring macroeconomic stability are vital principles of inflows of FDI. The justification of infrastructural quality, competent infrastructure is recommended to re-enforce new technologies and to ease correlation amidst domestic firms and FDI (Busse, Erdogan and Mühlen, 2016; Iamsiraroj, 2016). Invariably Infrastructural development like Information Computer and Technology is now penetrating in accommodating regional producer into alluring vertical FDI in manufacturing, services and communication chain (Addison and Heshmati ,2003).

However, after thirty-eight years of existence as a regional group, the performance of ECOWAS remains stagnant with little or no progress to show (ECOWAS, 2016). Despite the continuous reformation and implementation of new policies including a common market, preferential trade and free trade, their main target is to become an economic and monetary union by 2020 (ECOWAS,2015). Hence, there is an urgent need to solve most of the barriers facing ECOWAS (Reiter and Steensma, 2010).

There is a need to turn the searchlight into the problems facing ECOWAS because they are still lagging far behind the other continents when it comes to competition in the world market in terms of economic growth and development, particularly Asia, Latin America, North America and Europe, whose economies are growing between 5% and 11% per annum(Mohamed, Kaliappan, Ismail and Azman,2014). Unless radical steps are taken to

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reverse the trend, the continent will continue to lag behind the others and the prospect of achieving the Millennium Development Goals (MDGs) by 2015 and vision 2020 will look bleak(Okafor,2015). However, the quality of the infrastructure, play an important role in the region, but there is saddled and weaken infrastructure which in many cases have deteriorated and significantly affect FDI inflows (Ranganathan & Foster, 2011).For example Investors like to be able to get in touch with their families and head offices with ease when they are abroad also checking their e-mails and undertaking other transactions from their computers and phones this is difficult with poor telecommunications infrastructure as it is the case in most countries in ECOWAS. The poor nature of ECOWAS infrastructure adds an enormous cost to doing business in the region and thus hinders FDI inflows (Draper, Grant, Kingombe and Velde,2011).

Corruption creates macroeconomic distortions and barriers to development by bringing down investment, economic development and also by increasing transaction cost which creates bottlenecks and risky inconveniences in the public sector and judiciary system (Abdoulai,2007).Huge real exchange rate expense proportionate to the US dollar, entails undervalue currency (Buckley, Clegg, & Wang, 2007) . A reduction of a country's exchange rate will spur the comparative wealth of foreign firms and allow more foreign acquisition of domestic assets (Busse, Erdogan, and Mühlen, 2016). Supplementarily, a reduction of a country's rate of foreign exchange will allow capital inflows as foreign economies endeavour to accept advantage of   domestic labor (Pantelidis and Nikopoulos, 2008).

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In Nigerian the physical infrastructure ranging from roads, rail, irrigation systems, water pipelines, mobile and broadband networks, housing and energy, are desperately inadequate in terms of supply (Draper,Grant,Kingombe and Velde,2010). In fact, Nigeria's core stock of infrastructure is estimated at only 20-25 percent of GDP (Foster, 2008). The level for middle-income countries of this size should be around 70 percent, says Usmane Dore, country director of the African Development Bank (AFDB) in Nigeria (AFDB, 2010). In terms of power supply the country generates about 4,000 MW, and has installed capacity of about 5,900 according to the last figures from the United States Energy Information Administration in 2011. Compared with South Africa, the continent's other major economy, which has an installed capacity of 44,000 MW, according to the Department of Energy, serving a population of 53 million.

Weak infrastructures exert a huge burden on foreign and local businesses (Wang,2002). Difficulties accessing markets via crumbling roads or clogged up ports, and vast expenditure on generators required to avoid blackouts, are regularly cited as being among the biggest challenges to investors in the country (Kirkpatrick,Parker and Zang,2006).The shortage of infrastructure means that great deals of businesses have to self-generate electricity at vast cost, which puts them at a competitive disadvantage (Foster,2008). However the country judicial system and the promotion of justice is restrained by the following challenging elements; the neglect of independence of the judiciary, inadequate training mechanisms of lawyers, defiance to the constitution and court orders, inefficient justice system, and poor implementation of laws (ECOWAS,2015).

In Ghana, The World Bank Country Economic Memorandum (CEM) reports that the country's key infrastructure services were not only short in supply but were characterized by poor quality and unreliable, leading to serious implications for growth (Gyapong and Karikari,1999). Ghana's overall spending on infrastructure needed to be doubled to close severe infrastructure gaps as well as help sustain rapid economic growth (Fulmer, 2009). The poor infrastructure services substantially increases the cost of doing business and hampered Ghana's prospects to attract investment and its ambitions to become a regional hub in West Africa (ECOWAS,2013). The energy, water, sanitation, Information Communication Technology and Telecommunications sectors as those that were seriously characterized by poor qualities (Dupasquier and Osakwe,2005). These countries need to tailor expenditure to the sectors that were in most need and to improve the performance of State Owned Enterprises (SOEs), through which the bulk of the infrastructure expenditure was channeled (World Bank,2015).

The country's judicial system is also in a stage of coma, for example in Ghana Prisons Service, more than 3,000 of the roughly 13,500 prisoners currently in the system are on remand, meaning that they have been charged with a crime but not convicted in court (ECOWAS,2007). Under the Constitution of Ghana, everyone has the right to be presumed innocent until proven guilty, the situation in reality is the opposite, suspects are guilty until proven innocent (ECOWAS,2013). But the Commission for Human Rights and Administrative Justice (CHRAJ) reports that most people in prison on remand wait for three to 17 years for trial in dire conditions in Ghana's vastly overcrowded prison facilities (UNCTAD,2015).

For instance, less than five in ten households in rural areas have access to potable drinking water (World Bank,2015). Additionally, the quality of school infrastructure is very low, with many classrooms built with non-durable materials or needing rehabilitation; and health infrastructure is insufficient compared to the demand, in 2013, there were about 6,500 inhabitants per health care center on average in Togo and 1,500 inhabitants per hospital bed (UNCTAD,2015).Human rights problems in the country included security force use of excessive force, including torture, which resulted in deaths and injuries; official impunity; harsh and life-threatening prison conditions; arbitrary arrests and detention; lengthy pre-trial detention; executive influence over the judiciary; infringement of citizens privacy rights; restrictions on freedoms of press, assembly, and movement; official corruption; discrimination and violence against women; child abuse including female genital mutilation (FGM), and sexual exploitation of children; regional and ethnic discrimination; trafficking in persons, especially women and children; societal discrimination against persons with disabilities; official and societal discrimination against homosexual persons; societal discrimination against persons with HIV; and forced labor, including children(ECOWAS,2015).

Côte d'Ivoire has experienced more than a decade of detrimental political, social, and economic crisis, culminating in 2010 with a violent post-electoral conflict (Yaoxing, 2010). Throughout the lengthy crisis period, the lack of investment in roads and transportation infrastructure as well as in energy and water generation and distribution networks, resulted in severe economic bottlenecks and took a toll on the wellbeing of the population (ECOWAS,2013). In addition, a poor education system, the politicization of higher education, and high unemployment have negatively impacted the youth population (World

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Bank,2015). Land dispossession remained a key driver of inter-communal tensions and local-level violence in western Côte d'Ivoire. The 1998 land law, designed to increase certainty over land ownership by converting customary claims to legal title, is largely unimplemented (World Bank,2012). Corruption in Côte d'Ivoire is endemic and permeates all levels of society, which is reflected in the country's poor performance in most areas assessed by governance indicators (World Bank,2015). The decade-long civil war, born out of profound political divisions, the absence of a consensual successor to Houphouet-Boigny, and the subsequent economic decline, appear to have resulted in even higher levels of systemic corruption and predatory behavior, impunity is generalized throughout the country and the justice system is seen as dangerously partial (World Bank, 2012).Côte d'Ivoire lacks some basic governance infrastructures, and the weakness of law enforcement entities makes the governance system largely ineffective (OECD,2002). Patronage and clan networks continue to play a central role in the Ivoirien society, and the administration does not operate transparently (World Bank,2012). The poor governance structure is becoming an obstacle for genuine reconciliation in a still-divided Côte d'Ivoire (Kingombe, Massa and Velde, 2011).

In terms of physical infrastructure, Senegal has 19 airports, a total railway line length of 906 km and a road connectivity of 0.07 kilometers per square kilometers of land. While these statistics are far better than a couple decades ago, Senegal still falls behind the rest of the world. Senegal's road connectivity of 0.07 is far below that of the world average of 0.46. Additionally, only 61 percent of the population has access to electricity. In order for Senegal to catch up to the rest of the world, they will need major increases in funding (World Bank, 2011). According to the World Bank's Global Competitiveness Index (GCI),

which assesses the "competitiveness landscape" of a country's economy, Senegal came in with a score of 3.7 for the 2015-2016 year. The score is also an indicator of the level of transport, electricity and telephone infrastructure. Senegal compares poorly to other countries, but it must be noted that the highest scoring countries are developed nations with access to greater funding.

There is a moderate risk of corruption in Senegal's court system. Companies report insufficient confidence in the independence of the judiciary (Ly,2010). Irregular payments and bribes in return for favorable judicial decisions are fairly common, a quarter of Senegalese citizens perceive the most or all of judges as corrupt (ECOWAS,2013). One in ten firms identifies the courts system as a major problem (McGowan,2006). Senegal's judiciary is formally independent of the legislature and executive office, but in practice the executive's influence over the courts is occasionally evident in cases involving politics and large economic interests, civil society groups have criticized the judiciary for not following up on the cases OFNAC, Senegal's anti-corruption agency, brings to its attention (World Bank,2015). None of the cases identified in OFNAC's 2016 report have been investigated by the judiciary, nevertheless, executive interference in commercial disputes is rare (ECOWAS, 2015). Inadequate pay and lack of tenure sometimes compromise the impartiality of judges, despite the problems, judicial processes in Senegal are generally procedurally competent (Ly,2010).

In conclusion, a need exist to turn the searchlight on the problems affecting FDI inflows into selected ECOWAS nations. Many research have been carried out on FDI and its determinants, hence this study is going to look at whether institutions, human capital and

infrastructure require complimentary factors to influence FDI and economic growth through an interaction term effect in ECOWAS-5.

1.3 Research Questions

Based on the highlighted issues affecting FDI inflows, this study aims to answer the following questions.

1. What are the factors determining FDI inflows and economic growth in ECOWAS-5?

2. Does an institutional quality factor affect FDI and growth in ECOWAS-5?

3. Does infrastructure and human capital have effect on economic growth in ECOWAS-5?

4. Does Institutions, human capital and Infrastructure require complimentary factors to influence FDI and economic growth through an interaction term effect in ECOWAS-5?
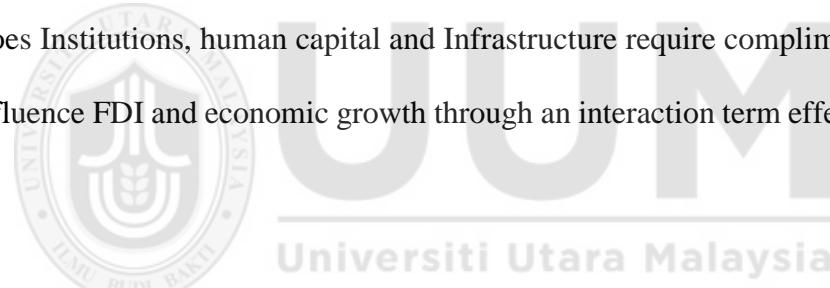
1.4 Objectives of the Study

The general objective is to study the relationship between institutions, human capital and infrastructure on FDI and economic growth of five selected ECOWAS nations. The main specific objectives are to:

1. Investigate the factors determining FDI inflows in ECOWAS-5.

2. Examine the impact of institutions quality on FDI inflows in ECOWAS-5.

3. Determine the effect of infrastructures quality and human capital on economic growth in ECOWAS-5.

4.   Determine whether institutions, human capital, and infrastructure require complimentary factors to influence FDI and economic growth through an interaction term effect in ECOWAS-5.

1.5 Significance of the Study

The findings of this research would be useful for the government and policy makers including the regional body i.e. ECOWAS as a guide in implementing an appropriate policy, concerning international trade, FDI and economic growth by extension this will help to develop a robust policy that can attract more investors. The study shall strengthen the position of existing framework on FDI and economic growth. The framework shall present knowledgeable and explicit explanation on how developing countries like ECOWAS countries can benefit positively on FDI. Theoretically, this study aims to bridge the literature gap on the area by considering the avalanche of studies so far conducted and build more input and by extension looking at the interacting impact will definitely give a new dimension or new findings to the literatures. In addition, dynamic panel techniques (FMOLS and PMG) will be used, because it can adequately capture and correct endogeneity issue, which will, make our results free from all biasness and make it more robust.

1.6 Scope of Research

This study was conducted on five selected ECOWAS countries and will cover 25 years, from1990-2015. Selection of ECOWAS countries was based on the market size (GDP) also these countries were selected due to the availability of data within the stated periods. Secondary data was used to explore the various determinants of the inflow of FDI and

growth and by extension interaction effect of institutions; infrastructure and human capital will be established for five ECOWAS countries. Using a more robust technique that controls for likely endogeneity issue for estimation might produce a good result and unbiased result.

1.7 Organization of the Study

This research is organized as follows; Chapter One which general introduction is will consist of the background to the study, problem statement, research questions, research objective, scope of the study and significance of the research.

Chapter Two reviews the literature as such, prior empirical studies on the determinants of FDI inflows and economic growth, FDI and institutions, infrastructure, human capital and governance, relationship between inflows of FDI and the growth rate of the economy, empirical research on Eclectic theory and endogenous theory then lastly summary of the chapter.

Chapter Three will focus on the theoretical framework supported by theories of FDI and economic growth, data sources, model specification, estimation procedure, and justification of variables, definition of variable measurement, and finally chapter summary. Chapter four comprises empirical analysis, discussion of the results and interpretations of the findings. Chapter five summarizes the study, policy implication of the findings, areas for future study and finally conclusion.

CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

This chapter consists of three sections; the first section defines the various concepts used in the research work, the second section discusses the theoretical literature and the third section discusses the empirical literature while the concluding part highlights the literature gap.

Foreign Direct Investment

According to the IMF and OECD definitions, direct investment reflects the aim of obtaining a lasting interest by a resident entity of one economy (direct investor) in an enterprise that is resident in another economy (the direct investment enterprise). The "lasting interest" implies the existence of a long-term relationship between the direct investor and the direct investment enterprise and a significant degree of influence on the management of the latter. Direct investment involves both the initial transaction establishing the relationship between the investor and the enterprise and all subsequent capital transactions between them and among affiliated enterprises, both incorporated and unincorporated. It should be noted that capital transactions which do not give rise to any settlement, e.g. an interchange of shares among affiliated companies, must also be recorded in the Balance of Payments and in the IIP. Foreign direct investment (FDI) is defined as an investment involving a long-term relationship and reflecting a lasting interest and control by a resident entity in one economy (foreign direct investor or parent enterprise), in an enterprise resident in an economy other than that of the foreign direct investor (FDI

enterprise or affiliate enterprise or foreign affiliate). FDI implies that the investor exerts a significant degree of influence on the management of the enterprise resident in the other economy. Such investment involves both the initial transaction between the two entities and all subsequent transactions between them and among foreign affiliates, both incorporated and unincorporated. FDI may be undertaken by individuals as well as business entities.

Economic Growth

Schumpeter (1934) define the term economic growth as used to denote a steady and gradual change in the long run which comes through a general increase in the rate of saving and population in a dynamic economy. **Economic Growth** refers to the rise in the value of everything produced in the economy. It implies the yearly increase in the country's GDP or GNP, in percentage terms. It alludes to considerable rise in per-capita national product, over a period, i.e. the growth rate of increase in total output, must be greater than the population growth rate.

Economic growth is an increase in the capacity of an economy to produce goods and services, compared from one period to another. It can be measured in nominal or real terms, the latter of which is adjusted for inflation. Traditionally, aggregate economic growth is measured in terms of gross national product (GNP) or gross domestic product (GDP), although alternative metrics are sometimes used (Jhingan,2003).

2.2 Theories on FDI

Under this section, various theories backing foreign direct investment are reviewed. The theories will be used in constructing a theoretical framework in the next chapter.

2.2.1 The Internalization Theory

This theory indicates the advancement of the global multinational companies and their drive promoting FDI. Internalization theory was profoundly advanced by (Buckley & Casson, 1976; Hennart, 1982 and Casson, 1983). Primarily, Coase (1937) initially introduced this theory under an indigenous framework developed in a global overview. Hymer,(1977) present two main determinants of FDI; firstly, the elimination of competition and secondly, the authority which some firms dominate in some peculiar magnitude (Hymer, 1977). Arguably again, Buckley and Casson (1976), have asserted in the theory established by them that transnational companies have lately developed the habit of formulating capacity inherently so that definite preferences could be established. Internalization theory is bearably significant according to Dunning (1977), though Dunning (1980) certified in the eclectic theory, yet still argued further. In 1982, the work of Hennart explore the broadening of models in respect of the perception of internalization; vertical and horizontal relationship.Originaly, Hymer (1977) founded the theory of firm distinctive benefit, thus, it strongly claims that, FDI becomes worthy only if the anticipated advantage of administering definitive benefit eclipse the proportionate worth of the operations overseas. Hymer (1977) analyzed that, Multinational enterprise emanate absolutely to the market deficiency drive to a disparity against perfect competition in the absolute product market. Hymer (1977) observed the internalization theory of FDI to be a firm proportionate setup arrangement relatively than a capital market fiscal agreement

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(Edwards, 2007). Acording to Peter, Obe and Boddewyn, (2015), Internalization theory can be applied to the joint failures of economic and non-economic institutions, and this helps explain the growing "political role" of multinational enterprises economies in transition as well as the phenomenon of increasing multinational firm activity in underdeveloped economies.

2.2.2   The Eclectic Paradigm of Dunning

Dunning   mixed three heterogeneous theories of FDI (OLI).

(1) "O" which stands for Ownership benefit: Transnational company's modus operandi transaction in various countries go through some extra costs. In that, to victoriously penetrate a foreign market, a company must have necessary changes that provide achievement over controlling expense on a foreign market. These preferences are the exact advantages of the company. The firm has ownership amongst its own definite advantages and practicing the system overseas create greater marginal benefit or decrease marginal expense thereupon further rivals (Dunning, 1993). The definite advantages are classified into three;

(a)   Cartel/Patent advantages: In array of acceptable approach to markets through monopoly of physical sparse wealth, controls, standards.

(b)   Technical knowhow/Scientific know how: Meaning transformation and diversification efficiency.

(c)   Economy determined by high-powered capacity: literary meaning economies of scale, outstanding attainment for economic predominance.

(2) "L" stands for Location: Notwithstanding the fundamental instil achievement, it prerequisite should be of benefit to the organization that controls the enterprise to themselves, comparatively thereupon trade them or lease them to overseas company. Location benefit of various regions are the fundamental element to concluding which disposition emerge as host region for the domain of the multinational entity (Krugman, 2008).

The exact benefits of each nation can be categorically classified into three; the Economic advantage includes weighable and dependable element of production, transportation expenses, the extent of the market, telecommunications. Political benefit; prevailing and explicit authorities or state guidelines that alter FDI boost. Social benefit; comprises extent of intervening in the domestic and host nations, cultural modification approach regarding foreigners etc.

(3) "I" stands for Internalization: Assuming, the pioneer and second derivation obtained fall within , it is an important advantage in the company upon the adoption of the above mentioned benefits, in joint effort with at least a few influence over the country of take-off (Dunning, 1993). Internalization endeavor plans for determining divergent approach which the organization desire to accomplish its capacity against the purchase of properties and services to different compromise, supposing it is controlled to be endorsed among the companies. Just as over the country market Internalization gains are greater, the further the firm's urge to necessitates retaining foreign yields to some extent than granting the internalization right under accreditation/patent.

Eclectic paradigm elaborates that OLI plan remain distinctive against company to company also rely on perspective and follow effectively viable, governance, and social distinctions of the host country. Therefore, the procedure and principle, of the design of production and the significance, depends on opportunities and advances presented by different category of countries. According to Agarwal, (1980) an enhanced accustomed philosophy established on micro and global economic condition, that explore to provide a broad justification to location argument dependent to FDI, following the Dunning eclectic theory. Moon and Roehl, (2001) built a crucial basis about the theory's acknowledgement by attesting that not either of the universal approach of FDI, besides reasonably the eclectic theory of Dunning is established upon ownership, location and internationalization benefits. Chakrabarti (2003) insist that uniquely Dunning (1980) apportioned a theoretical framework toward which observation about MNCs securely merge in preceding years. According to Jose (2016), although the analogy between a university and a multinational enterprise is flawed, which shows how the eclectic paradigm can still serve the purpose of better understanding why universities locate fully pledged campuses or research departments in foreign locations.

2.3 Theories of Economic Growth

Economic theories are exhaustively attempted to analyze the role of FDI in a country along with the negative and positive take some ways. Specifically, theories like neo-classical theory and endogenous growth model theory were considered as vital points of discussion.

2.3.1 Solow Growth Model

Solow growth model remain a work force model of growth theory and it assumed that the basis for which other theories build upon. It can also be used for comparative analysis especially when considering the causes of economic growth among nations (Antras and Helpman, 2004; Savvides and Stengos, 2008; Dohtani, 2010). Solow (1956) assert growth model is an extension of Harrod-Domar model, which incorporate capital, labour and technology into the growth equation in order to have a robust long-run economic growth (Pinillos and Reyes, 2011; Antras and Helpman, 2004). Solow (1957) examine the progression of activity in an economy, however, Maddison (1982) and Denison (1967) examine that growth accounting amplify on the observation of global growth rates. Denison (1962, 1967) concluded while observing the growth accounting on the basis of the objectives of production which was assembled on previously by Solow (1957), that after discovering the development of growth accounting query for a chain of countries (9); assert what quota of cross-country per capita income differences accounted for by per capita physical capital differences; Secondly, what part of cross-country growth rates of output differences accounted for by growth rates per capita differences.

Despite numerous argumentative ideology, Denison discovered (1) physical capital per individual accounted for a very little percentage of twenty five in income per capita of the countries which are industrialized (2) the rate of physical capital acquirement per individual account for a little percentage in growth rates of income per capita differences of the nine industrialized countries. These findings propose a much smaller role for physical capital acquirement in economic progression and growth than that forwarded by capital principles. The Solow economic growth model includes the following assumptions:

(1)   Cobb-Douglas production function that indicate diminishing returns to the factor inputs includes labour and capital which recognize constant return to scale in a manner that any increase in inputs will lead to increase in an output in the same quantity (Savvides and Stengos, 2008; Arvanitidis, Petrakos and Pavleas, 2008; Liu and Premus,2000).

(2)   Proportionally constant share of income is household savings. The model indicates that diminishing returns, long run attainment of economic growth remains impossible and the economy might likely remain stagnant, which will be at zero equilibrium. This mechanism helps the model in demonstrating how economy grow or remain the same over time (Savvides and Stengos, 2008).

Furthermore, Solow growth model argues that nation's investment and saving in physical capital would not show a permanent increase in growth but will experience higher per capita income especially when looking at output per person equilibrium than poorer nations. The higher the population growth rate, the poorer a nation becomes (Mankiw, N., Romer, D., and Weil, D. 1992).

2.3.2 Neoclassical perspective

This theory was established on an essential assumption in contemporary economics, which recommend that when economy grows it depends on capital outlay in the framework of long run needs (Adams, 2009). Effectively, procedures that neoclassical assumptions postulate build an exceptional developing economy. Solow (1957) originated the exogenous growth model (neoclassical model). The doctrine predicts that economic growth is achieved throughout aggregation regarding exogenous means of formulation particularly

standard capital and labour. For instance, investigations to observe the effect exogenous theory of economic growth have on the cumulative function as advanced by Cobb Douglas (1928). Similarly, to this assumption, FDI boost the capital standard in the host region, also such change alters economic growth. De Jager (2004) clarify that assuming FDI sustained advanced technical knowledge, that will advance to rising labour and capital capacity, this urge in addition precedent and enhance dependable outlay and urge labour improvement.

Barro and Sala-I-Martin (1995) attest a positive link amidst economic growth and capital accumulation.Thus, in this vein Herzer, et al. (2008) argued that FDI stimulates economic growth effectively through elaborate domestic investment. Hence, exogenous growth theory, nevertheless accordingly cope with a few critiques from their tested and analytical economic inquiry. Moreover, the assumption that capital accumulation hinges upon diminishing returns explains the nature of short-term economic growth without convincing explanation about the technological progress as well as long run growth (Elboiashi, 2011). Notwithstanding, in their works of 1995, Barro and Sala-i-Martin assert men entails a duration span by proxy technological progress regarding long run estimate of economic growth. In addition, this model fails to take into cognizance the apportionment of the technical skills, significant economic growth as well as the proof that, FDI delivers tremendously to the host country (Ho, Kauffman and Liang, 2007). Eventually, the model was criticized towards its interpretation of the word capital agglomeration. Although, Mankiw (1995) disagree that capital will hold predominantly spelling out the incorporating advantages of framework, appropriately within detailed responsibility of prevailing assets in the prospect of subsequent accruals. Just as argued over, the neo-classical growth theory,

exhibit that FDI encouraged economic growth by developing the outlay along with proficiency of investment in the host nation.

2.3.3 Endogenous growth model

Despite neoclassical theory assumption that long run outlay tremendous determinant of economic growth of a territory, the model analyzed that real investment is not a modification of economic growth of a region at most the capability and competence in the benefit of these investments. Economic point of view of endogenous model investigates the consequence of FDI on economic growth because of dissemination of technological knowhow (Barro, 1991). Romer, (1990) demonstrate that FDI drive economy growth because of competent human capital, research and advancement. Grossman and Helpman, (1991) indicated that accumulation in rivalry and transformation intensify technological breakthrough and build up proficiency and bolster economic advancement in the longrun. In conclusion, the model advocates an exceptional correlation between FDI and economic growth of the developing economies. The exogenous model considers technological breakthrough whereas endogenous examine that technological advancement is enhanced endogenously by a rise in proficiency and transformation (De mello, 1999; Nasser, 2010). Barro et al (1995) affirm FDI by MNCs is contrived to deliver research & advancement and human resource build up that establish positive or negative advancement infringement. Inflows of FDI develop the host nation economies via capital intensification, bringing out unique product and oversea technical knowhow in the views of exogenous theorist and increasingly build-up technical knowledge in the host nation by expertise transfer, according to endogenous theorist (Elboiashi, 2011).

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According to Herzer and Klasen (2008) FDI perform a crucial responsibility in host nation economic growth by boosting capital investment and technological advancement. Endogenous growth theories development ignites the significance of economic growth within the economy. Major contribution to the endogenous growth theories are (Lucas 1988 and Romer 1986; Arvanitidis, Petrakos and Pavleas, 2008; Lavezzi, 2003). The models accommodate growth in the less developed nations, which could be improved by making efficient and maximum use of available resources, especially human capital (Hamid and Pichler, 2011). The main target of endogenous growth theory explained growth differentials rate across nations and a larger proportion of the growth observed including technological expansion that represent capital accumulation. Capital is expected to take account of both physical and human capital. According to Liu and Premus (2000), endogenous growth theory attracts more significance both on knowledge and on human capital. Three main important sources of growth were highlighted namely; innovation, new knowledge and public infrastructure (Lucas, 1988; Romer, 1986).

Adam Smith (1909) regarded human being as a form of capital, which was considered as an addition to land improvement, and buildings, which is a valuable skill of all human being in the economy and this could be modelled as fixed capital. He explained further that experience and education gain represent labour. Labour is regarded to as another form of human capital and the specialization represent division of labour. The outcome of World War 2 indicates that human capital is a significant contributor to economic growth (Savvides and Stengos, 2008). Human capital includes knowledge, stock of education and skills personified in labour force and it is considered as a significant factor in economic growth (Safari, Ghasemi, Gol and Kashani, 2012; Antras and Helpman, 2004). Human

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capital can also be defined as acquisition of skills and knowledge for workers via education and training (Arvanitidis, Petrakos, and Pavleas, 2008; Petrakos and Arvanitidis, 2008).

2.4 Determinants of FDI and Economic Growth

2.4.1 Prior empirical studies on the Determinants of FDI

The brief justifications of these incorporated economic determinants are explored in various studies. According to Shamsuddin, (1994) in examining the determinants of FDI inflow observed the highest essential element in intriguing FDI is the GDP rate in the host region, rate of wages, per unit debt, per unit public aid flow, price changes, the sectional substitute for Latin America and the availability of energy in the recipient country. The result supports the suggested hypothesis for testing, with the exception of the effect of energy availability. When analyzing, though the single equation econometric model performs very well in explaining the variation in the inflow of FDI in LDCs, with caution to the possible existence of the simultaneous problem. GDP is a function of the past and present inflow of FDI. Borensztein, Gregorio, and Lee, (1998) explore the outcome of FDI on economic growth from industrial regions to 69 less developed regions for the duration of 20 years. The result from cross-country regression revealed that FDI is important for the transmission of technology. Thus, FDI contribute to economic advancement particularly if advanced technologies are available. The most vigorous conclusion is that the effect of FDI on economic growth is dependent on the level of human capital available in the host economy. Therefore, there is a strong positive interaction between FDI and the level of educational attainment (the researcher's proxy for human capital). Particularly, the same interaction is not significant in the case of domestic

investment, possibly a reflection of differences of technological attribute between FDI and domestic investment.

Onyeiwu and Shrestha (2004) presented the fixed and random models to investigate the determinants of FDI and in what respect it alters inflows to Africa from 1975 to 1999 for 29 African territories. With the following variables; inflation, trade openness, natural resource availability, international reserves, and economic growth. The findings revealed that right to politics and infrastructural quality are insignificant to Africa. Also, they assert that trade openness is statistically significant to FDI.

Kok and Ersoy (2009) explore the determinants of FDI and the capital flows to developing countries in a globalized framework with variables as; FDI, overall external debt, overall debt service, rate of Inflation, GDP deflator, phone lines (1,000 people per line), size of the market, technological knowhow, trade openness/liberalization, GCF and power consumption (kwh per-capita). The result after testing for FMOLS and cross-section seemingly unrelated regressions (SUR) for 24 less developed countries, revealed that from 1983 to 2005 for FMOLS and 1976 to 2005 for cross-section seemingly unrelated regressions (SUR), the interrelation of FDI with the determinants of FDI is statistically positive on economic growth in developing countries, while the interrelation of FDI with overall debt service, inflation and GDP are statistically negative.

Azman-Saini, Baharumshah and Law, (2010) elaborate the role of financial development and distinguish the outcome of FDI on growth from 1975 to 2005 for 91 region, with variables such as growth, financial markets and FDI. The findings after regression certify the procedure of threshold derivations and reveal that the positive significance of FDI on

growth put on exclusively afterwards, financial development outshine a threshold even. Lee (2013) emphasized the contributions of FDI to energy use, emissions and economic growth of 19 nations of the G20 from 1971 to 2009. The result revealed that after using co-integration test and fixed effects model, FDI has played an important role in economic growth for the G20 whereas it limits its impact on an increase in CO_2 emissions in the economy also found no compelling evidence of FDI link with clean energy use.

Owusu-Antwi, Antwi and Poku (2013) argued the element that propel FDI in Ghana from 1988 to 2011 with variables, such as inflation, exchange rate, infrastructure, natural resources, liberalization policy and GDP. The findings after consistent econometric approach and regression shows; rate of exchange, natural resources, infrastructural quality, and trade openness as the operating force behind FDI.Sghaier and Abida, (2013) contended the causal interrelation between, financial liberalization, economic growth and FDI inflow in Morocco, Algeria, Egypt and Tunisia from 1980 to 2011. Their findings after GMM analysis revealed positive interrelation among FDI, financial development as well as economic growth.

Abidin, Haseeb, Azam and Islam (2015) studied the interrelation between, FDI, financial development, energy use as well as trade for the following ASEAN countries; Philippines, Singapore, Thailand, Indonesia, and Malaysia, from 1980 to 2014. Using tests of stationarity and Granger causality test the result shows that there exists important long run interrelation between all descriptive variables. The result of the findings on Granger causality shows that in the short-run there is unidirectional causality from FDI inflows to

other variables. The result further showed the existence of bidirectional causality between the variables.

Xaypanya, Rangkakulnuwat and Paweenawat, (2015) contended the important influence that determines FDI in (ASEAN-3) as well as (ASEAN-5) using the first differencing technique to evaluate the framework of panel data from 2000 to 2011. And reveal that due to the different phases of economic progress between ASEAN-3 and ASEAN-5, the determinants of FDI are different, revealing there are positive results of infrastructure, trade openness in ASEAN-3. While in ASEAN- 3 FDI inflow is statistically negative, REER, GDP and Official Development Assistance show no significance. The result in ASEAN-5 revealed that FDI is statistically significant with market size and infrastructure.

However, several research work exhibit positive interrelation among FDI inflows as well as economic growth; Nguyen, (2006) assert a causal interrelation among FDI inflow as well as GDP growth, FDI has impacted positively on GDP growth in Vietnam during the phase 1996 to 2005. Kang & Mbea, (2011) revealed that FDI as well as GDP growth interrelation are statistically positive in Cameroon from 1980 to 2009 they went further to say that FDI is more proficient than domestic resources in respect of GDP growth. Har, Teo and Yee, (2008) investigated FDI apportionment in justifying economic growth in Malaysia. Zhang,Tang, and Wu, (2010) contended that FDI has strong effect on economic growth. Agreeing with this viewpoint, Aboudou (2010) examined the ramifications of FDI on economic growth from 1975 to 2008 for 33years. Generally, the results revealed using the ordinary least squares (OLS) methods that shows the dimension of trade, FDI and human capital positive significant effect on economic growth. Furthermore, inflation and

government consumption have negative impact on economic growth. FDI has been identified as a wind of change on economic growth in many developing countries after its huge success recorded in many part of Asia, this claim was supported by Temiz and Gökmen, (2014) that FDI increase capital and economic growth in most part of Asia especially Turkey revealing a mixed result for African regions effect of FDI. Enormous studies contend that FDI encouraged economic growth by increasing capital inflow (Mohamed, Kaliappan, Ismail and Azman-Saini, 2014; Darley, 2012; Adeniyi, Omisakin, Egwaikhide and Oyinlola, 2012) while others contradict that it has negative growth effect due to the penetrable capacity of Africa countries (Busse, Erdogan & Mühlen, 2016; Bartels, Napolitano &Tissi, 2014; Fofana, 2014; Morrissey, 2012).

One of such contradiction was given by Mahutga, M. C., Kwon, R., and Grainger, G. (2011) that FDI direct resource and profit from the host country (Africa) to the foreign country and concluded that FDI has been able to hinder domestic investment. Due to the out flow of resources and profit from the host country. FDI has been found to affect exchange rate to the detriment of the host country to the benefit of the foreign country (Anyanwu, 2012). This prompted Bartels, Napolitano & Tissi (2014) to point out the need for Africa countries to redesign suitable growth-oriented policies that will eliminate challenges and issues currently faced on FDI implementation in the continent. They further argued the need for a robust developmental framework that will be mindful of all necessary medium on the improvement of FDI in Africa's domestic economy. Bardhan (1997) argued that foreign investors would have to pay extra costs in the form of bribe to get licenses or government permits to conduct business and such additional costs would decrease the expected profitability of investment.

Nevertheless, Africa can only attract about $36 billion in FDI in 2011, notwithstanding a portion of total global FDI inflows. It is demoralizing that despite the huge potential in Africa both human and natural resources the continent can only attract lower FDI compared with Asia and Latin America.

2.4.2 Prior empirical studies of FDI in Africa

Several empirical studies were conducted to examine FDI in Africa though these studies are scanty. In this subsection, the researcher present evaluation regarding outlining few extant research on FDI in Africa. Asiedu (2003) asserted if elements that influence FDI in less developed countries also influences regions in sub-Saharan Africa correspondingly for 32 African regions from 1970 to 1999. In addition, reveal the elements that stimulate FDI to less developed regions impact divergently on FDI in SSA. Also, that infrastructural quality as well as return on invested capital boosted FDI to regions that are not sub-Saharan Africa. Trade openness/liberalization drives FDI to less developed regions as well as sub-Sahara African regions.

Frimpong and Abayie, (2006) contended the interrelation among trade liberalization, the per capita GDP and FDI in Ghana from 1970 to 2002. The result after testing with bounds test as well as augmented production function model shows no significance. Ayanwale (2007) utilized an augmented growth model along with OLS and the 2SLS method to identify the interrelation among FDI, its attributes and economic growth. Moreover, revealed that the determinants of FDI in Nigeria are; infrastructural development/quality, stable macroeconomic strategies and market size. Further revealed that trade openness/liberalization and accessible human capital are not significant. Finally, that FDI

collaborate with economic growth in Nigeria. Magnus and Fosu, (2008) examined a bivariate causal test among FDI and Ghana's economic advancement from 1970 to 2002. The findings after using the Toda-Yamamoto (1995) Granger no causality test revealed that there is no causality between FDI and per capita GDP. Ayadi, (2009) evaluate the interrelation between FDI as well as economic growth/advancement in Nigeria from 1980 to 2007.The study revealed an unsteady interaction and influence within the variables. Also revealed that infrastructural quality, human capital and strategies implemented vis-à-vis in captivating FDI must be reinforced. Ndoricimpa (2009) contend the nexus among exports trade, economic growth and FDI inflow from 1983 to 2007 in sixteen COMESA regions. The result shows after granger causality that there is unidirectional causality in twenty-five percent of the COMESA countries, running from Exports to FDI; Feedback causality in fifty percent of the COMESA countries; no causality in six percent of the COMESA countries; and Causality was unidirectional in eighteen percent of the COMESA countries, running from FDI to Exports.

Elboiashi, Noor bakhsh, Paloni and Azmanb (2009) gave details of the causal interrelation among domestic investment, FDI inflow and per capita GDP from 1970 to 2006 in Tunisia, Egypt and Morocco. The findings after granger causality test revealed an increased economic growth compelling greater FDI inflow. Aboudou (2010) analyzed the predominance of FDI on Togo's economy growth from 1975 to 2008 for 33 years and revealed that FDI, liberalization of Trade as well as Human capital are significantly positive on economic growth. In addition, rate of inflation and Government consumption are negatively significant. Yaoxing (2010) argued the long run impingement of FDI and the liberalization of trade on Cote d'Ivoire's economic growth from 1980 to 2007. The

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findings after testing with Bound test, Granger causality and Block exogeneity Wald test revealed there is a long run interrelation between FDI, liberalization of trade and output.

Proportionally, African regions especially Nigeria is undeniably in the vicinity of an economic disaster characterized by tremendous poverty, insufficient means for distant future development, incompetent performances, incessant joblessness as well as other Millennium Development Goals progressively becoming challenging to accomplish by 2020 (Ekperiware, 2011). Abaidoo (2012) explore the dynamic derivation of causal link between economic growth, savings and FDI for SSA. Using error correction model (ECM) from the period 1977 to 2010. The result shows a uni-directional joint causal relationship originating from GDP growth and savings to growth in FDI inflow; as well as uni-directional causal relationship running from FDI and savings to GDP growth.

Antwi and Poku (2013) contended the elements that predominate Ghana's FDI from 1988 to 2011 with the following variables; rate of inflation, rate of exchange, infrastructural quality, the availability of natural resources, the per capita GDP and trade liberalization strategy. The findings revealed that after regression liberalization of trade, availability of natural resources, infrastructural quality and rate of exchange are the operators of Ghana's FDI and trade liberalization was positively significant.

Driffield and Jones (2013) explore the relative contributions of FDI, official development assistance as well as remittances to economic growth in less developed regions. The findings revealed that all sources of foreign capital are significantly positive if institutional qualities are considered.

2.4.3 Prior empirical studies on the Determinants of Economic Growth

The literature on these determinants is vast and far-reaching. Despite the convergence on the relevance of most of these determinants, many empirical researches have categorized most of the determinants in different ways. Kaldor (1963) evaluate a number of formalized facts that epitomizes the procedure of economic growth as follows: per capita productivity boost over time, and no decreasing rate of growth, increase capital per worker, steadiness in the return to capital, consistent ratio of physical capital to productivity, steady labour factor and absolute capital in domestic income and the different advancement rate of productivity per worker in the region.

Kuznets (1981) examines characteristics of modern economic growth. Moreover, revealing that the rate of structural transformation, to include shifts from agricultural phase to industrial viability to services advantage. And contend that modern growth involves an increased role for foreign commerce, technological progress (reduced reliance on natural resources) and the growing importance of government. Jones (1988) analyses two models of comprehensive growth, namely; Promethean growth and Smithian growth. Promethean intensive growth is continuous, being driven by technological progress and innovation, and compliment the nature of the capitalist growth machine. In contrast, Smithian comprehensive growth relies on the gains to productivity that can be made from the division of specialization, trade and labour. Such growth must eventually run into diminishing returns, as there are limits to the gains from resource reallocation.

Fischer (1993) examined a regression analogy of growth accounting and the findings after using regression and cross sectional data revealed that economic growth is statistically negative with rate of inflation, immense budget shortfall, and obscure foreign exchange markets concluding that large economic variables are important though there is inadequate prerequisite for the growth of the economy. Kremer (1993) went further to elaborate that if the greater part of sustenance was the criterion for economic growth then a greater state is only possible if total output also rises. Barro, (1996) encouraged the prevalent concept of prospective accumulation from 1960 to 1990 for 100 regions and the findings revealed that decreased fertility, reduced government consumption, proportionate real per capita GDP as well as proliferation rate increase greater basic schooling and the prospect of life, decrease inflation rate, improved sustenance of the rule of law and advancement in the condition of trade.

Sala-i-Martin (2003) breakdown the world into regions and conclude that poverty eradication has been unquestionable in the regions where growth has been the most. Osabuohien, (2007) in an attempt examined the impact of liberalization or openness of trade on economic growth of ECOWAS communities, his study focuses on Ghana and Nigeria. The study used time series analysis for a period of 1975 to 2004, and data obtained from IFS on variables such as real capital stock, labour force, trade openness and real government expenditure on real per capita gross domestic products. The finding shows that trade openness has a positive impact on the economies of ECOWAS members such as Ghana and Nigeria, though the effect is higher in Ghana than in Nigeria due to polices implementation and importations of consumer goods. Ang and Mckibbin (2007) used time series data from 1960 to 2001 in examining whether financial development leads to

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economic growth in Malaysia. They found that removal of repression positively causes the financial development and economic growth in Malaysia. According to Arvanitidis, Petrakos and Pavleas (2008) there is important connection to analytical components dominance to the growth of the economy. Muhammad and Hye (2011) study of India tried to develop a financial development index and how it empirically influenced economic growth from 1975 to 2005 and the result indicates that financial development index negatively affects growth especially in some specific years. The prominence connected to investing bear an extremely number of analytical work by exploring the relationship among investment and economic growth (Podrecca and Carmeci 2001; Auerbach, Hassett, and Oliner 1995; Levine and Renelt, 1992; De Long and Summers, 1991; Kormendi and Meguire 1985), nevertheless, findings are not conclusive. An enormous number of studies showed an indication implying that a literate economy is a fundamental determinant of economic growth (Hanushek and Kimko, 2000; Barro and Sala,1995; Barro,1991). Hence, the significance of human capital is a worthwhile determinant of economic growth (Levine and Renelt, 1992; Krueger and Lindahl, 2001).

Economic policies as well as macroeconomic circumstance have attracted much attention as determinants of economic growth (Kormendi and Meguire, 1985; Fischer 1993). Economic growth may predominate a few direction of the economy towards endowment in human capital and infrastructural quality, enhancement of political as well as legal establishment (Easterly and Rebelo, 1993). Trade liberalization is a necessary factor for growth attainment trade liberalization enables use of comparative advantage, technological transmission as well as dissemination of proficiency, increasing economies of proportion and exposure to competition (Osabuohien, (2007). There are vigorous theoretical grounds

for contending that there is a strong and positive nexus among trade liberalization and economic growth. Numerous studies have confirmed such a positive relation (Dollar and Kraay, 2000; Edwards, 1998; Sachs and Warner, 1995; Dollar, 1992) but there have been few scholars who have taken down the vigor of these findings especially on methodological and measurement grounds (Vamvakidis, 2002; Rodriguez and Rodrik 1999; Levine and Renelt, 1992).

Whilst, the significant aspect of institutional quality performance in embodying economic attainment has been supported for many years (Lewis 1955; Ayres 1962), but lately such elements have been explored analytically in a formal style (Hall and Jones 1999). Easterly (2001) contended that none of the accustomed element intended can get hold of any after effect on economic attainment assuming a developed, stable and trustworthy institutions had never been there. Enormous studies found a causal interrelation among FDI as well as economic growth, especially in OECD regions (Chang, kaltani and Loayza, 2009; Apergis and Payne, 2010) in Eurasia countries (Apergis and Payne,2010), in Central American countries (Apergis and Payne,2012), in South Africa (Ziramba, 2009), in developed countries and developing countries (Sharma, 2010), and in European countries (Ciarreta and Zarraga,2010) revealing in the long-run, economic growth exerts a Granger causal motivation on energy consumption, and in the short run, energy consumption points to output growth. Though their research explains a positive interaction between energy use and economic growth, some results contradict. Nonetheless, the direction of causality between energy consumption and economic growth is different depending on the functional form adopted and the sample of countries investigated (Costantini and Martini,2010). Some studies have explored the time series data between energy economics and economic growth

to ascertain the direction of causality, (Sharma, 2010) panel of 66 countries, (Pao and Tsai, 2010) conduct study on BRIC countries, and (Keppler and Mansanet-Bataller, 2010) for EU countries. Their results revealed that economic growth is in positive relation to energy consumption.

Apergis and Payne (2010) argued the interrelation between energy use and growth for nine South American regions from 1980 to 2005. Time series data, a panel cointegration and error correction model was employed. The findings after using Pedroni heterogeneous cointegration reveals a long-run relationship among real GDP, energy consumption, the labour force, and real gross fixed capital formation to be positive and statistically significant. The result for granger indicate both short run and long run causality from energy consumption to economic growth which supports the growth nexus.

Siddiqui and Imran, (2010) analyze the interrelation among remittance as well as economic growth in Sri Lanka, Bangladesh, and India, employing the Granger causality test. Their results were mixed while no relationship was discovered in India, increase in remittances did lead to growth in Bangladesh. Interestingly, a two-way causal relationship was the finding in Sri Lanka, where remittances did positively affect economic growth, but growth also had a marginal impact on remittance level.

Imoro (2014) explore the causal interrelation among remittances as well as economic growth in Senegal, Togo and Nigeria. The test was conducted using Granger causality and Vector Autoregressive Regression from 1980 to 2012. The remittance for Immigrants was revealed statistically significant to economic advancement. Wamboye, Adekola and Sergi, (2013) re-examine the investigation of foreign assistance competence on the advancement

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of the economy through presentation of the statutory or legitimate doctrine of a nation. Their findings revealed a strong significant effect.

According to Elena (2017), the author revealed much about the hypothesis, and offers a solution to the problem of the existence of "underdevelopment whirlpools" in Asian countries the use of new models of economic development in view of specifics of Asian countries is aimed at transition to new quality of economic growth. Furthermore, according to Muhammad, Kandil and Nguyen, (2017), the results also reveal that globalization accelerates economic growth in India but, surprisingly, impairs economic growth in China as it increases competition for exports. The results furthermore disclose that acceleration in capitalization and inflation, as a proxy for aggregate demand, are positively linked to economic growth in China and India. The Causality test results indicate that both financial development and economic growth are interdependent.

2.4.4 Relationship between FDI and Economic Growth

FDI in many developing countries relation to economic growth are often misplaced due to scarcity of necessary capital flows for economic sustainability. According to Ajayi (2006) FDI has the possibility to make advancement for economic revolutions and growth. Several studies have discussed the relationship between FDI and economic growth (Gunaydin and Tatoglu, 2005; Omisakin, Adeniyi, Egwaikhide and Oyinlola, 2012; Alege and Ogundipe, 2013). Gyapong and Karikari, (1999) tested the interrelation between FDI and economic growth, their results after co-integration revealed that FDI for exports are mostly dependent with trade liberalization policies that are usually promoted when the economy improves

and that economic growth is determined positively by FDI both in Ghana as well as Ivory coast from 1960 to 1980.

Reichert and Weinhold (2001), present the interrelation among inflow of FDI as well as economic growth from 1971 to 1995.While exploring the extant interrelation between inflow of FDI and GDP they examined the affirmation of Granger causality between FDI as well as the growth of the economy and ascertain GDI, Trade (export) and inflation for 24 less developed nations, revealing differences in Mixed, Fixed and Random estimation of causal relationship. Chakraborty and Basu (2002) used the apportionment of import levy in tax or tariff payoff to probe the co-integrating interrelation among FDI inflow and rate of GDP and the findings revealed two long run equilibrium interrelation among FDI, GDP on the apportionment of import levy in tax or tariff payoff as well as cost of labour in India. However, Dritsaki, Dritsaki and Adamopoulus (2004) in examining the relationship between liberalization of trade, FDI and economic growth from 1960 to 2002 in Greece by using co-integration test revealed a long run two way interrelation and causal relationship between trade, FDI and economic growth. Similarly, Jayachandran and Seilan, (2010) in their study of India explore the interrelation between liberalization of trade, FDI as well as economic growth from 1970 to 2007. The study applied a granger causality test to determine direction of flow and the findings after testing granger with variables such as export, FDI and GDP revealed a causal and long run interrelation among export trade, FDI and GDP.

Furthermore, Cuadros, Orts and Alguacil, (2010) presented the causal interrelation among trade (exports), FDI as well as output in Mexico, Argentina and Brazil. They used a multivariate VAR approach on FDI, export and GDP their findings showed that there exists a causal relationship running from exports and FDI to domestic output in Mexico and Argentina, while short-run relationship exist between FDI and exports in Mexico. But in Brazil the result of the relationship from exports to output is not positive. In the study of Zubair,Bakar & Azam (2017) they critically examined the dynamic interaction between FDI nexus growth in 5 ECOWAS countries,using panel unit root, FMOLS, Pool mean group estimation also concluding that the autonomous coefficient of institution (Corruption interaction with Trade openness) are negative. The negative and significant coefficient of corruption indicates that the institutions in the host countries suggest more strong institution might increase the business confidence, which will stimulate the economiy. In a more strong and stable environment, trade and investment tends to improve technical efficiency.

Adegbite and Ayadi (2010) analyzed the relationship between FDI and economic growth in Nigeria and used OLS regression analysis and other test the findings are, the role of FDI on growth could be limited by human capital and concluded that infrastructural quality, human capital development and robust macroeconomic setting is essential to boosting FDI inflow. Srinivasan, Kalaivani and Ibrahim, (2011) argued the causal interrelation between economic growth and FDI from1970 to 2007 in SAARC nations. And the findings, after using Johansen co-integration test revealed a long run bidirectional causal interrelation between the rate of GDP as well as FDI excluding India.

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Omisakin, Adeniyi, Festus and Abimbola (2012) in examining the relationship between economic growth as well as FDI from 1970 to 2005 in Cote' d'Ivoire, Gambia, Ghana, Nigeria and Sierra Leone, after testing for VECM with variables such as financial liberalization, FDI as well as economic growth revealed that FDI relationship with economic growth in short and long run is not significant.

Acaravci and Ozturk (2012) investigate the causal relationship among economic growth, export trade as well as FDI from 1994 to 2008 quarterly data. The findings after testing ARDL bound test entails that there is causal relation between export trade, FDI as well as economic growth such that the relationship of FDI-led growth exist in Czech Republic and Slovak Republic, while growth-led FDI for Latvia. Also, causality runs from FDI to export only for Poland, while on the other hand two-way causality exist between economic growth and export for Latvia and Slovak Republic, and two-way causality between export and FDI in Latvia, but no unique long-run or equilibrium relationship with real GDP, RER and FDI in Bulgaria, Estonia, Hungary, Lithuania, Romania and Slovenia.

Freckleton, Wright and Craigwell (2012) argued the relationship among economic growth, FDI as well as the level of corruption from 1998 to 2008 for 28 developed regions and 42 less developed regions. The findings after testing for DOLS with variables such as FDI, domestic investment, corruption, human capital, and labour force participation rate revealed that labour, capital flows and human capital are positively significant. In the study of Choong (2012) while using GMM analysis revealed a positive relation among FDI and economic growth of 95 less developed and developing region with variable such as Financial liberalization, FDI and economic performance from 1983 to 2006. Imoudu

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(2012) contended the relationship between FDI and economic performance in Nigeria from 1980 to 2009. The findings after testing VECM revealed that the aftereffect of FDI on economic performance in Nigeria is low concluding that the communication industry has a future that is realistic in the long run.

Also Chaudhry, Mehmood and Mehmood, (2013) analytically investigate the relationship between FDI and economic growth from 1985 to 2009. The findings after testing ECM revealed a significant relationship. Alege and Ogundipe (2013) explore the relationship between FDI and economic growth in ECOWAS. In addition, the result after using GMM analysis revealed FDI is negatively insignificant on growth in ECOWAS notwithstanding the predominant role of institutional quality and human capital in the model from 1970 to 2011. Kivyiro and Arminen, (2014) argued the causal relationship between energy use, emissions, FDI and economic growth in SSA. The study selected six SSA nations, the results showed the environmental Kuznets curve hypothesis in the cases of DRC, Kenya and Zimbabwe. Alternatively, causal link varies among the countries, making it insurmountable though offering several general strategic suggestions.

Haseeb, Hartani, Abu Bakar, Azam and Hassan (2014) contended the effective relationship between the economic growth of Malaysia, FDI and export. Time series data and ADF unit root tests from 1971 to 2013, on variables such as GDP, FDI, Export and Growth of labour was used for the study and revealed that externality effect and productivity factor of exports on the non-export sector are positively significant, with FDI and economic growth of the economy; thus supporting Exports Led Growth (ELG) and FDI-Led economic Growth (FLG) in Malaysia.

Taiwo and Olayemi (2015) examined the causal relationship between FDI and economic growth in SSA from 1995 to 2011, they used panel co-integration for variables such as GDP, productivity of Labor, Liberalization of trade, FDI and Inflation. The findings revealed no long run relationship with the variables.

It is claimed that FDI is an essential ingredient to economic growth and development, particularly because it is the main driver of the rapid and effective transfer and adoption of best practices from one country to another. Foreign direct investment is particularly adapted to transfer and transform into global growth, specifically in making the most of human capital (Klein, Aaron and Hadjimichael, 2001). It is generally known that FDI lead to the reduction of poverty, also as a factor of growth. The literature on FDI growth relationship is reached for both developed and developing countries and various aspects of FDI effect on real economy.

The theories provided conflicting predictions about the effects of FDI on growth. Indeed, FDI can play in different ways on the overall process of development. First, it is a source of accumulation of capital, both physical and human. FDI projects are designed in a way to bring about growth and contribute to creating jobs and stimulating employment. This effect on employment means that FDI can contribute to reducing income poverty. These incomes that state needs are used to finance infrastructure and services related to the development. Thus, the benefits of such income are direct and indirect. Direct aspects concern the corporate income tax paid to the State by the companies themselves and the revenues from FDI in the natural resource sector. Indirect aspect is related to increasing economic growth when it results in improving the overall tax base (Addison and Mavrotas,

2004). Furthermore, studies across countries and industries have shown the positive impact of FDI on economic growth. The research performed by Obwona (2001) on Uganda identified positive link between FDI and growth, as in the paper prepared by Cheng (1994) found the same phenomenon in China. Similarly, Abor and Harvey (2008) and Blomström and Kokko, (1996) found a positive impact of FDI on productivity of labor and growth in the manufacturing industry of Brazil and Uruguay respectively.According to Rehman (2016), FDI rely on economic growth but the relationship is vice versa and also low level of human capital affect economic growth of Pakistan.

2.4.5 Foreign Direct Investment, Inflation and exchange rate

Sustainability of low inflation rates tells investors that the host countries are committed to prudent macroeconomic stability, hence prospects for further growth (Kinoshita and Campos, 2002). They use an average rate of inflation as a proxy for macroeconomic stability. Other studies that have used inflation to proxy for macroeconomic stability includes; Ngugi and Nyang'oro (2005), Opolot, Mutenyo and Kario (2008), and Urata (1997), among others. Exchange rate volatility has been empirically proven as a disincentive to foreign investment inflows. Kirkpatrick, Parker and Zhang (2006) in investigating FDI in infrastructure of developing countries conclude that instability in the real exchange rate is statistically significant and negative, and acts as a disincentive toward inward investment. A negative sign was postulated between this variable and FDI. Varied results have been found on the influence of exchange rate on FDI inflows: A case study on Ghana by Kyereboah-Coleman and Agyire-Tettey (2008) on the volatility of real exchange rate shows that the volatility of the real exchange rate has a negative influence on FDI inflow.

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While empirical investigation of firm level data on the US FDI to Korea (Jeon and Rhee, 2008) shows that FDI inflows have significant association with real exchange rate and expected exchange rate changes just as the results of Ramiraz (2006) and Cushman (1985) affirm the same. However, Brahmasrene and Jiranyakul (2001) and Dewenter (1995) find no statistically significant relationship between the level of the exchange rate and FDI inflows (see Ajayi, 2006, Naudé, and Krugell, 2007 for survey of evidence).

Carolina, Celio and Gilberto (2016), pointed out that the degree of response of Brazilian manufacturing investment to exchange rate varies across manufacturing sectors with different effect on investment decision based on sectoral characteritics. Bishnu (2017) assert south Asian economies have a number of FDI determinants in common. For example, market size and human capital are the two common factors attracting FDI in each country (except for Nepal, which revealed a negative correlation between FDI and market size). Factors, such as infrastructure, domestic investment, lending rates, exchange rates, inflation, financial stability and stock turnover entered regression with positive and negative signs, indicating the underlying theories on FDI do not provide a clear prediction of the direction of the effect of a variable on FDI.

2.4.6 Foreign direct Investment and Institutional Factors

Corruption has become a policy concern of most of the governments the world over. This is because it leads to increased costs of doing business. Al-Sadig (2009) studied the effects of corruption on FDI flows and the results shows that corruption level in the host country has an adverse effect on FDI inflows a one-point increase in the corruption level leads to a reduction in per capita FDI inflows by about 11 per cent. A negative relationship is

postulated between corruption and FDI flows. Corruption and low transparency are found to hinder FDI inflows (Voyer and Beamish, 2004; Zhao and Du, 2003; Habib and Zurawicki, 2002; Kersan-Skabic and Orlic, 2007) just as ensuring property right in South Africa (Fedderke and Romm, 2006) and developing countries (KapuriaForeman, 2007) affect FDI inflows. Using 17 countries over the period 1994–2004 in examining the impact of governance on FDI inflows, Khamfula (2007) results shows that corruption is more harmful in an import substitution world than in an export promotion one. The findings agree with those of Al-Sadig (2009) who uses panel data from 117 host countries over the period 1984-2004 to show that higher corruption levels decrease FDI inflows. Thus, secure property rights, political stability, and lack of corruption allow markets to properly function, and therefore attracting MNCs (Disdier and Mayer, 2004; Kinda, 2010). Moreover, Dupasquier and Osakwe (2006) shows that FDI in Africa is dependent on the development of infrastructure. Nnadozie and Osili (2004) find less robust evidence on the role of infrastructure on foreign direct investment. Invariably, Anyanwu and Erhijakpor (2004) indicate that telecommunications infrastructures, economic growth, openness brings significant increase to FDI inflows in Africa while credit to the private sector, export processing zones, and capital gains tax have significant negative effects. The Findings by Sekkat and Veganzones-Varoudakis (2007) indicate that infrastructural quality, openness, and sound economic and political conditions are important for South Asia, Africa, and the Middle East in attracting FDI.

Trade openness is also found to be positively associated with FDI inflows (Asiedu, 2002). Oladipo (2008) examines the determinants of Nigeria's FDI inflow for the period 1970-2005 and finds that the nation's potential market size, the degree of export orientation,

human capital, provides enabling environment through the provision of infrastructural facilities and macroeconomic variables which are important determinants of FDI flows. Studies have found positive relationship between openness and FDI flows (Chakrabarty, 2001 and Morisset, 2000).

However, the relationship between openness and FDI is very complex, and needs careful explanation. To simplify this complexity, the researcher distinguishes between two categories of openness; "openness to trade" and "openness to capital flows." While the former refers to the ease by which goods and services are imported and exported the latter refers to the absence of controls on the movement of capital (WIR,2016).Trade openness attracts export-oriented FDI, while trade restriction attracts "tariff-jumping" FDI, whose primary interest is to take advantage of the domestic market (Morriset,2000). In this study, the researcher used the sum of imports and exports as a percentage of GDP to measure trade openness. Contrary to previous studies, however, the researcher expects the sign of the coefficient on Tradeopenness to be indeterminate a priori. While a positive sign is the norm, a negative sign would suggest that FDI in a country is tariff jumping, as foreign investors seek to locate in the host economy to avoid high tariffs.

Dutta and Roy (2008) found that weak institutional factor have negative association with FDI. FDI becomes negative beyond a threshold level of financial development while political risk factors affect the relationship by altering the threshold level of financial development. Though Quazi (2007) affirmed that, FDI inflow boosted by foreign investors increased familiarity with the host economy, better infrastructure, higher return on investment, and greater trade openness, but the inflow is significantly affected by lack of

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economic freedom. Also, FDI inflow is negatively correlated with policy changes that result in higher trade barriers, more repressive taxation, more restrictive foreign investment code, higher repressive financial system, and further price and wage controls. The study identifies two factors, namely, excessive bureaucracy and inefficient financial markets, which act as locational disadvantages for Mexico in comparison to its regional rival countries.

Furthermore, according to OECD (2002) report, it indicated that once good governance settings triumph, there is no need for special incentives to attract FDI. This submission was disputed by Hines (1995), Li and Filer (2004). However, Zubair,Noraznin and Azam (2017) shows how Institutions quality,Governance and Human capital can still serve the purpose of better understanding why some institutions locate wholly affirmed campuses and commissions in foreign locations.

Moreover, Masron, (2017) relative institutional quality affect foreign direct investment into ASEAN countries,the lower impact reflects the small proportion of FDI into the region. Victor, Yuanyuan and Sara, (2016) indicated that general institutional expansion toward a market economy in overall centrals tend to increase FDI, but this effect is contingent on the stage of such development and the capabilities of Chinese multinationals. Thus, findings on state ownership remain mixed.

2.4.7 Governance and Linkages

Governance can be defined as the institutions and traditions where power enforcement in a nation is practiced (Kaufman, Kraay and Zoido Lobaton, 1999). Good governing denotes separate legislation and judiciary, transparent and fair law with impartial execution as well as consistent financial facts and higher public responsibility (Li, 2005). Most opinions suggest best governing nations tend to attract higher investment since investments cannot fully be protected in an arear where there is no better governing (Globerman and Shapiro,2003) and poor governance tend to increase uncertainty and costs (Cuervo-Cazurra, 2008). Looking at low level of bureaucratic quality, for instance low level of bureaucratic quality relate to arbitrary interpretation of rules, excessive regulation, red tape, lack of transparency and unskilled personnel which can tend to generate rent seeking activities. A very high bureaucratic quality may represent a shock absorber, as they tend to reduce risks related to drastic policy reversals when government changes (PRS Group, 2009). Business retaliation is a form of government misbehavior, which leads to refusal to invest in the future, this forced government to maintain consistent policies toward MNCs. Another important view is the "sand the wheels'' which indicate that corruption discourages MNCs as it signifies government malfunctioning (Drabek and Payne, 1999). Direct costs increase, which is in the form of bribery including bureaucracy, which can potentially create artificial bottlenecks, which can also create conditions for rent seeking activities (Johnson and Dablstrom 2004). However, regulatory quality can be defined as the ability of the country to implement economic policies that are very sound including strict regulations that can promote and permit development of private sector. Poor quality of regulation can therefore deter FDI and impedes private sector development. Regulatory

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quality, generally is identical to freedom of economy specifically frequently muddled with better governance (Cactano and Caleiro, 2009; Kapuria-Foreman, 2007).

Poor governance can be caused through some interventionist plan which include corruption, lack of import controls, vice-versa (Wheeler and Mody 1992; Zhu, 2007; Habib and Zurawicky 2002). Economic freedom and good governance are clear distinct concepts because well governed nation might impose interventionist economic policies and an economically tolerant nation might be badly governed (Subasat and Bellos, 2011). For the purpose of this research, this study did not consider regulatory quality as an essential part of good governance. It is important to "grease the wheel'' the corruption perception which argued that corruption tends to attract more FDI by recompensing for the governance with poor or poorly designed regulations (Wang, 2009; Banerjee, 1997; Meon and Sekkat, 2006; Lien, 1986; Aidt, 2003). Based on the above submission, corruption tends to reduce the problems resulting from low level quality of governance, which includes poorly planned regulations by fast tracking bureaucratic procedures and overcoming tedious bureaucratic regulations. The "grease the wheel'' submission however, was tested by Kaufman and Wei (1999), who indicated that corruption cost in terms of waste of money.

Table 2.1
Summary of some selected studies on institutions and FDI

Study	Sample Period	Countries	Technique Used	Results
Gammoudi Cherif & Asongu(2016).	1985-2009	17 middle east countries and Africa (MENA)	System Generalized Method of Moments (GMM)	Quality of institutions is more important to investors more than the level of corruption or bureaucracy quality in the location choice but failed to consider

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Study	Sample Period	Countries	Technique Used	Results
				human capital and infrastructure
Jose & Mauricio (2016)	2013-2014	Guatemala	Interview	The findings indicate that firms from less corrupt nations face stronger pressures from their headquarters not to engage in corrupt deals vice versa. This kind of research has not been empirically proven.
Masron (2017)	1996-2013	ASEAN Countries	Panel dynamic approach DOLS and FMOLS	The study confirms that institutional quality significantly affects FDI inflows into ASEAN nations. The low effect is more than reflective of the small portion of world FDI inflows to the regions but failed to look at other determinants which include human capital.
Bbale & Nnyanzi (2016)	1996-2013	sub- Saharan Africa	System GMM Approach	The study advocate for institutional reforms in order to improve FDI inflows to Sub-Saharan countries but failed to expand its scope.
Eregha (2012)	1970-2008	ECOWAS Countries	Panel Cointegration	FDI substitute Direct investment
Kizilkaya & Akar (2016)	2000-2013	39 countries	FMOLS, Panel VECM and Panel Granger Causality test)	Their findings indicate that skilled labour could be effective in creating a suitable environment for the improvement of economic freedom in the country
Azam & Ahmed (2015)	1993-2011	Commonwealth of independence states	Fixed and random effect	The findings suggest that investment climate in the host countries must be enriched through suitable

Study	Sample Period	Countries	Technique Used	Results
				policies. But failed to consider other factors such as infrastructures
Elkomy, Ingham, & Read (2016)	1989-2013	Developing countries	Fixed and random effect	The Findings provides new and more detailed insights into the effects of FDI on growth with respect to human capital and political regime covering a large number of transition and developing countries.
Naqeeb (2016)	1970-2012	Pakistan	VECM	This empirical study implies that Pakistan should improve its economic Growth. The robust policies are required to increase the literacy rate of the country
Alege & Ogundipe (2014)	1970-2011	ECOWAS countries	GMM panel estimation technique	Negative and insignificant effect
Adegboyega & Odusanya (2014)	1986-2011	Nigeria	Augmented Dickey-Fuller test, Phillips-Perron test, OLS, VAR and VECM	Positive but insignificant relation
Adeniyi et al (2012)	1970-2005	Cote' d'Ivoire, Gambia, Ghana, Nigeria and Sierra Leone	Granger causality tests in a vector error correction(VEC) setting	Positive impact in Ghana, Gambia and Sierra Leone. No evidence in Nigeria Non-existence of relation in Cote'd'Ivoire
Stanisic. (2008)	1997-2006	Romania, Bulgaria, Serbia and Montenegro,	Correlation	No positive relation in transitional countries.
Zubair, Bakar & Azam (2017)	1990-2015	Ghana,Togo, Cotd'ivoire,	Panel unit root and panel cointegration	The autonomous coefficient of institution

Study	Sample Period	Countries	Technique Used	Results
		Nigeria & Senegal.		(corruption interaction with Trade openness) are negative and significant coefficient of corruption indicate that the institutions in the host countries suggest more strong institution might increase the business confidence which will stimulate the economy.
Masron & Abdullah,2010)	1996-2008	ASEAN	Fixed effect, random effect and OLS	The result of the analysis reveals the important and significant role of institutional quality in attracting FDI inflows in ASEAN.
Afolabi &Bakar (2017)	1981-2012	Nigeria	Cointegration analysis and multivariate granger causality.	There is bi directional causality and one-way direction between political instability and FDI and a one-way relationship between FDI and Trade.
Zubair, Bakar & Azam (2017)	1990-2015	Ghana,Togo, Cotd'ivoire, Nigeria & Senegal.	Correlation Analysis	Correlation exists with FDI, Infrastructure, Inflation, GDP, exchange rate, Corruption and Trade Openness.

2.4 Literature Gap

There is limited or little study on ECOWAS related to FDI and growth, for this reason there is urgent need to revisit issues related to FDI and growth and its determinants. Few studies investigated FDI and growth but failed to include human capital, institutions, infrastructure and other determinants. Some studies on ECOWAS countries includes (Adegboyega and Odusanya, 2014; Eregha, 2012; Bbale and Nnyanzi, 2016; Afolabi and Bakar, 2016). This research aims to fill the gap of ECOWAS by examining the impact of human capital, infrastructure, institution on FDI and growth and by extension with the use of panel time series techniques, which will eventually produce unbiased robust results.

Furthermore, the kind of deficiencies the researcher found in previous studies such as; Onyeiwu and Shrestha (2004) where it was revealed that right to politics and infrastructural quality are insignificant to Africa. Alege and Ogundipe (2013) result showed that FDI is negatively insignificant on growth in ECOWAS notwithstanding the predominant role of institutional quality and human capital. Imoudu (2012) revealed that the after effect of FDI on economic growth in Nigeria is low. Asserting that the communication industry has a future that is realistic in the end. Akinlo, (2004) support the argument that extractive FDI might not be growth enhancing as much as manufacturing FDI.

From these above deficiencies the researcher wants to further investigate, why. Therefore, in this research work, the gap, which is whether institutions, human capital and infrastructure require complimentary factors to influence FDI and economic growth through an interaction term effect in ECOWAS-5 countries, is different and expected contribution is that the methodology is different, the set of variables are different, the

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countries, and the duration of the study are also different. These set of variables that the researcher is going to use is important in explaining economic growth, social welfare and institutional factors. Summarily, no good studies have used these variables together with the methodology, countries as well as the duration of the study.

2.5 Chapter Summary

This chapter reviewed the literature on FDI and economic growth. It highlighted the literature on FDI and economic growth on world perspective and Africa as well as relationship between FDI and economic growth and theories of FDI and economic growth. Following this chapter, will be the details of research methodology to be employed, which will be discussed in Chapter 3.

CHAPTER THREE
METHODOLOGY

3.1 Introduction

This chapter comprises of theoretical framework, model specification, justification of variables, method of analysis, source of data and conclusion.

3.2 Theoretical Framework

The researcher will device a methodology which is in line with Solow (1957) and Denison (1962, 1967), which was augmented with the aggregate function of production with other supplementary variables which includes; infrastructure, trade openness, corruption, inflation, real effective exchange rate…… Aggregate production function using two inputs can be written as:

$$Y = h(P, K) \dots\dots\dots\dots\dots\dots\dots\dots\dots \quad (3.1)$$

Where:

Y is the output,

h is the efficiency parameter,

P and K are the overall aggregate capital endowment in the ECOWAS economy.

Therefore, $\quad\quad\quad\quad\quad\quad P = (F_d\, F_c) \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots . (3.2)$

Assuming that the overall aggregate capital endowment represents domestic (F_d) or foreign-owned (F_c) denoted as outcome of foreign direct investment (FDI). FDI affect growth directly which in turn increases the physical stock in selected ECOWAS economy, as F_c is indirectly and accumulated, by encouraging human capital development and stimulating technological upgrading.

The Cobb-Douglas production function for selected ECOWAS economy using per capita terms for each period can be depicted as

$$Y = h(P) \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots \text{(3.3)}$$

$$P = (f_d f_c^\propto)^\pi \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots \text{(3.4)}$$

If $\alpha > 0$ represent the increase in FDI stocks which will yield positive externalities to the selected ECOWAS economy.

$$if\ \pi > 0, then\ \frac{1}{f_d^n} < \frac{1}{f_f^{\alpha\pi}} \dots\dots\dots\dots\dots\dots\dots\dots\dots \text{(3.5)}$$

From equation (3.5), foreign capital, crowds in domestic investment and complementarity exits among domestic capital and FDI.

$$if\ \pi < 0, then\ \frac{1}{f_d^n} < \frac{1}{f_f^{\alpha\pi}} \dots\dots\dots\dots\dots\dots\dots\dots\dots \text{(3.6)}$$

In line with equation (3.6), foreign capital, crowds out domestic capital, dwindling growth.

The degree of substitution between domestic investment and foreign capital is depicted to affect growth output which is in line with the theoretical models (parameters given as α and π in equation (3.5) and (3.6). Using complementary, innovations personified in foreign direct investment may generate, instead to reduce, rents accruing to older technologies (Young, 1993). Furthermore, assuming FDI spur speedy growth, it is assumed to involve a certain degree of complementary which includes domestic investment instead of substitution, under the condition that surviving factor endowments in the selected ECOWAS nations act represent FDI determinants (Borensztein, Gregorio and Lee,1998).

By merging equation 3.3 and 3.4. We can get:

$$y = A f_d^{\pi(1-\vartheta)} f_c^{\alpha\pi(1-\vartheta)} \quad\text{...................................... (3.7)}$$

Taking the differencing and logarithm concerning time for equation (3.7) gives,

$$\frac{I}{Y}\frac{dY}{dt} = \frac{I}{A}\frac{dA}{dt} + [n(1-\beta)]\frac{I}{f_d}\frac{df_d}{dt} + \alpha\pi(1-\beta)\frac{df_c}{dt} \quad\text{..................... (3.8)}$$

In line with equation (3.8), we can generate general growth accounting equation as:

$$a_y = a_\wedge + [n(1-\beta)a_d + [\alpha\pi(1-\beta)]af \quad\text{... (3.9)}$$

Where a_y, real per capita GDP growth a_d represent the growth rate of the domestic capital stock while the a_y is the growth rate of the owned foreign capital stock. $a_\wedge$ Represent growth for equation (3.9). Equation 3.9 can be expanded and can accommodate some set of control variables including policy variables such as corruption. The control variables can also be the potential determinants in the growth models.

Furthermore, these control variables can include the following: inflation, trade openness, infrastructure, government consumption as a percentage of the GDP for the selected ECOWAS countries. According to Grossman and Helpman (1990) and Rodrik (1992) they indicated that trade has the tendency to spur growth acceleration and it can impede the growth rate. Kowalski (2000) indicated that inflation regulates the stability of the economy. When inflation is high, it could aggravate the economy's problem or otherwise. A negative correlation is expected between inflation variable and the growth model (Balasubramanyam, Salisu and Sapsford, (1999), which is in line with literature.

3.3 Models Specification

To investigate the factors determining FDI inflows in ECOWAS-5, an empirical model was hereby proposed. This model was employed by bringing in FDI which rely on Solow (1956) and which is in line with Borensztein, De Gregorio, and Lee, (1998) ; Masron and Abdullah (2010); Masron (2017); and De Mello (1999) was adequately modified in order to answer this objective.

$$FDI_{it} = \propto_0 + \propto_1 GDPCAP_{it} + \propto_2 TOP_{it} + \propto_3 INF_{it} + \propto_4 PTS_{it} + \propto_5 FRAST_{it} + \propto_6 CORR_{it} + \propto_7 REER_{it} + \propto_8 HC_{it} + \propto_9 GCF_{it} + U_{it} + \cdots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots (3.10)$$

Where i denote countries, t denotes time, and the variables are defined as:

- FDI denotes the net FDI inflows as % of GDP

- GDPCAP is gross domestic product per capita (USD) for economic growth

- TOP is openness index - total trade (% of GDP)
- INF is the annual inflation rate

- PTS political terror scale is political unrest in a year base on 5-level terror

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- FRAST is infrastructure, fixed and mobile subscribers (per 1000 people)

- REER is the real effective exchange rate

- CORR denote corruption and is used as a proxy for institution quality

- GCF is gross capital formation

- HC is human capital proxy by school enrollment

- $\propto$ is a vector of coefficients

- U represents error term

To examine the impact of institutions quality on FDI inflows in ECOWAS-5, the researcher proposed an empirical model. The empirical specification follows; Balasubramanian, Salisu and Sapsford, (1999), Elkomy, Ingham, and Read, (2016), Freckleton, Wright and Craigwell, (2012). However, the researcher modified this model to answer objective two.

$$FDI_{it} = \propto_0 + \propto_1 CORR_{it} + \propto_2 PTS_{it} + \propto_3 TOP_{it} + U_{it} \dots\dots\dots\dots\dots\dots\dots\dots\dots (3.11)$$

- CORR denote corruption and is used as a proxy for institution quality

- PTS political terror scale is political unrest in a year base on 5-level terror

- TOP is openness index - total trade (% of GDP)

To determine the effect of infrastructure quality and human capital on economic growth in ECOWAS-5, the researcher proposed an empirical model. The empirical specification follows Wheeler and Mody, (1992), Subasat and Bellos, (2013), Alam and Zulfiqar, (2013), Balasubramanian, Salisu and Sapford,(1999), Elkomy, Ingham, and Read,(2016), Blomstrom and Kokko,(1998) the below equation is used to answer objective 3.

$$GDPCAP_{it} = \propto_0 + \propto_1 FRAST_{it} + \propto_2 HC_{it} + \propto_3 FDI_{it} + \propto_4 PTS_{it}$$
$$+ U_{it} \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots (3.12)$$

- Where GDPCAP denotes the economic growth

- HC is human capital proxy by school enrollment

- PTS political terror scale is political unrest in a year base on 5-level terror

- FRAST is infrastructure proxy fixed and mobile subscribers (per 1000 people)

To determine whether institutions, human capital, and infrastructure require complimentary factors to influence FDI and economic growth through an interaction term effect in ECOWAS-5, the researcher proposed two empirical models, one for FDI and the other for economic growth. The empirical specification follows; Balasubramanyam,Salisu and Sapford,(1999), Elkomy, Ingham, and Read,(2016), Freckleton, Wright and Craigwell, (2012), Blomstrom and Kokko,(1998),the below equation is used to answer objective 4.

$$FDI_{it} = \propto_0 + \propto_1 GDPCAP_{it} + \propto_2 TOP_{it} + \propto_3 INF_{it} + \propto_4 PTS_{it} + \propto_5 FRAST_{it}$$
$$+ \propto_6 CORR_{it} + \propto_7 REER_{it} + TOP_{it} * CORR_{it} + U_{it} \dots \dots \dots .. (3.13)$$

Where $TOP_{it} * CORR_{it}$ is the interaction effect of trade openness and corruption is an indicator showing whether trade liberalization policies of the selected ECOWAS countries is hampered by corruption.

$$GDPCAP_{it} = \propto_0 + \propto_1 FDI_{it} + \propto_2 INF_{it} + \propto_3 FRAST_{it} + \propto_4 GCF_{it} + \propto_5 FDI_{it} * HC_{it}$$
$$+ FDI_{it} * PTS_{it} + U_{it} \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots .. (3.14)$$

- Where $FDI_{it} * PTS_{it}$ is the interaction effect between FDI and Political Terror Scale (political unrest)

- $FDI_{it} * HC_{it}$ is the interaction effect between FDI and Human Capital (School enrolment).

- GCF is gross capital formation

3.4 Estimation Methods

Since the data involves twenty-five years (t=25), the researcher will subject the models to the following steps: Panel unit root, panel cointegration and fully modified ordinary least square (FMOLS). Also, if the unit root result indicate a mixed result i.e. I (0) and 1(1) then the researcher might use pool mean group (PMG) or mean group (MG) or dynamic fixed effect (DFE).

3.4.1 Levin and Lin (LL) Panel unit root test

This test was among the first unit root test developed and designed by Levin and Lin (2002). In addition, Levin and Lin first presented this test in a working paper in 1992. The work became published in 2002 co-authored with Chu (Levin, Lin and Chu 2002). Levin and Lin designed a test, which was derived from the DF test, the model can be written as:

$$\Delta Y_{i,t} = a_i + \rho Y_{i,t-1} + \sum_{k=1}^{n} \theta_k \Delta Y_{i,t-k} + \delta_i t + \theta_t + \cup_{it} \dots\dots\dots\dots\dots\dots \text{(3.14)}$$

The model above allows two ways fixed effects, i.e. one coming from a_i while the second one coming from θ_t . There are two effects namely: unit specific time trends and unit specific fixed effects.

The unit specific effects are very essential because they allow for heterogeneity because the coefficient of the lagged Y_i is restricted to be homogenous across all the panel units.

The null hypothesis for test is:

$$\text{Ho: } \rho = 0$$

$$\text{Ho: } \rho < 0$$

Which is in line with unit root test literatures, LL test assumes that individual processes are cross-sectional independent, using LL test the assumption is derived from pooled OLS estimator of ρ which allowed a standard normal distribution under the null hypothesis. Therefore, LL test can be regarded to as pooled ADF test or DF test but with a potential of lag length which can be different across the panel. In conclusion, the researcher will subject all variables to LL and Chu panel unit root testing to determine whether the series is 1(1) or 1(0).

3.4.2 The Lm, Pesaran and Shin (IPS) Panel unit root test

The major setback on LL unit root test is the restriction placed on ρ which is assumed to be homogenous to all unit of the panel. Lm, Pesaran and Shin (1997) extended LL test by allowing heterogeneity mainly on the coefficient of $Y_{i,t-1}$ variables and bringing in a new dimension with the use of a basic testing procedure which is based on the average of all the individual unit root test statistics. Lm, Pesaran and Shin (IPS) test offers a separate estimation for each i, also allowing different specification parametric values, the lag length and the residual variance. The model can be written as:

$$\Delta Y_{i,t} = a_i + \rho Y_{i,t-1} + \sum_{k=1}^{\cap} \theta_k \Delta Y_{i,t-k} + \delta_i\, t + \cup_{it} \quad \dots\dots\dots\dots\dots\dots\dots\dots\dots (3.15)$$

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Under this unit root testing, the null and the alternative testing are expressed as:

$$\text{Ho: } \rho i = 0 \; for \; all \; i$$

$$\text{Ho: } \rho < 0 \text{ for at least one i}$$

Therefore, the null hypothesis state that all the series are non-stationary processes under the assumption that a fraction of the series using panel unit root test are assumed to be stationary. This is in sharp dissimilarity with the LL unit root test, which assumes that under the alternative hypothesis all series are stationary.

According to Lm, Persaran and Shin (1997) they framed their model using assumption which is restrictive since T is assumed to be constant across all cross-sections, necessitating a balanced panel to compute the t statistic. The t statistics represent the average of the individual ADF t-statistics which is used for testing $\rho i = 0 \; for \; all \; i$ (symbolised by t_{pi});

$$\check{T} = \frac{1}{N}\sum_{i=1}^{N} t_{pi} \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots (3.16)$$

Furthermore, Lm, Pesaran and Shin (1997) indicated that under specific assumption t_{pi} converges to a statistic, represented by t_{iT} of which they assumed that iid also have variance and finite mean. Computed value for the mean stood at $(E[/t_{iT}/ \; \rho i = 1])$ while for the variance is $(Var[/t_{iT}/ \; \rho i = 1])$ of the t_{iT} statistics using different values for N and included lags in the augmentation term of equation (3.14). Relying on those values, IPS statistic for testing unit roots in panels is given by:

$$t/_{ips} = \frac{\sqrt{N}(\check{T}N - 1/_N \sum_{i=1}^{N} E[t_{iT}/\rho i=0]}{\sqrt{Var[/t_{iT}/ \; \rho i=0]}} \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots (3.17)$$

Moreover, proving that standard normal distribution as T→ ∞ followed by N→ ∞ sequentially, the values of $E[t_{iT}/\rho i = 0]$ and $\text{Var}[/t_{iT}/\rho i = 0]$ are given. Conclusively indicating a group mean Lagrange multiplier testing for panel unit roots.

The researcher will subject all the series to unit root testing to determine whether it is stationary at 1(0) or 1(1), if all the series are stationary at first difference the researcher will proceed to test for panel cointegration using pedroni test.

3.4.3 Pedroni Tests for Panel Cointegration

Based on the assumptions of the conventional times series, cointegration can be defined as a set of variables that are individually integrated of the order one 1(1), some linear grouping of these variables can be termed as stationary. The vector of the slope coefficients that renders this grouping stationary is regarded to as the cointegrating vector.

Furthermore, in this study, the researcher will not discuss the issues of normalization or queries concerning certain number of cointegrating relationships but rather the researcher will pay attention to the critical values for each cases of interest using the null hypothesis of no cointegration against cointegration. Pedroni (1997, 1999 and 2004) developed several tests for cointegration for panel models that can accommodate considerable heterogeneity. His approach is different from Kao and McCoskey in assuming trends for the cross-sections and in considering it as the null hypothesis of no cointegration. One of the good features of this pedroni's test is the fact that it gives room for multiple regressors, and allow the cointegrating vectors to vary across different units of the panel, and gives room for heterogeneity in the errors across cross-sectional units.Pedroni panel regression model can be denoted as:

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$$Y_{i,t} = \propto_i + \delta_t + \sum_{m=1}^{M} \beta_{mi} X_{mi,t} + u_{i,t} \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots \text{(3.18)}$$

Pedroni proposes seven different cointegration statistics that can capture the within and between effects in panel thus his test can be categories into two. The first four test is based on the pooling along the 'within' dimension (Pooling the AR coefficients across dissimilar units of the panel for the unit- root test on the residuals).

The test statistics is given below:

The panel V statistic

$$T^2 N^{3/2} Z_{\hat{v}NT} = \frac{T^2 N^{3/2}}{\left(\sum_{i=1}^{N} \sum_{t=1}^{T} \acute{L}_{11i}^{-2} \breve{u}_{it}^2\right)} \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots \text{(3.19)}$$

The panel p statistic

$$^T\sqrt{NZ_{\hat{p}NT}} = \frac{^T\sqrt{N}\left(\sum_{i=1}^{N} \sum_{t=1}^{T} \acute{L}_{11i}^{-2}\left(\breve{u}_{it-1}^2 \Delta\breve{u}^2_{it} - \lambda_i\right)\right)}{\left(\sum_{i=1}^{N} \sum_{t=1}^{T} \acute{L}_{11i}^{-2}\breve{u}_{it}^2\right)} \dots\dots\dots\dots\dots\dots \text{(3.20)}$$

The panel t statistic (non-parametric)

$$Z_{tNT} = \sqrt{\sigma_{NT}^2 \sum_{i=1}^{N} \sum_{t=1}^{T} \acute{L}_{11i}^{-2} \ddot{\mathrm{I}}_{it-1}^2\left(\sum_{i=1}^{N} \sum_{t=1}^{T} \acute{L}_{11i}^{-2}\left(\breve{u}_{it-1}^2 \Delta\breve{u}_{it}^2 - \lambda_i\right)\right)} \dots\dots\dots\dots \text{(3.21)}$$

The panel t statistic (parametric)

$$Z_{tNT} = \sqrt{\sigma_{NT}^{*2} \sum_{i=1}^{N} \sum_{t=1}^{T} \acute{L}_{11i}^{-2} \ddot{\mathrm{I}}_{it-1}^{*2}\left(\sum_{i=1}^{N} \sum_{t=1}^{T} \acute{L}_{11i}^{-2}\left(\breve{u}_{it-1}^2 \Delta\breve{u}_{it}^{*2} - \lambda_i\right)\right)} \dots\dots\dots\dots \text{(3.22)}$$

The second grouping involves three tests based on pooling the 'between' measurement (averaging the AR coefficients for each member of the panel for the unit root test on the residual). The test is conducted by averaging in pieces and consequently restraining distributions constructed on denominator and numerator terms.

The group p statistic (parametric)

$$\sqrt[T]{N}\dot{Z}_{\acute{p}NT} = \sqrt[T]{N}\frac{\sum_{t=1}^{T}(\breve{u}_{it-1}^2\Delta\breve{u}_{it}^2-\lambda_i)}{\sum_{i=1}^{N}(\sum_{t=1}^{T}\breve{u}_{it-1}^2)}\dots\dots\dots (3.23)$$

The group t statistic (non-parametric)

$$\sqrt{N}\,\dot{Z}_{tNT-1} = \sqrt{N}\,\sum_{i=1}^{N}\left(\sqrt{\alpha_i^2\sum_{t=1}^{T}\breve{u}_{it-1}^2}\right)\sum_{t=1}^{T}(\breve{u}_{it-1}^2\Delta\breve{u}_{it}^2-\lambda_i)\dots\dots\dots (3.24)$$

The group t statistic (parametric)

$$\sqrt{N}\,\dot{Z}^{*}{}_{tNT-1} = \sqrt{N}\,\sum_{i=1}^{N}\left(\sqrt{\acute{S}_i^{*2}\sum_{t=1}^{T}\breve{u}_{it-1}^{*2}}\right)\sum_{t=1}^{T}(\breve{u}_{it-1}^{*2}\Delta\breve{u}_{it}^{*2})\dots\dots\dots (3.25)$$

In conclusion, Pedroni cointegration test was used for the proposed models. It is worthy to mention that theoretically, pedroni cointegration accommodate one or more non-stationary variables. Finally, three of the panel cross-sectional models were subjected to this test and pedroni cointegration version of stata 13 will be used.

3.4.4 Fully Modified OLS Estimations for Heterogeneous Panels

The increasing rate of using non-stationary panel data econometrics prompted researchers to study asymptotic macro panels which include large N (numbers of countries) in this case numbers of ECOWAS nations and large T (times series), as against the usual asymptotic assumption of micro panels with large N and small T. This brought about the development of a new limit theory for nonstationary panel data, i.e limit distribution for double indexed integrated processes by Phillips and Moon (1999, 2000).

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This method was developed for estimating and testing hypothesis for cointegrating vectors in dynamic time series using panels. The method was based on fully modified OLS principles, which is capable to accommodate considerable degree of heterogeneity among individual members of the panel. One significant advantage with cointegrated panel method of this type is that it allows researchers to pool selectively the long run information contained in the panel while authorising the short run fixed and dynamic effects, which are heterogeneous within different members of the panel. The significance convenience of fully modified method that was designed produced asymptotically unbiased estimators and it produces nuisance parameter that is free standard, which is normally distributed. Inferences can be made regarding long run relationship which are common, and which are asymptotically invariant to the considerable magnitude of short run heterogeneity, which is prevalent in the dynamics, which are typically related with panels that consist of aggregate data. However, numerous techniques for non-stationary time series panels, including cointegration and unit root tests, have gained acceptance in various areas of empirical studies. Noticeably research includes; Wu (1996), Chinn (1997), Obstfeld and Taylor (1996), Pedroni (1996), Chinn and Johnston (1996), Dan, Lumsdaine, and Papell (1997), Evans and Karras (1996) and Neusser and Kugler (1998), including many more. The extension of non-stationary, which is a conventional technique such as cointegration and unit root tests to panels that consist of times series dimensions and cross-section, holds considerable promise for empirical research considering the abundance of data which is available and suitable for this form.

According to Phillips and Hansen (1990), they proposed a semi-parametric that can correct OLS estimator biasness which can eliminate second order bias caused by endogeneity of the regressors. The key difference under FMOLS construction of the estimator for panel data is that FMOLS account for heterogeneity in the present of fixed effects even in the short run dynamics. The following modifications were carried out in the form of standard single equation of fully modified OLS estimator. In conclusion, the models will be subjected to panel unit root tests once it is established that the unit root are stationary at first difference, then, the researcher will proceed further to establish whether there is cointegration among the series at the long run. Furthermore, FMOLS will be used to establish the behaviour of the series at the long run.

3.4.5 Pooled Mean Group (PMG)

Pooled mean group or mean group or dynamic mean group can only be used once we have mixed panel unit root result i.e l (1) and l (2). According to LM, Pesaran and Shin (1999) they indicated that pooled mean group allows the intercepts, short-run coefficient and error variances to differ freely among groups but constrains the long-run coefficients to be similar among groups. Pool means group have the advantages to determine both the short and long run dynamic relationship.

Furthermore, based on a combination of pooling and averaging of coefficients if the data gives room for estimating the model as a system. Pool mean group techniques occupies the intermediate position among the mean group techniques (slopes are usually fixed and the intercepts are always varying). The pool mean group specific short-run coefficient and common long-run coefficients are computed by the pooled maximum likelihood

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estimation. Newton-Raphson method (a numerical method which makes use of second and first-order condition plus initial value of a particular function to be estimated). All the dynamics and the ECM terms are free to vary. Under some regularity assumptions, the parameter estimates of the PMG model are consistent and asymptotically normal for both stationary and non-stationary 1(1) regressors.

The main characteristic of PMG is that it allows short-run coefficients, including the intercepts, the speed of adjustment to the long-run equilibrium values, and error variances to be heterogeneous country by country, while the long-run slope coefficients are restricted to be homogeneous across countries. This is particularly useful when there are reasons to expect that the long-run equilibrium relationship between the variables is similar across countries or, at least, a sub-set of them. The short run adjustment can be country-specific, due to the widely different impact of the vulnerability to financial crises and external shocks, stabilization policies, monetary policy and so on.

However, there are several requirements for the validity, consistency and efficiency of this methodology. First, the existence of a long-run relationship among the variables of interest requires the coefficient on the error correction term to be negative and not lower than. Second, an important assumption for the consistency of the ARDL model is that the resulting residual of the error correction model can be serially uncorrelated, and the explanatory variables can be treated as exogenous. Such conditions can be fulfilled by including the ARDL (p, q) lags for the dependent (p) and independent variables (q) in error correction form. Third, the relative size of T and N is crucial, since both of them are large this allows us to use the dynamic panel technique, which helps to avoid the bias in the

average estimators and resolves the issue of heterogeneity. Eberhardt and Teal (2010) argue that the treatment of heterogeneity is central to understanding the growth process. Therefore, failing to fulfil these conditions will produce inconsistent estimation in PMG.

3.4.6 Mean Group (MG)

The second technique (MG) introduced by Pesaran and Smith, (1995) calls for estimating separate regressions for each country and calculating the coefficients as unweighted means of the estimated coefficients for the individual countries. This does not impose any restrictions. It allows all coefficients to vary and be heterogeneous in the long run and short-run. However, the necessary condition for the consistency and validity of this approach is to have a sufficiently large time-series dimension of the data. The cross-country dimension should also be large (to include about 20 to 30 countries). Additionally, for small N the average estimators (MG) in this approach are quite sensitive to outliers and small model permutations (Favara, 2003).

3.4.7 Dynamic Fixed Effects (DFE)

Finally, the dynamic fixed effects estimator (DFE) is very similar to the PMG estimator and imposes restrictions on the slope coefficient and error variances to be equal across all countries in the end. The DFE model further restricts the speed of adjustment coefficient and the short-run coefficient to be equal too. However, the model features country-specific intercepts. DFE has cluster option to estimate intra-group correlation with the standard error (Blackburne and Frank, 2007). Nevertheless, Baltagi, Gri, and Xiong (2000) pointed out that this model is subject to a simultaneous equation bias due to the endogeneity between the error term and the lagged dependent variable in case of small sample size.

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3.5 Interacting Effect

It is very important to mention that the addition of an interaction term might leads to multicollinearity as the interaction term might be strongly correlated with the initial variables used to construct them (Darlington,1990). In order to solve this problem, the interaction term was orthogonalized using the following procedures: First, the interaction effect of FDI and human capital (FDI*HC) was regressed with on FDI and human capital variables. Second, the residual from the regression in the first step was used to represent the interaction term (Burill, 1997).

3. 6 Data Definition and Variable Justification

(i)   Foreign Direct Investment (FDI)

This is regarded to as the net inflows as the proportion of GDP and foreign direct investment inflow per worker. Earlier studies used these variables to measure and determine its impact on economic growth. According to Ram and Zhang (2002), they introduced similar proxies measuring almost the same thing and at the end, the proxies used yield similar results. To further show the importance of using FDI as the dependent variable, in line with growth theory, FDI was considered as a source of additional capital injection into a host economy with some special characteristics. Foreign capital inflow can be of tacit knowledge as well as technological know how which are used to promote ECOWAS countries human capital development including technology. Moreover, the modes of transferring these mechanisms involve growth-enhancing assets. We hypothesize that FDI spur significant growth impact and expect FDI to be positive and significant (Afolabi and Bakar, 2016).

(ii)   **Gross Capital Formation (GCF)**

Domestic capital was proxied by investment which was represented by gross capital formation. The researcher included this variable into the model in order to determine the degree to which domestic capital complement FDI. Earlier studies show FDI serve as growth engine only if it complement domestic capital (Borensztein et al., 1998 and De Mello, 1999). The inclusion of both component (FDI and GCF) into a model captures the effect of indirect spillover of FDI over and above the impact of purely physical capital accumulation (Borensztein et al., 1998). Though GCF shows positive and significant effect (Kok and Ersoy,2009).

(iii)   Human Capital

According to Nelson and Phelps (1966) they argued that for a nation to experience a long run sustainable economic growth it will depends on the stock of well educated labour that is able to comprehend cutting edge technology and introduced absorptive capacity which are innovatively productive. Furthermore, the new growth theory highlights the significant impact of human capital build-up to justify output growth rate which includes investment in human capital and also regarded to as a critical component of long run economic growth. Also, endogenous growth theory, human capital is regarded to as a key important determinant of economic growth (Akinlo ,2004; Benhabib and Spiegel, 1994; Mankiw, Romer and Weil, 1992; Barro and Sala-i-Martin ,2004) further stressed the significance of human capital to growth in developing and developed nations. For the purpose of this study, school enrolment was used to represent human capital. In conclusion, Lucas (1988) indicated that growth differentials experienced by different countries was mainly due to

differences in the stock of domestic capital. The expectation of human capital remain in conclusive (Elkomy and Read, 2016).

(iv)   Inflation

GDP deflator measures inflation, inflation rate was included into the model in order to measure the overall effect of monetary policies on economic growth and to measure the overall stability of the economy. Macroeconomic stability is one the significant determinant of growth rate in an economy. Low rate of inflation indicate stability and credibility of monetary policies as a requirement to support growth. On the other hand, higher inflation are linked with increasing cost of production, which leads to a volatile climate of investment that will eventually inhibit real growth. Inflation can be negative and significant (Elkomy and Read, 2016).

(v)   Infrastructure

Good infrastructure spurs production and therefore reduces operating costs which will invariably promote FDI (Wheeler and Mody, 1992). Furthermore, infrastructure spur productivity of investment and thus it also improve FDI flows. In line with the literatures. The researcher used number of telephone lines per 1,000 populate to measure infrastructure. Infrastructure can be either negative or positive and significant (Subasat and Bellos, 2013; Alam and Zulfiqar 2013).

(vi)   Political Terror Scale

The political unrest variable measures the degree of quality of the institution and domestic governance that selected ECOWAS countries provided. This indicator gives more insight on the existing relationship between per capita income growth and ECOWAS political activities. The researcher proxied PTS with political unrest. However political unrest or instability is negative and statistically significant (Alam and Zulfiqar 2013; Afolabi and Bakar, 2016).

(vii)   Trade Openness

In literature, we have different proxies to measure trade openness. For this study, the researcher will use import plus export divided by GDP to generate trade openness variable. This variable measures the ratio of trade restrictions. The researcher expects a direct relationship between economic growth and trade openness. Openness can be positive and statistically significant (Alam and Zulfiqar 2013; Afolabi and Bakar, 2016).

(viii)   FDI * PTS

The interaction of FDI with political unrest (FDI* PTS) was introduced to the growth model to capture the joint effect of political terror scale and FDI which is used to ascertain the degree of the indirect effects of FDI inflows. The forms, efficiency gain and technology spillover differ base on the political regime of selected ECOWAS nations. To assess the degree and impact of FDI on growth in developing nations like ECOWAS there must be different stages of political development (Elkomy and Read, 2016).

(ix)   FDI * Human Capital

Foreign direct investment was interacted with human capital (FDI * HC) into growth model to capture the indirect effect. The joint effect of FDI and human capital stock is on growth of the economy. Statistical significance of this variable indicates that FDI prompts growth depending on the stock of human capital in ECOWAS nations. Furthermore, once this threshold is reached, it encourages a paradigm shift in the drives for FDI, from market seeking or resource and efficiency seeking FDI (Bende-Nabende and Ford, 1998). In the literature, the impact of FDI on growth picks up different arguments (Mody and Wang, 1997; Balasubramanyam, Salisu and Sapford, 1999; Borensztein et al., 1998; Barro, 1997; Elkomy and Read, 2016).

(x)   Corruption

The Quality of institutions can also be defined as the incidence of corruption in the selected ECOWAS nations. Corruption perception index was designed and prepared by transparency international and political rating group. According to Bardhan (1997), he indicated that gross abuse of power for private gain in the public domain could affect the economy negatively due to corruption and mismanagement. Skewness of the institution of the government gives politicians edge for corruption (Rose-Ackermann,1999; Lambsdorff, 1999; Van den Berg, 2001). Corruption is statistically negative (Alam and Zulfiqar, 2013).

(xi)   GDP per Capita

Gross Domestic Product Per Capita (economic growth) used was obtained as a ratio of real GDP to the population growth. GDPCAP can be constructed using World Development Indicators (WDI). GDP per capita is significantly positive (Elkomy and Read, 2016).

(xii)   Real effective Exchange Rate

Real effective exchange rate in this research is the relative price of foreign goods in terms of domestic goods. Stockman (1987) signify there is real exchange rate relevance in the economy. According to Xaypanya (2015) real exchange rate has no significance in ASEAN-3.

(xiii)   Trade openness *Corruption (Interaction effect)

Trade openness was interacted with the quality of institution (Corruption). The joint effect of trade openness and corruption on FDI determinants is simply to show case whether trade liberalisation policies of selected ECOWAS countries is hampered by corruption or otherwise. Onyewu and Shrestha (2009) assert trade openness is statistically significant to FDI. Thus, Freckleton, Wright and Craigwell, (2012) indicated there is negative interaction between corruption and FDI.

3.6.1 Data Sources

Table 3.1: Sources of Data

Variables	Definitions	Sources
Foreign Direct Investment (FDI)	Foreign direct investment is the net inflows of investment to acquire a lasting management interest (10 percent or more of voting stock) in an enterprise operating in an economy other than that of the investor. It is the sum of equity capital, reinvestment of earnings, other long-term capital, and short-term capital as shown in the balance of payments. This series shows net inflows (new investment inflows less disinvestment) in the reporting economy from foreign investors and is divided by GDP.	WorldBank Development Indicator WDI 2016
Corruption	Corruption is in index, with 6 points out of 100, where toward 0 indicates high-level corruption and toward 6 indicates low level.	WDI 2016, world bank data base WDI and World Governance Indicator PRSG 2016
Political Unrest (PTS)	The PTS measures levels of political violence and terror that a country experiences in a particular year based on a 5-level "terror scale" originally developed by Freedom House. The data used in compiling this index comes from three different sources: the yearly country reports of Amnesty International, the U.S. State Department Country Reports on Human Rights Practices, and Human Rights Watch's World Reports.	www.polticalscaleterror.org PRSG 2016
Human Capital	Gender parity index for gross enrollment ratio in primary and secondary education is the ratio of girls to boys enrolled at primary and secondary levels in public and private schools.	World Bank Development Indicator 2016 (WDI).
Economic growth	Annual percentage growth rate of GDP per capita based on constant local currency. Aggregates are based on constant 2010 U.S.	World Bank data, WDI 2016.

Variables	Definitions	Sources
	dollars. GDP per capita is gross domestic product divided by midyear population. GDP at purchaser's prices is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources.	
Infrastructure	Infrastructure was proxied by Fixed telephone subscriptions, it refers to the sum of active number of analogue fixed telephone lines, voice-over-IP (VoIP) subscriptions, fixed wireless local loop (WLL) subscriptions, ISDN voice-channel equivalents and fixed public payphones.	WDI 2016.
Trade openness	Import plus export divide GDP	WDI 2016
Gross Capital Formation	Gross capital formation (formerly gross domestic investment) consists of outlays on additions to the fixed assets of the economy plus net changes in the level of inventories. Fixed assets include land improvements (fences, ditches, drains, and so on); plant, machinery, and equipment purchase; and the construction of roads, railways, and the like, including schools, offices, hospitals, private residential dwellings, and commercial and industrial buildings. Inventories are stocks of goods held by firms to meet temporary or unexpected fluctuations in production or sales, and "work in progress." According to the 1993 SNA, net acquisitions of valuables are also considered capital formation. Data are in constant 2010 US dollars.	WDI 2016
Inflation	Inflation as measured by the consumer price index reflects the annual percentage change in the cost to the average consumer of acquiring a basket of goods and services that	WDI 2016

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Variables	Definitions	Sources
	may be fixed or charged at specified intervals, such as yearly.	
Exchange Rate	Real effective exchange rate is the nominal effective exchange rate (a measure of the value of a currency against a weighted average of several foreign currencies) divided by a price deflator or index of costs.	WDI 2016.
FDI * PTS	Foreign Direct Investment interacted with Political unrest (PTS)	Author's calculation with the use of interaction techniques.
TOP* CORR	Trade openness interacted with corruption	Author's calculation with the use of interaction techniques.
FDI*HC	Foreign Direct Investment interacted with human capital (school enrollment)	Author's calculation with the use of interaction techniques.

3.7 Summary of the chapter

In chapter three, model specifications with all necessary adjustment were adequately and extensively discussed. Estimation techniques including all necessary adjustment were also discussed. The model specification was used to establish the relationship between the variables. Finally, Variable description and sources were also discussed.

CHAPTER FOUR

RESULTS, ANALYSIS AND DISCUSSION

4.1 Introduction

This chapter focus will be on the empirical analysis, discussions of the results and interpretations of the findings. The aim of this section is to answer all the highlighted objectives in chapter one with the use of appropriate econometrical tools. In this section, in order to adequately answer the highlighted objectives in chapter one, four models were proposed for empirical examination.

Table 4.1: Descriptive analysis

	Mean	Median	Maximum	Minimum	Std. Dev.
CORR	2.078026	2.079442	2.944439	0.000000	0.727259
EG	3.891658	4.255588	4.820282	0.000000	0.981221
FDI	0.072831	0.070893	0.131358	0.012487	0.026558
FDIHC	3.693250	3.979289	4.624973	0.000000	0.925386
FDIPTS	-0.824153	0.262379	94.11906	-117.5127	31.13091
FRAST	3.827353	4.127005	4.828314	1.386294	0.913448
GCF	15.65800	15.11175	41.32539	-2.424358	7.561662
GDPCAP	6.748541	6.802395	7.658150	6.130560	0.364233
HC	3.064240	3.401059	4.077537	0.693147	0.833866
INF	3.934930	4.241301	4.867535	0.000000	0.979633
PTS	0.794436	1.098612	1.386294	0.000000	0.548820
REER	3.790797	4.135134	4.820282	0.000000	1.110123
TOP	0.739146	0.703336	1.160484	0.424883	0.155190
TOPCORR	6.128245	6.440059	7.249179	2.746927	0.895544

CORR= Corruption, EG= economic growth, FDI= foreign direct investment, FDIHC= foreign direct investment interact human capital, FDIPTS= foreign direct investment interact political terror scale, FRAST= infrastructure, GCF= gross capital formation, GDPCAP= GDP per capita, HC= human capital, INF= inflation, PTS= political terror scale, REER= real effective exchange rate, TOP= trade openness, TOPCORR= trade openness corruption interaction effect.

The table 4.0, summarizes the entire variables that were used for the models showing the mean, median, maximum, minimum, and standard deviation of the series. From the table perception corruption index mean value of corruption within ECOWAS is 2.078026, median value of 2.079442, maximum value of 2.94439, minimum value of zero, and a standard deviation of 0.727259 which indicate that ECOWAS nations are extremely corrupt. FDI has a mean of 0.072831, a median of 0.070893, a maximum value of 0.131358, a minimum value of 0.01287, a standard deviation of 0.026558.

FDI and human capital interaction has a mean value of 3.693250, a median value of 3.979289, a maximum value of 4.624973, a zero-minimum value, and a standard deviation of 0.925386. The interaction effect of FDI and political unrest (PTS) has a mean of -0.824153, a median value of 0.262379, a maximum value of 94.1906, and a standard deviation of 31.13091. Furthermore, infrastructural quality recorded a mean value 3.827353, a median of 4.127005, a maximum value of 4.828314, indicating a maximum subscriber per 1000 people, a minimum value of 1.386294, and a standard deviation of 0.913448.

Gross capital formation has a mean value of 15.65800, a median value of 15.11175, a maximum value of 41.32539, a minimum value of -2.424358, and a standard deviation of 7.561662. GDP per capita has a mean value of 6.748541, a median of 6.802359, a maximum value of 7.658150, a minimum value of 6.130560, and a standard deviation of

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0.364233. Human capital has a mean of 3.064250, a median of 3.401059, a maximum value of 4.077537, a minimum value of 0.693147, and a standard deviation of 0.833866. The variable inflation has a mean value of 3.934930, a median value of 4.241301, a maximum value of 4.867335, a minimum value of zero, and a standard deviation of 0.979633 signifying fluctuation of inflation within this ECOWAS nations from 1990-2015. Political unrest (PTS) has a mean value of 0.794436, median value of 1.098612, a maximum value of 1.386294, minimum value zero, and a standard deviation of 0.548820.

Real effective exchange rate has a mean value of 3.790797, a median of 4.135134, a maximum value of 4.820282, a minimum value of zero, and a standard deviation of 1.110123 denoting that ECOWAS nations exchange is not stable(fluctuating).The variable trade openness has a mean value of 0.739146, a median value of 0.703336, a maximum value of 1.160484, a minimum value of 0.424883.The interaction effect between trade openness and corruption variable has a mean value of 6.128245, median value of 6.440059, a maximum value of 7.249179, a minimum value 2.746927, and a standard deviation of 0.895544.

Table 4.2: Correlation analysis for Model (3.10)

Correlation	FDI	CORR	FRAST	GCF	HC	PTS	INF	REER	TOP	GDPCAP
FDI	1									
CORR	-0.441	1								
FRAST	-0.101	0.115	1							
GCF	0.235	0.137	0.138	1						
HC	0.476	0.340	0.447	0.043	1					
PTS	-0.121	-0.346	-0.207	-0.099	-0.037	1				
INF	-0.040	-0.117	-0.142	0.146	0.042	0.110	1			

REER	-0.050	0.072	-0.018	-0.030	-0.049	-0.123	0.002	1	
TOP	0.320	0.125	0.639	0.062	0.326	-0.421	-0.009	0.092	1
GDPCAP	0.152	0.019	0.097	0.266	0.179	-0.148	0.209	0.249	-0.061	1

Note: FDI = Foreign Direct Investment; FRAST = Infrastructure; GDPCAP = GDPpercapita; INF = Inflation; REER = Real Effective Exchange Rate; TOP = Trade Openness; CORR = Corruption; HC=Human capital; PTS=Political Unrest GCF =Gross Capital Formation;EG=;

The correlation matrix table 4.1 shows a negative relationship between FDI and corruption with a correlation coefficient of -0.44, while FDI and political terror scale has a coefficient of -0.121 indicating a low correlation. This method was adopted to test the existing association between dependent variables and independent variables. Correlation matrix test was computed for all the variables.

Table 4.3: Panel Unit Root for Model (3.10)

	Level		First Difference	
	Levin-Lin-Chu	Im-Pesaran-Shin	Levin-Lin-Chu	Im-Pesaran-Shin
Variables	Statistic		Statistic	
FDI	-0.3846	-0.8867	-6.3674***	-5.0888***
CORR	2.7359	-1.2912	-4.5411***	-4.1395***
FRAST	-1.1123	-1.1123	-3.3667***	-3.3667***
GCF	-0.6944	-0.9502	-6.5325***	-6.5246***
HC	-1.1242	1.1242	-4.0424***	-2.4456**
PTS	-0.7391	-1.0281	-4.9454***	-2.3139**
INF	-0.3846	-0.8867	-6.3674***	-5.0888***
REER	-0.2283	0.8305	-7.1740 ***	-3.8444 ***
TOP	0.2482	0.6489	4.5640**	-7.2433***
GDPCAP	-0.6944	-0.9502	-6.5325 ***	-6.5246 ***

Notes, ***, ** and * indicate the rejection of the null hypothesis at 1%, 5% and 10% significant level respectively.

The study utilizes two-unit root methods, Levin- Lin-Chu which assumes a common unit root process and IM Pesaran Shin that assumes individual unit root process. The result indicated that all the variables are integrated of order one, meaning that they contain unit

root at level, but after taking the first difference of the series they all become stationary at 1%level while trade openness become stationary at 5% level using Levin-Lin-Chu; in the case of IM-Pesaran-Shin political terror scale, human capital and economic growth become difference, stationary at 5, while all the other series are difference stationary at 1%. This indicates the need to check for cointegration of the series.

Table 4.4: FMOLS and DFE: for Model (3.10)

Variables	Fixed Effects Model	Random Effects Model	Dynamic Fixed Effect Model	FMOLS Model
CONST	0.061***(2.30)	0.060***(2.31)	0.089***(8.72)	
CORR	-0.221(-0.37)	-0.223(-0.35)	-0.342**(-2.61)	0.261(-0.43)
FRAST	0.394**(2.89)	0.383**(3.01)	0.837***(5.52)	0.791***(4.87)
GCF	0.621(0.69)	0.601(0.93)	0.762(0.32)	0.771(0.522)
GDPCAP	0.178**(2.28)	0.186**(2.25)	0.065***(4.63)	0.061**(2.54)
HC	0.041(0.71)	0.048(0.03)	0.251(0.52)	0.026(0.52)
INF	-0.073(-1.40)	-0.083(-0.76)	0.083(0.63)	-0.042(0.33)
PTS	0.129 (0.37)	0.124(0.25)	-0.232***(6.63)	-0.054**(2.53)
REER	-0.334(0.31)	0.321(0.34)	0.633(0.42)	0.072(0.53)
TOP	0.059(0.10)	0.057(0.03)	0.012***(6.86)	0.072**(2.42)
F Test	41.93***[0.000]			
LM Test		1.39[0.331]		
Hausman Test	2.00[0.919]			
Time Fixed Effect	2.24[0.316]			
R-squared	0.732	0.932	0.734	0.814
Number of Observation	130	130	130	130

Notes: *** indicates significant at 1%, ** indicates significant at 5%, and * indicates significant at 10%; t-statistics are in parentheses (   ) and p-value are in [   ].

The table 4.3, presents the fixed, random, dynamic fixed effect and fully modified OLS models. The corruption perception index is negatively significant with foreign direct investment in ECOWAS-5 countries, a decrease in corruption perception index by one unit will lead to 34.2 increase in FDI inflow, and the index's coefficient is significant in the dynamic fixed effect model this signifies the importance of institutional quality (corruption), this result is in line with corruption perception index submission that indicates that ECOWAS region is the most corrupt region in the world. Similarly, the dominant view which indicate that good governance tend to receive more FDI (Globerman and Shapiro 2002; Globerman, Shapiro, and Tang 2004; Gani, 2007; La Porta, Lopez-de-Silanes, Shleifer, and Vishny, 2000   and World Bank 2002).

An increase in infrastructure quality by one unit will increase FDI inflow by 83.7 and 79.1 percent according to dynamic fixed effect and fully modified OLS model respectively, all the models indicate a positive significant relationship between FDI and infrastructure. this finding is in line with Aseidu (2002). This indicate the significance of well-developed infrastructure in reducing costs and increasing efficiency and effectiveness in order to stimulate FDI into the selected five ECOWAS countries which is in line with the UNCTAD theory and framework by Hymer (1977). Infrastrucutre tends to spur productivity of investment and stimulates FDI inflows. According to Wheeler and Moody (1992); Wang (2002), they indicated that good infrastructure tends to reduce operating costs thus it spurs economic growth. Due to the fact that investments cannot be protected in an environment

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that is riddled with poor governance (Globerman and Shapiro, 2002) and also increase uncertainty and costs was mainly caused by poor governance (Cuervo-Cazurra, 2008).

In conclusion, corruption tends to increase direct costs in form of delay in bureaucracy and bribery, which create artificial bottlenecks in order to create more accommodating conditions for rent seeking activities. Trade openness has a positive relationship with FDI, an increase in trade openness will lead to increase in FDI inflow by 7.28 percent. This finding is in line and consistent with previous literatures and with that of Asiedu (2002), Flexner (2000) and Li and Liu (2004) which indicate and stresses further the significance of static benefits from economics of scale due to market expansion and FDI inflows. Nations that are more liberal including trade policy tends to have lower market distortions, increase in level of efficiency which will spur the spillover impact of FDI (Balasubramanya et al., 1996). An increase in GDP per capita will lead to increase in FDI inflow in the country by 18.6 percent in the ECOWAS-5 as indicated by the random effect model. The significant and positive relationship existing between GDPCAP and FDI indicate that GDPCAP is a determinant of FDI inflow in selected ECOWAS nations. The result is in line with Frankel et.al (2004), Liargova and Skandalis (2012).

This implies that GDP percapita plays an important role for FDI inflows to the five ECOWAS countries, which is in line with Hymer (1977), Dunning (1980,1993) eclectic theory (OLI paradigm) and UNCTAD framework that firms look for larger prospects when opting for FDI decisions (market–seeking FDI motive), which is mainly to serve and meet demand of large population within five ECOWAS nations. This result is also in line with (Elkomy and Read, 2016). The political terror scale is negatively significant with FDI

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in the dynamic fixed effect and fully modified OLS model, indicating that a decrease in political terror scale by one unit will increase FDI inflow by 23.2 percent in ECOWAS-5, denoting that FDI inflows of the selected ECOWAS countries will improve if political unrest is stable and normal.

Table 4.5: Pool Mean Group for Model (3.10)

Variables	PMG Coefficient	P-Value long run
CORR	-0.052**	0.043
FRAST	-0.002**	0.032
GCF	0.230	0.416
HC	0.165**	0.000
PTS	-0.042**	0.045
INF	-0.010	0.231
REER	0.032	0.632
TOP	0.021**	0.032
GDPCAP	0.052	0.635
		Short run
ECT	-0.063***	0.000
CORR	-0.328*	0.093
FRAST	-0.026	0.247
GCF	.0304	0.728
HC	-0.116*	0.074
PTS	-0.359***	0.003
INF	-0.20***	0.003
REER	0.073	0.635
TOP	0.082	0.532
GDPCAP	0.053	0.352
Log Likelihood		
Hausman sigmamore		
(pmg vs dfe)	0.9999	

Notes, ***, ** and * indicate the rejection of the null hypothesis at 1%, 5%
and 10% significant level respectively

The pool mean group model shows that in the longrun corruption perception index has a negative relationship with FDI, a decrease in the corruption perception index at 5 level will increase FDI inflow in the longrun.. Increase in human capital development proxied by

school enrollment will lead to increase in FDI inflow by 16.5 percent in the longrun; it indicated the significant differences in technological absorptive ability, which may further explain the variation in growth impact of FDI across the selected ECOWAS countries, the magnitude of human capital highlights the ability to adopt foreign technology. Political terror scale is significant in both longrun and shortrun in determining FDI, a decrease in political terror scale will lead to an increase in the FDI by 4.2 percent in the longrun and 35.9 in the shortrun. Increase in trade openness increase FDI inflow in both shortrun and longrun. The error correction term is negative and statistically significant at 1%, it indicates 6.3 percent of the shortrun. The empirical results of the panel data analysis is based on selected ECOWAS countries. In order to decide whether pool mean group or other estimate is appropriate the researcher employed hausman test to decide between all the estimates and indeed it picked pool mean group estimate. However, concluding that pool mean group is the most efficient under the null hypothesis. The speed of adjustment for the model is negative and statistically significant. The error correction term (ECT) coefficient in short run is significant indicating the period when the GDP percapita will return to equilibrium.

One unit increase in inflation will attract more FDI inflows by -0.20. Inflation variable in this model was used as a proxy for macroeconomic instability accordingly there is a negative relationship with growth which is in line with theory as expected. This indicate that unstable macroeconomic environment tends to dampens growth (Li and Liu, 2004; Borensztein, De Gregorio and Lee,1998). Consequently, inflation that is low will eventually pay off in terms of a better higher per capita income and long run performance. This indicates that the macroeconomic environment of ECOWAS countries encourages or

stimulates growth. A lower inflation will pay off in terms of better long run performance and higher per capita income.

This is in line with prior expectations regarding the possibility that expansionary fiscal policies will retard growth. Furthermore, school enrollment variable was included in the model as proxy for human capital. School enrolment was found to be positive and statistically significant at the long run. An increase in the school enrolment will lead to an increase in the growth rate. The result indicated the significant differences in technological absorptive ability, which may further explain the variation in growth impact of FDI across the selected ECOWAS countries. The magnitutde of human capital highlights the ability to adopt foreign technology. Which indicate that the larger human capital is endowed to a nation especially the selected ECOWAS countries, is assumed it will induce higher growth rates. This result is in line with previous studies, many past literature recorded negative relationship between school enrolment (human capital) and economic growth (Islam, 1995; Benhabib and Spiegel 1994; Pritchett 2001). The positive sign accorded to school enrolment (human capital) might be because educational attainment and its effects on the human capital stock differ among nations depending on their characteristics (Temple, 1999). The implication of this result indicates that the differences in technological absorptive ability can better describe the variation in growth effects based on FDI across the selected ECOWAS countries. Therefore, higher growth rate is largely assumed to be induced by large endowments of human capital in the selected ECOWAS countries. The result is in line with (Christopoulos and Mc Adam, 2013). Human capital may affect growth via complementarities, demonstration effects and diffusion process is largely based

on skills. That kind of effect depends on FDI and Trade openness of which both affect human capital.

However, gross capital formation was positive and significant denoting that one unit increase in gross capital formation will result to an increase in FDI. Inflation variable is significant and negative at the short run and long run. Inflation was introduced as a proxy for macroeconomic instability. This indicates an unstable macroeconomic environment impedes growth (Li and Liu 2004; Borensztein et al.,1998). Political unrest variable was found to be negative and statistically significant denoting economic growth of the selected ECOWAS countries will improve if political unrest variable improved.

Table 4.6: Correlation Matrix for Model (3.11)

Correlation	FDI	CORR	PTS	TOP
FDI	1			
CORR	-0.441	1		
PTS	-0.121	-0.346	1	
TOP	0.320	0.125	-0.421	1

Note: PTS= Political Terror Scale; FDI=Foreign Direct Investment; PTS= Political unrest; GDPCAP = GDPpercapita

The correlation matrix shows a negative relationship between FDI and political terror scale and corruption index. A correlation result was computed for institutional quality and TOP. The result depicted in table 4.6 signifies a negative correlation between the pairs of FDI and CORR, a negative correlation between Political unrest and FDI indicating that political unrest within ECOWAS does not attract foreign investors. Also, correlation between Tradeopenness and FDI is positive. In conclusion the researcher was able to use correlation

matrix to show the linear relationship including the strength and direction of the variables

included in this model

Table 4.7: Panel Unit Root for model (3.11)

	Level Levin-Lin-Chu	Im-Pesaran-Shin	First Difference Levin-Lin-Chu	Im-Pesaran-Shin
Variables	**Statistic**		**Statistic**	
FDI	-0.3846	-0.8867	-6.3674***	-5.0888***
CORR	2.7359	-1.2912	-4.5411***	-4.1395***
PTS	0.7391	-1.0281	-4.9454***	-2.3139**
TOP	0.2482	0.6489	4.5640**	-7.2433***

Notes, ***, ** and * indicate the rejection of the null hypothesis at 1%, 5% and 10% significant level

The study utilizes two-unit root methods, Levin- Lin-Chu which assumes a common unit

root process and IM Pesaran Shin that assumes individual unit root process. The result

indicated that all the variables are integrated of order one, meaning that they contain unit

root at level, but after taking the first difference of the series they all become stationary at

1% level while trade openness become stationary at 5% level using Levin-Lin-Chu; in the

case of IM-Pesaran-Shin political terror scale, human capital and economic growth become

difference stationary at 5, while all the other series are difference stationary at 1%. This

indicates the need to check for cointegration of the series.

Table 4.8: FMOLS and DFE for model (3.11)

Variables	Fixed Effects Model	Random Effects Model	Dynamic Fixed Effect Model	FMOLS Model
CORR	-0.097**(6.75)	-0.010**(7.02)	0.0.121***(-43.32)	-0.011***(-12.50)
PTS	-0.098**(5.63)	-0.010**(6.92)	0.151***(14.72)	-0.010**(7.03)
TOP	0.271(1.72)	0.023(0.63)	0.063**(6.61)	0.026(2.75)
F Test	54.43***[0.000]			
LM Test		7.62[0.627]		
Hausman Test	29.307[0.291]			
Time Fixed Effect	3.44[0.736]			
R-squared	0.756	0.722	0.741	0.614
Number of Observation	130	130	130	130

Notes: *** indicates significant at 1%, ** indicates significant at 5%, and * indicates significant at 10%; t statistics are in parentheses ( ) and p-value are in [   ].

The corruption index is negatively related with FDI in the ECOWAS-5, signifying a unit increase in corruption index will lead to reducing FDI, the model significantly explain inverse relationship between FDI and corruption index, but FMOLS and dynamic fixed effect are more robust in explaining the relationship. Political unrest (PTS) also has an inverse relationship with FDI, indicating a decrease in FDI due to increase in political terror activities. Political unrest variable was found to be negative and statistically significant denoting FDI of the selected ECOWAS countries will improve if political unrest variable improved. Political unrest attractive character of governance is poor in the selected ECOWAS countries, which is in line with the findings of Bellos and Subasat, (2012) for the transition countries. Institutional quality in many literatures is recognised as the key significant determinants not only for cross-country differences in development and wealth

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(Acemoglu and Johnson, 2005), but also cross-nation differences in FDI inflows (Contractor, Kumar and Pedersen, 2010) though contended that foreign investors have become increasingly aware of the significance of institutional quality as to when they decide on their investment decisions. However, lack of infrastructure, political instabiity and institutional quality often make reference to in the literature are hindering factors affecting FDI inflows in to this selected ECOWAS countries (Acemoglu,Johnson and Robinson,2005 and Hall and Jones,1999).

Table 4.9: Pool Mean Group for model (3.11)

Variable	Coeff	P-Values
	Longrun	
CORR	-0.011**	0.0378
PTS	-0.059***	0.0002
TOP	0.095**	0.0237
	Shortrun	
ECT	-0.191***	0.0098
CORR	0.000**	0.0386
PTS	-0.003**	0.0228
TOP	0.668*	0.0629
Hausamn Sigmamore	0.1521	
(pmg vs dfe)		
0.9999		

Notes, ***, ** and * indicate the rejection of the null hypothesis at 1%, 5%
   and 10% significant level respectively.

From the pool mean group model table above, in ECOWAS-5 corruption is negatively related with FDI in the longrun with the parameter magnitude -0.011, signifying a decrease in FDI due by 0.11. An increase in Political unrest (PTS) will lead to a decrease in FDI by 0.5%. Trade openness is positively related with FDI in the longrun, signifying an increase in FDI due to a unit increase in trade openness in ECOWAS-5. All the parameters in the shortrun have same sign with parameters in the longrun and the error correction term 19.16 percent of the shortrun in ECOWAS-5. Political unrest is a major challenge that affect

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investor confidence and impede economic growth (Alesina,Ozler,Roubini and Swagel,1996).The researcher employed hausman sigmamore which indicated that Pool Mean Group is the most suitable and appropriate for interpretation.

Table 4.10: Correlation analysis for model (3.12)

Correlation	FDI	EG	FRAST	HC	PTS
FDI	1				
GDPCAP	0.255	1			
FRAST	0.101	0.163	1		
HC	0.476	0.244	0.447	1	
PTS	-0.121	-0.055	-0.207	-0.037	1

Notes, ***, ** and * indicate the rejection of the null hypothesis at 1%, 5% and 10% significant level

The correlation matrix shows a negative relationship between economic growth and political terror scale variable and a positive relationship between economic growth and infrastructure, and human capital.

Table 4.11: Panel Unit Root for model (3.12)

	Level Levin-Lin-Chu	Im-Pesaran-Shin	First Difference Levin-Lin-Chu	Im-Pesaran-Shin
Variables	**Statistic**		**Statistic**	
FDI	-0.3846	-0.8867	-6.3674***	-5.0888***
GDPCAP	2.0490	-0.5863	-6.3319***	-2.2305**
FRAST	-1.1123	-1.1123	-3.3667***	-3.3667***
HC	-1.1242	1.1242	-4.0424***	-2.4456**
PTS	0.7391	-1.0281	-4.9454***	-2.3139**

Notes, ***, ** and * indicate the rejection of the null hypothesis at 1%, 5% and 10% significant level.

The study utilizes two unit root methods, Levin- Lin-Chu which assumes a common unit root process and IM Pesaran Shin that assumes individual unit root process. The result indicated that all the variables are integrated of order one, meaning that they contain unit

root at level, but after taking the first difference of the series they all become stationary at 1% level while trade openness become stationary at 5% level using Levin-Lin-Chu; in the case of IM-Pesaran-Shin political terror scale, human capital and economic growth become difference stationary at 5, while all the other series are difference stationary at 1%. This indicates the need to check for cointegration of the series.

Table 4.12: FMOLS and DFE for model (3.12)

Variables	Fixed Effects Model	Random Effects Model	Dynamic Fixed Effect Model	FMOLS Model
FRAST	-0.061***(21.83)	0.136***(12.12)	0.092***(-21.51)	-0.011***(-12.50)
HC	0.014(2.03)	0.067(1.33)	0.512(1.82)	0.010**(7.03)
FDI	12.532***(9.62)	6.299**(7.01)	0.083**(-6.87)	0.026**(6.89)
PTS	-0.261(-1.23)	-0.140(-0.54)	0.836(-0.93)	-0.672**(-6.71)
GDPCAP	5.277***(21.26)	5.213***(32.76)	8.736***(34.87)	21.832***(41.87)
F Test	81.31***[0.000]			
LM Test		5.24[0.151]		
Hausman Test	21.321[0.543]			
Time Fixed Effect	2.71[0.761]			
R-squared	0.672	0.673	0.792	0.841
Number of Observation	130	130	130	130

Notes: *** indicates significant at 1%, ** indicates significant at 5%, and * indicates significant at 10%; t-statistics are in parentheses ( ) and p-value are in [ ].

Infrastructure is statistically significant in explaining economic growth in the entire model at level, indicating a unit increase in infrastructure will lead to increase in economic growth by 13.6 percent; infrastructure tends to spur productivity of investment and stimulates FDI

inflows. According to Wheeler and Moody (1992); Wang (2002), they indicated that good

infrastructure tends to reduce operating costs thus it spur economic growth. Human capital

significantly explains economic growth in the fully modified OLS model only at 5%, a unit

increase in school enrollment will increase economic growth by 1%. An increase in

FDIinflow by one unit will lead to increase in economic growth; which indicate that the

larger human capital is endowed to a nation especially the selected ECOWAS countries, it

is assumed it will induce higher growth rates. This result is in line with previous studies,

many past literature recorded negative relationship between school enrolment (human

capital) and economic growth (Islam, 1995; Benhabib and Spiegel 1994; Pritchett 2001).

The positive sign accorded to school enrolment (human capital) might be because

educational attainment and its effects on the human capital stock differ among nations

depending on their characteristics (Temple, 1999). Political terror scale influence economic

growth in an inverse direction, only fully modified OLS parameter is significant in

explaining economic growth.

Table 4.13: Pool Mean Group for model (3.13)

Variable	Coeff	Prob
	Longrun	
FRAST	0.219**	0.005533
HC	0.075***	0.014974
FDI	0.072**	0.041334
PTS	-0.081**	
	Shortrun	
ECT	-0.202***	0.0003
FRAST	0.147**	0.0334
HC	0.076**	0.0228
FDI	0.213***	0.0001
PTS	0.023	0.2145
Hauman sigma		
(pmg vs dfe)	0.312	

Infrastructure significantly influence economic growth in the longrun at 5%, it indicates that a unit increase in infrastructure will led to 21.9 increase in economic growth while in the shortrun the magnitude drops to 14.7. Infrastructural quality, human capital, and macroeconomic stability are vital principles of inflows of FDI (Oladipo,2008). The justification of infrastructural quality, competent infrastructure is recommended to re-enforce new technologies and to ease correlation amidst domestic firms and FDI (Busse, Erdogan, & Mühlen, 2016; Iamsiraroj, 2016). Invariably Infrastructural development like Digital mobile, Information Computer and Technology is now penetrating in accommodating regional producer into alluring vertical FDI in manufacturing, services and communication chain (Addison and Heshmati ,2003). Human capital significantly influences economic growth in a positive direction by 7.5 both in short and longrun. FDI significantly influence economic growth in a positive direction, in the longrun an increase in FDI will increase economic growth by 7.2 while in the shortrun it will increase by 21.3. Political terror scale negatively influences FDI in the longrun by 8.1. Low literacy rates inevitably have an impact on human capital development which contributes to the less attractiveness of the region for FDI inflows (World Bank, 2002)

Table 4.14: Correlation analysis for model (3.13)

Correlation	FDI	CORR	TOPCORR	FRAST	PTS	INF	REER	TOP	GDPCAP
FDI	1								
CORR	-0.441	1							
TOPCORR	0.255	0.118	1						
FRAST	0.101	0.115	0.163	1					

PTS	-0.121	-0.346	-0.055	-0.207	1				
INF	0.040	-0.117	-0.028	-0.142	0.110	1			
REER	0.050	0.072	0.055	-0.018	-0.123	0.002	1		
TOP	0.320	0.125	0.119	0.639	-0.421	-0.009	0.092	1	
GDPCAP	0.152	0.019	0.117	0.097	-0.148	0.209	0.249	-0.061	1

Note: PTS= Political Terror Scale; FDI=Foreign Direct Investment; CORR= Corruption; Inflation= Inflation; TOP*CORR= Tradeopenness interact Corruption; FRAST= Infrastructure; REER= Real exchange rate;TOP=Tradeopenness; GDPCAP = GDPpercapita

The correlation matrix shows a negative relationship between FDI and corruption index and political unrest with the magnitudes 0.441 and 0.121 respectively, while FDI is positively related with infrastructure, inflation, real effective exchange rate, trade openness and GDP per capita. Based on the estimation result the interaction effect of trade openness with corruption indicates the expected sign (negative sign). This result indicates that the level of trade in the selected ECOWAS nations is very low, and therefore hampers the selected ECOWAS countries ability to capitalise on the gain from trade (technical efficiency). The low level of trading activities combines with the continuous disruption of production, which is mainly due to strikes, corruption and insurgencies in some of the selected ECOWAS countries, limits the absorptive capacity, which means that it hampers the diffusion of technological improvements including national efficiency scores.

Table 4.15: Panel Unit Root for model (3.13)

| | Level | | First Difference | |
| | **Levin-Lin-Chu** | **Im-Pesaran-Shin** | **Levin-Lin-Chu** | **Im-Pesaran-Shin** |
Variables	**Statistic**		**Statistic**	
FDI	-0.3846	-0.8867	-6.3674***	-5.0888***
CORR	2.7359	-1.2912	-4.5411***	-4.1395***
FRAST	-1.1123	-1.1123	-3.3667***	-3.3667***
TOPCORR	-0.6944	-0.9502	-6.5325***	-6.5246***
PTS	0.7391	-1.0281	-4.9454***	-2.3139**

INF	-0.3846	-0.8867	-6.3674***	-5.0888***
REER	-0.2283	0.8305	-7.1740 ***	-3.8444 ***
TOP	0.2482	0.6489	4.5640**	-7.2433***
GDPCAP	-0.6944	-0.9502	-6.5325 ***	-6.5246 ***

Notes, ***, ** and * indicate the rejection of the null hypothesis at 1%, 5% and 10% significant level respectively.

The study utilizes two unit root methods, Levin- Lin-Chu which assumes a common unit root process and IM Pesaran Shin that assumes individual unit root process. The result indicated that all the variables are integrated of order one, meaning that they contain unit root at level, but after taking the first difference of the series they all become stationary at 1% level while trade openness become stationary at 5% level using Levin-Lin-Chu; in the case of IM-Pesaran-Shin political terror scale, human capital and economic growth become difference stationary at 5, while all the other series are difference stationary at 1%. This indicates the need to check for cointegration of the series.

Table 4.16: FMOLS and DFE for model (3.13)

Variables	Fixed Effects Model	Random Effects Model	Dynamic Fixed Effect Model	FMOLS Model
GDPCAP	0.271(2.03)	0.274(1.98)	-0.351(3.03)	
TOP	0.374(1.63)	0.391(2.08)	0.089(2.72)	-0.491**(5.89)
INF	0.072(0.52)	0.071(2.10)	0.085(0.61)	0.174(0.98)
PTS	-0.295(-2.12)	-0.281(-1.87)	0.076(1.76)	0.690**(7.73)
FRAST	0.361***(12.76)	0.335***(20.02)	0.381***(26.52)	0.296***(27.84)
CORR	-0.778(-0.73)	-0.811(-0.64)	-0.764**(-7.32)	-0.790***(-12.87)
REER	-0.191(0.82)	-0.183(2.03)	0.225**(-5.63)	-0.262**(7.03)
TOP*CORR	-0.042(1.68)	-0.034(2.07)	0.071***(9.52)	-0.067**(6.75)
F Test	45.04***[0.000]			

LM Test		7.81[0.762]		
Hausman Test	8.32[0.892]			
Time Fixed Effect	7.34[0.673]			
R-squared	0.648	0.687	0.762	0.761
Number of Observation	130	130	130	130

Notes: *** indicates significant at 1%, ** indicates significant at 5%, and * indicates significant at 10%; t-statistics are in parentheses (   ) and p-value are in [   ].

GDP per capita has a positive relationship with FDI as shown in the fully modified OLS at 5% level; a unit increase in GDP per capita will increase FDI by 31.2%, the result is in line with (Frankel et.al 2004, Liargova and Skandalis, 2012). Trade openness is negatively related with FDI at 5% signifying the more the ECOWAS-5 increase trade openness; it will lead to 49.1 increases in FDI. Infrastructure significantly determine FDI in a positive direction by all the models, it signifies that a unit increase in infrastructure will lead to increase in the inflow of FDI by 38.1% as shown by dynamic fixed effect model. An increase in trade openness will lead to increase in the inflow of FDI in ECOWAS-5 by 34.2 percent and the coefficient is significant at 10% level.This findings is in line and consistent with previous literatures and with that of Asiedu(2002), Flexner (2000) and Li and Liu(2004) stresses further that there is the significance of more benefits from economics of scale due to market expansion and FDI inflows. Nations that are more liberal including trade policy tends to have lower market distortions, increase in the level of efficiency which will spur the spillover impact of FDI (Balasubramanya et al., 1996). The significance of well-developed infrastructure can be seen in reducing costs and increasing efficiency and effectiveness in order to stimulate FDI and economic growth into the selected five

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ECOWAS countries which is in line with the UNCTAD theory and framework by Hymer (1977).

Real effective exchange rate has a negative relationship with FDI inflow in ECOWAS-5, fixed and random effect model parameters are not significant at explaining FDI, while dynamic fixed effect and fully modified OLS model are significant at 10%, signifying an increase in FDI by 25.1 percent. However, there are various ways in which real exchange rate can have impact on FDI in developing nations especially ECOWAS countries. The most significant channel may indicate a depreciation of the real exchange rate which tends to reduce domestic labour cost (including other productive inputs) relative to foreign production costs (Busse,Erdogan and Muhlen,2016). The increasing depreciation tends to increase employment and labour demand, thus increasing the return on capital (Bukley,Clegg and Wang,2007).

Greenfield FDI increases in response to depreciation. There are indication to expect negative coefficient on exchange rate in FDI (an increase in the real exchange rate denote a real appreciation of the local currency) (Iamsiraroj,2016). According to Froot and Stein (1991) they indicate that exchange rates also have impact on FDI via imperfect markets channel. A real depreciation of the domestic currency increases the wealth of foreign investors relative to those domestic investors and thus increases FDI inflows. A real depreciation increases FDI. The imperfect capital markets line for real exchange rate impact may be significant in merger and acquisition bids than in the Greenfield investments, which exist in developing nations including ECOWAS (Pantelidis and Nikopoulus,2008). The plausibility of the potential impact of exchange rate on FDI is

backed by the considerable facts that exist that is linking the counter cyclical nature of trade barriers (Froot and Stein,1999).However, Fully Modified OLS and Dynamic Fixed Effect shows that corruption, real effective exchange rate and the interaction term between trade openness and corruption negatively influence FDI. An increase in corruption index by one unit will decrease FDI by 79%. Increase in real effective exchange rate will reduce the inflow of FDI by 26.2%; the plausibility of the potential impact of exchange rate on FDI is backed by the considerable facts that exist of linking the counter cyclical nature of trade barriers. The interaction term between trade openness and corruption negatively influence FDI by 7.1%; Similarly, transfer of technology via trade largely depends on the magnitude of economic liberalization. An economic environment that is distorted domestically tends to increase the potential for gains associated with trade, this is in line with Kneller (2005), Griffith, Redding and Van Reenen (2004) for OECD nations and (Henry, Kneller and Milner, 2009 and Mastromarco and Ghosh, 2009) for developing nations including ECOWAS countries.

Table 4.17: Pool Mean Group for model (3.13)

Variable	Coeff	Prob
Longrun		
GDPCAP	0.191**	0.0215
TOP	0.073***	0.0028
INF	-0.433***	0.0006
PTS	-0.944**	0.0180
FRAST	1.557***	0.0001
CORR	-0.313**	0.0273
REER	0.153**	0.0150
Shortrun		
TOPCORR	-0.469**	0.0114
ECT	-0.382**	0.0101
GDPCAP	0.075**	0.0121
TOP	0.072**	0.0378
INF	-0.199**	0.0210
PTS	-0.813**	0.0298
FRAST	0.136**	0.0216
CORR	-0.336***	0.0006
REER	0.046**	0.0119
TOP*CORR	0.111**	0.0431
Hausman Sigmamore	0.231	
(pmg vs dfe)		

Notes, ***, ** and * indicate the rejection of the null hypothesis at 1%, 5%
        and 10% significant level.

The longrun model indicate a positive relationship between GDP per capita and FDI,

indicating a unit increase. GDP per capita leading to 19.1% inflow in FDI, GDP per capita

plays an important role for FDI inflows and economic growth to the five ECOWAS

countries, which is in line with Hymer (1977), Dunning (1980,1993) eclectic theory (OLI

paradigm) and UNCTAD framework that firms look for larger prospects when opting for

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FDI decisions (market–seeking FDI motive), which is mainly to serve and meet demand of large population within five ECOWAS nations. This result is also in line with (Elkomy and Read, 2016). An increase in trade openness will lead to increase in FDI by 3.09%. Political terror scale is negatively related with FDI; this shows a decrease in FDI by 9.44 due to increase in political terror activity. Infrastructure is positively related with FDI, the coefficient of 1.53 shows that an increase in infrastructure will increase FDI by 1.53%. Corruption index is negatively related with FDI, showing an increase in corruption index will decrease FDI by 3.13. Real effective exchange rate is positively related with FDI, it has a coefficient of 0.153 signifying increase in FDI by 15.3% due to increase in real effective exchange rate.

The interaction term between trade openness and corruption is negatively related with FDI, it has a coefficient of -0.469. In the shortrun, the error correction term is -0.382, it satisfies the apriori condition, i.e. it is less than one and statistically significant. The error correction term will correct the shortrun disequilibrium error by 38.21 percent annually; as such equilibrium will be restored in 2 years and 6 months. The trade openness and corruption interaction term is negatively related with FDI, and the parameter is significantly explained by all the models, as such investments cannot be protected in an environment that is riddled with poor governance (Globerman and Shapiro, 2002) and also increasde uncertainty and costs are mainly caused by poor governance (Cuervo-Cazurra, 2008). Corruption tends to increase direct costs in the form of delay in bureaucracy and bribery, which create artificial bottlenecks (Gani,2007).

Table 4.18: Correlation analysis for (3.14)

Correlation	FDI	FRAST	GCF	HC	PTS	INF
FDI	1					
FRAST	0.101	1				
GCF	0.235	0.138	1			
FDI*HC	0.476	0.447	0.043	1		
FDI*PTS	-0.121	-0.207	-0.099	-0.037	1	
INF	0.040	-0.142	0.146	0.042	0.110	1

Note: FDI=Foreign Direct Investment; GCF= Gross formation; FDI*HC= Foreign Direct Investment interaction (HC) School Enrolment; FDI*PTS= Foreign Direct Investment interaction Political unrest; Inflation= Inflation;

Correlation analysis was computed for the variables and the interaction terms. The main motive of this section is to ascertain if the inclusion of the interaction terms will cause multicollinearity problem. FDI is negatively related with the interaction term between FDI and political unrest and positively related with infrastructure, gross capital formation, inflation and FDI*(HC) human capital interaction. Economic growth is negatively related with inflation and FDI*(PTS) political unrest while it is positively related with infrastructure, gross capital formation, FDI and human capital interaction.

Table 4.19: Panel Unit Root Test for model (3.14)

| | **Level** | | **First Difference** | |
	Levin-Lin-Chu	**Im-Pesaran-Shin**	**Levin-Lin-Chu**	**Im-Pesaran-Shin**
Variables	Statistic		Statistic	
FDI	-0.3846	-0.8867	-6.3674***	-5.0888***
GDPCAP	-4.2283***	0.8305	-7.1740 ***	-3.8444 ***
GCF	0.2482	-3.6489***	4.5640	-7.2433***
INF	-0.6944	-0.9502	-6.5325 ***	-6.5246 ***
HC	-0.2966	-4.6679***	-1.2585*	-5.5677 ***
FDI*HC	-4.0322***	-4.6037 ***	-7.7375***	-6.7035 ***

FDI*PTS	-3.4255***	-5.7333***	-4.0794 ***	-7.6413 ***
PTS	-0.6584	0.6987	-4.5408 ***	-4.6523 ***

Notes, ***, ** and * indicate the rejection of the null hypothesis at 1%, 5% and 10% significant level respectively.

Panel unit roots was employed to examine if all the series are I(1). The IPS and Levin-Lin and Chin unit root test are employed for each of the variable for the panel data estimate. The results presented in Table 4.18. The null hypothesis of nonstationarity for IPS and Levin-Lin and Chin unit root test is rejected for (FDI*PTS, GDPCAP and FDI*HC). Therefore, the results from the two tests indicate that the remaining series are stationary at first difference. Since there is a mixed result for panel unit root testing thus the researcher will proceed further to establish both the short and long run effect using panel pool mean group, FMOLS and dynamic fixed effect.

Table 4.20: FMOLS and DFE for model (3.14)

Variables	Fixed Effects Model	Random Effects Model	Dynamic Fixed Effect Model	FMOLS Model
FDI	0.321***(12.76)	0.214***(21.29)	0.310**(7.03)	
INF	-0.025(2.61)	-0.001(-0.28)	0.024(-2.72)	-0.054(-0.41)
FRAST	0.012***(9.73)	0.128***(12.33)	0.061***(16.61)	0.009***(11.25)
GCF	0.105(2.74)	0.099(1.73)	0.129(1.76)	0.151**(12.31)
FDIHC	0.020(1.75)	0.054(0.63)	0.076(0.25)	0.062(0.53)
FDIPTS	0.037(2.63)	0.036(0.54)	-0.543(-1.32)	-0.011(-0.31)
F Test	54.40***[0.000]			
LM Test		5.18[0.215]		
Hausman Test	6.23[0.265]			

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Time Fixed Effect	5.54[0.542]		
R-squared	0.721	0.7481	0.651	0.812
Number of Observation	130	130	130	130

Notes: *** indicates significant at 1%, ** indicates significant at 5%, and * indicates significant at 10%; t-statistics are in parentheses ( ) and p-value are in [ ].

FDI influences economic growth in all the models, but fixed and random effect shows significance of the parameters at 1% level, it shows increase in economic growth by 32.1% due to increase in FDI. Infrastructure and economic growth has positive relationship, the parameter of infrastructure is significant in all models, and random effect model shows a magnitude 0.128, signifying 12.8% increase in economic growth. The gross capital formation significance indicates that foreign direct investment inflows augment and stimulate maximally to domestic capital formation, which tends to accelerate development of the selected ECOWAS nations. In line with Borensztein et al., (1998), contribution of FDI to economic growth can only be sufficient in absorptive capacity only when it is in advanced technological stage, and also available in the host country. Consequently, inflation that is low will eventually pay off in terms of a better higher per capita income and long run performance. This indicates that the macroeconomic environment of ECOWAS countries encourages or stimulates growth. A lower inflation will pay off in terms of better long run performance and higher per capita income. This is in line with prior expectations regarding the possibility that expansionary fiscal policies will retard growth. In the short run, foreign direct investment (FDI) was   positive and statistically significant. Furthermore, school enrollment variable was included in the model as proxy for human capital. School enrolment was found to be positive and statistically significant

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at the long run . The result indicated the significant differences in technological absorptive ability, which may further explain the variation in growth impact of FDI across the selected ECOWAS countries.

The magnitude of human capital highlights the ability to adopt foreign technology. Which indicate that the larger human capital is endowed to a nation especially the selected ECOWAS countries, it will induce higher growth rates. This result is in line with previous studies, many past literature recorded negative relationship between school enrolment (human capital) and economic growth (Islam, 1995; Benhabib and Spiegel 1994; Pritchett 2001). The positive sign accorded to school enrolment (human capital) might be because educational attainment and its effects on the human capital stock differ among nations depending on their characteristics (Temple, 1999). The implication of this result indicates that the differences in technological absorptive ability can better describe the variation in growth effects based on FDI across the selected ECOWAS countries. Adoption of foreign technology largely depends on human capital level. Therefore, higher growth rate is largely assumed to be induced by large endowments of human capital in the selected ECOWAS countries. The result is in line with (Christopoulos and Mc Adam, 2013). Human capital may affect growth via complementarities, demonstration effects and diffusion process is largely based on skills. That kind of effect depends on FDI and Trade openness of which both affect human capital (Savvides and Stengos,2008).

Table 4.21: Pool Mean Group for model 3.14

Variable	Coeff	Prob
Longrun		
FDI	0.635***	0.0004

INF	-0.160***	0.0009
FRAST	0.218***	0.0021
GCF	0.059***	0.0042
FDI*HC	0.409***	0.0034
FDI*PTS	-0.556***	00000
Shortrun		
ECT	-0.382**	0.0101
FDI	0.111**	0.0431
INF	-0.075***	-0.0121
FRAST	0.072**	0.0378
GCF	0.199**	0.0210
FDI*HC	0.813**	0.0298
FDI*PTS	-0.136**	-0.0216
Hausman Sigmamore (pmg vs dfe)	0.4312	

Notes, ***, ** and * indicate the rejection of the null hypothesis at 1%, 5% and 10% significant level respectively.

The pool retrieves mean group model both the shortrun and longrun parameters of the model as well as the error correction term. In the longrun economic growth is positively related with FDI, infrastructure, gross capital formation. The inclusion of FDI inflow and GCF indicate the need to capture the indirect spill over effects of FDI and its effect of pure physical capital accumulation (Borensztein et al., 1998). Foreign direct investment promotes economic growth in ECOWAS, which seems at variance with expectations. The result is in line with the previous findings by Apergis and Payne, (2008), Carkovic and Levine, (2002),Lyroudi, Papanastasion and Vamvakidis (2004) and Aleksynska,(2003) and also it is clear that FDI in transition economies (ECOWAS) can be challenging in so far as the wishes of investors and host government can vary, with the former supporting sole proprietorship and control but the latter desiring joint ventures.

The interaction term between FDI and human capital with the coefficient 0.635, 0.218, 0.059 and 0.409 respectively is inversely related while the interaction term between FDI and political terror scale has the coefficient of -0.160 and -0.556. The positive relationship between FDI*HC denoting that FDI and human capital was positively influencing

economic growth. The joint effect indicate that an increase in the interacted variable will leads to an increase in the economic growth of ECOWAS-5 in the long run. The statistical importance of this interaction indicates that FDI encourages growth, the impact was mainly based on minimum threshold stock of capital. It shows that once threshold is reached it induces a paradigm change in the motives for FDI from market seeking or resource to efficiency seeking FDI. The result is in line with (Bende-Nabende and Ford, 1998). The implication of joint significance of (FDI*HC) is that FDI and the level of human capital interaction play a vital role in growth enhancing impact of the latter. This indicate a very strong synergy between human capital and FDI as a determinant affecting economic growth which is consistent with advanced technology model embodied in FDI which tend to spur the host economic growth via the relationship with the nation's absorptive capacity (Borensztein et el., 1998; Lucas,1998).

The interaction variable (FDI*PTS) reveals a joint effect of FDI and political development (political unrest) in ECOWAS and it specify the degree at which the indirect effects of FDI inflows in the form of technology spill overs and efficiency gains differ based on the political regimes in ECOWAS. This further proofs that in order to assess the degree of FDI impact on economic growth in ECOWAS and developing nations as a whole, it all depends on the political development. The significance of this variable is the external finance which mainly relies on the selected ECOWAS countries to attract FDI via adoption of FDI friendly policies adherence to rule of law and stable government.In the shortrun economic growth have a positive relationship with FDI, infrastructure, gross capital formation, the interaction effect between FDI and human capital with the magnitude 0.111, 0.072, 0.199 and 0.813 respectively; and it is inversely related while the interaction term

between FDI and political terror scale has the coefficient -0.075 and -0.136 respectively. The error correction term has a coefficient of -0.382, standard error of 0.229, t –statistics of -1.661 and 1.01 percent probability, the error correction term has satisfy the a priori expectation, i.e. it is less than one and statistically significant, it shows that 38.3 percent of the shortrun dynamics will be corrected annually in the ECOWAS-5. FDI*PTS The interaction variable (FDI*PTS) reveals a joint effect of FDI and political development (political unrest)   in ECOWAS-5 and it specify the degree at which the indirect effects of FDI inflows in the form of technology spill overs and efficiency gains differ based on the political regimes in ECOWAS-5. This further proofs that in order to assess the degree of FDI impact on economic growth in ECOWAS-5 and developing nations as a whole, it all depends on the political development. The significance of this variable is the external finance which mainly relies on the selected ECOWAS countries to attract FDI via adoption of FDI friendly policies adherence to rule of law and stable government.
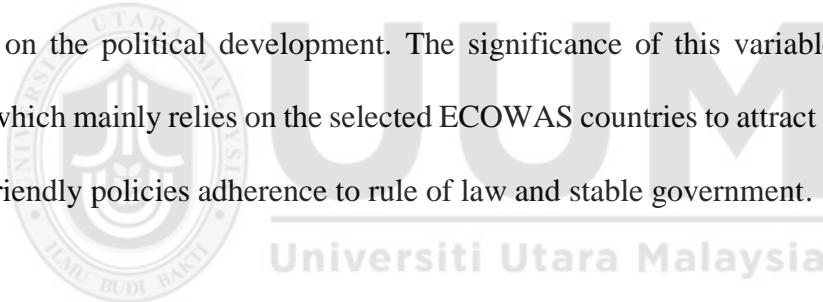
CHAPTER FIVE

CONCLUSION AND POLICY IMPLICATION

5.1 Introduction

This section comprises of the summary of thesis, policy implication of the findings, and finally areas for future study.

5.2 Summary of the study

The very first objective is to investigate the factors determining FDI in ECOWAS-5. The second objective is to examine the impact of institutional quality on FDI in ECOWAS-5. The third objective is to determine the impact of infrastructure and human capital on economic growth in ECOWAS-5. The fourth objective is to determine whether institutions, human capital, and infrastructure require complimentary factors to influence FDI and economic growth through an interaction term effect in ECOWAS-5. All the objectives were empirically examined and adequately answered as follows:

In order to investigate all this objective in the selected ECOWAS nations, static and dynamic models were used. For the methodology part, the researcher employed stochastic frontier framework and augmented growth accounting model by bringing in FDI and economic growth which rely on Solow (1956) and which is in line with Borensztein et al, (1998); Masron and Abdullah (2010); Masron (2017) and De Mello (1999) and was adequately modified in order to answer the highlighted objectives. Therefore, ECOWAS countries poor performance (aggregate technical efficiency and slow growth) can be attributed to bad institution and low human capital. ECOWAS nations therefore tend to

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benefit more than those in the other region in order to reap from efficiency gain that is from trade openness, foreign capital increase via foreign direct investment and quality of education,therefore bringing in improvement by giving quality to economic institutions.

5.3 Policy Implication

The empirical results have significant implications for sustainable economic development in the selected ECOWAS countries. Strategies that can develop and enhance growth should be developed. First, GDP per capita growth was retarded by technical inefficiencies, which indicate that a robust policy should be developed. Second, this research indicates economic institutions and political institutions play a vital role in the selected ECOWAS countries growth and efficiency profiles. Policy makers should attempt to address the key determinant of technical frontier.

Government of ECOWAS should set up agencies to fight corruption with a sole aim of fighting corruption as a step in the direction to improve efficiency and boost foreign investors confidence.This research suggest that the selected ECOWAS countries need to look inward and address other issues other than FDI in flow which is seen as an automatic panacea for their sluggish growth. Government of the selected ECOWAS countries should device policies that will improve the quality of infrastructure in those countries in order to attract foreign investors. The selected ECOWAS countries should address the issue of political unrest in the region hence a policy should be design to address the issue of unrest if foreign investors confidence and safety must be guaranteed. For the selected ECOWAS countries to reap the benefit and full gain from FDI, it is very important for the host

government to work together and find a way of opening their market, enforce and ensure an attractive business environment for domestic foreign firms.

Policy makers in the selected ECOWAS countries must strive and maintain a sound institution that will encourage investors to invest both in human, physical and capital structures. The results indicate that in order to enhance FDI flows to the selected ECOWAS countries, there is need for a guided training of human resources of these nations in order to enable them enhances growth positively so that human capital can be employable both for the indigenous firms and foreign firms.

Another vital policy implication of this study is that policies implemented in other regions whether successful or not should'nt be blindly replicated in the selected ECOWAS countries due to the fact that, those policies might have a differential effect on ECOWAS. For a sustainable economic development to take place in ECOWAS development strategies these ECOWAS region should focus on how to attract foreign and domestic investors. The macroeconomic stability and the political climate should be stable in order to minimise wastage due to corruption. Policy makers should design a policy that will encourage the development of infrastructural facilities probably train and road network that can link all ECOWAS countries together in order to attract more FDI.

Policies should be directed to those areas or sectors that will lead to economic growth at the long run. For instance in manufacturing sector there is need to attract FDI that will target those sectors and lead to spill over effects in the overall economy. Another robust policy must be designed to aim at promoting development of human capital through advanced and higher secondary school enrolment and must be enforced in order to enhance

rapid long run economic growth. However, sub-Saharan Africa including ECOWAS countries recorded one of the world lowest adult literacy rates.

Policies must be designed to attract more Multinational Corporations (MNCs) due to the fact that inflow of FDI through those corporations can drastically reduce poverty and stimulate growth of the economy in the selected ECOWAS countries. Employment capability of foreign investors tends to increase domestic employment, improve domestic wage, spur labour force productivity and therefore further promote technological transfer through domestic and foreign firms. Also globally, it is assumed that MNCs tends to pay higher wages than domestic firms and also their presence in ECOWAS countries will lead to wage spill over, thus government should monitor and ensure that domestic labour force is beneficially employed by foreign investors. Policies should be premeditated in order to open up the economy to trade, to boost and enhance the stock of R and D, through access to foreign capital. Efficient allocation of resources can be promoted through trade openness, but openness to trade can also lead to technological diffusion and can also undermines local monopolies. This kind of policy should be carefully design and managed. Recently, West Africa economies including ECOWAS and host of others have begun to liberalize their trade and reorient towards growth via export.

5.4 Contributions

Numerous findings of this thesis can be viewed as contributions that will add more insight to the debate regarding institutions,infrastructure, human capital, FDI and economic growth. The key contribution can be summarized into the following:

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1. One major significant contribution of the results indicate that FDI inflows as a determinant explains variations in institutional quality both over time and across the countries. The result and findings can be viewed as an important contribution in order to better understand institutional change process, because the available literatures only provide explanations based on historical, geographic and cultural factors. Though, there is need for further explain more clarification on the process of economic development rather than explanation that will only refer us to economic development and institutional changes. The researcher's results provide a clear explanation.

2. Another important contribution of the results is that it indicate that positive externalities of foreign direct investment, expand in respect of technology production which is a new dimension linked to institutional quality of these ECOWAS countries.

3. Another significant contribution of this thesis to the frontier of knowledge that it provided further evidence on the inconclusive empirical evidences on the contribution of FDI to economic growth. Furthermore, these studies improve and reinforce the suggestion indicated in the literature that institutional quality in ECOWAS nations is one feature of the absorptive capacity that FDI to economic growth largely rely on.

4. Another significant contribution of this thesis is the recent emerging claim, which says that FDI has a negative effect on economic growth.The researcher's result indicate that FDI inflow can contribute positively to economic growth maximally only if ECOWAS countries can achieve institutional quality threshold.

5.   Generally, another significant contribution of this thesis is that it gives a clear and better understanding of FDI contributions to economic growth and by extension taking into consideration of the existing interrelationship, which includes the complementarity among institutions and FDI.

6.   This researchwork infer that the cost of employment affect economic growth but the magnitude/degree remain small which indicate that there is need for employers to improve capabilities due to the fact that it is assumed the countries with lower labour cost are preferred by investors in order to reduce the cost of their product and business.

7.   The empirical findings support that, FDI serves as an engine room to growth and its integration into the mainstream of the economy. For any meaningful absorptive capacity to take place, value of new information assimilation and application for commercial use must be recognised and must be put into use.

5.5 Areas for Future Studies

Direction of future research should focus on a wide range of countries within Africa in order to identify more determinants of FDI. In addition, more variables like market integration and natural resources intensity may also be point of focus. Most ECOWAS countries do not have comprehensive data compared to other regions across the globe especially in the Penn World. Future studies should investigate specific impact of FDI (a particular sector). For instance manufacturing, natural resources and services can be investigated thus by assisting the policy makers in the direction of FDI needs. FDI data that is disaggregated will help researchers to estimate FDI inflows by sectors, and also help and

equip the government with important information in order to design an appropriate policies toward FDI in that particular sectors. Future studies should ensure and accommodate more variables that can be more important for technical inefficiency in ECOWAS-5.

REFERENCES

Abaidoo, R. (2012). Economic growth, regional savings and FDI in sub-Saharan Africa: Trivariate causality and error correction modeling approach. *International Journal of Economics and Finance, 4(*11), 40-50.

Abida, Z., & Sghaier, I. M. (2014). Remittances, financial development and economic growth: The case of North African Countries. *The Romanian Economic Journal*, *17*(51), 137-170.

Abidin, I. S. Z., Haseeb, M., Azam, M., & Islam, R. (2015). Foreign direct investment, financial Development, international trade and energy consumption: Panel data evidence from selected ASEAN Countries. *International Journal of Energy Economics and Policy, 5*(3), 841-850.

Aboudou-Tachiwou, A. M. (2010). Stock market development and economic growth: the case of West African monetary union. *International Journal of Economics and Finance, 2*(3), 97-103.

Abor, J., & Harvey, S. K. (2008). Foreign direct investment and employment: host country experience. *Macroeconomic and finance in emerging market economies*, *1*(2), 213-225.

Abuka, C. A., Egesa, K. A., Atai, I., & Obwona, M. (2006). *Firm Level Investment: Trends, determinants and constraints*. Economic policy research centre (EPRC).

Acaravci, A., & Ozturk, I. (2012). Foreign direct investment, export and economic growth: empirical evidence from new EU countries. *Romanian Journal of Economic Forecasting, 15*(2), 52-67.

Acemoglu, D., & Johnson, S. (2005). Unbundling institutions. *Journal of political Economy*, *113*(5), 949-995.

Acemoglu, D., Naidu, S., Restrepo, P., & Robinson, J. A. (2014). *Democracy does cause growth* (No. w20004). National Bureau of Economic Research.

Acemoglu, D., & Robinson, J. (2010). *The role of institutions in growth and development*. World Bank Publications.

Acemoglu, D., & Robinson, J. (2008). The Role of Institutions in Growth and Development. The International Bank for Reconstruction and Development‖. *The World Bank (No. 10). Working paper.*

Acemoglu, D., Johnson, S. & Robinson, J. (2002), Reversal of fortune: geography and institutions in the making of the modern world income distribution.*Quarterly Journal of Economics, 117*, 1231-1294.

Acemoglu, D., Johnson, S., & Robinson, J. A. (2005). Institutions as a fundamental cause of long-run growth. *Handbook of economic growth*,(*1)*,6,405-472.

Acemoglu, D., Johnson, S., & Robinson, J. (2001). The Colonial Origins of Comparative Development: An Empirical Investigation. *American Economic Review, 91*(5), 1369-1401.

Adams, S. (2009). Foreign direct investment, domestic investment, and economic growth in Sub-Saharan Africa. *Journal of Policy Modeling, 31*(6), 939-949.

Addison, T., & Heshmati, A. (2003). The new global determinants of FDI flows to developing countries: The importance of ICT and democratization (No. 2003/45). *WIDER Discussion Papers//World Institute for Development Economics (UNU-WIDER)*.

Addison, T., & Mavrotas, G. (2004). Foreign Direct Investment, Innovative Sources of Development Finance and Domestic Resource Mobilization. *UNU-WIDER, Helsinki, Finland Revised Paper for Track II.*

Adegbite, E. O., & Ayadi, F. S. (2011). The role of foreign direct investment in economic development: A study of Nigeria. *World Journal of Entrepreneurship, Management and Sustainable Development*, *6*(1), 133-147

Adolff Mkenda, B. K. (2003). Determinants of FDI inflows to African countries: a panel data analysis. *Business Management Review*, *9*(1), 42-61.

Afolabi, L. O., & Bakar, N. A. A. (2016). Causal Link between Trade, Political Instability, FDI and Economic Growth-Nigeria Evidence. *Journal of Economics Library, 3(*1), 100-110.

Agarwal, J. P. (1980). Determinants of foreign direct investment: A survey. *Weltwirtschaftliches Archiv, 116*(4), 739-773.

Aghion, P. and Howitt, P. (1992). A Model of Growth through Creative Destruction, *Econometrica, 60*(2), 323-351.

Aidt, T. S. (2003). Economic analysis of corruption: a survey. *The Economic Journal*, *113*(491), 632-652.

Aitken, B.J. & Harrison, A. (1999). Do domestic firms benefit from direct foreign investment.Evidence from Venezuela. *American Economic Review,89*,(3), 605–618.

Ajayi, S.I. (2006).*The Determinants of Foreign Direct Investment in Africa: A survey of the evidence, in Ajayi, S.I. (ed.) Foreign direct investment in Sub-Saharan Africa: Origins, Targets, Impact and Potential,* African Economic Research Consortium: Nairobi.

Ajide, K., Adeniyi, O., & Raheem, I. (2014). Does Governance Impact on the Foreign Direct Investment-Growth Nexus in Sub-Saharan Africa. *Zagreb International Review of Economics and Business*, *17*(2), 71-81.

Akinkugbe, O. (2003). Flow of Foreign Direct Investment in Developing Countries: The openness hypothesis and policy implications. *The International Trade Journal, 7*,(6) 655 – 672.

Akinkugbe, O. (2003). Flow of Foreign Investment to Hitherto Neglected Developing Countries. *World Institute for Development Economics Research, Discussion Paper 2003*, *2*.

Akinlo, A. E. (2004). Foreign Direct Investment and Growth in Nigeria: An Empirical Investigation.*Journal of Policy Modeling,26*(5), 627-639.

Akinlo, A.E. (2003). Foreign direct investment and economic growth in Sub Saharan Africa *International Review of Economics and Business, 50*(4),569-80.

Alam, A., Zulfiqar, S., & Shah, A. (2013). Determinants of foreign direct investment in OECD member .*Journal of Economic studies,40*(4), 515-527.

Alege, P., & Ogundipe, A. (2013). Sustaining Economic Development of West African Countries: A System GMM Panel Approach. *online at http://mpra.ub.uni-muenchen.de/51702/MPRA Paper No. 51702, posted 25. November 2013 04:43 UTC*

Aleksynka, M. (2003). *Foreign direct investment and economic growth in transition economies* (Doctoral dissertation, MSc thesis, National University of Kyiv).

Alesina, A., Ozler, S., Roubini, N., & Swagel, P. (1996). Political Instability and Economic Growth*, Journal of Economic Growth, 1*(2), 189-211.

Alesina, A., & Perotti, R. (1996). Income distribution, political instability and investment. *European Economic Review, 40* (6), 1203-1228.

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

Alfaro, L., Chanda, A., Kalemli-Ozcan, S,. & Sayek, S.(2004). FDI and economic growth: The role of local financial Markets. *Journal of International Economics, 64*(1), 89-112.

Al-Sadig, A. (2009). The effects of corruption on FDI inflows. *Cato Journal*, *29*,(2) 267.

Ali, F. A., Fiess, N., & MacDonald, R. (2010). Do institutions matter for foreign direct investment. *Open Economies Review*, *21*(2), 201-219.

Al Nasser, O.M. (2010). How does foreign direct investment affect economic growth: The role oflocal conditions.*Latin American Business Review, 11*,(2), 111-139.

Amal, M., Tomio, B.T., & R. Raboch, H. (2010). Determinants of Foreign Direct Investment in Latin America,*GCG: Journal of Globalization, Competitiveness and Governability, 4*(3), 116–33.

Anderson, J. E., & Marcouiller, D. (2002). Insecurity and the pattern of trade: An empirical investigation. *Review of Economics and statistics*, *84*(2), 342-352.

Ang, J. B., & McKibbin, W. J. (2007). Financial liberalization, financial sector development and growth: evidence from Malaysia. *Journal of development economics*, *84*(1), 215-233.

Antras, P., & Helpman, E. (2004). Global sourcing. *Journal of Political Economy*, *112*(3), 552-580.

Anyanwu, J. C. & Erhijakpor, A. E. O. (2010). Do International Remittances Affect Poverty in Africa, *African Development Review, 22*(1), 51-91.

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Anyanwu, J. C. (1998). *An Econometric Investigation of the Determinants of Foreign Investment in Nigeria,* Nigerian Economic Society , Rekindling Investment for Economic Development in Nigeria, Ibadan, 219 - 241.

Anyanwu, J. C. (2006). Promoting of Investment in Africa, *African Development Review,18* (1), 42-71.

Anyanwu, J. C., & Erhijakpor, A. E. (2004). Trends and determinants of foreign direct investment in Africa. *West African Journal of Monetary and Economic Integration, Second Half*, 21-44.

Anyanwu, J. C., & Yameogo, N. D. (2015). What drives foreign direct investments into West Africa? An empirical investigation. *African Development Review*, *27*(3), 199-215.

Apergis, N., & Christou, C. (2017). Contagion across exchange rates: new evidence on the role of information spillovers and eight major exchange rates. *Journal of Economic Studies*, *44*(1),24-35.

Apergis, N., & Payne, J. E. (2012). A global perspective on the renewable energy consumption-growth nexus. *Energy Sources, Part B: Economics, Planning, and Policy, 7*(3), 314-322.

Apergis, N.,& Payne, J.E.(2010). Energy consumption and growth in South America: Evidence from a panel error correction model. *Energy Economics 32*,1421–1426.

Apergis, N., & Payne, J. E. (2009). Energy consumption and economic growth in Central America: evidence from a panel cointegration and error correction model. *Energy Economics*, *31*(2), 211-216.

Aremu, J. A. (2005). *Attracting and Negotiating Foreign Direct Investment with Transnational Corporations in Nigeria.* Market Link Communications.

Arvanitidis, P., Petrakos, G., & Pavleas, S. (2008). *On the Dynamics of Economic Growth: An Expert Survey dynamic regions in a knowledge-driven global economy: lessons and implications for the european union;*Dynreg final Conference Brussels, 27 November 2008.

Asafo-Adjei, A. (2007). Foreign direct investments and its importance to the economy of SouthAfrica.Masters dissertation, University of South Africa. Pretoria.

Asafu-Adjaye, J. (2005).What has been the Impact of Foreign Direct Investment in Ghana. *IEA Policy Analysis, 1 (9).*

Asafu-Adjaye, J. (2000). The Effects of Foreign Direct Investment on Indonesian Economic Growth, 1970-1996. *Economic Analysis and Policy*, *30*(1), 49-62.

Asheghian, P. (2011). Economic growth determinants and foreign direct investment causality in Canada.*International Journal of Business and Social Science, 2*, 11-22.

Asiedu E (2002). On the Determinants of Foreign Direct Investment to Developing Countries: Is Africa Different.*World Development 30* (1) 107-119.

Asiedu, E. (2003). Capital controls and foreign direct investment‖. *World Development, 32*(3), 479–90.

Asiedu, E. (2006). Foreign Direct Investment in Africa: The Role of Natural Resources, Market, Size, Government Policy, Institutions and Political Stability. *World Economy, 29*(1), 63-77.

Asmussen, C. G., Nielsen, B. B., Osegowitsch, T., & Sammartino, A. (2015). The dynamics of regional and global expansion. *The Multinational Business Review*, *23*(4), 306-327.

Athukorala, P. P. A. W. (2003*). The impact of foreign direct investment for economic growth: a case study in Sri Lanka.* In 9th International Conference on Sri Lanka Studies 92, 1-21.

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Auerbach, A. J., Hassett, K., & Oliver, J. (1995). *Taxation and corporate investment: the impact of the 1991.* National Bureau of Economic Research.

Auerbach, A. J., Hassett, K. A., & Oliner, S. D. (1993). *Reassessing the social returns to equipment investment* (No. w4405). National Bureau of Economic Research.

Ayadi, F. S. (2009). Foreign Direct Investment and Economic Growth in Nigeria.*Proceedings of the 10th Annual Conference of LAABD.*

Ayanwale, A.B & Bamire, S. (2004). Direct Foreign Investment and Firm-level Productivity in the Nigerian Agro/agro-allied Sector. *Journal of Social Science,9,(1) 29-36*

Ayanwale, A.B, (2007). FDI and Economic Growth: Evidence from Nigeria,*AERC Research Paper 165, African Economic Research Consortium, Nairobi.*

Ayres, R. U., & Martinas, K. (1962). Experience and the life cycle: some analytic implications. *Technovation, 12*(7), 465-486.

Azam, M., & Ahmad, S. A. (2013). The Effects of Corruption on Foreign Direct Investment Inflows: Some Empirical Evidence from Less Developed Countries. *Journal of Applied Sciences Research, 9*(6), 3462-3467.

Azam, M., & Ahmed, A. M. (2015). Role of human capital and foreign direct investment in promoting economic growth: evidence from Commonwealth of Independent States. *International Journal of Social Economics, 42*(2), 98-111.

Azman-Saini, W. N. W., Baharumshah, A. Z., & Law, S. H. (2010). Foreign direct investment, economic freedom and economic growth: International evidence. *Economic Modelling, 27*(5), 1079-1089.

Baez, M. A. (2014). *A panel data analysis of FDI and informal labor markets* (No. 201404). University of Barcelona, Research Institute of Applied Economics.

Baharom, A. H., Habibullah, M. S., & Royfaizal, R. C. (2008). The relationship between trade openness, foreign direct investment and growth: Case of Malaysia. *online at http://mpra.ub.unimuenchen.de/11928/MPRA Paper No. 11928, posted 4. December 2008 15:47 UTC.*

Baharumshah, A. Z., & Thanoon, M. A. M. (2006). Foreign capital flows and economic growth in East Asian countries. *China Economic Review, 17*(1), 70-83.

Baker, C. E. (1999). Economic Critique of Free Trade in Media Products, An. *NCL Rev.*, *78*,(5), 1357-1436.

Baltar, C. T., Hiratuka, C., & Lima, G. T. (2016). Real exchange rate and investment in the Brazilian manufacturing industry. *Journal of Economic Studies*, *43*(2), 288-308.

Balasubramanyam, V.N., Salisu, M.,& Sapsford, D. (1999). FDI as an engine of growth. *The Journal of International Trade and Economic Development, 8*(1), 92-105.

Balasubramanyam, V.N., Salisu, M., & Sapsford, D. (1996). Foreign direct investment andgrowth in EP and IS countries, *The Economic Journal, 106*(434), 92-105.

Baltagi, B. H., & Kao, C., (2000).Nonstationary Panels, Cointegration in Panels and Dynamic Panels: A Survey. *Advances in Econometrics, 15*, 7-51.

Baltagi, B.H., P. Egger, & M. Pfaffermayr (2007). Estimating models of complex FDI: Are there third-country effects,*Journal of Econometrics, 140*(1), 260–81.

Baltagi, B.H., (2005). *Econometric Analysis of Panel Data*, (3rd ed.).New York,NY, John Wiley & Sons Ltd.

Baltagi, Gri, & Xiong (2000). To Pool or Not To Pool: Homogeneous Versus Heterogeneous Estimators Applied to Cigarette Demand. *Review of Economics and Statistics 82*, 117-126.

Baltar, C. T., Hiratuka, C., & Lima, G. T. (2016). Real exchange rate and investment in the Brazilian manufacturing industry. *Journal of Economic Studies*, *43*(2), 288-308.

Banerjee, A. (1997). *A Theory of Misgovernance,* Massachusetts Institute of Technology, Department of Economics Working Paper 97/04: 62.

Bannon, I. & P. Collier (2003). *Natural resources and violent conflict*. I. Bannon, & P. Collier (Eds.). Washington, DC: World Bank.

Bardhan, P. (1997). Corruption and development: a review of issues. *Journal of economic literature*, *35*(3), 1320-1346.

Bardsen, G., (1989). Estimation of long-run coefficients in error-correction models. *Oxford Bulletin of Economics and Statistics, 51*, 345-350.

Barta, G., Kaufmann, D., & Stone, A. (2003*). Investment climate around the world: Voices of the firms* .World Business EnvironmentSurvey.Washington, DC, World Bank.

Barro, R. J., & Sala-i-Martin, X. (1995*). Economic growth*, McGraw Hill, New York.

Barro, R. J. (1991). Economic growth in a cross section of countries. *The quarterly journal of economics*, *106*(2), 407-443.

Barro, R.J. (1995). *Inflation and economic growth*,National Bureau of Economic Research (NBER), Cambridge, MA.

Barro, R. J. (1996). *Determinants of economic growth: a cross-country empirical study* (No. w5698). National Bureau of Economic Research.

Barro, R. J. (2003). Determinants of economic growth in a panel of countries. *Annals of economics and finance*, *4*, 231-274.

Bartels, F. L., Napolitano, F., & Tissi, N. E. (2014). FDI in Sub-Saharan Africa: A longitudinal perspective on location-specific factors (2003–2010). *International Business Review, 23*(3), 516-529.

Basnet, H. C., & Upadhyaya, K. P. (2014). Do remittances attract foreign direct investment? An empirical investigation. *Global Economy Journal, 14*(1), 1-9.

Basu, M. A., & Srinivasan, M. K. (2002). *Foreign direct investment in Africa: Some case studies* .(No. 2-61), International Monetary Fund.

Basu, P., Chakraborty, C. & Reagle, D. (2003). Liberalisation, FDI, and growth in developing countries: A panel cointegration approach. *Economic Inquiry, 41*,(3),510-516.

Batten, J.A., & Vo, X.V. (2009). An analysis of the relationship between foreign direct investment and economic growth. *Applied Economics, 41*,1621-1641.

Baxter, M., & Stockman, A. C. (1989). Business cycles and the exchange-rate regime: some international evidence. *Journal of monetary Economics*, *23*(3), 377-400.

Bbale, J. M., & Nnyanzi, J. B. (2016). How do Liberalization, Institutions and Human Capital Development affect the Nexus between Domestic Private Investment and Foreign Direct Investment? Evidence from Sub-Saharan Africa. *Global Economy Journal, 16*(3), 569-598.

Becchetti, L., & Hasan, I. (2005). *The effects of (within and with EU) regional integration: Impact on real effective exchange rate volatility, institutional quality and growth for MENA countries* (No. 2005/73). Research Paper, UNU-WIDER, United Nations University (UNU).

Bellos, S. & T. Subasat (2012a). Corruption and foreign direct investment: A panel gravity model approach, *Bulletin of Economic Research 64*(4), 565–74.

140

Bellos, S. & T. Subasat (2012b). Governance and foreign direct investment: A panel gravity model approach, *International Review of Applied Economics* 26(3) 303–28.

Bende-Nabende, A. (2002). Foreign direct investment determinants in Sub-Saharan Africa: a cointegration analysis. *Economics Bulletin 6,* 1-19.

Bénassy-Quéré, A., M. Coupet & T. Mayer (2007). Institutional Determinants of Foreign Direct Investment. *The World Economy, 30* (5), 764-782.

Bende-Nabende, A. V. R. O. M., & Ford, J. L. (1998). FDI, policy adjustment and endogenous growth: Multiplier effects from a small dynamic model for Taiwan, 1959–1995. *World development*, *26*(7), 1315-1330.

Bengos, M., Sanchez-Robles. B. (2003). Foreign direct investment, economic freedom and growth: New evidence from Latin America. *European Journal of Political Economy, 19*(3), 529–545.

Ben-David, Dan, Robin Lumsdaine, & Papell, D. (1997). *Unit Roots, Postwar Slow-downs, and Long-Run Growth: Evidence from Two Structural Breaks,* Department of Economics, University of Houston, mimeo.

Benhabib, J., & Spiegel, M. (1994).The Role of Human Capital in Economic Development: Evidence from Aggregate Cross-Country Data. *Journal of Monetary Economics, 34*, 143-173.

Bhattacharya, A., Peter, M. & Sunil, S. (1997).How Can Sub-Saharan Africa Attract More Private Capital Inflows., *Finance and Development,34* (2), 3-6.

Biglaiser, G. & J. Staats (2010). Do political institutions affect foreign direct investment? A survey of U.S. corporations in Latin America, *Political Research Quarterly 63*(3),508-522.

Biglaiser, G. & K.R. DeRouen (2006). Economic reforms and inflows of foreign direct investment in Latin America,*Latin American Research Review 41*,51–75.

Bishnu K. A.(2017). Factors influencing foreign direct investment in South Asian economies A comparative analysis , *South Asian Journal of Business Studies,6(*1),8 − 37.

Blackburne, E. F., & Frank, M. W. (2007). Estimation of nonstationary heterogeneous panels. *Stata Journal*, *7*(2), 197-208.

Blackburn, K., & Forgues-Puccio, G. F. (2007). Distribution and development in a model of misgovernance. *European Economic Review*, 51 (6), 1534- 1563.

Blomstrom, M. & Kokko, A. (1998). Multinational corporations and spillovers. *Journal of Economic Surveys 12*, 247-77.

Blomström, M., & Kokko, A. (1996). *The impact of foreign investment on host countries: a review of the empirical evidence*. Policy Research Working Paper, 1745.

Blonigen, B.A. & R.B. Davies (2004). The effects of bilateral tax treaties on US FDI activity. *International Tax and Public Finance, 11*(5), 601–622.

Blonigen, B.A., R.B. Davies, G.R. Waddell & H.T. Naughton (2007). FDI in space: Spatial autoregressive relationships in foreign direct investment.*European Economic Review 51*(13),3–25.

Borensztein, E., De Gregorio, J. & Lee, J. (1998). How does Foreign Direct Investment affect Economic Growth.*Journal of International Economics, 45*, 115-135.

Bokpin, G. A., Mensah, L., & Asamoah, M. E. (2015). Foreign direct investment and natural resources in Africa. *Journal of Economic Studies*, *42*(4), 608-621.

Brahmasrene T. & Jiranyakul, K. (2001). Foreign Direct Investment in Thailand, What Factors Matter , *Proceedings of the Academy for International Business*, 1(2),13-25.

Brainard, S.L. (1997). An empirical assessment of the proximity-concentration trade-off between multinational sales and trade.*American Economic Review 87*(4),520–44.

Breitung, J. (2001). The local power of some unit root tests for panel data. In *Nonstationary panels, panel cointegration, and dynamic panels* (161-177). Emerald Group Publishing Limited.

Breitung, J. (2005). A parametric approach to the estimation of cointegration vectors in panel data. *Econometric Reviews*, *24*(2), 151-173.

Bsc, S. I. K., PGD, M., & Ozurumba, B. A. (2013). Migrant's remittances and economic growth in Sub Saharan Africa: Evidence from Nigeria, Ghana And South Africa. *Interdisciplinary Journal of Contemporary Research in Business,4*(10), 534-544.

Buckley, OBE, P. J., & Boddewyn, J. J. (2015). The internalization of societal failures by multinational enterprises. *The Multinational Business Review*, *23*(3), 170-187.

Buckley, P. J., & Casson, M. (2003). The future of the multinational enterprise in retrospect and in prospect. *Journal of International Business Studies*,*1*, 219-222.

Buckley, P.J. & Casson, M.C. (1976). *The Future of the Multinational Enterprise*, Macmillan: London .2nd ed,1991; Anniversary Edition 200.

Busse, M., Erdogan, C., & Mühlen, H. (2016). China's Impact on Africa–The Role of Trade, FDI and Aid. *Kyklos*, *69*(2), 228-262.

Burrill, D. (1997). Modeling and interpreting interactions in multiple regression.*online. Available URL: http://www.minitab.com/.*

143

Caetano, J. & A. Caleiro (2009). *Economic freedom and foreign direct investment: How different are the MENA countries from the EU,* University of Évora (Portugal), Department of Economics, Economics Working Paper 02/2009.

Calegário, C. L. L., Bruhn, N. C. P., & Pereira, M. C. (2014). Foreign direct investment and trade: a study on selected Brazilian Industries. *Latin American Business Review*, *15*(1), 65-92.

Cambazoglu, B. & Karaalp, H.S. (2014). Does foreign direct investment affect economic growth the case of Turkey.*International Journal of Social Economics, 41*(6), 434-449.

Campos, N.F. & Kinoshita Y. (2002). Foreign direct investment as technology transferred: some panel evidence from the transition economies. *The Manchester School,70*(3),398-419.

Campos, N.F. & Kinoshita, Y. (2008). Foreign direct investment and structural reforms: Evidence from Eastern Europe and Latin America,*IMF Working Paper* 08/26.

Cao, X., & Jariyapan, P. (2012). Foreign direct investment, human capital and economic growth of People's Republic of China using panel data approach. *Journal of Economics Chiang Mai University)*, *16*(1), 36-48.

Carkovic, M. & Levine, R. (2003). *Does foreign direct investment accelerate economic growth?* University of Minnesota. World Bank conference, Financial Globalization: A Blessing or a Curse.https://www.researchgate.net/publication/228258222.

Carolina, T. B., Hiratuka, C. & Lima, G.T. (2016). Real exchange rate and investment in the Brazilian manufacturing industry. *Journal of Economic Studies,43* (2),288-308.

Casson, M., (1982). *The Erurepreneur: An Economic Theory* .Oxford: Martin Robertson.

Casson, M., (1983). *The Growth of International Business* Introduction: The Conceptual Framework in M. Casson (ed.). London: George Allen & Unwin.

Catrinescu, N., Leon-Ledesma, M., Piracha, M., & Quillin, B. (2009). Remittances, institutions, and economic growth. *World Development*, *37*(1), 81-92.

Centre d' Etudes Prospectives et d'Informations Internationales – CEPII (2004), Geographical Distances, www.cepii.fr/anglaisgraph/bdd/distances.htm.

Chakrabarty, C. & Basu, P. (2002). Foreign direct investment and growth in India: A cointegration approach. *Applied Economics, 34,* 1061-1073.

Chakraborty, C., & Nunnenkamp, P. (2006). *Economic reforms, foreign direct investment and its economic effects in India* (No. 1272). Kiel Working Paper.

Chang, R., Kaltani, L., & Loayza, N. V. (2009). Openness can be good for growth: The role of policy complementarities. *Journal of development economics, 90*(1), 33-49.

Chaudhry, I. N., Mehmood, A. & Mehmood, M. S. (2013). Empirical relationship between foreign direct investment and economic growth: An ARDL co-integration approach for China, *China Finance Review International, 3 (*1), 26 – 41.

Chee, Y. L., & Nair, M. (2010). The impact of FDI and financial sector development on economic growth: Empirical evidence from Asia and Oceania. *International Journal of Economics and Finance, 2(*2), 107-119.

Chen, V. Z., Li, Y., & Hambright, S. (2016). Regulatory institutions and Chinese outward FDI: an empirical review. *Multinational Business Review*,*24*(4),302-333.

Chinn, M., & Johnston, L. (1996). *Real exchange rate levels, productivity and demand shocks: evidence from a panel of 14 countries* (No. w5709). National bureau of economic research.

145

Chinn, M. D. (1997). Paper pushers or paper money? Empirical assessment of fiscal and monetary models of exchange rate determination. *Journal of Policy Modeling*, *19*(1), 51-78.

Choe, J. I. (2003). Do foreign direct investment and gross domestic investment promote economic growth .*Review of Development Economics, 7* (1), 44–57.

Choi, I. (2001). Unit root tests for panel data. *Journal of international money and Finance*, *20*(2), 249-272.

Choi, I. (2006). Combination unit root tests for cross-sectionally correlated panels. *Econometric Theory and Practice: Frontiers of Analysis and Applied Research: Essays in Honor of Peter CB Phillips.* Cambridge University Press.

Choong, C.K.,Yusop, Z. & Soo, S.C. (2004). Foreign Direct Investment,Economic Growth, and Financial Sector Development: A Comparative Analysis. *ASEAN Economic Bulletin 21* (3), 278-289.

Choong, C. K. (2012). Does domestic financial development enhance the linkages between foreign direct investment and economic growth. *Empirical Economics*, *42*(3), 819-834.

Chowdhury, A., & Mavrotas, G. (2005). *FDI and growth: a causal relationship* (No. 2005/25). Research Paper, UNU-WIDER, United Nations University (UNU).

Chowdhury, A. & Mavrotas, G. (2006).FDI and Growth: What Causes What, *World Economy, 29* (1), 9-19.

Christopoulos, D., & McAdam, P. (2013). Openness, Efficiency and Technology: An Industry Assessment. *Scottish Journal of Political Economy*, *60*(1), 56-70.

Christian Geisler Asmussen Bo Bernhard Nielsen Tom Osegowitsch Andre Sammartino , (2015).The dynamics of regional and global expansion , *The Multinational Business Review, 23* (4),306 – 327.

Clairmonte, F., & Cavanagh, J. (1981). *The world in their web: dynamics of textile multinationals*. Zed Press.

Cleeve, E. (2008). How effective are fiscal incentives to attract FDI to Sub-Saharan Africa. *The Journal of Developing Areas*, *42*(1), 135-153.

Ciarreta, A., & Zarraga, A. (2010). Economic growth-electricity consumption causality in 12 European countries: A dynamic panel data approach. *Energy Policy*, *38*(7), 3790-3796.

Coase, Ronald H. (1937). The nature of the firm. *Economica N. S., 4*: 386-405.

Cobb, C. W., & Douglas, P. H. (1928). A theory of production. *The American Economic Review*, *18*(1), 139-165.

Commonwealth Secretariat (2014). *Small States: Economic Review and Basic Statistics, Volume 17*.(Vol 17) Commonwealth Secretariat.

Contractor, F. J., Kumar, V., Kundu, S. K., & Pedersen, T. (2010). Reconceptualizing the firm in a world of outsourcing and offshoring: The organizational and geographical relocation of high-value company functions. *Journal of Management Studies*, *47*(8), 1417-1433.

Coon, M., & Neumann, R. (2015). Follow the Money: Remittance Responses to FDI Inflows.online at http://mpra.ub.uni-muenchen.de/62220/MPRA paper no.62220,posted 21.February 2015 03:56 UTC.

Costantini, V., & Martini, C. (2009). A modified environmental Kuznets curve for sustainable development assessment using panel data. *International Journal of Global Environmental Issues*, *10*(1-2), 84-122.

Cuadros, A., Orts, V., & Alguacil, M. (2004). Openness and growth: Re-examining foreign direct investment, trade and output linkages in Latin America. *Journal of Development Studies*, *40*(4), 167-192.

Cuervo-Cazurra, A. (2006). Who cares about corruption.*Journal of International Business Studies,37*, 807-822.

Cuervo-Cazurra, A., (2008).Better the devil you don't know: Types of corruption and FDI in transition economies.*Journal of International Management 14*(1), 12–27.

Cushman, D. O. (1988). Exchange-rate uncertainty and foreign direct investment in the United States. *Review of World Economics*, *124*(2), 322-336.

Cushman, D.O. (1985). Real exchange rate risk, expectations, and the level of direct investment. *Review of Economics and Statistics 67*, 297–308.

Darley, W. K. (2012). Increasing Sub-Saharan Africa's share of foreign direct investment: Public policy challenges, strategies, and implications. *Journal of African Business, 13*(1), 62-69.

Darlington, R. B., & Hayes, A. F. (1990). *Regression and linear models* (pp. 292-293). New York: McGraw-Hill.

Davies, R.B. and A. Guillin (2011). *How far is an intangible*? Services FDI and distance, CESifo Working Paper 3599.

De Jager, J. L. W. (2004). *Aspects of growth empirics in South Africa* (Doctoral dissertation, University of Pretoria).

De Long, J.B. & Summers, L.H. (1991). Equipment investment and economic growth, *Quarterly Journal of Economics, 106*(2), 445-502.

De Long, J. B., Summers, L. H., & Abel, A. B. (1992). Equipment investment and economic growth: how strong is the nexus. *Brookings Papers on Economic Activity, 1992*(2), 157-211.

De Mello, L. R. (1997). Foreign direct investment in developing countries and growth: A selective survey. *Journal of Development Studies, 34*, 1-34.

De Mello, L. R. (1999). FDI-led growth: Evidence from time series and panel data. *Oxford Economic, 51,* 133-151.

Denison, E., (1962). *The sources of economic growth in the United States and the alternatives before us* (Committee for Economic Development, Washington, DC).

Denison, E., (1967*). Why growth rates differ: Postwar experience in nine western countries* (The Brookings Institution, Washington, DC).

Dewenter, K. L. (1995). Do Exchange Rate Changes Drive Foreign Investment*, Journal of Business 68* (3), 405-433.

Dickey, D.A. & Fuller, W.A. (1981). Likelihood ratio statistics for autoregressive time series with a unitroot. *Econometrica 49*, 57-72.

Dickey, D.A. & Fuller, W.A.(1979). Distributions of the estimators for autoregressive time series with a unit root, *Journal of the American Statistical Association 74*,427-31.

Disdier, A. C.& Mayer, T. (2004). How Different in eastern Europe?: Structure and Determinants of Location Choices by French Firms in eastern and Western Europe. *Journal of Comparative Economics, 32*(2) 280-296.

Djankov, S., La Porta, R., Lopez-de-Silanes, F., & Shleifer, A. (2002). The regulation of entry. *The quarterly Journal of economics*, *117*(1), 1-37.

Djankov, S., McLiesh, C., & Ramalho, R. M. (2006). Regulation and growth. *Economics Letters*, *92*(3), 395-401.

Dohtani, A. (2010). A growth-cycle model of Solow–Swan type, I. *Journal of Economic Behavior & Organization*, *76*(2), 428-444.

Dollar, D. (1992). Outward-Oriented Developing Economies Really Do Grow More Rapidly.Evidence from 95 LDCs, 1976-1985, *Economic Development and Cultural Change, 40,* (3), 523-544.

Dollar, D., & Kraay, A. (2002). Growth is Good for the Poor. Journal of economic growth, 7(3), 195-225.

Drabek, Z. & W. Payne (1999). *The impact of transparency on foreign direct investment*, Staff Working Paper, EAR 99–02.

Draper, P., Grant, C., Kingombe, C. & Velde, D.W. (2010*). The G-20 and African* Development Paper .

Driffield, N., & Jones, C. (2013). Impact of FDI, ODA and migrant remittances on economic growth in developing countries: A systems approach. *European Journal of Development Research, 25*(2), 173-196.

Dritsaki, M., Dritsaki, C. & Adamopoulos, A. (2004). A causal relationship between trade, FDI and economic growth in Greece. *American Journal of Applied Sciences 1* (3),230-235.

Duasa, J. (2007). Malaysian foreign direct investment and growth: does stability matter. *Journal of economic cooperation, 28*(2), 83-98.

Dumitrescu, E. & Hurlin, C. (2012). Testing for granger non-causality in heterogeneous panels. *Economic Modelling 29,*450–1460.

Dunning, J. H.(2003). *Determinants of foreign direct investment globalization-induced changes and the roles of FDI policies*, Paper presented at the Annual World Bank

Conference on Development Economics, Europe 2002–2003:Toward Pro-Poor Policies-Aid.

Dunning, J. H. (2009). Location and the multinational enterprise: John Dunning's thoughts on receiving the Journal of International Business Studies 2008 Decade Award. *Journal of International Business Studies*, *40*(1), 20-34.

Dunning, J. H. (1980).Toward an Eclectic Theory of International Production: Some Empirical Tests. *Journal of International Business Studies, 11*(1), 9-31.

Dunning, J.H. (1977). *Trade, location of economic activity and the MNE: a search for an eclectic approach The International Allocation of Economic Activity*, London, Macmillan, 395-418.

Dunning, J.H. (1993). *Multinational Enterprises and the Global Economy*, Addison-Wesley.

Dunning, J. H., & Lundan, S. M. (2008). *Multinational enterprises and the global economy*. Edward Elgar Publishing.

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

Dupasquier, C. & Osakwe, P.N. (2005). FDI in Africa: Performance, challenges and responsibilities*, Journal of Asian Economics, Elsevier, 17*(2), 241-260.

Dutta, N., & Osei-Yeboah, K. (2013). A new dimension to the relationship between foreign direct investment and human capital: The role of political and civil rights. *Journal of International Development*, *25*(2), 160-179.

Dutta, N. & Roy, S.(2008). Foreign Direct Investment, Financial Development and Political Risks, *Journal of Developing Areas, 44*(2),303-327.

151

Easterly, W. & Levine, R. (2003).Tropics, germs and crops: how endowments influence economic development. *Journal of Monetary Economics, 50*, (1), 3-39.

Easterly, W. & Rebelo, S. (1993). Fiscal Policy and Economic Growth: An empirical investigation. *Journal of Monetary Economics, 32*, 417-458.

Easterly, W. (2001). *The elusive quest for growth: economists' adventures and misadventures in the topics*, Cambridge MA: MIT Press.

Easterly, W., & Levine, R. (1997). Africa's growth tragedy: policies and ethnic divisions. *The Quarterly Journal of Economics*, *112*(4), 1203-1250.

Eaton, J. & A. Tamura (1994). Bilateralism and regionalism in Japanese and US trade and direct foreign investment patterns, *Journal of the Japanese and International Economies 8*(4).478–510.

Eberhardt, M., & Teal, F. (2011). Econometrics for grumblers: a new look at the literature on cross-country growth empirics. *Journal of Economic Surveys*, *25*(1), 109-155.

Edwards, S. (1998).Openness, Productivity and Growth: What Do We Really Know, *Economic Journal, 108*, 383-398.

Edwards, S. (1990). *Capital flows, foreign direct investment, and debt-equity swaps in developing countries* (No. w3497). National Bureau of Economic Research.

Edwards, S. (2007). Capital controls, capital flow contractions, and macroeconomic vulnerability. *Journal of International Money and Finance*, *26*(5), 814-840.

Egger, P. (2008). On the role of distance for outward FDI. *Annals of Regional Science 42*,375–89.

152

Egger, P. & M. Pfaffermayr (2004), Distance, trade and FDI: A SUR HausmanTaylor approach, *Journal of Applied Econometrics 19*,227–46.

Ekperiware, M. (2011). Oil and non-oil FDI economic growth in Nigeria. *Journal of Emerging Trends in Economics and Management Sciences, 24* (4), 333 – 343.

Elboiashi, H. A.(2011). The effect of FDI and other foreign capital inflows on growth and investment in developing economies. PhD thesis, Department of Economics, University of Glasgow.

Elboiashi, H. A., Noorbakhsh, F., Paloni, A. & Azemar, C. (2009). The causal relationship betweenFDI, domestic investment and economic growth in North African non- oil producing countries: Empirical evidence from cointegration analysis. *Advances in Mgt, 2* (11),19-25.

Elena G. Popkova,(2017). Use of methodology of "underdevelopment whirlpools" with analysis of problems and perspectives of economic growth in Asian countries. *Journal of Entrepreneurship in Emerging Economies,9*(1), 97 – 107.

Elkomy, S., Ingham, H., & Read, R. (2016). Economic and political determinants of the effects of FDI on growth in transition and developing countries, *Thunderbird International Business Review,58*(4),347-362.

Emirmahmu toglu, F. & Kose, N. (2011). Testing for Granger causality in heterogeneous mixed panels. *Economic Modelling 28*,870-876.

Engle, R. F. & Granger C. W. J. (1987). Cointegration and error correction: Representation, estimation, and testing. *Econometrica, 55*(2), 251-276.

Eregha, P. B. (2012). The dynamic linkages between foreign direct investment and domestic investment in ECOWAS countries: A panel cointegration analysis. *African Development Review*, *24*(3), 208-220.

Esso, L. J. (2010). Long-run relationship and causality between foreign direct investment and growth: evidence from ten African countries. *International Journal of Economics and Finance 2,(2),*168-177.

Evans, Paul and Georgios Karras (1996) Convergence Revisited. *Journal of Monetary Economics 37*, 249–265

Faeth, I. (2009). Determinants of foreign direct investment :A tale of nine theoretical models. *Journal of Economic Surveys, 23(*1),165-196.

Fase, M.M.G., & C.K. Folkertsma (1997). Measuring Inflation: An Attempt to Operationalize Carl Menger's Concept of the Inner Value of Money, *De Nederlandsche Bank Staff Report 8/97.*

Favara, G. (2003). *An Empirical Reassessment of the Relationship between Finance and Growth.* Washington, DC: IMF

Fearon, J., & Laitin. D., (2003). Ethnicity, Insurgency, and Civil War. *American Political Science Review ,97*(1),75–89.

Fedderke J. W., & Romm A.T. (2006).Growth impact and determinants of foreign direct investment into South Africa, 1956–2000. *Economic Modeling, 23*, 738-760.

Feils D. J. & Rahman M. (2008).Regional Economic Integration and Foreign Direct Investment: The Case of NAFTA.*Management International Review, 48*(2), 147-163.

Feridun, M. & Sissoko, Y. (2011). Impact of FDI on economic development: A causality analysis for Singapore, 1976 – 2002. *International Journal of Economic Sciences and Applied Research, 4* (1), 7-17.

Fernández-Arias, E. (1996). The New Wave of Capital Inflows: Push or Pull. *Journal of Development Economics, 48,* 389-418.

154

Findlay, R. (1978). Relative backwardness, direct foreign investment and the transfer of technology: A simple dynamic model. *Quarterly Journal of Economics, 92* (1), 1–16.

Fischer, S. (1993). The role of macroeconomic factors in growth. *Journal of monetary economics, 32*(3), 485-512.

Fischer, S. (2002). Breaking out of the third world: India's economic imperative. *India Today Conclave, 22*.

Flexner, N. (2000). Foreign direct investment and economic growth in Bolivia, 1990-1998. *Central Bank of Bolivia Paper, La Paz.*

Florquin, N., & Berman.E.G. (2005). *Armed and Aimless: Armed Groups, Guns, and Human Security in ECOWAS Region* .Geneva: Small Arms Survey.

Fofana, M. F. (2014). The Influence of Measures of Economic Freedom on FDI: A Comparison of Western Europe and Sub-Saharan Africa. *Global Economy Journal, 14*(3), 399-424.

Foster, V. & Benitez, D. A. (2011*). The Democratic Republic of Congo's infrastructure: A continental perspective.* Policy Research Working Paper No. 5602. Washington D.C.: The World Bank.

Foster, V. (2008). *Africa infrastructure country diagnostic. Overhauling the Engine of Growth: Infrastructure in Africa.* Washington, DC. World Bank.

Fosu, A. K. (2003). Political instability and export performance in sub-Saharan Africa. *Journal of Development Studies, 39*(4), 68-83.

Fosu, A. K. (2011). *Terms of trade and growth of resource economies: A tale of two countries* (No. 2011, 28). Working paper//World Institute for Development Economics Research.

Fowowe, B. (2011). The finance-growth nexus in Sub-Saharan Africa: Panel cointegration and causalitytests. *Journal of International Economics 23*,220-239.

Francois, J., Pindyuk, O., & Woerz, J. (2009). Trends in international trade and FDI in services: *IIDEE discussion paper 200908-02.*

Frankel, J. A. (1987). *Monetary and portfolio-balance models of exchange rate determination.* University of California, Berkeley, Department of Economics.

Frenkel, M., Funke, K., & Stadtmann, G. (2004). A panel analysis of bilateral FDI flows to emerging economies. *Economic Systems, 28*(3), 281-300.

Freckleton, M., Wright, A., & Craigwell, R. (2012). Economic growth, foreign direct investment and corruption in developed and developing countries. *Journal of economic studies*, *39*(6), 639-652.

Frimpong, J. M., & Oteng-Abayie, E. F. (2006*). Bivariate Causality Analysis between FDI Inflows and Economic Growth in Ghana.* African Finance Journal Conference.

Frischmann, B. M. (2009). *Infrastructure commons in economic perspective*. In *Internet Policy and Economics* (29-55). Springer US.

Frischmann, B. M., & Lemley, M. A. (2007). Spillovers. *Columbia Law Review,107*(1), 257-301.

Froot, K. A., & Stein, J. C. (1991). Exchange rates and foreign direct investment: an imperfect capital markets approach. *The Quarterly Journal of Economics*, *106*(4), 1191-1217.

Fujita, M., Krugman, P. & Venables, A. (1999). *The Spatial Economy: Cities, Regions, and International Trade,* Cambridge, MA: MIT Press.

156

Fuller, W.A, (1996*). Introduction to Statistical Time Series*, Second edition, John Wiley & Sons, New York.

Fulmer, J. (2009). What in the world is infrastructure. *PEI Infrastructure investor*, *1*(4), 30-32.

Funke, N. & Nsouli, S. M., (2003). *The New Partnership for Africa's Development (NEPAD): Opportunities and Challenges.* IMF Working Paper, pp. 1-35.

Gammoudi, M., & Cherif, M. (2015). Capital account openness, political institutions and FDI in the MENA region: An empirical investigation (No. 2015-10). *Economics Discussion Papers.*

Gammoudi, M., Cherif, M., & Asongu, S. A. (2016). FDI and Growth in the MENA countries: Are the GCC countries Different. *Journal of Macroeconomics, 35*, 131-143.

Gani, A. (2007). Governance and foreign direct investment links: evidence from panel data estimations. *Applied Economics Letters*, *14*(10), 753-756.

Garrett,P.H., Pollin, R., & Heintz, Z. (2010). *Clean Energy Investments for the US Economy: Researching the Effects on Employment Opportunities and Economic Growth.* Department of Economics and Political Economy Research Institute.

Gemmell, N., Kneller, R., & Sanz, I. (2008). Foreign investment, international trade and the size and structure of public expenditures. *European Journal of Political Economy*, *24*(1), 151-171.

Ghosh, R. A., & Van den Berg, H. F. (2006). Foreign direct investment and economic growth: a time-series approach. *Global Economy Journal*, *6*(1), 1-21.

Girma, S., Kneller, R., & Pisu, M. (2005). Exports versus FDI: an empirical test. *Review of World Economics*, *141*(2), 193-218.

Giuliano, P., & Ruiz-Arranz, M. (2009). Remittances, financial development, and growth. *Journal of Development Economics, 90*(1), 144-152.

Global Financial Integrity (2012). Illicit financial flows from developing countries: 2001-2010*. Retrieved from http://iff.gfintegrity.org/iff2012/2012*.

Global Financial Integrity (2016). Illicit financial flows from developing countries: 2001-2015*. Retrieved from http http://www.gfintegrity.org/issues/data-by-country/*

Globerman, S. & D. Shapiro (2003). Governance infrastructure and US foreign direct investment, *Journal of International Business Studies, 34*(1), 19–39.

Globerman, S., D. Shapiro, & Y. Tang (2004). Governance and foreign direct investment in emerging and transition European countries*, available at http://www.cbe.wwu.edu/cib/ 1recentgloberman/tang.pdf*.

Globerman, S., Shapiro, D., & Tang, Y. (2006). Foreign direct investment in emerging and transition European countries. In *Emerging European financial markets: Independence and integration post-enlargement*. Emerald Group Publishing Limited.

Globerman, S., & Shapiro, D. (2002). Global foreign direct investment flows: The role of governance infrastructure, *World Development 30*, 1898–919.

Gohou, G., & Soumaré, I. (2012). Does Foreign Direct Investment Reduce Poverty in Africa and are There Regional Differences.*World Development, 40*(1), 75–95.

Granger, C.W. J. (1986). Developments in the study of co-integrated economic variables. *Oxford Bulletin of Economics and Statistics, 48*(3), 13-28.

Granger, C.W.J. (1969). Investigating causal relations by econometric models and cross-spectral Methods. *Econometrica 37* (3), 424–438.

Granger, C.W.J. (1988). Some recent development in a concept of causality. *Journal of Econometrics, Elsevier, 39*,199-211.

Greene W. H. (2012). *Econometric analysis.* Seventh edition, Harlow Essex: Pearson Education, Prentice Hall.

Greenaway, D., & Kneller, R. (2007). Industry differences in the effect of export market entry: learning by exporting. *Review of World Economics*, *143*(3), 416-432.

Greer, J., & Singh, K. (2000). A brief history of transnational corporations. In *Global Policy Forum* (pp. 147-167).

Greif,A.(1989).Reputation and Coalitions in medieval trade:Evidence on the maghribi traders *.The journal of economic history,49*(04),857-882.

Griffith, R., Redding, S., & Van Reenen, J. (2004). Mapping the two faces of R&D: Productivity growth in a panel of OECD industries. *Review of economics and statistics*, *86*(4), 883-895.

Grossman, G.M., & E., Helpman(1991*). Innovation and growth in the global economy,* MIT Press, Cambridge, MA, 359.

Guerin, S.S. (2006). The role of geography in financial and economic integration: A comparative analysis of foreign direct investment, trade and portfolio investment flows,*World Economy 29*(2),189–209.

Guimon, J., & Guimon, J. (2016). Universities as multinational enterprises? The multinational university analyzed through the eclectic paradigm. *Multinational Business Review*, *24*(3), 216-228.

Gujarati, D. (2004). *Basic Econometrics*, Fourth Edition. The McGraw-Hill Company

Gunaydin, I., & Tatoglu, E. (2005). Does foreign direct investment promote economic growth. Evidence from Turkey. *Multinational Business Review,13*(2), 89-106.

Gyapong, A. O., & Karikari, J. A. (1999). Direct foreign investment strategies and economic performance in Ghana and Ivory Coast. *Journal of Economic Development*, *24*(1), 133-146.

Habib, M. & L. Zurawicki (2002).Corruption and foreign direct investment,*Journal of International Business Studies, 33*(2), 291–307.

Hadri, K. (2000).Testing for stationarity heterogeneous panel data.*Econometric, Journal 3,* 148-161.

Hall, R. E., & Jones, C. I. (1999). Why do some countries produce so much more output per worker than others. *The quarterly journal of economics*, *114*(1), 83-116.

Hamid, A & J. Hanns Pichler (2009). Human Capital Spillovers, Productivity and Growth in the Manufacturing Sector of Pakistan.*The Pakistan Development Review,48*(2),125–140.

Hansen, H. & Rand, J. 2006. On the causal links between FDI and growth in developing countries. *The World Economy, 29*(1), 21–41.

Hanson, S. (2009*). Corruption in Sub-Saharan Africa. Washington, DC*.Swww.cfr.org/publication/19984/.

Hansen, B.E., & Seo.,B. (2002).Testing for Two-Regime Threshold Cointegration in Vector Error-Correction Models,*Journal of Econometrics 110*, 293-318.

Hanushek, E. A., & Kimko, D. D. (2000). Schooling, labor-force quality, and the growth of nations. *American economic review, 90*(5),1184-1208.

160

Har, W. M., Teo, K. L., & Yee, K. M. (2008). FDI and economic growth relationship: an empirical study on Malaysia. *International Business Research, 1*(2), 11-18.

Harvey, S. K., & Abor, J. (2009). Determinants of inward foreign direct investment in the Ghanaian manufacturing sector. *Global Business and Economics Review*, *11*(2), 180-197.

Haseeb,M., Hartani,N.H, AbuBakar,N.A., Azam,M., & Hassan,S.(2014). Exports, Foreign Direct Investment and Economic Growth: Empirical Evidence From Malaysia (1971-2013). *American Journal of Applied Sciences, 11*(6), 1010–1015.

Hattari, R. & R. Rajan (2008). *Sources of FDI flows to developing Asia: The roles of distance and time zones,* ADBI Working Paper Series 117.

Hausman, J.A. (1978).Specification tests in econometrics. *Econometrica,46*(6), 1251-1271.

Hausmann, R. & Fernandez-Arias, E. (2000). Foreign direct investment: good cholesterol, *Research Department Inter-American Development Bank (IADB), Washington, DC*.

Henisz, W. (2000). The institutional environment for multinational investment, *Journal of Law and Economics and Organization 16*, 334–64.

Henry, M., Kneller, R., & Milner, C. (2009). Trade, technology transfer and national efficiency in developing countries. *European Economic Review*, *53*(2), 237-254.

Hennart, J. F. (1982). *A theory of multinational enterprise*. University of Michigan Press.

Hermes, N. & Lensink, R.(2003). Foreign direct investment, financial development and economic growth.*Journal of Development Studies, 40*(1),142-163.

Herzer, D., & Klasen, S. (2008). In search of FDI-led growth in developing countries: The way forward. *Economic Modelling, 25*(5), 793-810.

Hines, J. (1995*). Forbidden payment: Foreign bribery and American business after 1977*, NBER Working Paper 5266.

Ho, S., Kauffman, R. & Liang, T.(2007). A growth theory perspective on B2C e-commerce growth inEurope: An exploratory study. *Electronic Commerce Research and Applications 6,*237-259.

Holtz-Eakin, D., Newey, W. & Rosen, H.S. (1998). Estimating vector autoregressions with panel data.*Econometrica 56*, 1371–95.

Hsiao, C. (1986). *Analysis of Panel Data*. Cambridge: Cambridge University Press.

Hsiao, C. (1989). Modelling Ontario regional electricity system demand using a mixed fixed and random coefficients approach. *Regional Science and Urban Economics, 19*,565-87.

Hsiao, C.(2003). *Analysis of panel data, Second Edition*. New York: Cambridge University Press.

Hymer, S. H. (1977). The International Operations of National Firms: A Study of Direct Foreign Investment. *Journal of Political Economy*, 85(5), 1096-1098.

Iamsiraroj S.(2016). The foreign direct investment–economic growth nexus. *International Review of Economics & Finance, 42*, 116-133.

Ikiara, M. (2003). *Foreign direct investment (FDI), technology transfer, and poverty alleviation: Africa's hopes and dilemma* (No. 16). African Technology Policy Studies Network.

Im, K.S., Pesaran, M.H. & Shin, Y. (2003). Testing for unit roots in heterogeneous panels. *Journal of Econometrics 115*,53-74.

IMF. (2012). *Regional economic outlook: Sub-Saharan Africa- Maintaining growth in an uncertain world*.Washington, D.C.International Monetary Fund.

Imoudu, E. C. (2012). The impact of foreign direct investment on Nigeria's economic growth; 1980-2009: Evidence from the Johansen's cointegration approach. *International Journal of Business and Social Science*, *3*(6).122-134.

International Country Risk Guide, (2012).The Political Risk Service.

Islam, N. (1995). Growth Empirics: A Panel Data Approach. *Quarterly Journal of Economics 110*, 1127–1170.

Islam, N. (2003). What have we learnt from the convergence debate. *Journal of economic surveys*, *17*(3), 309-362.

Itagaki, T. (1981). The theory of the multinational firm under exchange rate uncertainty. *Canadian Journal of Economics*,*14*(2), 276-297.

Jakobsen, J., & De Soysa, I. (2006). Do foreign investors punish democracy.Theory and empirics, 1984–2001. *Kyklos*, *59*(3), 383-410.

Janicki, H. P., & Wunnava, P. V. (2004). Determinants of foreign direct investment: empirical evidence from EU accession candidates. *Applied economics*, *36*(5), 505-509.

Jayachandran, G. & Seilan, A.(2010). A causal relationship between trade,FDI and economic growth for India*,IRJFE ISSN 42*,75-88.

Jensen, N. (2003). Democratic governance and multinational corporations: Political regimes and inflows of foreign direct investment, *International Organization 57*,587–616.

Jhingan, M.L.(2003). Advanced Economic Theory (Micro and Macro-economic) 12th Reversed and Enlarged Edition.

Jeon, B. N. & Rhee, S. S. (2008).The Determinants of Korea's Foreign Direct Investment from the United States, 1980-2001: An Empirical Investigation of Firm Level Data. *Contemporary Economic Policy, 26*(1),118-131.

Johansen, S. (1991). Estimation and hypothesis testing of cointegration vectors in gaussian vector autoregressive models. *Econometrica 59*, 1551-1580

Johnson, A., & Dahlström, T. (2004). *Bureaucratic corruption, MNEs and FDI.* mimeo, Jönköping International Business School, Sweden.

Jones, M. D. (1988). War and Economy in the Age of William III and Marlborough.*Tim Keirn,9*(1),212-214.

Jose, G. (2016).Universities as multinational enterprises.The multinational university analyzed through the eclectic paradigm, *Multinational Business Review,24*(3),216 - 228.

Kaldor, N. & Mirrlees, J.A. (1962). A New Model of Economic Growth. *Review of Economic Studies*, 29,174-192.

Kalemli-Ozcan, S. (2002),.Does the Mortality Decline Promote Economic Growth*, Journal of Economic Growth, 7,* 411-439.

Kandil, M., Kandil, M., Shahbaz, M., Shahbaz, M., Mahalik, M. K., Mahalik, M. K., & Nguyen, D. K. (2017). The drivers of economic growth in China and India: globalization or financial development.*International Journal of Development Issues*, *16*(1), 54-84.

Kang, Z., & Mbea, B. (2011). Foreign direct investment and economic growth in Cameroon. In *Artificial Intelligence, Management Science and Electronic Commerce (AIMSEC), 2011 2nd International Conference on* (pp. 1135-1139). IEEE.

Kao, C.,& McCoskey, S. (1998). A residual-based test of the null of cointegration in panel data; *Econometric Reviews, 17,* 57-84.

Kapuria-Foreman, V. (2007). Economic freedom and foreign direct investment in developing countries.*The Journal of Developing Areas 41*(1),20-35.

Karimi, M. S., & Yusop, Z. (2009). FDI and economic growth in *Malaysia (MPRA Paper No. 14999). Munich Personal RePEc Archive. Retrieved October, 2(7), 2010.*

Kauffmann, D. & S.J. Wei (1999).*Does 'grease money' speed up the wheels of commerce?* World Bank Policy Research Paper 2254.

Kaufmann, D., A. Kraay, & P. Zoido-Lobaton (1999). *Aggregating governance indicators.*World Bank Policy Research Working Paper 2195.

Keppler, J. H., & Mansanet-Bataller, M., (2010). Causalities between CO2, electricity, and other energy variables duringphase I and phase II of the EU ETS. *Energy Policy 38*, 3329-3341.

Kersan-Skabic, I., & Orlic, E. (2007). Determinants of FDI inflows in CEE1 and Western Balkan countries (Is accession to the EU important for attracting FDI?). *Economic and Business Review for Central and South-Eastern Europe*, *9*(4), 33-38.

Khamfula, Y. (2007). Foreign direct investment and economic growth in EP and IS countries: the role of corruption. *The World Economy*, *30*(12), 1843-1854.

Khawar, M. (2005). Foreign direct investment and economic growth: A cross-country analysis. *Global Economy Journal ,5* ,1-8.

Khondoker-Mottaleb, A. (2007). Determinants of foreign direct investment and its impact on economic growth in developing countries. *Online athttp://mpra.ub.uni-muenchen.de/9457/MPRA Paper No. 9457, posted 7. July 2008 02:28 UTC.*

Kinda, T. (2010). Investment Climate and FDI in Developing Countries: Firm-Level Evidence, *World Development, 38*,(4), 498–513.

Kingombe,C., Massa,I.,& Willem te Velde,D.,(2011). Comparing Development Finance Institutions Literature Review, *Overseas Development Institute, 111 Westminster Bridge Road London SE17JD UK.*

Kizilkaya, O., Ay, A., & Akar, G. (2016). Dynamic relationship among foreign direct investments, human capital, economic freedom and economic growth: Evidence from panel cointegration and panel causality analysis. *Theoretical and Applied Economics, 22*(3), 127-140.

Klein, M. W. & Rosengren, E. S. (1994). The real exchange rate and foreign direct investment in the United States, *Journal of International Economics, 36*, (3)73-89.

Klein, M. U., Aaron, C., & Hadjimichael, B. (2001). *Foreign direct investment and poverty reduction* (Vol. 2613). World Bank Publications.

Klenow, P. J., & Rodriguez-Clare, A. (1997). The neoclassical revival in growth economics: Has it gone too far?. *NBER macroeconomics annual*, *12*, 73-103.

Kok, R., & Acikgoz Ersoy, B. (2009). Analyses of FDI determinants in developing countries. *International Journal of Social Economics*, *36*(1/2), 105-123.

Kormendi, R. C., & Meguire, P. G. (1985). Macroeconomic determinants of growth: cross-country evidence. *Journal of Monetary economics, 16(*2), 141-163.

Kornecki, L., & Borodulin, V. (2006). Foreign Direct Investment Stock Contributes to Economic Growth in the US Economy. *Daytona Beach, Florida: Embry-Riddle Aeronautical University College of Business*.

166

Knack, S., & Keefer, P. (1995). Institutions and economic performance: cross-country tests using alternative institutional measures. *Economics & Politics*, *7*(3), 207-227.

Kneller, R., Morgan, C. W., & Kanchanahatakij, S. (2008). Trade liberalisation and economic growth. *The World Economy*, *31*(6), 701-719.

Kneller, R. (2005). Frontier Technology, Absorptive Capacity and Distance. *Oxford Bulletin of Economics and Statistics, 67*, 1–23.

Kirkpatrick, C., Parker, D., & Zhang, Y. F. (2006). Foreign direct investment in infrastructure in developing countries: does regulation make a difference. *Transnational Corporations*, *15*(1), 143-171.

Kivyiro P, & Arminem H.(2014). Carbon dioxide emissions, energy consumption, economic growth and foreign direct investment: causality analysis for SubSaharan Africa. *Energy 74*:595-606.

Klitgaard, R. (1998). Strategies against corruption. *Presentation at Agencia Española de Cooperación Internacional Foro Iberoamericano sobre el Combate a la Corrupción, Santa Cruz de la Sierra, Jun*, 15-16.

Kremer, M. (1993). The O-ring theory of economic development. *The Quarterly Journal of Economics*, *108*(3), 551-575.

Krueger, A. B., & Lindahl, M. (2001).Education for Growth:Why and for Whom. *Journal of Economic Literature,39*(4),11-36.

Krugman, P. (2008). *International economics: Theory and policy*.(8th ed). Addison Wesley.

Krugman, P. (1991).Increasing returns and economic geography.*Journal of Political Economy, 99,* 183-199.

Kuznets, S. (1981). *Modern Economic Growth and the Less Developed Countries*. Conference on Experiences and Lessons of Economic Development in Taiwan. The Institute of Economics, Academia Sinica, Taipei.

Kyereboah-Coleman, A. & Agyire-Tettey K. F. (2008). Effect of exchange-rate volatility on foreign direct investment in Sub-Saharan Africa: the case of Ghana (Case study) *Journal of Risk Finance, 9*(1), 52-70.

Lall, P., Norman, D. W., & Featherstone, A. M. (2003). Determinants Of Us Direct Foreign Investment In The Caribbean. *Applied Economics, 35* (13),1485-1496.

Lall, S., (2003). *FDI, AGOA and manufactured exports from a land-locked, least developed African economy:* Lesotho. Oxford, University of Oxford.

Lambsdorff, J. G. (1998). An empirical investigation of bribery in international trade. *The European Journal of development research*, *10*(1), 40-59.

La Porta, R., F. Lopez-de-Silanes, A. Shleifer & R. Vishny (1998). Law and finance," *Journal of Political Economy* ,*106*(6), 13–55.

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. (2000). Investor protection and corporate governance. *Journal of financial economics*, *58*(1), 3-27.

Lavezzi, A. (2003). Smith, Marshall and Young on division of labour and economic growth. *European Journal of the History of Economic Thought*, *10*(1), 81-108.

Lederman, D., Mengistae, T., & Xu, L. C. (2013). Microeconomic consequences and macroeconomic causes of foreign direct investment in southern African economies. *Applied Economics*, *45*(25), 3637-3649.

168

Lee, C. & Chang, C. (2009). FDI, financial development, and economic growth: International evidence. *Journal of Applied Economics. 12*(2),249-271.

Lee, E. (2005). *Trade liberalization and employment.*United Nations Department of Economic and Social Affairs.copy editor: June Chesney New York, USA.

Lee, C. C. (2005). Energy consumption and GDP in developing countries: a cointegrated panel analysis. *Energy economics*, *27*(3), 415-427.

Lee, J. W. (2013). The contribution of foreign direct investment to clean energy use, carbon emissions and economic growth. *Energy Policy*, *55*, 483-489.

Lee, K., Pesaran, M. H., & Smith, R. (1997). Growth and convergence in a multi-country empirical stochastic Solow model. *Journal of applied Econometrics,12*(4) 357-392.

Lee, W.R. (1979), *European demography and economic growth*, New York, St. Martin Press.

Leisinger, K. M. (1995). Corporate ethics and international business: Some basic issues. *Whose Business Values, Hong Kong University Press, Hong Kong*, 165-202.

Lensink, R. (2001). Financial development, uncertainty and economic growth. *De Economist, 149*(3),299-312.

Lensink, R., Bo, H. & Sterken, E. (1999). Does Uncertainty Affect Economic Growth.An Empirical Analysis.*Weltwirtschaftliches Archiv, 135*, 379-396;

Lensink, W. & Morrissey, O. (2006). Foreign Direct Investment: Flows, Volatility and the Impact on Growth.*Review of International Economics, 14*(3), 478-493.

Levin, A., Lin, C.F., & Chu, C. (2002). Unit root tests in panel data: Asymptotic and finite sample properties. *Journal of Econometrics 108*, 1-24.

Levine, R. & Renelt, D. (1992). A Sensitivity Analysis of Cross-Country Growth Regressions.*American Economic Review, 82*(4), 942-963.

Levine, R. (1997). Financial development and economic growth: views and agenda. *Journal of economic literature*, *35*(2), 688-726.

Levin, A., Lin, C.F., & Chu, C. (2002). Unit root tests in panel data: Asymptotic and finite sample properties. *Journal of Econometrics 108*, 1-24.

Lewis, A. (1955). *The Theory of Economic Growth, London*: George Allen and Unwin.

Li, Q. & A. Resnick (2003). Reversal of fortunes: Democratic institutions and foreign direct investment inflows to developing countries, *International Organization 57*(1),175–211.

Li, S. (2005).Why a poor governance environment does not deter foreign direct investment: The case of China and its implications for investment protection.*Business Horizons* ,48, 297–302.

Li, S. & L. Filer (2004). Governance environment and mode of investment, *paper presented at the Academy of International Business Annual Meeting, Stockholm, Sweden*.

Liargovas, P. G., & Skandalis, K. S. (2012). Foreign direct investment and trade openness: The case of developing economies. *Social indicators research*, *106*(2), 323-331.

Lichtenberg, F. R. (1992). *R&D investment and international productivity differences* (No. w4161). National Bureau of Economic Research.

Li, X., & Liu, X. (2005). FDI and economic growth: an increasingly endogenous relationship. *Word Development 33* (3): 393-407.

Liu, L. G., & Premus, R. (2000). *Global economic growth: theories, research, studies, and annotated bibliography, 1950-1997* (No. 19). Greenwood Publishing Group

Lien, D.H.D (1986). A note on competitive bribery games, *Economic Letters* 22: 337–41.

Lim, M. E. G. (2001). *Determinants of, and the relation between, foreign direct investment and growth: a summary of the recent literature* (No. 1-175). International Monetary Fund.

Linders, G.H & H.L.F. de Groot (2006). Estimation of the gravity equation in the presence of zero flow, *Tinbergen Institute Discussion Paper 2006-072/3. Faculty of Economics and Business Administration, Vrije Universiteit Amsterdam*.

Lipset, S.M. (1959). Some Social requisites of Democracy: Economic Development and Political Legitimacy,*American Political Science Review, 53,* 69-105.

Lipsey, R.E. & Sjoholm, F. (2004). FDI and wage spillovers in Indonesia manufacturing. *Review of World Economics ,140*(2),287-310.

Liu, X., Shu, C., & Sinclair, P. (2009). Trade, FDI and economic growth in Asian economies. *Applied Economics, 41*,1603−1612.

Liu, Z. & Stengos, T. (1999).Non-Linearities in Cross-Country Growth Regressions: A Semiparametric Approach.*Journal of Applied Econometrics, 14*, (5) 527-538.

Liu, Z. (2008). Foreign direct investment and technology spillovers: Theory and evidence. *Journal of Development Economics 85*,176–193.

Li-yan, G. H. Y. H. (2008). Foreign Direct Investment, Environmental Regulation and Environmental Pollution . *Journal of International Trade, 8*, 1-8.

Lloyd, A., Ogundipe, A. A., & Ojeaga, P. (2014). Transnational Trade in ECOWAS: Does Export Content Matter?. *International Journal of Business and Social Science*, *5*(10),71-82.

Loots, E. & Kabundi, A. 2012. Foreign Direct Investment to Africa: Trends, Dynamics and Challenges. *South African Journal of Economic and Management Sciences, 15*(2),128-141.

Loree, D.W. & S. Guisinger (1995),Policy and non-policy determinants of US equity foreign direct investment,*Journal of International Business Studies* 26(2).281–99.

Lucas, R. (1988).On the Mechanics of Economic Development. *Journal of Monetary Economics, 22,* 3-42.

Lucas, R. E. (1998). On the mechanics of economic development. *Econometric Society Monographs*, *29*, 61-70.

Lund, M.T. (2010). Foreign direct investment: Catalyst of economic growth? PhD thesis, University of Utah,Salt Lake City.

Lyroudi, K., Papanastasiou, J., & Vamvakidis, A. (2004). Foreign direct investment and economic growth in transition economies. *South-Eastern Europe Journal of Economics*, *2*(1), 97-110.

Ly, A. (2010). Wading in democracy: Senegal's near-depotism. *Harvard International Review,32(2*). Retrieved from http://www.freepatentsonline.com/article/Harvard-International-Review/233067706.

MacCoskey, S & Kao, C. (2001). *A Monte Carlo comparison of tests for cointegration in panel data*. Center for Policy ResearchWorking Paper No. 3 for Policy Research Maxwell School of Citizenship and Public Affairs Syracuse University Syracuse, New York.

Maddala, G. S., & Wu, S. (1999). A comparative study of unit root tests with panel data and a new simple test. *Oxford Bulletin of Economics and Statistics*, 631–652.

Maddison, A., (1982). *Phases of Capitalist Development.* Oxford: Oxford UniversityPress.

172

Magnus, F. J. & Fosu, O. E. (2008). Bivariate causality analysis between FDI inflows and economic growth in Ghana. *International Research Journal of Finance and Economics, 15*,104-112.

Mahutga, M. C., Kwon, R., & Grainger, G. (2011). Within-country inequality and the modern world-system: A theoretical reprise and empirical first step. *Journal of World-Systems Research, 17*(2), 279-307.

Malefane, M.R. (2007). Determinants of foreign direct investment in Lesotho: Evidence from cointegration and error correction modelling. *South African Journal of Economic and Management Sciences, 10*(1), 99-106.

Mallik, G., & Chowdhury, A. (2001). Inflation and economic growth: evidence from four south Asian countries. *Asia-Pacific Development Journal, 8*(1), 123-135.

Mastromarco, C., & Simar, L. (2015). Effect of FDI and time on catching up: New insights from a conditional nonparametric frontier analysis. *Journal of Applied Econometrics, 30*(5), 826-847.

Mastromarco, C. (2002). *Efficiency and Learning-through-Importing in Less Developed Countries - A Stochastic Frontier Approach*. University of Lecce Economics Working Paper No. 34/16. Available at SSRN: http://sci-hub.io/https://ssrn.com/abstract=448360 or .http://scihub.io/http://dx.doi.org/10.2139/ssrn.448360.

Mastromarco, C., & Ghosh, S. (2009). Foreign capital, human capital, and efficiency: A stochastic frontier analysis for developing countries. *World Development, 37*(2), 489-502.

Mankiw, N. G. (1995).The growth of nations. *Brookings Papers on Economic Activity, (1)*, 275–326.

Mankiw, N. G., Phelps, E. S., & Romer, P. M. (1995). The growth of nations. *Brookings papers on economic activity*, *1995*(1), 275-326.

Mankiw, N., Romer, D., & Weil, D. (1992). A Contribution to the Empirics of Economic Growth. *Quarterly Journal of Economics, 107,*(2), 407-437.

Makki, S. S., & Somwaru, A. (2004). Impact of foreign direct investment andtrade on economic growth: Evidence from developing countries. *American Journal of Agricultural Economics, 86*(3),795–801.

Masters, W., & McMillan, M. (2001).Climate and Scale in Economic Growth. *Journal of Economic Growth, 6,*167-186.

Masron, A., & Abdullah, H. (2010). Institutional quality as a determinant for FDI inflows: evidence from ASEAN. *World Journal of Management*, *2*(3), 115-128.

Masron, T. A. (2017). Relative institutional quality and FDI inflows in ASEAN. *Journal of Economic Studies, 44*(1),115-138.

Mateev, M (2009). Determinants of Foreign Direct Investment in Central and Southeastern Europe: New Empirical Tests, *Oxford Journal, Fall, 8*, 133-149.

Matthews, R., (1986).The economics of institutions and the sources of growth. *The Economic Journal, 96*, 903-918.

Mauro, P., (1995).Corruption and growth.*Quarterly Journal of Economics, 110,*(3)681-712.

Mehraral, M., Haghnejad, A., JalalDehnavi, J. & Meybodi, F.J. (2014). Dynamic causal relationshipGDP,exports, and FDI in the developg .*Inter Letters Soc & Human Sci,3*,1-19.

Mehlum, H., Moene, K., & Torvik, R. (2006). Institutions and the Resource Curse. *The Economic Journal, 116*(508), 1-20.

174

Mencinger,J.(2003).Does FDI Always Enhance Economic Growth, *Kilkos,56*(4),491-508.

Mengistu, B. & Adams S. (2007).Foreign Direct Investment, Governance and Economic Development in Developing Countries. *Journal of Social, Political and Economic Studies, 32*(2), 223-249.

Méon, P.G. & K. Sekkat (2005). Does corruption grease or sand the wheels of growth.*Public Choice, 122*(1) 69–97.

McGowan, P. J. (2006). Coups and Conflict in West Africa, 1955-2004: Part II, Empirical Findings. *Armed Forces & Society*, *32*(2), 234-253.

Miyamoto, K. (2008). Human capital formation and foreign direct. *OECD Journal: General Papers*, *2008*(1), 1-40.

Mody, A., & Wang, F. Y. (1997). Explaining industrial growth in coastal China: economic reforms… and what else?. *The World Bank Economic Review*, *11*(2), 293-325.

Mohamed, M. R., Kaliappan, S. R., Ismail, N. W., & Azman-Saini, W. N. W. (2014). Impact of Foreign Aid and Foreign Direct Investment on Economic Growth: Evidence from Sub-Saharan African Countries. *Jurnal Ekonomi Malaysia, 48*(1), 63-73.

Mohamed, M.R., Singh, K.S.J. & Liew, C.(2013). Impact of FDI& DI on economic growth of Malaysia. *Malaysian Journal of Economic Studies 50*(1),21-35.

Mohamed, S. E. & Sidiropoulos, M. G. (2010).Another Look at the Determinants of Foreign Direct Investment in MENA Countries: An Empirical Investigation.*Journal of Economic Development, 35*(20), 75-96.

Moon, H. C., & Roehl, T. W. (2001). Unconventional foreign direct investment and the imbalance theory. *International Business Review*, *10*(2), 197-215.

Morisset, J. (2000).Foreign Direct Investment in Africa. Policies also Matter.*Transnational Corporation, 9* (2), 107–125.

Moreira, S. B. (2008). *The determinants of foreign direct investment: what is the evidence for Africa?. África e suas diásporas: olhares interdisciplinares*.Diretos de edicao,reservados a.Editora Nova Harmonia Ltda,Caixa Postal 475.93001-970 sao leopoldo/Rs.www.novaharmonia.com.br.

Morrissey, K., & O'Donoghue, C. (2012). The Irish marine economy and regional development. *Marine Policy, 36*(2), 358-364.

Moosa, I. (2002). *Foreign direct investment: theory, evidence and practice*.first published 2002 by Palgrave Houndmills,Basingstoke,Hampshire ,RG216xs and 175 fifth avenue New York,NY.10010.ISBN 978-1-349-426157,ISBN978-1-4039-0749-3(e-book), Springer.

Moosa, I. A. (2009). The determinants of foreign direct investment in MENA countries: an extreme bounds analysis. *Applied Economics Letters, 16*(15), 1559-1563.

Moskalev, S. (2007*). Governance and Foreign Direct İnvestment*. New York: Mimeo, Adelphi University, School of Business.

Moss, T., Ramachandran, V., & Shah, M. (2004). Is Africa skepticism of foreign capital justified.Evidence from East African firm survey data. *Center for Global DevelopmentWallenberg Workshop, New Outcomes, New Policy Approaches,"held at the Institute for International Economics on April 23.*

Moudatsou, A. & Kyrkilis, D. (2011). FDI and economic growth: Causality for the EU and ASEAN. *Journal of Economic Integration, 26*(3),554-577

Moudatsou, A. (2001). Foreign direct investment and economic growth evidence from 14 European Union Countries. *World Development, October*, 1-14.

176

Moura, R., & Forte, R. (2010). *The effects of foreign direct investment on the host country economic growth-theory and empirical evidence* (No. 390). Universidade do Porto, Faculdade de Economia do Porto.

Muhammad, A. H. Q. (2011). Financial development index and economic growth: empirical evidence from India. *The Journal of Risk Finance*, *12*(2), 98-111.

Musila, J. W., & Sigue S. P. (2006).Accelerating foreign direct investment flow to Africa: from policy statements to successful strategies. *Managerial Finance, 32*(7), 577-593.

Naanwaab, C., & Diarrassouba, M. (2016). Economic freedom, human capital, and foreign direct investment. *The Journal of Developing Areas, 50*(1), 407-424.

Nachum, L. (1999). World Investment Report 1998: Trends and Determinants. *Journal of International Business Studies*, *30*(3), 637-641.

Nair-Reichert, U., & Weinhold, D. (2001). Causality Tests for Cross Country Panels: New Look at FDI and Economic Growth in Developing Countries. *Oxford Bulletin of Economics and Statistics*, *63*, 153-171.

Narayan, P. K. (2005). The relationship between saving and investment for Japan. *Japan and the World Economy, 17*, 293-309.

Nasser, O. M. A. & Gomez, X. G. (2009). Do Well-Functioning Financial Systems affect the FDI Flows to Latin America. *International Research Journal of Finance and Economics, 29*, 60-75.

Naqeeb, U. R. (2016). FDI and economic growth: empirical evidence from Pakistan. *Journal of Economic and Administrative Sciences, 32*(1) 63 – 76.

Naudé, W. A. & Krugell, W. F. (2007).Investigating geography and institutions as determinants of foreign direct investment in Africa using panel data. *Applied Economics, 39*(10), 1223-1233.

Nelson, R. R., & Phelps, E. S. (1966). Investment in humans, technological diffusion, and economic growth. *The American economic review*, *56*(1/2), 69-75.

Neusser, K., & Kugler, M. (1998). Manufacturing growth and financial development: evidence from OECD countries. *Review of economics and statistics*, *80*(4), 638-646.

Ndikumana, L., & Verick, S. (2008). The linkages between FDI and domestic investment:Unravelling the developmental impact of foreign investment in Sub-Saharan. *Journal of International Economics*, 26(2),281–99.

Ndomo, A. (2009). Regional economic communities in Africa: A progress overview. *Study Commissioned by GTZ, Nairobi*.

Ndoricimpa, A. (2009). FDI, exports and economic growth in COMESA countries: A heterogeneous panel causality approach. Masters Dissertation, Master of Arts in Economics, Makerere University.

Nguyen,Q., Coulthart, A., & Sharpe, H. J. (2006*). Urban development strategy: meeting the challenges of rapid urbanization and the transition to a market oriented economy*. World Bank , Vietnam.

Ngugi, R. W. & Nyang'oro O. (2005). Institutional Factors andForeign Direct Investment Flows: Implications for Kenya, *KIPPRA Discussion Paper No. 48, Nairobi: Kenya Institute for Public Policy Research and Analysis*.

Nicholas, A., & Christina, C.,(2017). Contagion across exchange rates New evidence on the role of information spillovers and eight major exchange rates. *Journal of Economic Studies,44* (1) 24 – 35.

Nigh D. (1986). Political Events and the Foreign Direct Investment Decision: An Empirical Examination. *Managerial and Decision Economics, 7*(2), 99-106.

Ning, Y., & Reed, M. R. (1995). Locational Determinants of the US Direct Foreign Investment in Food and Kindred Products. Agribusiness. *An International Journal. 11,* 77-85.

Nnadozie, E., & Osili, U. O. (2004). US Foreign Direct investment in Africa and its Determinants. *UNECA Workshop of Financial Systems and Mobilization in Africa* 2.

Nonnemberg, M. B & Cardoso de Mendonça, M. J. (2004). The Determinants of Foreign InvestmentinDevelopingCountries.*http://www.anpec.org.br/encontro2004/artigos/A04A 061.*

Nocke, V., & Yeaple, S. (2007). Cross-border mergers and acquisitions vs. greenfield foreign direct investment: The role of firm heterogeneity. *Journal of International Economics*, *72*(2), 336-365.

Noorbakhsh, F., Paloni, A. & Youssef, A. (2001). Human Capital and FDI Inflows to Developing Countries: New Empirical Evidence, *World Development,29*(9), 1593-1610.

North, D. (1990). *Institutions, Institutional Change and Economic Performance,* Cambridge: Cambridge University Press.

Nunnenkamp, P., & J. Spatz (2004). FDI and Economic Growth in Developing Economies: How Relevant Are Host-economy and Industry Characteristics.*Transnational Corporations 13* (3), 53–86.

Nyeadi, J. D., Yidana, N., & Imoro, M. (2014). Remittances and Economic Growth Nexus: Empirical Evidence from Nigeria, Senegal and Togo.*International Journal of Academic Research in Business and Social Sciences,4*(10), 158-172.

Obstfeld, M., & Taylor, A. M. (1997). Nonlinear aspects of goods-market arbitrage and adjustment: Heckscher's commodity points revisited. *Journal of the Japanese and international economies*, *11*(4), 441-479.

Obwona, M. B. (2001). Determinants of FDI and their impact on economic growth in Uganda. *African Development Review, 13*(1), 46-81.

Odhiambo, N. M., (2011). Financial deepening, capital inflows and economic growth nexus in Tanzania: A multivariate model. *Journal of Social Sciences 28* (1), 65-71.

OECD, (2002). Global forum on international investment, attracting foreign direct investment for development *available at: http://www.oecd.org/ dataoecd/11/4/2764918.*

OECD,(2012).Energy Supply and Poverty. Paris: OECD.

OECD,(1993). Economic Outlook . Trends. Paris: OECD.

OECD,(2008). Economic Outlook . Paris: OECD.

Okada, K., & Samreth, S. (2014). How does corruption influence the effect of foreign direct investment on economic growth. *Global Economic Review*, *43*(3), 207-220.

Okada, K., & Samreth, S. (2010). How Does Corruption Influence the Effect of Foreign Direct Investment on Economic Growth.*online athttps://mpra.ub.uni-muenchen.de/27572/MPRA Paper No. 27572, posted 22. December 2010 00:39 UTC.*

Okafor, G. (2015). Locational determinants of us outward fdi into sub-saharan Africa. *The Journal of Developing Areas*, *49*(1), 187-205.

Oladipo, O. S. (2008). *Foreign Direct Investment Flow: Determinants and Growth Effects in a Small Open Economy,* Northeast Business & Economics Association Annual Conference, Long Island, New York.

180

Olofsdotter, K. (1998). Foreign direct investment, country capabilities and economic growth. *Weltwirtschaftliches Archiv,134*(3),534-547.

Omisakin, O., Adeniyi, O., Festus O. E., & Abimbola O. (2012). Foreign Direct Investment , Economic Growth and Financial Sector Development in Small Open Developing Economies. *Economic Analysis & Policy, 42*(1), 105-128.

Omran, M., & Bolbol, A. (2003). Foreign direct investment, financial development, and economic growth: evidence from the Arab countries. *Review of Middle East Economics and Finance, 1*(3), 231-249.

Omri, A., & Kahouli, B. (2014). Causal relationships between energy consumption, foreign direct investment and economic growth: Fresh evidence from dynamic simultaneous-equations models. *Energy Policy*, *67*, 913-922.

Onyeiwu, S., & Shrestha, H. (2004). Determinants of foreign direct investment in Africa. *Journal of Developing Societies*, *20*(1-2), 89-106.

Osabuohien, E.S., (2007). Trade openness and economic performance of ECOWAS members: reflections from Ghana and Nigeria. *African Journal of Business and Economic Research, 2,*57-73.

Osinubi, T. S. & Amaghionyeodiwe, L. A. (2010). Foreign Private Investment and Economic Growth in Nigeria." *REBS Review of Economic and Business Studies, 31,*105-127.

Opolot, J & Anguyo, F. L., (2007). Exchange rate fundamentals and dynamics in a liberalized foreign exchange market: Evidence from Uganda." *Bank of Uganda Staff Papers Journal.(1)* 2,23-43.

Owusu-Antwi, G., Antwi, J., & Poku, P. K. (2013). Foreign Direct Investment: A Journey To Economic Growth In Ghana-Empirical Evidence. *International Business & Economics Research Journal (IBER), 12*(5), 573-584.

181

Pantelidis, P., & Nikopoulos, E. (2008). FDI attractiveness in Greece. *International Advances Economic Research, 14*, 90-100.

Pao, H. T., & Tsai, C. M. (2011). Multivariate Granger causality between CO 2 emissions, energy consumption, FDI and GDP : evidence from a panel of BRIC (Brazil, Russian Federation, India, and China) countries. *Energy, 36*(1), 685-693.

Pedroni, P. (1999). Critical values for cointegration tests in heterogeneous panels with multiple regressors.*Oxford Bulletin of Economics and Statistics, 61*,653-678.

Pedroni, P. (2004). Panel cointegration: Asymptotic and finite sample properties of pooled time series tests with an application to the PPP hypothesis. *Econometric Theory, 20,* 597-625.

Pedroni, P.,(2001). Purchasing power parity tests in cointegrated panels; *Review of Economics and Statistics 83*, 727-731.

Pedroni, P. (1996). Fully modified OLS for heterogeneous cointegrated panels and the case of purchasing power parity. *Manuscript, Department of Economics, Indiana University*.

Pesaran, M. H. (1997). The role of economic theory in modelling the long run. *The Economic Journal*, *107*(440), 178-191.

Pesaran, M. H., Shin, Y., & Smith, R. P. (1999). Pooled mean group estimation of dynamic heterogeneous panels. *Journal of the American Statistical Association*, *94*(446), 621-634.

Petrakos, G., & Arvanitidis, P. (2008). Determinants of economic growth. *Economic alternatives*, *1*, 49-69.

Percy, G., L. Xiaoyu & H. Vredenburg (2011). Foreign direct investment in Latin America's hydrocarbon sector: Government efforts to increase attractiveness by reducing social risks, *International Journal of Business Research 11*(4),02-11.

182

Pham, Hang,(2015). The Impact of Official Development Assistance on Foreign Direct Investment: *Evidence fromVietnam.Master's Theses Paper 135*.

Pinillos, M. J., & Reyes, L. (2011). Relationship between individualist–collectivist culture and entrepreneurial activity: evidence from Global Entrepreneurship Monitor data. *Small Business Economics*, *37*(1), 23-37.

Phillips, P.C.B. & H.R. Moon (1999). Linear Regression Limit Theory for Nonstationary Panel Data, *Econometrica, 67*, 1057–1111.

Phillips,P.C.B.(1995).Fully Modified Least Squares and Vector Autoregressions,*Econometrica,63(*5), *1023*–1078.

Phillips, P.C.B. & B.E. Hansen (1990). Statistical Inference in Instrumental Variable Regression with I(1) Processes, *Review of Economic Studies, 57*, 99–125.

Phillips, P. C., & Moon, H. R. (2000). Nonstationary panel data analysis: an overview of some recent developments. *Econometric Reviews*, *19*(3), 263-286.

Podrecca, E., & Carmeci, G. (2001).Fixed Investment and Economic Growth: New results on Causality.*Applied Economics, 33*, 177-182.

Pritchett, L. (2001).Where has all the education gone.*World Bank Economic Review, 15*, 367-391.

Pritchett, L. (1996). Measuring outward orientation in LDCs: Can it be done.*Journal of Development Economics*, *49*(2), 307-335.

PRS Group (2009). A Business Guide to Political Risk for International Decisions, Part II, International Country Risk Guide, available at http://www. prsgroup.com/ICRG-Methodology.

PTS.(2013).The Political Terror Scale. Retrieved 5/31/2014 http://www.politicalterrorscale.org/ptsdata.

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

Rajan, R. G., & Subramanian, A. (2008). Aid and growth: What does the cross-country evidence really show. *The Review of economics and Statistics, 90*(4), 643-665.

Ramiraz M. D. (2006). Economic and Institutional Determinants of Foreign Direct Investment in Chile: a time series analysis, 1960-2001.*Contemporary Economic Policy, 24*(3), 459-471.

Ram, R., & Zhang, K. H. (2002). Foreign direct investment and economic growth: Evidence from cross-country data for the 1990s. *Economic Development and Cultural Change*, *51*(1), 205-215.

Ranganathan, R., & Foster, V. (2011). *ECOWAS's Infrastructure. A Regional Perspective.* World Bank Policy Research Working Paper, 5899.

Rehman, N. U. (2016). FDI and economic growth: empirical evidence from Pakistan. *Journal of Economic and Administrative Sciences*, *32*(1), 63-76.

Reichert, N. U. & Weinhold, D. (2001). Causality tests for cross-country panels: A look at FDI and economic growth in Less Developed Countries. *Oxford Bulletin of Economics and Statistics 63*,153-171.

Reiter, S. L., & Steensma, H. K. (2010). Human development and foreign direct investment in developing countries: the influence of FDI policy and corruption. *World development*, *38*(12), 1678-1691.

Riley, S. P. (1998). The political economy of anti-corruption strategies in Africa. *The European Journal of Development Research*, *10*(1), 129-159.

Rodriguez, F., & Rodrik, D. (2000). Trade policy and economic growth: a skeptic's guide to the cross-national evidence. *NBER macroeconomics annual, 15,* 261-325.

Rodríguez, X., & Pallas, J. (2008). Determinants of Foreign Direct Investment in Spain.*Applied Economics, 40*, 2443-2450.

Rodrik, D. (2003). *In search of prosperity: Analytic narratives on economic growth*. Princeton University Press.

Rodriguez, F., & Rodrik, D. (2000). Trade policy and economic growth: a skeptic's guide to the cross-national evidence. *NBER macroeconomics annual*, *15*, 261-325.

Rodrik, D. (1999).Where did all the growth go:External shocks, social conflict and Growth collapses.*Journal of Economic Growth, 4*(4),385-412.

Rodrik, D. (2000).Institutions for High quality Growth: What they are and How to Acquire them.*Studies in Comparative International Development, 35*, 3-31.

Rodrik, D., Subramanian, A. & Trebbi, F. (2004). Institutions rule: the primacy of institutions over geography and integration in economic development.*Journal of Economic Growth, 9,* 31-65.

Romer, P.(1986). Increasing Returns and Long Run Growth. *Journal of Political Economy, 94*(2), 1002-1037.

Romer, P.M (1990). Endogenous Technological Change.*Journal of Political Economy, 98,*(5),71-102.

Romer, P.M.(1994). The origin of endogenous growth.*Journal of EconomicPerspectives,8,* 3-22.

Rose-Ackerman, S. (1998). *Corruption and development*. In Annual World Bank Conference on Development Economics,35-57.World Bank.

Sachs, J. & Warner, A. (1995). Economic Reform and the Process of Global Integration. *Brooking Papers on Economic Activity, 1*, 1-118.

Sachs, J. & Warner, A. (1997). Sources of slow growth in African economies*, Journal of African Economies, 6*(3), 335-376.

Sachs, J. D. (2003). *Institutions don't rule: direct effects of geography on per capita income* (No. w9490). National Bureau of Economic Research.

Safari, S., Ghasemi, R., Elahi Gol, A., & Mirzahossein Kashani, Y. (2012). Relationship between "Higher Education and Training" and "Technological readiness: A Secondary Analysis of Countries Global Competitiveness". *American Journal of Scientific Research*, *48*, 135-148.

Sala-i-Martin, X. (1997).I Just Ran Two Million Regressions. *American Economic Review, Papers and Proceedings, 87* (2), 178-183.

Sala-i-Martin, X. & Artadi, E. V., (2003). *The economic tragedy of the XXth century: growth in Africa* (No. w9865). National Bureau of Economic Research.

Sanfilippo, M (2010).Chinese FDI to Africa: What Is the Nexus with Foreign Economic Cooperation. *African Development Review, 22*, 599-614.

Savvides, A., & Stengos, T. (2008). *Human capital and economic growth*. Stanford University Press.

Schneider, F. & Frey, B. (1985). Economic and political determinants of foreign direct investment. *World Development, 13*, 161-175.

Schneider, F. (2005). Shadow economies around the world: what do we really know. *European Journal of Political Economy*, *21*(3), 598-642.

Schultz, T. W. (1961). Investment in human capital: reply. *The american economic review*, *51*(5), 1035-1039.

Schumpeter, (1934). The theory of economic development. Cambridge,M.A: Harvard University Press.

Seetanah, B., & Khadaroo, A. J. (2007). *Foreign direct investment and growth: New evidences from Sub-Saharan African countries.* In Economic Development Africa CSAE Conference.

Secretariat, C. (2014). *Small States: Economic Review and Basic Statistics,*(Vol 17) Commonwealth Secretariat.

Sekkat, K. & Veganzones-Varoudakis, M.A. (2007).Openness, Investment Climate, and FDI in Developing Countries, *Review of Development Economics, 11*(4), 607-620.

Sen, H. (1998). Different arguments for and against the role and impact of FDI on dev potential developing countries: an overview. *Journal of Eco and Admin Sci,13* (1),181-190.

Sen, C. (2011). FDI in the Service Sector–Propagator of Growth for India.*online at http://mpra.ub.uni-muenchen.de/30574/MPRA Paper No.30574,3.May 2011 14:22 UTC.*

Shahbaz, M., Leitão, N. C., & Malik, S. (2011). Foreign direct investment-economic growth nexus: The role of domestic financial development in Portugal. *Economics Bulletin,31*(4), 2824-2838.

Shahzad-Iqbal, M., Shaikh, F. M., & Shar, A. H. (2010). Causality relationship between foreign direct investment, trade and economic growth in Pakistan. *Asian Social Science, 6*(9),82.

Shamsuddin, A.F.M. (1994). Economic Determinants of Foreign Direct Investment in Less Developing Countries. *The Pakistan Development Review, 33* (1), 41-51.

Shaobin, W., & Zhemin, W. (2010). Analysis on relationship between FDI and economic growth in ShaanXi based on OLS model. *Information Management, Innovation Management and Industrial Engineering ,International Conference 2*, 194-196.

Sharma, S., Chandran, V. G. R., & Madhavan, K. (2010). Electricity consumption growth nexus: the case of Malaysia. *Energy Policy, 38*(1), 606-612.

Shapiro, D., Tang, Y., & Ma, C. X. (2007). Mode of entry and the regional distribution of foreign direct investment in China. *Journal of Chinese Economic and Business Studies*, *5*(3), 261-277.

Shapiro, D., Tang, Y., Wang, M., & Zhang, W. (2015). The effects of corporate governance and ownership on the innovation performance of Chinese SMEs. *Journal of Chinese Economic and Business Studies*, *13*(4), 311-335.

Shapiro, D., Tang, Y., & Ma, C. X. (2007). Mode of entry and the regional distribution of foreign direct investment in China. *Journal of Chinese Economic and Business Studies*, *5*(3), 261-277.

Shleifer, A., & Vishny, R. W. (1993). Corruption. *Quarterly Journal of Economics,108,* 599-617.

Shleifer, A., & R. W., Vishny,(1998). *The Grabbing Hand: Government Pathologies and their Cures* .Cambridge, MA: Harvard University Press.

Shujie, Y., Genfu, F., & Kailei, W. (2006). Economic Growth in the Presence of FDI: The Perspective of Newly Industrializing Economies . *Economic Research Journal, 12*, 35-46.

Siddiqui,M.M., & Imran, K.,(2010). Energy consumption and economic growth: a case study of three SAARC countries. *European Journal of Social Sciences, 16*(2), 206-213.

Siegle, J. (2007). The governance root of the natural resource curse. *Developing Alternatives 11*(1), 35–43.

Singh, R. J., Haacker, M., Lee, K. W., & Le Goff, M. (2010). Determinants and macroeconomic impact of remittances in Sub-Saharan Africa. *Journal of African Economies, 20*(2), 312-340.

Smith, S. (1997). *Restrictive Policy toward Multinationals: Argentina and Korea*. Case Studies in Economic Development, Second edition.

Smith, A., (1909). *An Inquiry into the Nature and Causes of theWealth of Nations*. P. F. Collier & Sons, New York, NY.

Snowdon, B. (2003). *Conversations on growth, stability and trade: An historical perspective,* Cheltenham: Edward Elgar. Publishing.

Solow, R. (1956).A Contribution to the Theory of Economic Growth.*Quarterly Journal of Economics, 70*, 65-94.

Solow, R. (1957). Technical change and the aggregate production function. *The Review of Economics and Statistics,39*(3),312-320.

Sridharan, P., Vijayakumar, N. & Chandra, S. R. K. (2009). Causal relationship between FDI and growth: evidence from BRICS countries. *International Business Research, 2*(4),198-203.

189

Srinivasan, P., Kalaivani, M., & Ibrahim, P. (2011). An empirical investigation of foreign direct investment and economic growth in SAARC nations. *Journal of Asia Business Studies*, *5*(2), 232-248.

Staats, J.L. & Biglaiser, G. (2012). Foreign direct investment in Latin America: The importance of judicial strength and rule of law, *International Studies Quarterly 56*(1). 193–202.

Stanisic, N. (2008). Do foreign direct investments increase the economic growth of Southeastern European transition economies. *South-Eastern Europe Journal of Economics*, *6*(1), 29-38.

Stiglitz, J. E. & Hirofumi, W. A.(1969). Credit Rationing in Markets with Imperfect Information,*American Economic Review,* 71(2), 393-410.

Stockman, A. C., & Svensson, L. E. (1987). Capital flows, investment, and exchange rates. *Journal of Monetary Economics*, *19*(2), 171-201.

Subasat, T. & Bellos, S (2011).Economic freedom and foreign direct investment in Latin America: A panel gravity model approach, *Economics Bulletin* 31(3), 53–65.

Subasat, T., & Bellos, S. (2013). Governance and foreign direct investment in Latin America: A panel gravity model approach. *Latin american journal of economics*, *50*(1), 107-131.

Suliman, A. H., & Mollick, A. V. (2009). Human capital development, war and foreign direct investment in sub-Saharan Africa. *Oxford Development Studies*, *37*(1), 47-61.

Sylvester, K. (2005). Foreign direct investment, growth and income inequality in less developed countries.*International Review of Applied Economics, 19* (3), 289-300.

Tang, S., Selvanathan, E.A & Selvanathan, S. (2005). FDI, DI and economic growth in China: A time series analysis. *The World Economy ,1,*292-309.

Tanzi, V. (1999). Uses and Abuses of Estimates of the Underground Economy *The Economic Journal, 109*,(456), 338-347.

Taiwo, A., & Olayemi, S. O. O. (2015). Re-examine foreign direct investment and economic growth: Panel co-integration and causality tests for sub-Saharan African countries. *International Area Studies Review*, *18*(1), 73-86.

Tarzi,S.(2005). Foreign Direct Investment flows into Developing Countries: Impact Location and Government Policy, *Journal of Social, Political and Economic Studies, 30*(4), 497-515.

Temiz, D., & Gökmen, A. (2014). FDI inflow as an international business operation by MNCs and economic growth: An empirical study on Turkey. *International Business Review, 23*(1), 145-154.

Temple, J. &Johnson, P. (1998). Social Capability and Economic Growth. *Quarterly Journal of Economics, 113,* (3) 965-990.

Thirlwall, A. P. (1999*). Growth and development.* Sixth Edition. London: Macmillan Press Ltd.

Tiwari, A. K. (2011). Energy consumption, CO2 emissions and economic growth: Evidence from India. *Journal of International Business and Economy, 12(*1), 85-122.

Tiwari, M & Tayal, T.(2012). FDI in financial sector in India. *European Journal of Business and Management, 4* (18),5-13.

Toda, H.Y. & Phillips, P.C.B. (1993). VAR and causality. *Journal of Econometrics,61*,67-93.

Toda, H.Y.& Yamamoto, T. (1995). Statistical inference in vector autoregressions with possibly integratedprocesses. *Journal of Econometrics, 66*,225-250.

Todaro, M. P. (1985). *Economic dev in the 3rdworld*. 3rd edition. New York & London: Longman.

Tsai, P. (1994). Determinants of Foreign Direct Investment and its Impact on Economic Growth, *Journal of Economic Development, 19,* 137-63.

Turkcan, B. & Yetkiner, I.H. (2008). *Endogenous determination of FDI growth and economic growth:The OECD case*. Working Paper   Ismir University of Economics, turkey.

Umah, K. E. (2007). The Impact of Foreign Private Investment on Economic Development of Nigeria. *Nigeria Journal of Economics and financial research, 1*(3).63-72.

UNCTAD (2010). *Bilateral FDI statistics*,purchased from the Data Extract Service on 23/6/2010, available at http://www.unctad.org/Templates/Page. asp?intItemID=3205&lang=1US (http://www.eia.gov/ipm/supply.html).

UNCTAD, (2008). World Investment Report 2008: Transnational Corporations and the Infrastructure Challenge. *New York*

UNCTAD. (2014). World investment report 2014: towards a new generation of investmentpolicies. *NewYork and Geneva: United Nations.*

UNCTAD. (2014). Investing in the SDGs: An Action Plan. 265.

UNCTAD. (2015). Reforming International Investment Governance Geneva.

UNCTAD http://unctadstat.unctad.org/TableViewer/tableView.aspx?ReportId=24397.

UNCTADstat. (2016). UNCTADstat (Statistical Data). *Retrieved 9/102014*.

UNCTADstat.(2014).StatisticsData*Retrieved9/11/2014http://unctadstat.unctad.org/wds/Rep ortFolders/reportFolders.*

192

UNCTAD,(2013).CapitalFlowstoDevelopingCountries:WhenAreTheyGoodforDevelopment *UnitedNations,Geneva,Switzerland.*

UNDP,(2013).*HumanDevelopmentReportRetrievedfrom:http://hdr.undp.org/sites/default/fil es/reports/14/hdr2013.*

UNECA,(2010).Economic report on Africa *Retrieved from :http://www.uneca.org/sites/defa ult/files/PublicationFiles/era10_book_0.pdf.*

UNECA,(2014). Dynamic industrial policy in Africa: innovative institutions effective processes and flexible mechanisms. *Economic Report on Africa 2014 Addis Ababa: United National Economic Commission for Africa.*

UNECA, (2013).Making the most of Africa's commodities:industrializing for growth, jobs and economic transformation. *Economic Report on Africa 2013 Addis Ababa: United National Economic Commission for Africa.*

United Nations. Economic Commission for Africa (2015). Illicit Financial Flow: report of the High Level Panel on Illicit Financial Flows from Africa. *Addis Ababa. UN.ECA. http://hdl.handle.net/10855/22695.*

Urata, S. (November 1997). Foreign Direct Investment Diversion, *paper prepared for the US-China-Japan Trilateral Forum, University of California at Berkeley, Berkeley, California.*

Van Den Berg, H. (2001). *Economic Growth and Development* .Boston: McGraw-Hill Irwin.

Vamvakidis, A. (2002). How Robust is the Growth-Openness Connection: Historical Evidence.*Journal of Economic Growth, 7*, 57-80.

Vernon, R. (1966). International investment and international trade in the product cycle. *The quarterly journal of economics,1*, 190-207.

Victor Z. C., Yuanyuan L., & Sara, H. (2016). Regulatory institutions and Chineseoutward FDI: an empirical review. *Multinational Business Review, 24* (4),302-333.

Vissak, T. & Roolaht, T. (2005). The negative impact of foreign direct investment on the Estonianeconomy. *Problems of Economic Transition, 48* (2), 43-66.

Voyer P. A. & Beamish, P. W. (2004).The Effect of Corruption on Japanese Foreign Direct Investment, *Journal of Business Ethics, 50*, 211-224.

Wafure, O. (2010). Determinants of foreign direct investment in Nigeria: An empirical analysis. *Global Journal of Human, 10*(1), 26-34.

Wald, A. (1943). Tests of statistical hypotheses concerning several parameters when the number of observations is large. *Transactions of the American Mathematical Society, 54,*426-482.

Wamboye, E., Adekola, A., & Sergi, B. S. (2013). Economic growth and the role of foreign aid in selected african countries. *Development, 56*(2), 155-171.

Wang, E. C. (2002). Public infrastructure and economic growth: a new approach applied to East Asian economies. *Journal of Policy Modeling*, *24*(5), 411-435.

Wang, X. (2009). *Regulation and corruption in transitional China*, The University of Manchester Economics Working Papers EDP-0919.

Westerlund, J., (2003). Feasible estimation in cointegrated panels*; Discussion paper, Department of Economics, University of Lund.*

Wezel, T. (2003). Determinants of German foreign direct investment in Latin American and Asian emerging markets in the 1990s," *Economic Research Centre of the Deutsche Bundesbank Discussion Paper 11/03.*

194

Wei, S. J. (2000). How taxing is corruption on international investors. *Review of economics and statistics*, *82*(1), 1-11.

Wheeler, D., & Mody, A. (1992). International Investment Location Decision the Case of United States Firms, *Journal of International Economics, 33*(1-2), 57-76.

Wilkins, M. (1988). The free-standing company, 1870-1914: An important type of British foreign direct investment. *the Economic History Review,41*(2),259-282.

World Investment Report. (2016). *Investor Nationality*: Policy Challenges.

World Bank (2002).*Global development finance 2002*. Washington, D.C.: World Bank.

World Bank (2012). *World Development Indicators*. Washington, D.C.: World Bank.

World Bank (2012).WorldGovernance Indicators, available at http://info. worldbank.org/governance/ wgi/ index.

World Bank. (2015).World Bank list of economies.Washington, DC. The International Bankfor Reconstruction and Development.

World Bank.(2011). The global competitiveness report 2011–2012. Geneva.

World Bank. (2015).World Development Indicators.Online Database. Accessed March 25, 2015.http://databank.worldbank.org/data/views/variableSelection/selectvariables.aspxso urce,world-development-indicators.

Wu, J. L. & S. Wu (2001). Is Purchasing Power Parity Overvalued, *Journal of Money,Credit, and Banking, 33*, 804–812.

Wu, Y. (1996). Are real exchange rates nonstationary. Evidence from a panel-data test. *Journal of Money, Credit and Banking*, *28*(1), 54-63.

Xaypanya, P., Rangkakulnuwat, P., & Paweenawat, S. W. (2015). The determinants of foreign direct investment in ASEAN: The first differencing panel data analysis. *International Journal of Social Economics, 42*(3), 239-250.

Yaoxing, Y. (2010). The relationship between foreign direct investment, trade openness and growth in Cote d'Ivoire. *International Journal of Business and Management, 5*(7), 99-107.

Yih, Yun Y. J.,Groenewold, N., & Tcha, M. (2000).The Determinants of Foreign Direct Investment in Australia.*The Economic Record, 76* (232), 45-54.

Yi-Jyun, W., & Chiang-Chih, H. (2008). Does foreign direct investment promote economic growth. Evidence from a threshold regression analysis. *Economics Bulletin, 15*(12), 1-10.

Young, A. (1992). *A Tale of Two Cities: Factor Accumulation and Technical Change inHong Kong and Singapore'*, NBER Macroeconomics Annual.

Young, A. (1993). Substitution and Complementarity in Endogenous Innovation, *Quarterly Journal of Economics, 108,* 775-807.

Zak, P.,& Knack, S. (2001).Trust and growth.*The Economic Journal, 111*, 295-232.

Zhang, J.,Wang, J. & Zhu, A.(2012). The relationship between real estate investmentand economic growthin China. *Annals of Regional Science, 48*,123-134.

Zhang, Z., Tang, W., & Wu, L. (2010). Oil price shocks and their short-and long-term effects on the Chinese economy. *Energy Economics, 32*, 3-14.

Zhang, K. H. (2001). What Attracts Foreign Multinational Corporations to China? *Contemporary Economic Policy, 19*(3), 336-346.

Zhao, J. H., Kim S. H., & Du J. (2003). The Impact of Corruption and Transparency on Foreign Direct Investment. *Management International Review, 43*(1), 41-62.

Zhao,C.,& Du, J. (2007).Causality between FDI and economic growth in China.The *Chinese Economy, 40*(6) 68-82.

Zheng, P.(2009). A Comparison of FDI Determinants in China and India. *Thunderbird International Business Review, 51*(3), 263-279.

Zhu, B. (2007). Fortune or evil. The effects of inward foreign direct investment on corruption. In *Mini-APSA Conference at the Department of Political Science, Columbia University*.

Zhao, J. H., Kim, S. H., & Du, J. (2003). The impact of corruption and transparency on foreign direct investment: An empirical analysis. *MIR: Management International Review*,*40*(1) 41-62.

Ziramba, E. (2009). Disaggregate energy consumption and industrial production in South Africa. *Energy Policy, 37*(6), 2214-2220.

Zubair, Z., Bakar, N.A. & Azam, M. (2017). Dynamic nexus FDI inflows and economic growth:Interactive analysis and perspective.*International Journal of Management Research Review,7*(4),475-481.

Zubair, Z., Bakar, N.A. & Azam, M. (2017). Correlating Fdi Nexus with Economic Growth: And How It Dampens Socio- Economic Factors In Ecowas-5.*International Journal of Management Research Review,7*(4),503-512.

Appendix A
Table 5.1

Country/Territory	WBCode	1996 Estimate	1996 StdErr	1996 NumSrc	1996 Rank	1996 Lower	1996 Upper	1998 Estimate	1998 StdErr	1998 NumSrc	1998 Rank	1998 Lower	1998 Upper	2000 Estimate	2000 StdErr
Voice and Accountability															
Ghana	GHA	-0.21	0.21	6	44	33.5	55	-0.19	0.21	6	44.78	33.33	55.22	0.07	0.2
Côte d'Ivoire	CIV	-0.58	0.21	6.00	32.50	20.00	41.50	-0.64	0.21	6.00	30.85	18.41	41.79	-0.93	0.20
Nigeria	NGA	-1.55	0.21	6.00	7.00	1.00	14.00	-1.08	0.21	6.00	15.92	8.96	27.86	-0.48	0.19
Togo	TGO	-0.99	0.23	5.00	17.50	12.00	30.00	-1.12	0.23	5.00	14.43	6.97	27.86	-1.13	0.21
Senegal	SEN	0.11	0.21	6.00	54.00	42.50	63.50	0.03	0.21	6.00	49.25	40.80	59.70	0.20	0.20
Poltical Stability Non Violence															
Ghana	GHA	-0.23	0.37	4.00	38.30	20.74	59.57	-0.14	0.35	4.00	38.83	22.34	62.77	-0.36	0.34
Côte d'Ivoire	CIV	0.03	0.37	4.00	48.94	26.06	68.09	-0.20	0.35	4.00	36.17	19.68	60.11	-1.24	0.34
Nigeria	NGA	-1.06	0.37	4.00	15.96	6.38	31.91	-0.59	0.35	4.00	26.60	13.30	43.62	-1.46	0.34
Togo	TGO	-0.38	0.42	3.00	32.98	14.89	57.45	-0.61	0.38	3.00	26.06	11.70	45.21	-0.29	0.40
Senegal	SEN	-0.60	0.37	4.00	25.00	11.17	47.87	-0.99	0.35	4.00	16.49	7.98	30.85	-0.59	0.34
Government Effectiveness															
Ghana	GHA	-0.12	0.17	3.00	53.55	38.25	59.56	-0.12	0.20	5.00	52.33	38.34	61.66	0.07	0.21
Côte d'Ivoire	CIV	-0.26	0.17	3.00	46.45	33.88	56.83	-0.23	0.20	5.00	49.22	30.57	60.62	-0.82	0.21
Nigeria	NGA	-0.92	0.17	3.00	18.03	6.01	28.42	-1.12	0.20	5.00	10.36	3.63	21.76	-0.96	0.20
Togo	TGO	-0.69	0.18	2.00	25.68	15.85	38.25	-0.89	0.23	4.00	16.58	6.74	33.16	-1.14	0.24
Senegal	SEN	0.08	0.17	3.00	57.92	47.54	62.30	-0.10	0.20	5.00	52.85	38.86	62.18	-0.12	0.21
RegulatyoryControl															
Ghana	GHA	-0.34	0.31	4.00	38.04	21.20	61.96	-0.22	0.27	6.00	41.97	24.35	60.62	-0.07	0.25
Côte d'Ivoire	CIV	-0.40	0.31	4.00	36.41	19.57	59.24	-0.22	0.27	6.00	41.45	24.35	60.62	-0.51	0.25
sNigeria	NGA	-0.97	0.31	4.00	17.39	5.98	30.43	-0.95	0.27	6.00	16.06	7.25	27.46	-0.75	0.22
Togo	TGO	-0.39	0.37	2.00	36.96	16.30	62.50	-0.44	0.29	5.00	31.61	16.58	54.92	-0.61	0.27

Country	Code														
Senegal	SEN	-0.13	0.31	4.00	50.00	25.00	64.67	-0.15	0.27	6.00	47.67	25.39	63.21	-0.10	0.25
Rule of Law															
Ghana	GHA	-0.23	0.21	6.00	43.72	32.16	56.28	-0.28	0.21	8.00	42.50	31.00	54.50	0.15	0.18
Côte d'Ivoire	CIV	-0.79	0.21	6.00	25.13	16.08	38.19	-0.88	0.21	8.00	21.50	10.50	32.50	-1.18	0.18
Nigeria	NGA	-1.29	0.21	6.00	9.55	3.02	19.10	-1.26	0.21	8.00	9.00	3.50	20.00	-1.10	0.16
Togo	TGO	-0.73	0.32	4.00	26.63	10.55	45.23	-0.73	0.26	7.00	26.50	13.00	41.50	-0.70	0.23
Senegal	SEN	-0.18	0.21	6.00	46.23	34.17	57.79	0.00	0.21	8.00	52.50	41.00	63.00	0.03	0.18