Sub-Saharan African Regional Economy: Determinants of Foreign Direct Investment and Growth Empirics

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Sub-Saharan African Regional Economy: Determinants of Foreign Direct Investment and Growth Empirics

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Dedication

This thesis is dedicated to the giver of knowledge, wisdom and understanding-The Almighty God. In addition, this thesis is dedicated to my mother Christianah, my loving wife Omowunmi and my children-IfeOluwa, Omotayo and Abidemi. Their patience, endurance, love and prayers have contributed enormously to the success of this research work.
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My greatest thanks go to the beginning and the end, the almighty God, for his grace, favour, mercy and love for my life on a daily basis. Thank you, Lord, for the wisdom, strength and sound memory to undertake this research. When the Ph.D. journey was crooked and all the hopes were lost, you gave me strength and direction to continue with the research, particularly, when I needed you most.

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I am forever indebted to my darling wife, Mrs Olabisi Omowunmi, for giving me the opportunity and support to progress to this stage. Without your patience, love and, most of all, caring for our children-IfeOluwa, Omotayo and Abidemi, this research work would not have happened. I pray that Almighty God, in his infinite mercies grant you a long life in good health to reap the fruits of your labour.

Also, I would like to acknowledge the contributions of my former lecturers, Assoc. Prof., Dr. Risikat Oladoyin S. Dauda, Prof., Dr. E.O. Ogunleye for their words of encouragement and academic contributions. I am also thankful to Prof. Ademola Oyejide, Dr. Peter K. Nwanesi, Dr. Shittu Ayodele and Dr. Solarin Sakiru for their support financially and academically.

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May God bless you all.
Abstract

The general economic situation in Sub-Saharan African countries and the aspirations of international organisations such as the World Bank, the World Trade Organization (WTO), and the United Nations Conference on Trade and Development (UNCTAD) have spurred much research interest on how the region can improve economically and achieve sustainable economic growth. This study aims to investigate the Sub-Saharan regional economy with a focus on determinants of foreign direct investment (FDI) and growth empirics. A panel data analysis of FDI determinants was done for a sample of 10 Sub-Saharan Africa (SSA) countries for a period of 1980 to 2011. The findings showed a long run cointegration among the variables examined. Moreover, trade openness, financial development, and human capital were found to be positive and significant in explaining FDI inflows to SSA region.

Additionally, the macroeconomic determinants of growth were investigated and the findings revealed a long run cointegration among the growth variables examined in the study. The findings further revealed that foreign direct investment, trade openness, human capital, and population are positive and significant to explain the growth in the SSA region.

Finally, the results from the simulation approach on the potential prospect of SSA pre-economic and post-economic integration seems to imply a better stance in both sub-regional groupings and in aggregate for gross domestic product, foreign direct investment, import and export. These findings are crucial for policy making, analysis and implementation, particularly for Sub-Saharan African countries.
Abstrak

Keadaan ekonomi umum di negara-negara Afrika Sub-Sahara dan aspirasi organisasi antarabangsa seperti Bank Dunia, Pertubuhan Perdagangan Dunia (WTO), dan Persidangan Bangsa-Bangsa Bersatu mengenai Perdagangan dan Pembangunan (UNCTAD) telah merangsang minat banyak penyelidikan mengenai bagaimana kawasan boleh meningkatkan ekonomi dan mencapai pertumbuhan ekonomi yang mantap. Kajian ini bertujuan untuk mengkaji ekonomi serantau Sub-Sahara dengan memberi tumpuan kepada penentu pelaburan langsung asing (FDI) dan pertumbuhan empirics. Satu analisis data panel penentu FDI yang telah dilakukan kepada 10 sampel Sub-Sahara Afrika (SSA) negara bagi tempoh 1980 hingga 2011. Hasil kajian menunjukkan kointegrasi jangka panjang antara pembolehubah dikaji. Selain itu, perdagangan terbuka, pembangunan kewangan dan modal insan akan memberi hasil yang positif dan signifikan dalam menerangkan aliran masuk FDI ke rantau SSA.

Tambahan pula, penentu pertumbuhan makroekonomi telah disiasat dan hasil kajian mendedahkan kointegrasi jangka panjang antara pembolehubah pertumbuhan yang dikaji dalam kajian ini. Hasil kajian juga mendedahkan bahawa pelaburan langsung asing, keterbukaan perdagangan, modal insan, dan penduduk adalah positif dan signifikan untuk menerangkan pertumbuhan di rantau SSA.
Akhirnya, hasil daripada pendekatan simulasi pada prospek potensi SSA integrasi pra-
ekonomi dan pasca-ekonomi seolah-olah membayangkan pendirian yang lebih baik dalam
kedua-dua kumpulan sub-serantau dan agregat bagi keluaran dalam negara kasar, pelaburan
langsung asing, import dan eksport. Hasil penemuan ini adalah penting untuk membuat
dasar, analisis dan pelaksanaan terutamanya bagi negara-negara Afrika Sub-Sahara.
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Abbreviations

FDI : Foreign Direct Investment
SSA : Sub-Saharan Africa
GDP : Gross Domestic Product
UN-HRLLS : United Nations Office of the High Representative for the Least Developed Countries, Landlocked Developing Countries and Small Island Developing States
HDI : Human Development Index
UNDP : United Nations Development Programme
GNI : Gross National Income
UNCTAD : United Nations Conference on Trade and Development
TNC : Transnational Corporation
MNC : Multinational Corporation
IMF : International Monetary Fund
OECD : Organisation for Economic Co-operation and Development
ISI : Import Substitution Industrialisation
FMOLS : Fully Modified Ordinary Least Square
DOLS : Dynamic Ordinary Least Square
MG : Mean Group
NTBs : Non-Tariff Barriers
BPAs : Bilateral Payment Arrangements
M&A : Merger and Acquisition
GNP : Gross National Product
OLS : Ordinary Least Square
ECM : Error Correction Model
DI : Domestic Investment
ADF : Augmented Dickey-Fuller
VEC : Vector Error Correction
ASEAN : Association of Southeast Asian Nations
2SLS : Two-stage Least Square
MNE : Multinational Enterprise
LS : Least Square
GMM : Generalised Method of Moment
GLS : Generalised Least Square
VAR : Vector Autoregression
USD : United State Dollar
ECOWAS : Economic Community of West African States
MFR : Mixed Fixed and Random
RECs : Regional Economic Communities
GDPGRT : Gross Domestic Product Growth
GFCF : Gross Fixed Capital Formation
SAP : Structural Adjustment Programme
UAE : United Arab Emirates
ARDL : Auto-Regressive Distributed Lag
MENA : Middle East and North Africa
SAARC : South Asian Association for Regional Co-operation
GC : Granger Causality
ADB : African Development Bank
SBP : State Bank of Pakistan
VECM : Vector Error Correction Model
UK : United Kingdom
IS : Import Substitution
PRD : Pearl River Delta
YRD : Yangtze River Delta
IV : Instrumental Variable
RER : Real Exchange Rate
DTI : Development of Telecommunications Infrastructure
EQM : Equity Market Size
GCC : Gulf Cooperation Council
PMG : Pooled Mean Group
TYDL : Toda and Yamamoto
OFDI : Outward Foreign Direct Investment
<table>
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<th>Acronym</th>
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<tr>
<td>APEC</td>
<td>Asia-Pacific Economic Co-operation</td>
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<tr>
<td>CAREC</td>
<td>Central Asia regional Economic Co-operation</td>
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<tr>
<td>RTAs</td>
<td>Regional Trade Agreements</td>
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<tr>
<td>REIOs</td>
<td>Regional Economic Integration Organizations</td>
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<tr>
<td>EMS</td>
<td>European Monetary System</td>
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<td>EU</td>
<td>European Union</td>
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<td>CEECs</td>
<td>Central and Eastern European Countries</td>
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<td>NAFTA</td>
<td>The North American Free Trade Agreement</td>
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<td>IGAD</td>
<td>Inter-Governmental Authority on Development</td>
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<td>SCM</td>
<td>Southern Common Market</td>
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<td>ACU</td>
<td>Andorra Customs Union</td>
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<td>CC</td>
<td>Caribbean Community</td>
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Chapter One

Introduction

1.1 Background of the Study

Sub-Saharan Africa (SSA) region is located southward of the Sahara desert in Africa with a total population of 910.4 million as at 2012, which comprises of 47 countries in all (UNDP, 2013). Equally, most of these nations actualized their struggle for independence in the 1960s. Then, the region’s economies experienced higher development measured by Gross Domestic Product (GDP) per capita after independence. According to the evidence documented in the literature, Sub-Saharan Africa (SSA) economic potential at the time of independence was stronger than that of the East Asian & Pacific Economies (Easterly and Levine, 1995).

In the same vein, many countries in Africa were more productive than the Asian counterparts in the 1960s. However, the strong advantage of the abundant natural endowment maintained optimism for future trade, growth and development. However, the region exhibited a low trade and growth performance from 1994 to 2000 (see, Figures 1 and 2). In line with World Bank 2012 report, the region recorded the lowest GDP per capita of $2,281, while other developing countries’ performances were far better. For instance, per capita in South Asia is $3,229, East Asia and Pacific-$6,672, Middle East and North Africa-$7,160, Latin America and Caribbean-$11,192 and Europe and Central Asia- $13,687.
More so, the United Nations 2011 reports show that 33 countries out of 47 in the SSA region were classified as least developed countries (UN-OHRLLS, 2012). At the same time, thirty-six countries of the region fell into the category of low human development by the standards of the Human Development Index (HDI) (see, Tables 1 and 2). In view of this, this is worrisome and demands economic intervention. In considering growth strategies that can alleviate low economic condition and provide sustainable growth, policy maker needs to introduce workable and sustainable growth strategies that can improve the quality of life in the region.

<table>
<thead>
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<th>Table 1: List of the least developed nations in the SSA region as at 2012</th>
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Source: UN-OHRLLS, 2012
Table 2: List of low human development nations in the SSA region as at 2011

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<th>São Tomé and Príncipe</th>
<th>Guinea-Bissau</th>
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<td>Burundi</td>
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Source: UNDP database

Also, in 1980, the per capita GDP of the region reduced by 1.4 per cent per annum, although, this is a full 5 per cent points below the average for all low-income developing countries. More so, during 1990-1994, the decline accelerated to 1.8 per cent per annum and the gap widened to 6.2 per cent per points per annum (see, Collier and Gunning, 1999). The variations in the economic growth of the region have been a major issue attributed to so many factors. These include, among others; high rates of insecurity, high level of corruption, political unrest and economic instability in most Sub-Saharan Africa, especially in Nigeria, Somalia, Sudan, Congo, Kenya and Uganda. Surprisingly, this has created the region`s economic growth to be backward as compared to other developing nations. In spite of this, the region experienced an increase in growth in 2004, where GDP growth (per cent) spontaneously grew to 9.34 per cent, slightly ahead of other regions (see, Table 3).