T.C.

ISTANBUL COMMERCE UNIVERSITY

GRADUATE SCHOOL OF SOCIAL SCIENCES

DEPARTMENT OF ECONOMICS

ECONOMICS PROGRAM

THE ROLE OF INTERNATIONAL TRADE ON ECONOMIC GROWTH IN DJIBOUTI

Master`s Thesis

Aden Ahmed ASSOWEH

200012738

Istanbul, 2020

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T.C. İSTANBUL TİCARET ÜNİVERSİTESİ

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SOSYAL BİLİMLER ENSTİTÜSÜ

YÜKSEK LİSANS TEZİ ONAY FORMU

İktisat İngilizce Yüksek Lisans programı öğrencisi Aden Ahmed Assoweh'in "The Role of International Trade on Economic Growth in Djibouti" başlıklı tez çalışması, Enstitümüz Yönetim Kurulu 19.08.2020 tarih ve 2020-512/14 sayılı kararıyla oluşturulan jüri tarafından oybirliği/~~oyçokluğu~~ ile Yüksek Lisans Tezi olarak kabul edilmiştir.

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ÖZET

İhracatın, ekonominin gelişiminde ve verimliliğin artışında önemli bir rol oynadığı kabul edilmektedir ve ihracat ayrıca yerli yatırım için önemli bir motivasyon kaynağıdır. Bu çalışmanın amacı, uluslararası ticaretin ekonomik büyüme üzerindeki rolünü araştırmaktır ve ampirik araştırma 1986-2017 dönemine ait verilerine dayanmaktadır. Çalışmada, Cibuti'deki ekonomik büyümede uluslararası ticaretin rolünü incelemek için En Küçük Kareler yöntemi, Johansen Eşbütünleşme testi ve VAR ekonometrik testleri kullanılmıştır. Bu çalışma, ihracat, brüt sermaye oluşumu, doğrudan yabancı yatırım ve ithalat gibi ana değişkenlere odaklanmıştır. Bu çalışmanın sonucu, ihracatın Cibuti'nin ekonomik büyümesi üzerinde önemli bir olumlu etkisi olduğunu göstermiştir. Bu çalışmanın, mevcut akademik bilgiye katkıda bulunacağına ve Cibuti'deki hükümet stratejileri uygulamalarında ve karar almada yardımcı olmayı amaçladığına inanılmaktadır.

Anahtar Kelimeler: İhracat, İthalat, Uluslararası Ticaret, Ekonomik Büyüme, Cibuti

ABSTRACT

Exports are considered to play an important role on economic growth and they serve as a major motivator for domestic investment. The purpose of this study is to investigate the role of international trade on economic growth and the empirical research is based on time series data over the 1986-2017 period. The study used econometric tests under Ordinary Least Squares method, Johansen Cointegration test and VAR analysis to examine the role of international trade on economic growth in Djibouti. This study focused on main variables of exports, gross capital formation, foreign direct investment and imports. The result of this study has shown that export has a significant positive impact on the economic growth of Djibouti. This study is believed to contribute to the current academic knowledge and aim to help the decision making and implementations of government strategies in Djibouti.

Keywords: Export, Import, International Trade, Economic Growth, Djibouti

DECLARATION OF ORIGINALITY

I, Aden Ahmed Assoweh, certify that,

- I am the sole author of this thesis and that I have fully acknowledged and documented in my thesis all sources of ideas and words, including digital resources, which have been produced or published by another person or institution;
- This thesis contains no material that has been submitted or accepted for a degree or diploma in any other educational institution;
- This is a true copy of the thesis approved by my advisor and thesis committee at Istanbul Commerce University, including final revisions required by them.

Aden Ahmed Assoweh

Date: 17 Sep 2020

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Aden Ahmed Assoweh

September, 2020

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LIST OF ABBREVIATIONS

ADF:	Augmented Dickey Fuller
AMISOM:	African Union Mission
ARDL:	Autoregressive Distributed Lag
CEN-SAD:	Sahel-Saharan Society
COMESA:	Eastern and Southern African Popular Market
DJF:	Djiboutian Franc
EAC:	East African Community
EU:	European Union
FDI:	Foreign Direct Investment
GCF:	Gross Capital Formation
GDP:	Gross Domestic Product
GMM:	Generalized Method of Moments
GNP:	Gross National Product
HDI:	Human Development Index
IGAD:	Intergovernmental Authority on Development
IMF:	International Monetary Fund
IMO:	International Maritime Organization
LDC:	Least Developed Country
OECD:	Organization for Economic Co-Operation and Development
OLS:	Ordinary Least Squares
PP:	Phillips-Perron
PPP:	Purchasing Power Parity
SUR:	Seemingly Unrelated Regression
UNICEF:	United Nations Children's Fund
UN:	United Nations
UNCTAD:	United Nations Conference on Trade and Development
UAE:	United Arab Emirates
VAR:	Vector Auto-Regressive
VECM:	Vector Error Correction Model
WTO:	World Trade Organization
WHO:	World Health Organization

1. INTRODUCTION

In the context of integration and globalization, exports are considered to play an important role in the growth in productivity and developing economies are well as a major motivator for domestic investment by making the best use of human resources, natural resources and other resources. Increasing exports will help to rise aggregate demand and increase productivity growth, and exports will contribute to improving trade balance, employment and living standards; therefore, the number of developed and developing governments is trying to encourage their exporters to export more. One of the key sources of economic growth is the export rate in a country, but in most developing countries, real exports fall short of the desired amount needed to bring about a significant increase in domestic production, and many developing economies depend on investment to solve a number of economic problems and crises (Orhangazi, Yalçın, & Gezici, 2018). In most developing countries, including Djibouti, import substitution policies have failed to support the industrialization process, and export diversification has not occurred as expected. In fact, a substantial number of economists concluded that exports play a key role in every country's development process, whether high, middle or low income. In addition, literature shows that the productive system suffered significantly from high barriers to trade and distorted relative prices.

International trade (imports and exports) are among the numerous alternative policies suggested and/or sought for achieving GDP expansion. Notes that since the days of Adam Smith and David Ricardo, the advantages of buying and selling goods between nations (international trade) have been well-known in developed economies, according to Adam Smith, foreign economic growth induced by trade is attributable to a "total advantage," whereby a country increases its domestic income or production rates by exporting goods at lower input costs than others. David Ricardo, on the other hand, tried to broaden and enhance the 'absolute advantage' principle by arguing that growth in domestic output is due to the 'comparative advantage' of producing products at a lower real cost than other nations. International trade-induced growth, according to those conventional economists, results from the specialization that produces surplus goods and services and that these goods must be traded for money or for other commodities.

IMF stated that real global economic performance decreased dramatically from 4.1 % in 2011 to 2.4 % in 2013. This decline in domestic production has exacerbated the living conditions of the world poorest, as poverty rates have increased. According to World Bank 2013 1.2 billion people living on less than US$ 1.25 a day worldwide. More than two-thirds approximately 500 million of these live on an average daily revenue of 87 cents per capita in South Asia and Sub-Saharan Africa. This average daily income per capita reflects a substantial decrease compared to the 94 cents reported in 1981. Such rising rates of poverty have led many countries to search for economic policies to raise their gross domestic product level and thus achieve sustainable productivity growth.

The small economy of Djibouti resumes acceleration. After rising by 4.1% in 2017 while 6.0% in 2018. The production is projected to increase by 7% on 2019. Exports of transport and logistics services focused on the newly built business infrastructure will drive growth. As the nascent manufacturing industry of import substitution develops, the industrial sector will also continue grow strongly. Growth drivers often move from domestic and public spending to international demand and service-export-pull. The rapid implementation of major public infrastructure projects from 2014 to 2016 added 3-5 percentage points to real growth, driving the economy to rise above its potential and flagging some sustainability challenges. However, these public investments were vital to the government's ambition to place Djibouti as East Africa's trade, logistics and digital hub and significantly increased the country's growth potential. Poverty remains high amid faster growth. According to the last household survey conducted in 2017, 21.1% of the population lived on less than US$ 2.17 a day in 2011 PPP, while an additional 17.1% lived on less than US$ 1.90 a day.

East African countries are the main export market of Djibouti, highlighting the importance of regional economic trade, followed by Asian countries. EAC is the main market for Djibouti goods due to close proximity, reconstruction activities and a relatively well developed manufacturing sector in Djibouti compared to its neighbors. According to world development indicators, the gross domestic product has increased from $1 billion to $1,966 billion from 2008 to 2018, the average economic growth has increased by more than 8 per cent annually until 2016, while the privatization program also reduces state involvement in banking, basic communications, industry and transport.

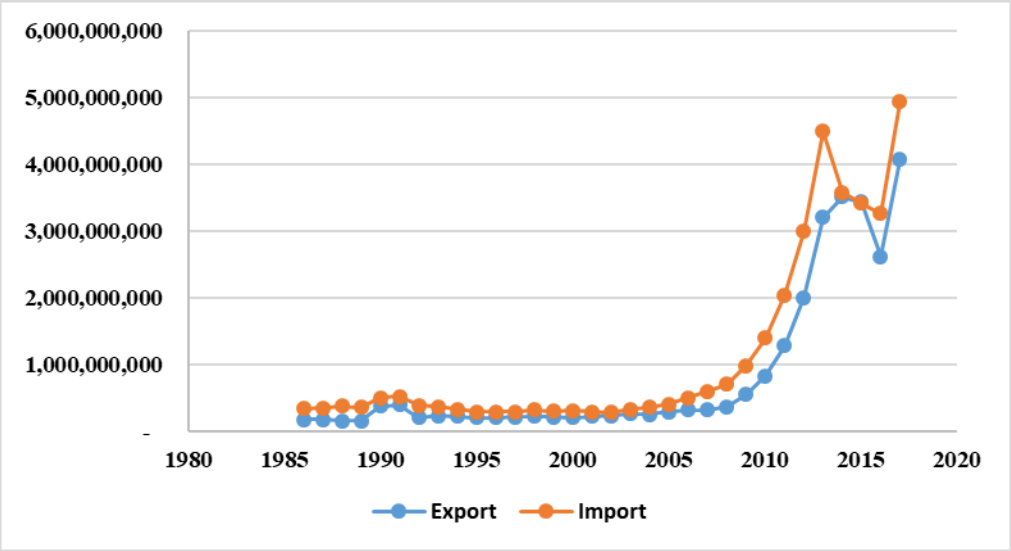


Figure 1. International Trade of Djibouti (USD)

Source: United Nations Statistics Division (2020)

The export trend increased from $485 to $680 million between 2013 and 2018. Over the last five years, the Djibouti economy has seen rapid growth, particularly in exports, which are considered to be the most powerful in international economic relations.

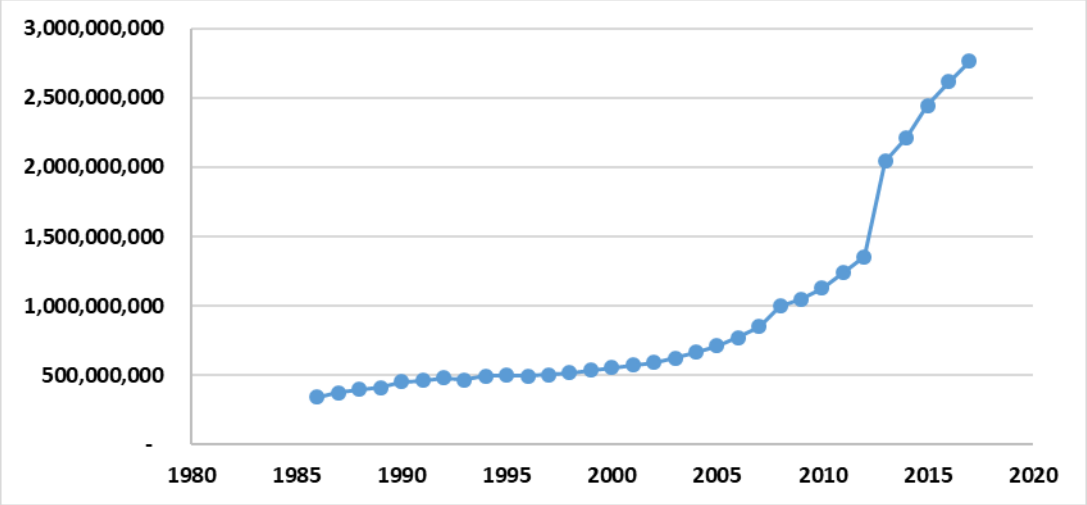


Figure 2. Gross Domestic Product of Djibouti (USD)

Source: World Bank

Nevertheless, after the independence of Djibouti in 1977, imports led to economic reform, though exports increased from 36% of GDP in 2013 to 38% in 2015. Similarly, GDP growth increased from 8.9% in 2013 to 9.6% in 2015.The overall gross domestic product has increased significantly from $0.81 billion to $1.98 billion annually between 1985 and 2018. The GDP value of Djibouti is less than 0.01% of the world economy.

This study aims to help address these analytical knowledge gaps examining the effect of exports and import alone on productivity growth of Djibouti, not as part of a sub-Saharan Africa. This research focuses on the long-term relationship between exports and economic development, as opposed to previous empirical studies on the subject, which mainly concentrated on the existence of a correlation among the two variables. The long-term relationship between the two variables is the only guarantee of sustainable economic development. The main objective of the research is to measure the export position of Djibouti's economic growth.

The relationship between international trade and economic development in developing countries has been of considerable importance for international economics in the last two decades, empirical research or country-wide studies have shown that developing economies with a favorable export growth record tend to enjoy higher rates of economic growth. Djibouti has shown great interest in regional economic and political integration, particularly with the IGAD and Gulf States, while Djibouti exports mainly vehicles, machinery, cement, food and other capital goods. In the last decade, Djibouti's exports have fluctuated and, following concerted efforts over export promotion policies, the long-term downturn in trade and resulting continuing growth. Given the export-led growth strategy, which the government has actively promoted for exports and opened up the domestic market to international competition, although a large theoretical agreement tends to be positive for economy growth rates of foreign trade (exports and imports). Djibouti has remained struggling to achieve a productivity growth rate over the last five years. So few studies have been done on Djibouti's export performance, but an important link to it is actual role in economic growth has not been explicitly focused. This thesis therefore explores the role of exports in economic development in Djibouti.

Djibouti, a Horn of Africa country with a population of 973,560 in 2019, the economy is heavily dependent on and benefits from its geostrategic position in East Africa, at the entrance to the Red Sea and Aden Gulf on the coast of the Indian Ocean, This place offers opportunities and threats for economic development and growth. Description and review of short and long term quantitative data to explain the impact of the export sector on Djibouti's economic development. The study proposes valuable approaches in several areas. Theoretically, this research helps to understand the impact on economic growth of international trade in developing countries. Practical implications, it’s

necessary to understand the role of international in economic growth. This study will contribute to the development and implementation by economic policy-makers and central bank practitioners in Djibouti of useful business management strategies for economic growth. Performing analysis work to provide information and more accurate follow-up to the circumstances Djibouti addresses as a foreign exchange will be an important activity. This research aims to benefit developing countries to get more detail about the effect of international trade on sustainable economic growth. This study aims to benefit to the literature for further researches on their relevant topic.

The following research questions are based on this research with the goal of examining short- and long-term quantitative data to demonstrate the role of exports in Djibouti's economic development.

1. What is the impact of the rate of exports on economic development in Djibouti?
2. How will foreign direct investments impact on real economic development in Djibouti?
3. How will the imports influence the economic growth of Djibouti?

The proposed research addressed four questions of research as stated above. All of the questions were quantitative. Therefore, the hypothesis become as follows.

H_1: Export has significant impact on economic growth

H_2: Gross capital formation has significant effect on economic growth

H_3: FDI has significant impact to the economic development

H_4: Import has significant effect to economic growth

The study used the time series of the results. This study will help further research on the role of foreign trade in the economic growth of Djibouti. Studying the relation between export and economic performance would be very important in Djibouti. Therefore, more research and further empirical findings may be needed for our findings by contributing to and updating economic development studies in Djibouti.

The study is divided into four chapters. The following has been formulated as the chapter plan. The first chapter is an introduction which consists of the background of the study, research question, problem statement and purpose of study. In chapter two, the literature review, using the relevant literature that shows how foreign trade is related to economic development. In chapter three, research methodology, which is combined

of the model specification and data source and techniques that is used to select the analysis data. Data analysis and the empirical results of international trade on economic growth in Djibouti. In the final chapter, conclusion, the major results of research objective and problem are underlined. Then, the methodological contributions and policy implications of this study are followed by directions for further researches and policy implications on Djibouti.

2. REVIEW OF LITERATURE

2.1 Introduction

This chapter presents a general literature and research on the role of international trade on economic development in Djibouti. This literature review summarizes a diverse spectrum of views about export, investment and economic growth. The chapter is thus structured into conceptual framework and empirical review. This chapter explores the key effects on economic development of Djibouti by foreign trade. Various research on the relationship between foreign trade and economic development in research has been conducted. Over recent years, there has been an increase in academic interest in international trade and economic development, especially in developing countries.

2.2 Conceptual Framework

Conceptual Framework is a set of principles, perceptions, aspirations, values, and hypotheses that help and guide the study which describes, whether graphically or narratively, the key factors, concepts or variables to be analyzed and the implied interaction between them. The conceptual model of the analysis, shown in Figure 1, Dependent variable is Growth Domestic Product, while independent variables are Export and Capital. The figure shows the effects of export and capital, which are directly related to GDP on the basis of the theoretical background of these two variables.

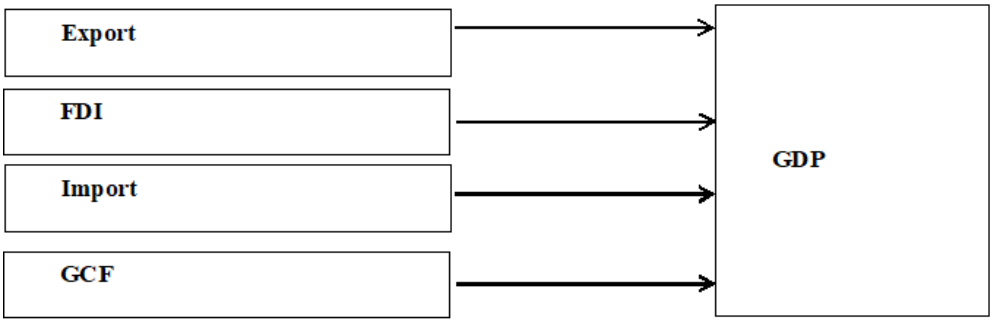


Figure 3. Conceptual Framework

The relationship between economic development and international trade appears to have strengthened over time. The benefits of capital flows for productivity through management techniques, financial sector and technology spread are important in many

countries where developed physical infrastructure, a strong business climate and open trade agreements have enabled the absorption of those flows.

2.3 Empirical Review

2.3.1 International Trade and Economic Growth

Numerous studies explored the connection between international trade and growth, Chinoda (2020) investigated by used granger causality tests by cointegration techniques to assess whether a long-term equilibrium relationship exists in Africa using a panel of 30 African countries for the period 2004–2017. Study results show unidirectional causality from economic growth to financial inclusion; from economic growth to African trade. Specifically, improving financial inclusion in the financial system facilitates the nexus of trade growth. The study recommended policymakers focus on growth-friendly policies to improve sustainable development driving trade.

Thikraiat and Shatha (2014) analyzed revealed that there is a causal correlation between export and productivity growth. Based on the outcome of causality checks, economic growth changes help to understand the export changes. The causal link between export and economic growth was checked by Granger causality. The findings show that uniform causalities exist between productivity growth and export in Jordan and the path of causality extends exclusively from economic growth to exports. In conclusion, this study supported Jordan's growth-driven exports. This means that efforts should be aimed at policies that improve economic growth, such as the industrialization and import substitution, in order to have a greater effect on exports.

Gokmenoglu, Amin, and Taspinar (2015) investigated foreign trade, financial progress and growth in Pakistan. Granger causality tests the direction of causality between variable. Both factors are found to be non-stationary and the study supports long-term relationships between foreign trade, financial development and GDP. The results indicate that financial development and international trade drive Pakistan's productivity growth. Lawal and Ezeuchenne (2017) analysed the effect of international trade on Nigeria's economic development, with the goal of identifying key factors affecting economic growth through trade and making policy suggestions. The OLS was to check the significant relationship between GDP as dependent variable and government

spending, FDI, exchange rate and interest rate. The result shows that interest rate, government spending, export and import are all positive, while foreign direct investment and exchange rate are negative to Nigerian Economy's growth cycle.

Osei-Assibey and Dikgang (2020) revisited the relationship between trade and growth in South Africa. Economists have focused more on export growth strategies to boost growth. Recent experience in some developing economies, however, suggests that imports can positively impact economic growth. The Empirical evidence of the finding that managing exogenous shocks, including global economic sentiment and exchange rate volatility important for robust long-term economic and import growth. The short-run dynamics further underlines imports' importance to production. The consequences of our observations and policies are discussed.

Jenkins and Katircioglu (2010) researched by uses the boundary test for co-integration and Granger causality tests to examine the Cyprus economy's long-run equilibrium relationship and causality direction between real income production, financial development and foreign trade. Study results show that financial development is co-integrated as measured by large money (M2), real income growth and foreign trade; thus, a long-run equilibrium relationship can be inferred among these three variables. At the other hand, Granger causality test findings indicate that growth in real income in Cyprus increases growth in foreign trade and growth in money supply. Moreover, growth of imports also promotes growth in Cyprus exports while the findings shows the importance of capital inflows in Cyprus, which plays a major role in financing investments mainly in tourism. Finally, the results of this analysis show that this research does not support the supply-leading, export-led growth and import-led growth hypotheses, while the demand-following hypothesis can be justified for the Cypriot economy when considering M2 money supply scale.

Ehikioya and Mohammed (2016) investigate the effect of foreign trade on Nigeria's economic development. The study analyses the impact of international trade variables (economy openness, export, import, exchange rate and FDI) on Nigeria's economic growth using time series data from 1985 to 2013. The paper indicates two co-integrating equations that create long-term relationships between variables. The standard Least Square statistical procedure was used to determine the degree of effect of the variables

on each other. The results show that export, foreign direct investment and economic openness also have a direct and important effect on Nigeria's economic growth and exchange rate has a direct but negligible effect on the nation economy, while import volumes have an inverse and negligible impact on Nigeria's economy. The study concludes that international trade continue to boost and maintain the nation's economic performance and stabilize country exchange with other world nations. Among others, the study recommended that government ensure that appropriate macroeconomic policies opening up the economy are placed in place to promote foreign direct investment inflows and extend Nigeria's export of goods and services to the developed international market, given that exports are drivers of economic growth. De Matteis (2004) focused on one of the core aspects of the new globalization cycle, namely, international trade liberalization aimed at maximizing the beneficial impact that an increase of exports can have on economic growth.

Mua'zu Muhammad and Aliyu (2019) examine the effect of foreign trade on economic development in selected sub-Saharan African countries from 2010 to 2017. Fixed Effect, Pooled Regression and Random Effect Analysis and Estimated Generalized Least Square Regression Analysis were used for data analysis. The findings of the research shows that CPI and trade balance are positive but not significant in OLS, Money supply is negative significant under both pooled regression, but positively and negative. Najabat and Li (2017) noted that today globalization enhances regional economic development and interdependence of global economy by moving across borders, capital flows, services, goods and emerging technologies.

Foreign trade and FDI are the engine of global development in developing countries. Foreign direct investment stimulates developing countries ' economic growth through technology transfer, capital formation, job creation and domestic competition, international trade relationship, foreign direct investment, and economic growth. The research uses time-series data from 1991 to 2015 to analyse the relationship between variables. Study results clearly show that in Pakistan's global context there is a positive relationship between foreign trade, FDI and economic development.

Yennu (2018) examine Ghana's international trade and economic growth comprehensively. The paper listed some of Ghana's fundamental benefits from foreign

trade, such as faster GDP, enhancing product quality, reduced poverty, and promoting good governance. The paper also described some of Ghana's internal and external obstacles to foreign trade or globalization, such as lack of capacity, land acquisition problems and trade-related infrastructure, poor regulatory procedures as well as tariffs on agricultural products, Western countries' reluctance to abolish subsidies, administration and foreign exchange problems.

Tah, Czerniak, Levine, Wiggin and Osondu (2019) explores international trade effects on South African economy. The study uses cointegration test and error-correction model. Empirical evidence shows that international trade is a significant growth catalyst in both the short and long run. Evidence also shows that physical and human capital are important long-run growth catalysts. Accordingly, South Africa should have policies encouraging international trade to boost both short and long-term growth. Policies to improve South Africa's education system and physical infrastructure will continue for a long time to realize their anticipated economic benefits.

Abbas (2012) this research explores the causal relationship between export and GDP between 1975 and 2010. The goal of this study is to test the affectivity of Pakistan's 1990s export promotion policy. Granger Causality and Johansen Co-integration test were used to determine short and long-term causality. The result of cointegration shows that there is a positive co-integration equation. The outcome of the Causality test shows that GDP exports have a short and long-term causality. The result suggests that short- and long-term production growth alone contributes to export growth. The government will seek to develop a side of production that improves trade and the economy in the long term.

Munaand and Norma (2019) examined Malaysia's export growth and GDP by using error correction and co-integration models observed. The purpose of this article was to diagnose export-economic growth in the economy from 1960 to 2005.A five variable model was defined and estimated in combination with production functions and international development theories through error correction and co-integration model. Such variables are therefore related to the long-term achievement of their constant state equilibrium. The paper reported, from the study estimate of the model, that the export-economic growth in the Malaysian economy is positively related to 5 percent in the

long- and the short term. The study also suggested that the effect of capital on short- and long-term economic growth alone has been positive. Negative economic growth ties for imports have been confirmed.

Gyimah-Brempong (2019) studied in Sub-Saharan Africa on export volatility and economic development. The study examined the correlation between GDP and export volatility between 1960 and 1986 with data from 34 countries in Sub-Sahara Africa and an equation of neoclassical growth. The test method included estimating the neoclassical growth equation and export growth and volatility as additional explicative variables. Export volatility has a negative impact on gross domestic product selected sub-Sahara African countries. This negative impact is however not dependent on the export instability metrics used and does not rely on the overall GNP or GNP net export rate increase. Using a neoclassic model of growth, it is possible to isolate the effect of export fluctuations on growth rates after certain variables. The paper explored perhaps more specifically the correlation of export volatility with economic growth for sub-Saharan Africa, which has previously been ignored in publications. The results of this article advanced policy suggestions for sub-Saharan African states and other LDCs, especially in developing and implementing liberal policies that are able to combat the effects of fluctuation. Although the policy recommendations of cross-border studies are generally problematic, it is hoped that this article would explain the debate between export volatility and economic growth in the LDCs.

González-pernía and Peña-legazkue (2019) investigated export oriented entrepreneurship and national economic development have been observed. Data from the Spanish provinces between 2003 and 2013 were used in this study to research the impact of export-oriented entrepreneurs on regional economic development. The study based on economic development, knowledge spill over and theories of global enterprise notes that an export-oriented enterprise is essential for sub-national regions' economic growth. The study showed that Spain's entrepreneurship activity in high-level regions has higher growth rates. In addition, export-oriented entrepreneurship in regions with a higher adult ratio indicates higher growth rates for GDP. This finding also looks to be greater, as the export-oriented entrepreneurship has risen to a threshold.

Gnangnon (2018) observed multilateral trade liberalization and economic development investigated. In recent years, there has been a strong public reaction to trade worldwide. It could contribute to the strong demand for trade protectionism and a reduction in multilateral cooperation and a postponement of further liberalization of domestic and foreign trade. This research also presented a range of unbalanced data panels across 150 countries for the period from 1995 to 2015, in order to determine the effect on the pace of economic growth of multilateral trade liberalization. The results indicate that multilateral trade liberalization has a clear positive impact both in whole samples and in sub-samples on economic development.

Wu, Pu, Yao, Jiang and Du (2017) examined multiple export growth margins of china: a two mode dynamic analysis network. This paper scattered china's solid, wide-range export growth on the basis of a complex double-fashioned consumer product-based network using China's six-digit trade classification and coding system details from the 1999–2013 United Nations Trade Database. First of all, the main driving force of Chinese export growth was the concentrated margin and large-margin participation was small. Second, high market sales and profit focused mainly on developed and neighboring countries, but demand rates were more widely distributed in developing and Chinese neighborhood countries. Finally, the 'One Belt, One Road' countries have increased China's contribution and increased export growth. In view of the conclusions, the study suggested a set of policy guidelines.

Fosu (1990) observed Exports and economic growth observed: the African scenario. Previous studies have shown that export growth influences the rate of economic growth in LDCs. This paper examined how this hypothesis relates to African countries as a subgroup, particularly since the content and transmission mechanisms of imports that vary from African to other LDCs. The GDP growth of 28 LDCs in Africa is evaluated with an approximate cumulative cross-sectional time series, of 1960 and 1980 the average GDP growth rate. Export growth is seen to have a significant and positive effect on productivity growth based on the normal increased specification of manufacturing functions, which includes labor, investment creation and exports.

Mania and Rieber (2019) addressed diversification of local exports and sustainable economic development in developing countries. The recent economic literature has

created a consensus on the benefits of an export diversification economic development strategy. The purpose of this paper was to analyze the relationship by challenging the viability of such a strategy. The study compared the re-composition of production capacity following the diversification of exports to developments of countries' external constraints on the basis of a model of restricted growth on balance of payments. The lessons of the model will evaluate and compare the export diversification in 3 samples of Latin America, Sub-Saharan Africa and Asia, developed nations, based on econometric panel estimates from 1995 to 2015.

Olayungbo (2019) observed impact of oil exportation in Nigeria on economic growth: time dependent resource curse research the study examined the effects of oil revenues on economic development by using in Nigeria to test the hypothesis of the resource flow. The tests gave new insights into Nigeria's oil curse. Oil exports are therefore shown to contribute positively and substantially to sustainable productivity growth throughout the entire study period, using the annual data from 1970 to 2015. The economies of Nigeria are empirically viewed as resource-dependent. In addition, it was found that while enormous oil revenues were produced over the course of a sample period, unfavorable accessibility and poor education quality were possible channels for slow growth in Nigeria. For growth in the sampling country the channeling of revenues from oil exports with more human and industrial fields is significant. Finally, guidelines on sustainable development in Nigeria for the formation, It is suggested that sound education and trade policy should be enforced and engaged.

Ouedraogo and Sandrine (2018) investigated Pro-cyclical Sub-Saharan African countries' monetary strategy, the export concentration position. Sub-Saharan African exports tend to be dominated by the main commodities, and their production and export base must be diversified urgently. In this report, the impact on fiscal pro-cyclicality in sub-Saharan Africa has been observed of the concentration of exports. Import concentration restricts government revenue sources and restricts fiscal maneuverability. The paper showed that the export concentration increased the degree of pro-cyclicality in Fiscal policy, by sampling 40 countries in the 1995-2015 period, and informed by the actions of public spending. The results indicate the significance of export diversification to increase sources of government revenue and pave the way for counter-cyclical public investment that can promote sustainable growth.

Fatemah and Qayyuma (2018) modeling the effect of exports on Pakistan's economic development. This study was an empirical review of Pakistan's (1971-2016) the growth hypothesis based on export uses a co-integration analysis and a functional error correction process. The document shows that exports are significant factors in the economic development of Pakistan. The study also showed that exports are important for Pakistan's long-term and short-term economic growth along with labor, cost and domestic credit in the private sector.

Hamdan (2016) the effects of imports and export were examined in Arab countries on economic development between 1995 and 2013, this study focused on the impact on economic growth in Arab countries of exports and imports. The research has used data panel approaches in 17 countries: Egypt, Jordan, Morocco, Djibouti, Yemen, Lebanon, Mauritania a Bahrain, Tunisia, United Arab Emirates, Algeria and Oman. The work employed the methodology of the E Views Method to table tests. The study found that between 1995 and 2013, the impacts of exports and imports had a positive impact on the economic development of Arab countries. The study proposed using a substantial measure to quantify the output and performance of the work item in order to achieve a certain level of production in the production process. Technology imports need to be expanded so as to increase labor productivity, so that economic development can be encouraged directly and living standards in Arab countries increased.

2.3.2 FDI and Economic Growth

Sunde (2017) international direct investment and economic development investigated: ADRL and causality research in South Africa. The paper examined South African FDI and exports' empirical production. The study used the so-called ARDL testing process, the self-regressive distributed delay model, to incorporate foreign direct investment, productivity and exports in a sustainable way. The error correction model was used to evaluate short-term dynamics and to test the VECM Granger causation process. Research has shown that economic growth, FDI and exports are co-integrated. This work has shown that both FDI and exports, according to other reports, promote economic development. VECM Granger investigated the linkages between economic growth and FDI foreign direct investment for economic development, the unidirectional explanation of FDI exports and the bidirectional causality between economic growth and exports. The paper supports South Africa's FDI-led development hypothesis. The

government needs to encourage policy-oriented foreign direct investment, draw investors, create a good macro-economic environment and use loose monetary policies to promote economic growth.

Odhiambo and Asongu (2019) investigated Sub-Saharan Africa FDI, Information Technologies and Economic development Dynamics. The study examined how ICT modulates the impact of FDI on the dynamics of economic growth for the period 1980-2014 in 25 countries in sub-Saharan Africa. Gross Domestic Product (GDP), GDP, and GDP per capita are indicators of economic growth. ICT is calculated by smartphone and internet penetration. The empirical result is based on the generalized method. The study found that both internet penetration and mobile telephone penetration have largely modulated FDI to have positive net effects on all three dimensions of economic development. In addition, the positive net impacts of internet-centric regressions on cell phone specifications are much more apparent. Taking the adverse interactive implications into account, net effects were decayed to provide rates to complement ICT policy parameters with other policy measures to produce positive effects on economic development dimensions. Practical and theoretical implications will be discussed.

Ko, Evans, Opoku and Yan (2019) African energy demand-FDI nexus exploration: Do FDIs cause dichotomous paths? This paper examined the connection between energy demand and FDIs in Africa, using simultaneous common moment's estimator and panel data collected between 2000 and 2014 by 27 countries in Africa. In particular, this study assumed a random non-linear relationship between energy demand and FDI to be heterogeneous across cross sections and over time, including efficiency of technology absorption, development rate and stage, and cost adaptation. Specific experimental approaches, such as adjusting model structure, using different sets of samples and applying different estimators to different hypotheses, have verified the strength of the hypothesized relationship. The results showed that FDI had a significant concave impact on energy consumption. This suggests that FDI-related experiences with learning and imitation lead to dichotomous paths in achieving FDI energy-saving advantages.

Muhammad and Khan (2019) examined The aim of this paper was to respond to factors that will stimulate Asian countries' economic development, with a focus on the often abandoned bilateral FDI, power consumption, and a capital role in the growth of the

economy. The study included the generalized timing method, OLS regression, fixed effects and random effect estimators using transnational data for the period 2001-2012. For this analysis 34 host countries in Asia and 115 source countries were used. Empirical findings have shown that energy usage, FDI inflows and FDI outflows, CO2 emissions, and resources play a key role in economic growth in Asia. It proposed better policies for electricity use, renewable energy usage and the use of suitable and new energy technologies in the Asian countries, and attracted foreign investors to move into their countries and expand in other economies as economic growth rises as a result, both of FDI influxes and outflows, electricity consumption, and capital inflows increase.

Bakari and Mohamed Mabroukib (2018) six connections between FDI, exports, domestic investment, imports and labor and economic growth have been investigated: the Nigeria New Empirical and Policy Review. The aim of these studies was a search for six relations, using a vector correction model for period 19 exports, FDI, imports, labor, domestic investment and development in Nigeria. Empirical findings showed that the six variables had no long-term relationship. Import causes economic development and domestic investment in the short term; exports and FDI create jobs; and FDI creates labor. Such studies highlight Nigeria's precarious condition, which calls for urgent economic reforms.

FDI inflows and their effects on economic growth are not a new phenomenon, this relationship has been discussed extensively over the past two decades. Balasubramanyam, Salisu, and Sapsford (1996) observed it contributes therefore to economic growth by facilitating technology transfers and improving marginal capital productivity through the externalities it can produce. The theoretical basis for FDI and growth empirical work comes either from the neoclassical model of growth or from endogenous models of development. FDI improves productivity and/or output in neoclassical growth models, Transitional growth increases, leading to long-term impacts and medium-term growth. Long-term growth is dictated by technological innovation and provides a mechanism by which FDI can continuously increase host economy development by transferring technology, distribution and spill-off effects. There is somewhat inconclusive evidence of the causal link between FDI and economic growth in current empirical literature. Therefore, the study examines certain documents which

investigate the causal relationship among FDI and growth and mentions various drawbacks of these traditional approaches.

Harrison, 1994 studied on Morocco and Venezuela and showed that foreign-equity companies are more productive than domestic companies, and have increased productivity growth. However, she found that domestic competitive competitiveness was harmed in Venezuela because the intervention of multinational firms reduced their market share. Balasubramanyam et al (1996) applied cross-sectional data for the period 1970-85 in 46 countries, examining the relationships in the sense of new growth theory in various trade policy regimes between trade strategy, FDI and economic growth in the developing world. They tested Jagdish Bhagwati's hypothesis that the increasing effects of FDI in countries pursuing an export promotion policy are stronger than following an import substitution policy. The results suggest that FDI has a positive effect on economic growth in those countries that have followed inward development strategies. The paper divides the countries in the sample into EP and IS categorizations based on structural stability analysis for import shares. The classification indicates that countries with relatively high GDP imports are likely to be EP countries because a high import protection rate means that import protection rates are relatively low. This paper seemed interesting because it was decomposed into EP and IS categories so there was a need for consensus in order to assess its relationship.

Borensztein, Gregorio and Lee (1998) developed an endogenous growth model, in which FDI induces long-term growth because of its effect on the technological rate spread from the developed world in the host nation. The study used seemingly unrelated SUR regression in 69 developed countries with instrumental variable estimates for panel data analyses over two separate periods of time 1970-79 and 1980-89 with contingent GDP per capita growth rates for each decade. The study concluded that FDI alone has a positive yet marginal effect on economic development. Only if a country has a minimum human capital level and therefore contributes more to growth than domestic investment can FDI become a key determinant of economic development. In addition, the authors state that FDI raises overall economic expenditure by more than one a year. This paper used the FDI/GDP ratio to calculate the FDI influx in each region. Ram, Zhang, Ram and Zhang (2002) Indicated that calculating FDI/GDP ratio is the lowest in LDCs, but real net FDI (GFDI) average annual growth rate is better for developing

countries. In addition, no complementarity was found between FDI and the host country's human capital.

Luiz and Mello (1999) the FDI has assessed its effect on accumulation of capital, output and overall productivity factor growth using the 1970-1999 sampling time series and panel data of the OECD and other non-OECD countries. Nevertheless, he concluded that FDI is small, and the degree of complementarity and replacement between FDI and domestic investment depends on the increase in FDI growth. Nair-Reichert and Weinhold (2001) between 1971 and 1995 a panel of 24 developing countries was formed to examine the complex economic growth relationship of FDI with fixed, random effect models. The contemporary correlation of FDI and GDP growth was investigated and Granger causality between FDI and growth was confirmed. Their findings showed that the causal relationship between FDI and economic growth in developing countries is highly heterogeneous. The report shows an average causal link between FDI and development, and it indicates that FDI is more effective in opener economies, but the relationship across countries is highly heterogeneous. The findings indicated that it is essential for FDI to influence economic growth beyond domestic investment as well as an open economy.

To identify the importance of country-specific characteristics on FDI led growth, Zhang (2001) empirical study has been carried out using data for 11 Eastern Asian and Latin American economies. He found that the relationship between FDI and economic development is positive, concluding that the strength of this relationship depended in particular on host country conditions for improving education and hence the state of human resources, and preserving macroeconomic stability and implementing a liberalized trade regime. Bengoa and Sanchez-robles (2003) analysed and reached the same conclusion panel data from 18 Latin American countries. Although the papers focus on specific country conditions, they are still limited to a small sample size. Alfaro, Chanda and Kalemli-ozcan (2004) discussed that the advantages of FDI differ across sectors and negative incidences of FDI on the primary sector and that their effect on manufacturing and services respectively is positive and ambiguous. As a result, FDI targeting the primary sector, particularly in oil exported countries, did not view the host country as being human capital thresholds or even politically stable as long as more

profit is repatriated by multinational companies, which is occurring in many developing countries.

Examining the relationships between foreign direct investments, agriculture and economy growth in Tanzania. Epaphra and Mwakalasya (2017) also showed a decreasing agricultural contribution to real GDP growth, despite having employed more than 70% of the total labor force and time series data between 1990 and 2015 proving the importance of the relationship between FDI inflows. The relationship between agricultural added value and economic growth is empirically verified. Variables are known as economic factors, such as gross fixed capital spending, inflation rate, trade liberalization, real exchange rates and populations are called variable controls. Empirical results indicate that FDI has little impact on value-added agriculture. However, there is a positive relationship between FDI and real GDP growth. The relation between value-added farming and real economic growth is also shown to be negative and strong. The positive effect of FDI on economic growth and the negative correlation among agriculture and growth of the economy indicate that Tanzania's recent increase is a function of a rise in productivity in the non-agricultural sector.

Onakoya (2012) examined the possible effect and relationship between FDI and economic development in Nigeria. The data used for this analysis were taken from the annual accounts and statistical bulletin. The scope spans 20 years (1987 – 2006) covering both years. In the analysis of the results, Ordinary Least Square (OLS) regression analysis was used. Jilenga, Xu and Gondje-Dacka (2016) examined the effect of foreign direct investment on Tanzania's economic growth and dynamic GDP, FDI, free trade, inflation and government spending on Tanzania were analysed over the period 1975-2013. In Tanzania there is an influx of FDIs, but their contribution to GDP growth and human development is marginal, and FDI's attractiveness such as reductions in taxes is a hot debate.

The analysis also revealed that growth is coupled with the remaining variables (i.e. there is a long-term relation between growth and the remaining variables). The statistically significant findings of ARDL indicate that the GDP growth rate lagged once. But, the other variables do not seem to be statistically significant results show the growth and transparency in trade Also, Granger does not seem to be a variable, causing public

expenditure. We therefore accept the null hypothesis and conclude that there is nothing causal. As a policy choice, the Tanzanian government should pursue macro-economic policies that favor and encourage FDIs, be more open to foreign markets and also seek to curb inflation in order to support economic growth and development.

Khaliq and Noy (2007) studied the effects of the FDI on economic growth in Indonesia was carried out in the period 1997-2006. On the whole, FDI has a positive effect on economic development. However, the value of FDI is no longer obvious when taking account of the different average growth output across sectors. The basis of our empirical estimates is the enhanced Cobb-Douglas development framework, which has generally been modified as a form of equation, however, this had a positive impact on inland FDI economic growth, with a significant number of dissident opinions. They also found that FDI tends to have a positive effect on overall economic development. At scrotal point, however, the economic growth effects of FDI differ from sector to sector and no aggregate effects are observed.

Jugurnath, Chuckun and Fauzel (2016) studied FDI and economic growth in Sub-Saharan Africa in 2008-2014, the techniques for static panel regression and the estimates of the dynamic panel assessed the root cause of the repressor, namely FDI, trade openness, domestic investment, size of the labor force and the effect of the 2009 European debt crisis on dependent variable and the GDP per person. FDI's contribution has been found to be comparatively higher than domestic investment results; the linear economy model used for this study emphasizes FDI's economic significance and Provides new evidence for the African economies case.

Brenner (2014) studied the effect on national economic growth of foreign direct investments (FDI) through GMM panel regressions and identified impacts on productivity development, capital and labor inputs as well as innovation activities. Moreover, less and more developing countries are being analysed separately along with the periods 1974-1991 and 1992-2009. FDI's effects on production capacity for the first time in more developed countries, while impacts on innovation activities for the medium-developed countries in the latter era are established. GMM regressions are very negative in less developed countries for four different dependent variables and six different sub-sets of observations. The findings show clearly that growth is negatively

dependent on the degree of growth already achieved and that economic growth is positively dependent on rises in capital production.

Kunle, S.O. and Oluwafolakemi (2014) investigated effect on Nigeria's economic growth of foreign direct investment during the period 1999-2013 has been examined. The main type of data used in this analysis is secondary; it comes from various publications by the Central Bank of Nigeria, such as: the Statistical Summary, annual reports and accounting. The Regression analysis of the ordinary least square (OLS) is the method used in this study to measure the relationship between foreign direct investment and its effect on economic development. The results show that growth is related to direct foreign investment inflows, which is statistically important at 5 per cent levels, suggesting that good economic output is a positive signal for FDI inflows. This means that FDI is a driving force for economic growth. In order to encourage investors, this paper suggested that the government liberalise Nigeria's foreign market, thus removing any trade barriers such as unfair tariffs, import and export duties and other charges.

Choe (2003) during 1971–95 the relationships between FDI and economic growth and domestic investment growth (GDI) were examined with larger samples in 80 countries by using the VAR model panel. The findings show that FDI Granger is responsible for economic growth and vice versa; the effects on FDI growth are more obvious than on FDI growth. Their results show that strong positive correlations among economic growth and inflows of FDI or GDI have generally failed to lead to rapid economic growth due to high flows of FDI or GDI.

The author found that there were more effects from growth to FDI that would lead to more FDI in countries with prosperous economic development. To look at how flows of FDI are driven by host economic growth, the two types of FDI are not distinguished by their motives. Market-seeking FDIs are driven by a multinational in various countries by market access to the host countries through the efficient use of resources and by economies of scale or export-oriented FDIs motivated by price differentials, such as low cost labor through host countries, as well as by human capital and infrastructure conditions. The unidirectional result of growth to FDI based on the market that seeks FDI motives may be true, although the paper lacks theoretical basis. To overcome the

limitation, Li and Liu (2005) examined whether FDI economic development was based in a panel of 84 countries with single equation techniques and a simultaneous method of equation to detect the endogenous issue. The paper merged and used the UN and World Bank data world investment directories.

The study also used schooling, technology gap and infrastructure as an interaction concept and found that FDI promotes economic development not directly by itself, but indirectly through its terms. Johnson (2006) using panel and cross-sectional data from 90 countries, FDI concluded that economic growth in developing countries is growing because of technology spill overs, not in developed economies. The study also explored the impact of FDI in primary production and service industries on economic development. Ekanayake and Ledgerwood (2010) the effects of FDI on economic development are positive as expected by the panel data on the 85 developing countries covering Asia, Africa, Latin America and the Caribbean during the 1980-2007 period.

Starting from Harrison (1994) FDI's effect on economic growth or their relationship has been addressed empirically and scientifically, but no agreement is reached on its relationship, due to the contrary data set and calculation used in empirical research and the numerous theoretical frameworks used in literature. The variations in the findings analyzed indicate the significance of different regional studies.To understand the role of absorbent capital in an intuitive manner on the basis of previous articles, the next section will concentrate on FDI absorption capacity and the selection of the financial functioning, the relationship between financial markets and economic growth and how functioning financial intermediation is key to saving and investing and eventual intermediation.

2.3.3 Gross Capital Formation and Economic Growth

Chacko, Gebre, Chacko and Gebre (2019) exposed diaspora leveraging for development: Ethiopian lessons. The study used investment data and fundamental details of in-depth interviews from 1994-2008 to key informants in the Ethiopian government and 15 businessmen who returned to Ethiopia for business projects to assess the success of Ethiopia in attracting investment from the diaspora. This paper found that investments in Diasporas were highly concentrated geographically and sectoral. Access to property, access to finance, lack of consistent information, slow

contract execution, and frequent changes in government and priority policies were important challenges faced by diaspora investors. This study suggested the development of law enforcement policies and practices to make investment more attractive in Ethiopia. Before enforcing its policies, the government consider long-term sustainability of natural resource clusters in the country, promotes diversification and better use and develops policies that promote the dissemination of experts and professionals of expatriates' expertise and skills.

Ullah (2018) the effect on Pakistan's economic growth of trade openness, investment and human resources has been observed. Openness to trade, innovation and human resources are key factors and directly affect the country's economic growth and development. This study examined and evaluated key factors for the effect on economic growth of Pakistan of trade openness, jobs and human capital. These factors have a significant influence and play an important role in the country's growth and development.

Phetsavong and Ichihashi (2012) researched the effect on economic growth in Asian developing countries of public and private investments. Investment in panel reviews between 1984 and 2009 of 15 developed countries. The results indicate that careful consideration should be taken of the negative effects on FDI and private domestic investments which would reduce real GDP growth. considered the appropriate public expenditure level as set out in the objectives, There was some important evidence from the study that also appeared in Le and Suruga (2005) research the potential for public spending to harm economic activity by raising appropriate levels (8-9%). The authors choose the minimum with the statistically significant coefficient in order to pick the optimal amount of public spending. Therefore, the empirical analysis showed that government GDP spending is below 4.9 percentage points to prevent detrimental effects on FDI and private domestic investments.

Ghani and Din (2006) the public investment impact on Pakistan's economic growth has been investigated. The role of public investment in the process of economic growth using the vector auto-regressive approach in the Pakistani economy. In addition to public spending on the basis of theoretical considerations, Private expenditure and public consumption also form part of the model. The findings show that growth is

primarily driven by private investment and that public spending and public consumption have no significant impact on economic development. Second, it removes any limitations of the VAR variables a priori and considers the possible nature of investment expenditure. Firstly, the VAR allows analyses of both long and short-term equilibrium and dynamics in a single process of cointegration and error correction. The results suggest that growth cannot be isolated from public expenditure and consumption, in particular by private investment and economic development. It investigates the relationship among public spending and economic development in accordance with the VAR approach.

The VAR is preferred in this study for at least two reasons. Firstly, it removes a priori constraint on the VAR variables and acknowledges the future-oriented nature of investment spending. Secondly, the VAR permits the analysis of long-term equilibrium and short-term dynamics in a common system for co-integration and correction of error. The findings suggest that growth is mainly driven by private investment and a significant reduction in the effect on public and public demand economic growth is not possible.

In the Libyan economy, the impact of domestic investment as a growth factor during the period 1962-2008 was examined (Tawiri, 2010). In order to analyse the relationship of real per capita GDP with its major factors in the Cobb-Douglas process, the Cobb-Douglas model was used. The properties of model variables time series were evaluated separately through several tests to determine the integration level of the individual time series. The results showed how important the effect of investment on per capita GDP was, using the Johansen method, and the test results revealed balance between per capita GDP and its long- and short-term determinants. The research concluded that GDP per capita elasticity to shifts in domestic expenditure is greater than the elasticity of labor that appeared short- and long-term inelastic.

A model of econometrics is used to check the study's basic hypotheses. With regard to the study model, economic theory assumes that economic growth depends on certain determinants across growth theories. This research has followed the OLS method to determine whether the relationship between the variables used is present or not, and to decide whether or not this relation is linear. This approach is used to estimate the

economic relationship since, based on the theoretical structure of this approach, it provides the best linear unbiased estimator to estimate the economic growth equation for the independent variables described above.

To determine the effect of public investment on private investment, (Ahmad & Ahmed, 2019) examined the Gross Domestic Product and Energy Sources: international proof. The paper sets out the relation between various forms of energy use and conventional inputs, i.e. work and capital with real gross domestic product as the basis for production functions. Data from 40 countries were used for the Translog production feature model from 1990 to 2011. A feasible less square generalized approach to fix the problem of heteroskedasticity and autocorrelation. The analysis shows that, other than the coal variable, all the independent variables used in research have a significant effect on GDP. The analysis shows significant impacts from different countries, incomes and climate zones.

Chang (2010) the approach to error threshold correction has observed FDI inflows, domestic capital and the forecast for economic development. This paper explores the relationships between FDI, domestic capital and economic development in Taiwan using the threshold error correction method. The findings show a long-term, stable correlation between the three variables and asymmetric shifts. Three short-term relationships can be identified: (1) promoting growth can promote domestic capital accumulation; (2) domestic FDI inflows can encourage investment rather than capital formation; and (3) FDI impacts directly on development as domestic investments increase. The study investigated whether external debt drives investment and economic development in low-income countries. The study used data from 2000~2017 to carry out sample analysis using the 23 countries and a split sample analysis, in which less indebted countries (12) were distinguished from more indebted countries (11). The empirical results from the apparently unrelated regression model indicate that the overall sample as well as sub-samples indicate that foreign debt decreases investment and economic development significantly. In addition, the paper found that free trade contributed to per capita production positively and significantly. This positive correlation is verified for both the overall sample and the sample section. Findings also indicate a strong and important effect on investment in the degree of increase in the overall sample and less indebted countries.

Bint-e-Ajaz and Ellahi (2018) examined PPI and economic growth in Pakistan: An empirical study. The analysis aimed at examining the interrelationship of public and private investments, and both short-term GDP growth in the Pakistan economy. The paper tried to identify variable determinants using traditional econometric techniques. The causality between GDP and investment is two-way. GDP development has a strong supportive public and private partnership. GDP, inflation and exchange rates influenced public spending. Similarly, in addition to the amount of GDP, the lending rate is determined by inflation and exchange rates.

The literature review covers empirical results about the relationships between international trade and economic development. In this chapter, the concept of international trade in developing economies was discussed. The discussion about influences in economic growth can be considered as critical to the consideration of export and import. As discussed earlier in this chapter, foreign direct investment, as well as researchers, are concerned about how FDI stimuli and domestic investment influences are transformed into responses within the mind of economic development. These recent studies have provided the different effects of international trade on the economic growth of the countries. So this confirms is still an open question in the literature. Therefore, this study investigates effect international trade on economic in Djibouti.

Table 1: Literature Review

Author(s)	Country	Time Frame	Methodology	Variables	Findings
Fosu (1990)	28 African LDCs	1960 -1970 & 1976-1980.	Pooled, cross-sectional time-series	Q, K, L & X	XG + & significant .
Harrison (1994)	4 developing countries	Case study	Literature review	FDI, GCF & GDP	FDI improved GDP
Balasubramanyam et al. (1996)	46 Developing countries	1970-1985	OLS	Y, L, K, F, & X	FDI + link increase GDP
Borensztein, Gregorio and Lee (1998)	69 developing countries	1970-1989	SUR with IV	FDI/GDP, FDI, HC & GDP	FDI + HC & GDP
Luiz and Mello (1999)	33 OECE & Non-OECD countries	1970-1990	VAR	GDP, GCF& FDI	FDI enhancing GDP and GCF
Nair-Reichert and Weinhold (2001)	24 developing countries	1971 and 1995	OLS	FDI, GDP, INF, INTER, HC & OPEN	FDI's dynamic relation to economic growth
Zhang (2001)	11 Eastern Asian and Latin American countries.	1987- 1997	ARDL	GDP & FDI	Positive relationship between FDI & GDP
Zhang (2002)	140 countries	1985-1994	OLS	GRY,GPOP, FDI,	FDI + link increase

				LRYPC, & ED	GDP
Bengoa and Sanchez (2003)	18 Latin American countries	1970-1999	OLS	GDP, FDI & HC	FDI +
Choe (2003)	80 countries	1971–95	Panel VAR model.	GL, Stability ofthe macro,PGDPG, FDIY, INVY &O	FDI +
Alfaro, Chanda and Kalemli-ozcan (2004)	49 Developing countries	1975-1995	OLS	TOT, BANKCR, LLY, PRIVCR ,SCAPT & SVALT	FDI + GDP&BANKCR
De Matteis (2004)	82 countries	1960–2002	OLS	EXP, GDP, L & X	X promoting GDP
Li & Liu (2005)	84 Countries	1970-99	OLS	GDP, P, CG, EDU, FDI, TL & TG	FDI does not affect GDP
Le and Suruga (2005)	105 developing and developed countries	1970-2001	OLS	FDI, GDP, PC, DM & PI	FDI, PC, PI promoting GDP
Johnson (2006)	90 countries	1980 – 2002	OLS	GDP, DOMINV, FDI &X	FDI + GDP&DOMINV
Ghani and	Pakistan	1973-2004	VAR	Y, IG, CG &	GDP is

Din (2006)				IP	largely driven by P
Khaliq and Noy (2007)	Indonesia	1971-2006	OLS	FDI, D & GDP	FDI has a positive impact on GDP
Shu- Chen (2010)	Taiwan	1981-2008	Threshold Error-Correction Model	GDP, FDI & DC	DC+FDI+
Jenkins and Katircioglu (2010)	Cyprus	1960-2005	Granger	Y, M2, DC, X & M	X + to GDP
Ekanayake and Ledgerwood (2010)	85 developing countries	1980-2007	OLS	GGDP, INV, FDI, EDU & INF	FDI improves, educational institution GDP
Tawiri (2010)	Libya	1962-2008	Johansen Approach	Y, I , C & L	C has changes in GDP than L
Abbas (2012)	Pakistan	1975- 2010	Granger Causality	GDP and X	X enhancing GDP
Waseem and Tanvir (2013)	40 countries	1990-2011	Translog model	GDP, L, K, G, O, E, C	FDI + & I+
Kunle, S.O. and	Nigeria	1999-2013	Ordinary least square (OLS)	FDI, GDP, EXP & EXR	FDI enhancing

Oluwafolakemi (2014)					GDP
Brenner (2014)	112 less developed and more developed countries	1974-2009	GMM panel regressions	FDI, H, P & GDP	FDI has positive effect on GDP
Thikraiat and Shatha (2014)	Jordan	2000- 2012	Granger causality	X & GDP	X has positive effect on GDP
Gokmenoglu, Amin and Taspinar (2015)	Pakistan	1967-2013	Granger causality	(GDP), (X), (I), (M1), (M2), and (M3)	Positive relationship between X & GDP
Ehikioya and Mohammed (2016)	Nigeria	1985-2013	OLS	O, X, M, ER & FDI	Positive relationship between Openness & GDP
Jugurnath, Chuckun and Fauzel (2016)	32 Sub-Saharan Africa	2008-2014	Panel regression techniques and dynamic panel estimates	GDPPC, FDI, OPNS, GCF & POP	Positive relationship between FDI & GDP
Jilenga, Xu and Gondje-Dacka (2016)	Tanzania	1971-2011	ARDL	FDI, RGDP, PD & INF	There is no directional causality

					between GDP & FDI
Hamdan (2016)	Arab Countries	1995-2013	Panel data	X, M, GCF & LF	X & M + effect on EG in AC
Wu, Pu, Yao, Jiang and Du (2017)	China	1999–2013	TND	NIP, DP, ME & MC	XG depends on QP
Sunde (2017)	South Africa	1990-2014.	ARDL	Y, K, LF, FDI, HK, T & I	FDI -
Lawal and Ezeuchenne (2017)	Nigeria	1981-2014	OLS	GDP, GS, FDI, X & I	X & M induced GDP growth
Najabat and Li (2017)	Pakistan	1991-2015	OLS	GDP, X, M & FDI	X & FDI induced GDP growth
Yennu (2018)	Ghana	2018	Literature review	GDP, FDI & X	X + Link
Bakari and Mabroukib (2018)	Nigeria	1981–2015	VECM	M, X, L, FDI, DI &GDP	No long-term relation between factors.
Fatemah and Qayyuma (2018)	Pakistan	1971–2016	Co-integration & ECM	K, LF, X & CPI	X significant

Ullah (2018)	Pakistan	1980-2012	Johansen Cointegration,	GDP, TO, GFCF & HK	TO, I & HK significant impact
Tanna and Li (2018)	15 developing countries	984-2010	OLS	FDI, TFP, HC, INF DEBT, C, TRADE & PC	FDI induced GDP growth
Gnangnon (2018)	28 African LDCs	1995-2015.	Panel data	Q, K & L	MTL strong +.
Tah, Czerniak, Levine, Wiggin and Osondu (2019)	South African	1970–2015	Johansen & - Granger test	FT, GDP & H	foreign trade to spur-GDP
González and Peña (2019)	Spain	2003-2013	GMM estimator	GDP, K, L & R	X has higher GR
Chacko and Gebre (2019)	Switzerland	1994	Interviews	DM, FOP, FD, HK, GE, INF, PCI, GFCF, DI, POP & GQ.	I concentrated.
Muna and Saad (2019)	Malaysia	1960 -2005	Cointegration & ECM	GDP, X, M, GFCF & POP	X + Link
Mua'zu Muhammad	Sub-Saharan	2010 -2017	OLS	CPI, GDP & TB	CPI and trade

and Aliyu (2019)	African countries				balance has positive effect on GDP
Gyimah-Brempong (2019)	Sub-Saharan Africa	1960-1986	NGE	Y, K, & X	XV significant -
Muhammad and Khan (2019)	Asian Countries	2001-2012	GMM, OLS, FE & REE	DFDI, FDIO, DK, DFD, FD, DTO	EC, FDI & K is important in AEG
Mania and Rieber (2019	Latin America, Sub-Saharan Africa & Developing Asia.	1995- 2015	Panel data	FP, IEM & DI	DX +
Olayungbo (2019)	Nigeria	1970-2015.	TVP	LF, TOP & EQ	OX +
Ko, Evans, Opoku and Yan (2019)	27 African Countries	2000–2014	GMM	ED, UR, FDI, Y, POP & P	FDI effect on EC
Chacko and Gebre (2019)	Ethiopia	1994-2008	Interviews	DI, DI & FI	I concentrated.
Odhiambo (2019)	25 Sub Saharan African	1980-2014	GMM	HK, PK. FDI & X	FDI +
(Osei-	South	1960 -2018	VECM and	GDP, X and	I & X

Assibey and Dikgang (2020)	Africa		Granger causality	IM	positively impact GDP
Chinoda (2020)	30 African countries	2004-2017	Granger causality	Open, FII &GDP	Trade openness has positive effect on GDP

Methodology: ***(****VECM) Vector Error Correction Model, FE Fixed Effect, REE Random Effect Estimators, (GMM) Generalized Method of Moments, (TVP) Time Varying Parameter, (TND) Two-Mode Network Dynamic, (NGE) Neoclassical Growth Equation.*

Findings: *(X) Export, (XV) Export Volatility, (MTL) Multilateral Trade Liberalization, (XG) Export Growth, (QP) Quantity of Product, (DX) Diversification of Exports, (OX) Oil Exports, (FDI) Foreign Direct Investment, (EC) Energy Consumption, (K) Capital, (AEG) Asia's Economic Growth, (M) Import, (AC) Arab Countries, (TO) Trade Openness, (I) Investment, (HK) Human Capital. (GR) Growth Rate. (I) Investment. (EG) Economic Growth.*

Variables*: (GDP) Gross Domestic Products, (X) Exports, (M) Imports, (GFCF) Gross Fixed Capital Formation, (POP) Total Population, (Y) Output, (K), capital. (L) Labour, (R) is the Knowledge Input, (DM) Domestic Trade, (FOP) Financial Openness, (FD) Financial Development, (HK) Human Capital, (GE) Government Expenditure, (INF) Inflation Rate, (PCI) Per Capita Income, (DI) domestic investment, (GQ) governance quality, (FP) Foreign prices, (IEM) income elasticity of imports, (DI) domestic income, (LF) labor force, (TOP) Trade openness, (EQ) Educational Quality, (GDPpc) GDP per capita, (TOP) trade openness, (NCI) Net Capital Inflows, (ED) External Debt, (TOT) Terms of Trade, (TE), Total Expenditures, (FDI) Foreign Direct Investment, (NT) New Technique, (IT) International Trade, PK physical capital, (ED) Energy consumption, (UR) Total urbanization, (Y) real GDP per capita, (P) Real crude oil price, (DFDI) FDI Inflows, (FDIO) FDI Outflows, (DK) Difference Capital, (DFD) Difference Financial Development, (DTO) Difference Trade Openness, (P) Price, (DI) Domestic Investment, (DI) Diaspora Investment (FI) Foreign Investment, (NIP) Quantity of Product. (DP) Discounted Product, (ME) Market Expansion, (MC) Market Contraction, (CPI) Consumer Price Index and (T) new technique*

2.3.4 Overview of Djibouti Economic Performance

Djibouti is a Horn of Africa nation with a population of 973,560 in 2019, relies heavily on and profits from its geostrategic location on the Indian Ocean in East Africa at the connection of the Red Sea and the Gulf of Aden. This position poses economic growth, opportunities and challenges for development. It is important to protect the vast coastal and maritime routes. With membership and participation from a few African and other nations, the International Maritime Organization (IMO) Regional Maritime Training Centre, like the Inter-Governmental Authority for Development (IGAD) is headquartered in Djibouti, with 8 East African nations. The ports are important for its trade and survival. In comparison to its neighbors, Djibouti has maintained relative peace since 1977. Peace and stability is the added strength of Djibouti and a critical factor for development and regional integration. It also recognizes the value of sub-regional stability for the progress of Vision 2035 in Djibouti, 2013. It played a crucial role in helping to ensure stability and sufficient security for Somalia's African Union Mission (AMISOM). You were faced with problems. Djibouti also participated in the 2014 terrorist attack at a popular restaurant, through Al-Shabaab, who assumed responsibility in collaboration with AMISOM (atlanticcouncil.org, 2020).

The private sector focuses on infrastructure, in particular port operations and related services. The banking sector continues to grow while the manufacturing sector remains embryonic. There are sectors that have not completely developed their potential (salt and perlite), such as agriculture, tourism, telecommunications and natural minerals. The Djibouti market climate is conducive for cross-border trade Ranked 37th and tax payments Ranked 70th in the background of the 183 countries surveyed in the World Bank Doing Market Report 2012.Nevertheless, the challenge of registering land, implementing contracts, securing credit, starting a company and protecting investors persists. Djibouti performed poorly in those categories, No higher than 148th of rankings. While the private sector continues to maintain high production costs (energy, water and human resources) substantial progress has been made with the link between Ethiopia and Djibouti to the electric power network during the year. Banking and insurance account for a rising share of GDP of 13 percent in 2011. New banks have arrived in the sector, with just two in 2006, taking the number of institutions to eleven. These private banks have been put in the niche markets by introducing Islamic financial

instruments and opening small savers' accounts. Nonetheless, the industry remains highly concentrated 85% of assets come from two major banks. The strength of the industry derives from a fiscal policy that focuses on free movement of capital, absence of currency controls and the currency system (United Nations, 2019).

The banking sector is relatively stable, with a low 6% share of bad debts in 2011. New banks have entered the Djibouti market with the rise in competition contributing to a decrease in interest rates. Nonetheless, they remain relatively strong for low-risk lending at an average of 12 per cent, 15 per cent for overdrafts and 10 per cent for property loans. The loan given to the economy is an indicator of the efforts made by the domestic banking sector to finance the country's economic growth. Every year the private sector credit rose gradually and accounted for 84% of credit in 2011, while the remainder was for the government (14.5%) and public corporations (1.5%). Economic credit represented about 20% of GDP in 2011. This is mostly short-term and industrial credit, however. Lending for the medium and long term appears to be marginal and related to utility and housing. Durations up to Five years are considered to be relatively rare and long-term. Banks are not faced with liquidity issues. Djibouti still profits from its geostrategic position in the Indian Ocean in spite of the difficulties of harsh conditions and high unemployment. Djibouti is one of the fast-growing economies of East Africa (IMF, 2019).

Over the past three years, the nation has posted 6.80 percent growth. This included increasing port traffic from 7.8 million tons of dry products in 2014 to 9.2 million tons in 2015. In 2014, the tax deficit amounted to 8.2% of GDP and in 2015 to 8.5%. Present spending accounted for nearly 65% of total 2014 spending, or 22.9% of GDP that year. Economic growth has been expected to hit 7.2% in 2016, primarily driven by large-scale public and private spending that is expected to generate employment. Real GDP growth remained strong, projected at 6 percent for 2019, according to the Community of the African Development Bank. From a business standpoint, public spending in rail and port infrastructure propels this. The supply sector will continue to drive this supply, especially trade with Ethiopia, which accounts for 80% of the port operations in Djibouti. Inflation is forecast to grow to 2.2% in 2019.The fiscal deficit is expected to hit 14.2% of GDP in 2019, financed mainly by borrowing and foreign assistance. The current account deficit, funded by foreign direct borrowing and investment, is expected

to hit 12.5% of GDP in 2019. At 35.8 per cent, poverty levels remain troubling. The income distribution is skewed at a Gini index of 0.42, and unemployment is estimated at 39.4% (United nation, 2019). Djibouti has one of Africa's highest GDP per country. However, in the rural areas of Djibouti, the poverty level rises over time. With a 62% inactive population, the unemployment rate increases by a percentage of 9.8. The advantages of growth have been ignored or rejected by women in recent years, but high rates of human exclusion remain, especially in rural areas. Since 2000, Djibouti's population has increased by more than 20% and is now estimated at 973,560. Also the concept of health is free and hanging problems that have yet to be resolved, such as rural-urban conflicts, gender disparities and the gross enrolment that is rising at all educational rates, are still required. The country spends 8.9% of its GDP on health care and overall improving results in health care (United Nations, 2019).

The Government has stressed transport and energy infrastructure growth, and with the assistance of foreign partners, Djibouti has started to increase and upgrade port capacities, particularly China in 2017 Djibouti opened two of its largest companies: Doraleh Port and Djibouti-Addis Abeba Railway, funded by China as part of the 'Groove and Road Initiative. Djibouti has experienced high levels of economic growth in the last decade, but it has not alleviated high poverty or high unemployment due to its capital-intensive, public-sector approach to development. Data from the 2013 Government, which were not available at the time of the publication of the CPS, indicate that over one-fifth of the population is in severe poverty and cannot meet basic food needs.

This prevalence is projected to be 44 percent higher in rural areas. If poverty figures are based on food and non-food needs, the resulting poverty rates are estimated at 40.7% nationally and 62.5% rural. The Ali Sabieh and Obock regions report 77.8% and 79.7% respectively, the highest rate of deprivation. These findings illustrate the slow development in social inclusion and the lack of steps to reduce regional inequalities. Despite robust growth, high poverty rates reflect the damping impact of high household consumer inequality. The Gini index measured in 2013 at 0.44, marginally higher than 0.40 in 2002. Other analysis using 2012 data illustrated large disparities in living standards across Djibouti than in countries of lower-middle income 0.414 by average for 2005-12, where households in the top 20 percent of the population invest on average

more than eight times the amount used by households at a low 40 percent. The structure of development – driven by capital intensity, foreign borrowing and Port and foreign military rents – did not help to provide Djiboutians with enough jobs. Unemployment is estimated at 48% nationally, and it is estimated that over 70% of young people under thirty are unemployed. But the work done by port-related activities needs more skilled labor in smaller quantities than would be sufficient to absorb the resources of skilled workers in Djibouti. As suggested by the CPS, job growth will have to double in order even to begin addressing unemployment, and demographic pressures will only intensify as a young and more educated population joins the labor market. The country will have to address the question of lack of demand and availability of skilled jobs (Styan, 2013)

To speed up the institutional transformation, Djibouti needs skills-based policies and strategies. The growth of these skills in education and entrepreneurship will be key to the economic transition. Our human capital would benefit from further spending and address the existing gender inequalities that will drive the economic diversification agenda. The government will also support companies in the industrial and manufacturing sectors to facilitate continued production. Variety of privately held vulnerabilities are typical. It is clear that the location of Djibouti has led to its economic development. And using it to their benefit to fuel economic growth, massive development of infrastructure was undertaken to leverage the natural endowment that the country is blessed with. Djibouti has experienced steady growth compared with other countries in the region, growing from 4.5 per cent in 2011 to 6.5 per cent in 2015. This was achieved through the expansion of ports services which resulted in steady revenue at the same time. While it outperforms the continental average, the rate of GDP growth in the country fails to meet the 2014 and 2015 sub-regional norm. The government also expected a 7.2% rise in 2016 based on substantial public and private investment Djibouti in 2016. Djibouti aims at continuing to open its economy to foreign trade and being a more involved participant in regional integration blocs. It is a member of the Eastern and Southern African Popular Market (COMESA) and of IGAD (Styan, 2013). The Djibouti Government has also confirmed that it believes a common market will be ideal between Djibouti, Eritrea, Ethiopia, Somalia and South Sudan Djibouti in 2013. Significant improvements in the country's infrastructure will ensure the country continues to position itself as a centre for global and international trade and logistics.

For example, the newly introduced Djibouti-Ethiopia standard gage electrified railway is aimed at reducing traffic congestion on the road between Ethiopia and Djibouti by reducing the number of trucks using the regular road from 1,800 to 2,200. In addition, the 750-kilometer trans boundary railway project benefits both countries, linking Ethiopia with ports and faster maritime shipping, thereby reducing transportation time, providing Djibouti with access to the Ethiopian market and reaffirming Djibouti ports as logistics hubs, while also contributing to continental road linkage.

Djibouti is considered by the World Bank to be a nation with "low middle income." However, over 20 per cent of people live in "severe poverty," which is also a small Eastern African country and mainly depends on the food, water, and energy resources from other countries leaving the country vulnerable to foreign markets and price shocks. In 2015, unemployment was about 39 percent. Djibouti's economy relies almost entirely on FDI, income generated from various shipping terminals, and leases from foreign military bases. In 2016, GDP growth was projected to be 6.5%, primarily led by port and railway development. Djiboutian society is made up of three main ethnic groups: Somali (60 percent), Afar (35 percent), “Other” (5 percent) (includes French, Arab, Ethiopian, and Italian). 94 percent of Djiboutian are mostly Muslims, with a few Christians of about 6 per cent. 75 percent of the populations are based in the cities and towns, and the majorities are mostly found in the capital. The 2015 Human Development Index (HDI) of Djibouti was 0,473 which places the nation in the low group of human development, placing it at 172 out of 188 countries and territories.

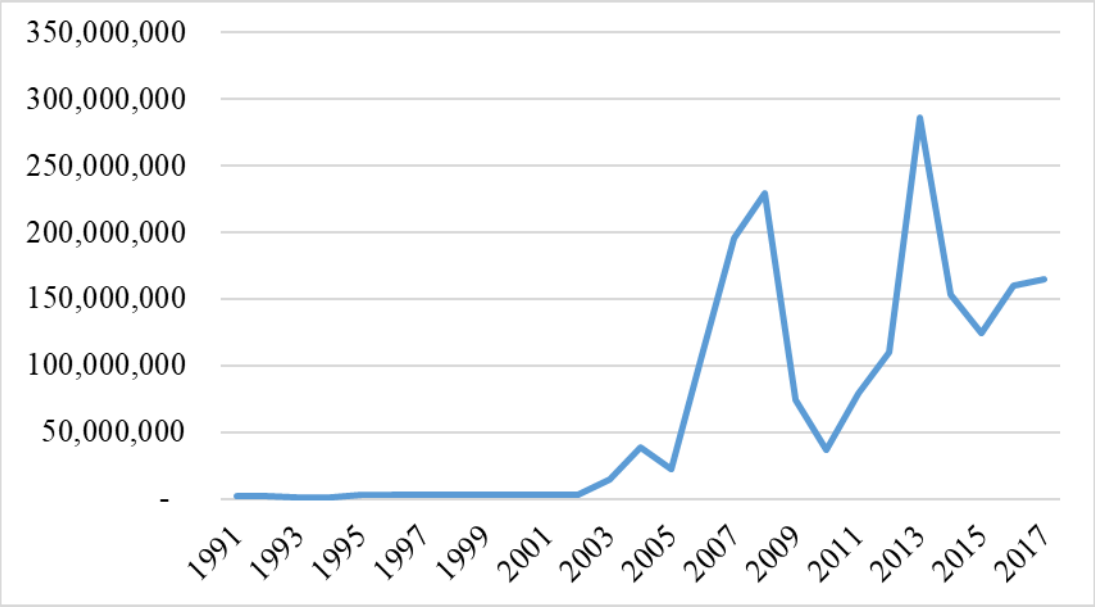


Figure 4. Foreign direct investment of Djibouti (USD)

Source: Index Mundi (2019)

As of 2017, Djibouti's foreign direct investment was ($165,001,100). Over the past 26 years, the value for this metric has fluctuated from ($1,423,580) over 1994 to ($286,004,500) in 2013. In the 2000s, Djibouti received large FDI flows peaking in 2008. Djibouti's output was slightly better than that in the Eastern and Southern African Popular Market (COMESA) and the LDCs, with an average annual FDI inflow of almost $150 per capita between 2006 and 2011. These investments, concentrated mainly in port operations and related activities (approx. 50%), came mainly from the UAE (approx. 70%). However, the effect of current investment is still limited on the local economy, as it is difficult to quantify and relatively few jobs were generated (Styan, 2013).

The prospects for significant FDI inflows are largely dependent on strong political will and a coherent plan, subject to heavy foreign market competition and the continued impact of the recent financial crisis. According to UNCTAD, in 2014 Djibouti managed to raise 153 million dollars of FDI, representing 0.3% of the Arab total for the same year. By the end of 2014, Djibouti's FDI balance had been about $1505 million, accounting for 0.2 percent of the Arab total for the same period. As far as Djibouti's new FDI operations are concerned, the Financial Times FDI Markets report released between January 2003 and May 2015 indicates the following: 21 Arab and foreign companies have initiated Djibouti's FDI ventures.

The overall construction costs of these programs, with about 4,700 workers, are projected at about $4.2 billion. The UAE, Kuwait, Qatar, USA, Iceland, Singapore, Tunisia, Tanzania, Denmark and Bahrain were among the major investor countries in Djibouti, respectively. The shares of the UAE, Kuwait and Qatar accounted for about 81 percent of the total. The real estate industry is focused on Arab and foreign investments in Djibouti, with 61.5 percent, whereas 16.6% in the retail sector and 8.6% in the renewable energy business. Dubai Ports World is one of Djibouti's top 10 companies with two big projects valued at $1 trillion in investment costs (EIF, 2004).

The Djibouti economy is widely open to foreign exchange, accounting for 328% of GDP World Bank in 2018. Throughout Eastern Africa, Djibouti has a free trade system

and the status of a free trade region. It is a Member of the WTO, IGAD, COMESA, the Arab League and the African Union, which have signed the African Continental Free Trade Convention and several bilateral agreements. Djibouti has shown great interest in fostering regional economic integration, especially with Ethiopia. In 1999 the export of goods, including re-exports, amounted to $260 million and imports of products, including re-export products, to $440 million. Except the trade in re-exporting products, Djibouti exported domestically manufactured goods for 16 million dollars in 1998 and imported domestic goods for 24 million dollars.

The trade deficit is covered by receipts from Djibouti's port and transport infrastructure and revenues from the involvement of French troops. The main imports into the country include petroleum products, meats, automobiles and other capital goods. Ethiopia, the EU, Somalia and Brazil were the top five export destinations in 2019, according to the recent UNCTAD results. The nation imports mainly goods and services from the EU, the UAE, Japan and Ethiopia. The economies of Ethiopia and Djibouti are highly interdependent through the port of Djibouti, historically the only maritime outsource to land-locked Ethiopia.

Table 2. International trade in Djibouti

Foreign Trade Indicators	2014	2015	2016	2017	2018
Imports of Goods *(million USD)*	803	890	974	768	804
Exports of Goods *(million USD)*	129	132	140	142	168
Imports of Services *(million USD)*	n/a	n/a	n/a	193	202
Exports of Services *(million USD)*	n/a	n/a	n/a	194	209
Imports of Goods and Services *(Annual % Change)*	12	16	20	16	n/a
Exports of Goods and Services *(Annual % Change)*	2	25	-8	6	n/a
Trade Balance *(million USD)*	-534	-737	-566	n/a	n/a
Foreign Trade *(In % of GDP)*	320	280	224	325	328
Imports of Goods and Services *(In % of GDP)*	162	140	124	178	179
Exports of Goods and Services *(In % of GDP)*	158	141	100	147	149

Source: WTO – World Trade Organisation; World Bank - 2018.

The trade balance in Djibouti is structurally negative, exporting only livestock and importing significant amounts of petroleum products, food and capital goods. However,

the country has surplus exports in the services market, primarily in view of re-importation and re-export charges of port services. In 2017 it was reported that the trade deficit was USD 626 million according to World Bank. In 2018, products exported amounted to USD 168 million, while imports totalled USD 804 million. Exports of services stood at USD 209 million, while imports of services stood at USD 202 million. Imports of goods and services rose by 16% compared with 2016; exports grew by 6% according to World Bank.

2.3.5 Main international trade drives of Djibouti

2.3.5.1 Transport chain and port services.

A minimum of 12,000 to 15,000 workers work in the transport chain, which undergoes significant structural changes. In some cases, privatization of the main components of the program is even completed, as was the case with the transferred to private management in June 2000.Similar improvements have been made recently with regard to the Airport and another railway, which would have a positive effect on the economy if implemented. While a single concessionaire to operate both the port and the airport has not yet been decided, internal consistency is shown by Dubai ports International and the Jebel Ali Free Zone Authority as well as the future free area (EIF, 2004).

2.3.5.2 Salt sector

Salting has become the main export activity for goods, with a dozen companies at the Lake Assal site. This operation hires nearly 2,000 employees. The cessation of Ethiopian supplies from Eritrea has affected the creation of export activities and caused operational problems created by the hilly landscape, made the building of salt tables and the low content of Djiboutian salt that does not meet current World Health Organization (WHO) and UNICEF health standards. Trade terms on the world market show that Djibouti is being shipped to Ethiopia at a reasonable price for industrial oil. With earnings of $29 a ton compared to $20, the national operators tend to keep their sales competitive on the world market and with a profit difference of around 30 percent. The two countries therefore operate on a shared basis, which implies that operators in Djibouti seek to increase their market share in Ethiopia, where the annual demand of table salt is about 350,000 tons. However, it may also be beneficial to diversify clients,

ideally with international partners who can assist the country in penetrating Asian markets (EIF, 2004).

2.3.5.3 Livestock sector

The Horn of Africa countries together have a large amount of livestock. Ethiopia has the biggest cattle herd in Africa, whereas Somalia has more than 30 percent of the dromedary population worldwide. Although Djibouti's livestock is considered to be less developed than the above-mentioned countries, it is still relevant. In view of the variety of skilled activities associated with local processing it is not only an important growth factors for agricultural, nomadic and sedentary communities, it is also important for the urban population. Djibouti also serves as a transit country for the export of animals from the sub-region and participates in growing stock. Djibouti needs to pay for all exports to have a clean health bill, thereby enabling foreign trade flows that have dried up due to animal diseases to be reactivated. The production of refrigerated storage equipment would necessitate improving conditions at intake and slaughter points (EIF, 2004).

2.3.5.4 Tourism

Djibouti is a friendly town built to concentrate on its inhabitants. Locals typically speak French, Arabic and Somali with a few locals who speak sparingly English. Due to a strong presence abroad, local people may also want to socialize in order to understand from where you are and what you think about Djibouti. The country also has world renowned scuba diving locations in the north. Unfounded and underlying safety issues have stopped a rise in the tourism industry. Djibouti's tourism areas were able to use a significant boost by investing in low-cost high-quality hotels and other tourism facilities (i.e. tour guides, reasonably priced restaurants, etc.) at the same time (EIF, 2004).

2.3.5.5 Real Estate

Djibouti has an unemployment rate of over 44% in urban areas, especially Djibouti, with a population of about 984,325 by 2019. In the absence of a domestic consumer base in Djibouti, the international military presence generates a significant part of the consumer spending. According to local property owners, the biggest buyers / renters of

new villas are Chinese, Somalis and Americans. As the Chinese Africa Development Fund (CAD)'s involvement in the areas of logistics, energy (specifically geothermal) and tourism increases, there is a growing increase in the number of Chinese investors and contractors. Known as major players in the trade and informal market of Djibouti, Somalis placed their cash on real estate to prevent banks from getting capital. Like the Americans, some Djiboutian business people have calculated that the consumption of one US soldier is equivalent to 100 local Djiboutian consumers. In general, American soldiers are better paid for, hate living on 24/7 military bases, and rent villas off base, even if they can stay only three to four days a week. This is usually reflected in concepts immovable and non-immovable. A meal may amount to as high as $50, but this is also due to the dollar attachment of the Djiboutian Franc (EIF, 2004).

In practice, Djibouti law does not require restrictions on foreign investment. Article 1 of the Investment Code states that, regardless of their nationality, everyone is free to invest or perform an economic activity in Djibouti. There are also no legislative or administrative conditions for a joint venture with a Djiboutian national of foreign investment. However, for a specific form of license or administrative authorisation, the competent administrative body shall prior authorize certain regulated practices such as banking, insurance, mining, energy, medicinal and pharmaceutical and liberal autonomous professions, meaning that these practices are in practice reserved for Djiboutian citizens. A local business director or manager is not necessary to be a citizen of Djibouti. However, it is useful for certain managers to stay in Djibouti in order to facilitate management. The director of a Djiboutian trading company (academic or professional) is not necessary to apply minimum except for a company engaged in banking activities. In Djibouti, there are no specific laws on changing control constraints or buying securities. Nonetheless, in a PPP arrangement, a standard clause in strategic sectors such as ports, airports, railways, mines and electricity sets out the obligation of the government of Djibouti to notify or obtain prior authorisation prior to any change in controls (EIF, 2004).

3. RESEARCH METHODOLOGY

This chapter described the processes and techniques used for data collection, processing and analysis. This is the third section of the study, this chapter described the methodology used to conduct the research, and further described the source and type of data, theoretical framework, model specification and the methods and techniques use to analysis the data. It also describes how the appropriate methodology will be constructed, interpreted and analysed.

3.1 Data

The study was based on the annual data from the time series for Djibouti over the entire sample period 1986-2017.The data is balanced, the dependent variable is Economic growth and independent is export, import, foreign direct investment and gross capital formation. The study will use the ordinary least square (OLS) test method to analyse the export effect on economic development. The current data are U.S dollars. Data obtained different sources from United Nations of Statistics Division and World Development indicators.

Table 3. Main variables

Variable	Measurement	Source
GDP	Gross domestic product (Current)	World Development Indicator
Foreign direct investment	Foreign direct investment inflows (Current US$)	World Development Indicator
Import	Imports of goods and services (current US$)	United Nations Statistics Division
Export	export of goods and services (current US$)	United Nations Statistics Division
Gross capital formation	Gross capital formation, total (DOD, current US$)	United Nations Statistics Division

Total added value for the resident producers of the country, as well as any commodity taxes, are calculated for GDP at the expense of the consumer, with fewer subsidies not included in the value of the goods. It is measured without deductions to depreciate production assets or to lose or degrade natural resources. Data is currently in the U.S. Dollars. GDP represents Gross domestic product (GDP) at prices of the current reporting period in US Dollar by using data from 1986 up to 2017, the data obtaining from World Bank.

Goods and Services exports consist of sales, bartering, or gifts or grants, from residents to non-residents. Export represents goods and services that Djibouti is exporting to other nations in million US Dollar by using date from 1986 up to 2017, the data obtaining from United Nations Statistics Division.

Import is imported of good and service components of the nonmonetary gold, merchandise and service form the non-residents to residents of the country. Import represents goods and services that Djibouti is importing from other nations in million US Dollar by using date from 1986 up to 2017, the data obtaining from United Nations Statistics Division.

Foreign direct investment is net investment inflows to gain a permanent management stake (10% or more of voting stock) in a company that exists in an economy other than the investor's. FDI's components are equity capital, reinvested profits and other capital (principally intra-company loans). U.S. dollar using data obtained from the United Nations Conference on Trade and Development (UNCTAD) from 1986 to 2017.

Gross capital accumulation (formerly gross domestic investment) consists of spending in addition to fixed economic assets, plus net inventory level adjustments. Investment represents Gross capital formation at current price in US Dollar by using data from 1986 up to 2017, the data obtaining from United Nations Statistics Division.

3.2 Model specification

The neoclassical approach used an aggregate production function approach in early studies of economic growth literature which describes the connection between economic output and certain inputs, mainly capital and labor. The research is based on the 1956 Solow model. In my context, the position of investment can be summarized as follows:

The first equation is an aggregate production function,

$$Y = A * f(K, L) \quad (1)$$

Where production is Y, capital input K, labor input L and technology "Hicks-neutral." The second equation, generally known as the equation for the accumulation of capital, discusses the relation between tangible capital investment (I) and stock capital (K):

$$\Delta k_t = I_t - \alpha k_{t-1} \quad (2)$$

Where D is a separate change, the gross investment is a rate of depreciation. The definition of gross investment may either be a fixed sum of production or endogenously determined by competitive firms maximizing themselves. The neoclassical model also relies on equal markets and steady returns, if all the inputs are paid for its marginal output. The disintegration of the production function refers to performance increase as a weighted change function in the main (e.g. K and L) and multi-factor inputs or as the popular "Solow residuals": (or DlnA)

$$\Delta \ln Y = \beta_K \Delta \ln K + \beta_L \Delta \ln L + \Delta \ln A \quad (3)$$

Where K ß is capital's share of output, L ß is labour's share of output and the neoclassical Assumption implies L ß + K ß =1. The technology term A is assumed to be exogenous and described by the following equation:

$$A = A_0 e^g \quad (4)$$

Equation [2] and [3] define the relation between tangible asset investment and economic growth. Especially in this model, accumulation of capital contributes to economic growth in proportion to the share of national production by capital.

There are some disturbing findings, no matter how appealing the model may be. Since capital accumulation depends on decreasing returns, steady growth cannot be achieved without exogenous technical progress, which this model does not explain at all. Solow, however, attributed exogenous technical progress to about 90% of Chine per capita output growth.

The meaning of the term capital accumulation itself is another drawback to this model. Solow believes that the investment is in tangible assets only. However, Mankiw stated: "there is an increasing consensus that capital's position in economic growth should be interpreted narrowly". In addition, Jorgenson 1996 argued: "Investment is the contribution of current capital to the hope of future returns and can take on many forms"

For the test and hypothesis of econometrics to determine the model used for this analysis, a number of models have been developed to facilitate hypotheses to evaluate the economic growth effects of explanatory variables. In the research, the OLS econometric model, namely GDP, export, import, foreign direct investment and investment, will be evaluated in order to analyse the role of exports in Djibouti's economic development. The dependent variable is GDP, and the independent variables export, import, foreign direct investment and gross capital formation are used for assessing the effect or influence of all variables in this analysis. Also the analytical tool of this thesis is E. views computer software version 9, the following model will be developed.

$$GDP = \beta_0 + \beta_1 X + \beta_2 M + \beta_3 FDI + \beta_4 INV + \varepsilon_t$$

Where:

X: Export

M: Import

FDI: Foreign direct investment

GCF: Gross Capital Formation

ε_t**:** Error term

3.3 Method of Estimation

Descriptive statistics**:** In an experiment, the essential characteristics of the results are represented by descriptive statistics. Simple of sample summaries and measurements are given. They provide the basis for almost every quantitative data analysis and basic graphical analysis. The descriptive analysis reveals the mean, minimum and maximum. Price is the cumulative average and default variance.

Unit Root Test: The first step is to examining unit root test, to test the data stationary is checked through Phillips-Perron and Augmented Dickey Fuller test are applied to trend

and intercept. The null hypothesis for PP and ADF was that the series was non-stationary, while the series was stationary as the alternative hypothesis.

Ordinary least square Method: This research uses the ordinary least square (OLS) method to measure unknown parameters in a linear regression model and to test the presence of equilibrium between all variables. The number calculated how the OLS regression relates to the data line. The analysis assumes that the total same square is not zero, which is true if the value for all dependent variables is not equal. The thesis will measure the R square to the equation and the R square of 50 percent and above is considered appropriate in this analysis. In order to know the number of unit roots in the sequence being considered, this study will check the unit root test should be completed.

Long-Run Analysis: Co-integration Test: Co-integration evaluations are performed to examine the presence of a long-term equilibrium between foreign trade and economic growth in Djibouti. The study applied maximum self-value and trace tests, the assumption of trend and intercept were considered for all variables. After the unit root test and after determining the existence of a unit root at the first difference of each variable, the next step would be to check whether the linear combination of the series is stationary.

Granger Causality Tests: To examine the variables of the thesis, the study conducted a Granger Causality test. The results, summarized the nexus between international trade and economic growth in Djibouti

Vector Autoregression (VAR) Test: To examine the linear interdependencies among multiple times series Vector Autoregression test was performed.

Testing the Normality of Data: Consistency is a property of the point estimator that falls around a sample as the size of the sample becomes big, basically it tells us nothing about the sample size distribution, and we need a way of estimating and developing this hypothesis for our estimators.

H_0 Data is normally distributed

H_1Data is not normally distributed

Testing Correlations*:* The correlation matrix explores the direct relationship between variables, which also shows the multi-linearity problem. The correlation matrix is based on the correlation coefficient; if the two variables are exactly positive, the correlation will be 1.0. When the two variables have an absolutely negative linear association, the zero coefficient of correlation implies that there is no linear relationship between the variables.

Tests for Heteroskedastic Error: The research also investigates whether the desired assumption of homoscedasticity holds. So we got this hull hypothesis established as follows.

$H_1{:}\sigma_1^2 \ = \sigma_2^2 = 0 \ldots\ldots \sigma_k^2 = 0$

H_1 : At least one of these is different from zero

So if we reject the null hypothesis. Then we conclude that model has problem of the hetroskedasticity.

Testing the Existence of the Autocorrelation: Autocorrelation refers to an interaction between past and future beliefs in a sequence between occasions. Autocorrelation is often commonly referred to as the "lagged correlation or serial correlation", referring to the association of a time-set number members.

$H_0 : P = 0$

$H_1 : P \neq 0$

Testing Model stability: The reliability of the model is checked by CUSUM of the square line to ensure that the model is stable and consistent at a significant level of 5%.

3.4 Descriptive Statistics

Table 4 shows descriptive statistics showing the minimum, maximum and mean average. The mean value stands for the maximum average deviation

Table 4. Descriptive Statistics

Variables	N	Mean	Std. Dev.	Min	Max	Skewness	Kurtosis
LNGDP	32	20.50	0.65	19.74	21.81	0.84	1.12
LNEX	32	19.86	1.07	18.8	22.13	2.34	2.71
LNIM	32	20.28	0.98	19.43	22.32	0.84	1.12
LNFDI	32	16.11	2.36	11	19.47	2.34	2.71
LNGCF	32	19.25	0.97	18.21	21.28	0.84	1.12
Observations	32	32	32	32	32		

Source: Author's analysis using data from the World Bank and United Nations Statistics Divis0000ion

Table 4 indicates that the average GDP is (20.50) unit and its standard deviation is (0.65) and the increasing GDP is (21.81).The Djibouti's economic growth has been driven by services and industry, followed by the agricultural sector. The average export growth rate is (19.86), the standard deviation is (1.07) and the maximum export rate is (22.13). According World Bank in 2017, Djibouti is the 193rd largest export economy in the world. The average import is (20.28) and its standard deviation is (0.98) and the highest import is (22.32). In 2017 Djibouti smuggled $981 million making it the world's 134th largest contraband in the last five years. Palm Oil dominates the latest imports. Gross capital formation has an average growth of 19.25 and a standard deviation of (0.97) and the maximum of gross capital formation is (21.28). The FDI average is (16.11) and its standard deviation is (2.36) and FDI (19.47) is the highest.

3.5 Unit root Test

ADF (Augmented Dickey Fuller) is used to test the stationary of the data. Presence of non-stationary variables could result in false regression. Two tests were conducted to test the stationary of the data, namely ADF (Augmented Dickey Fuller) and PP (Phillip

Peron). Non-stationary variables existent can result in spurious regression. The null hypothesis for PP and ADF is the non-stationary series while the alternative hypothesis is the stationary series. The result of unit root tests is reported in table 5.

Table 5. Unit Root

			ADF		PP	
	Levels	Model	t-statistics	Prob. *	Adj. S-stat	Prob. *
LNGDP	At Level		-0.59	0.97	-0.60	0.97
	1st Difference		-5.18	0.00	-5.18	0.00
LNFDI	At Level		-0.97	0.75	-0.69	0.83
	1st Difference		-5.93	0.00	-12.14	0.00
LNGCF	At Level		-0.34	0.90	-0.17	0.93
	1st Difference		-5.35	0.00	-5.01	0.00
LNEX	At Level		0.34	0.97	0.56	0.98
	1st Difference		-4.38	0.00	-4.39	0.00
LNIM	At Level		0.66	0.98	0.91	0.99
	1st Difference		-3.14	0.03	-3.14	0.03

Source: Author's analysis using data from the World Bank and United Nations Statistics Division

The result shows that the non-stationary-level null hypothesis for all-time series is not rejected. On the first difference, however, all null hypotheses were rejected for each test. It clearly indicates that all variables are stationary at (1) (first difference). At the first difference, all variables are integrated at a significant level of 10 per cent.

3.6 Empirical results from the Vector Autoregression (VAR) Test

To examine the linear interdependencies among multiple times series the study a Vector Autoregression tests was performed. The results, which are summarized the nexus between international trade and economic growth in Djibouti in Table 6.

Table 6. Vector Autoregression Estimates

Variables	LNGDP	LNEX	LNIM
LNGDP(-1)	0.80	0.92	0.89
	(0.21)	(0.65)	(0.46)
	[3.83]	[1.40]	[1.94]
LNGDP (-2)	0.24	-0.12	-0.29
	(0.21)	(0.68)	(0.47)
	[1.10]	[-0.18]	[-0.61]
LNEX(-1)	-0.09	0.38	-0.36
	(0.08)	(0.26)	(0.18)
	[-1.12]	[1.44]	[-1.96]
LNEX(-2)	0.04	-0.66	-0.25
	(0.10)	(0.31)	(0.21)
	[0.40]	[-2.11]	[-1.16]
LNIM(-1)	0.28	0.15	1.20
	(0.13)	(0.41)	(0.29)
	[2.15]	[0.37]	[4.12]
LNIM(-2)	-0.23	0.77	0.11
	(0.15)	(0.47)	(0.33)
	[-1.50]	[1.60]	[0.33]
C	-1.01	-9.85	-6.48
	(0.84)	(2.65)	(1.85)
	[-1.19]	[-3.71]	[-3.48]

Source: Author's analysis using data from the World Bank and United Nations Statistics Division

The result from Vector Autoregression shows the presence of long run causality from Export on economic growth in Djibouti.

3.7 Empirical results from the Ordinary Least Square (OLS) Test

The purpose of the empirical investigation is to analyse the impact of international trade on economic growth in Djibouti. This study employs ordinary least square (OLS) test to estimate the unknown parameters in a linear regression model as well as to examine the existence of equilibrium relationship among all variables.

Table 7. Ordinary Least Square

Variables	**Coefficients**	**Prob. ***
LNEX	0.43	0.00***
LNIM	-0.06	0.71
LNFDI	0.08	0.00***
LNGCF	0.08	0.36
Constant	10.22	0.00***
R2	0.97	
Observations	32	
Number of countries	Djibouti	

Source: Author's analysis using data from the World Bank and United Nations Statistics Division

*** p<0.01, ** p<0.05, * p<0.1

The results of empirical analysis are presented in Table 7 has several interesting results for the effect of international trade on economic growth Djibouti, two coefficients in table 7 have the same predicted signs and are statistically significant at a confidence level of 99%. The results found are consistent with previous result and our hypothesis that international trade has significant impact on economic growth Djibouti.

Results of the study indicate that the export has a positive relationship economic growth; this is consistent with theoretical expectations mean that export has an important contribution in increasing the level of export in the country in the period of 1986 to 2017. This implies that the increasing of export commodities will lead to an increase of Aggregate demand of Djibouti which causes toward higher economic growth of the country. This helps increase the efficiency of industry which is a major factor of productivity growth. The result for the Sub-Sahara African countries are similar with one obtained Chia (2016) confirmed that positive impact of export on economic growth in Sub-Sahara African countries.

The result shows that the FDI remained both positive and significant, which also represents the growth of private capital inflows, has the expected positive sign and is significant at a level of one percent, which means that foreign direct investment increases the economic growth of the host country by having an impact on the creation of new jobs, also developing financial markets and opening up trade importers. The estimated coefficient has a significant positive impact on one per cent level of economic

growth. In particular, FDI in sectors has increased the real estate sector, the Djibouti mining sector, which contributes to Djibouti's economic growth. This result of study is consistent with the result of Bekere and Bersisa (2018) noted that foreign investment has positive and marginally significant long-term impact on economic development in East African economies.

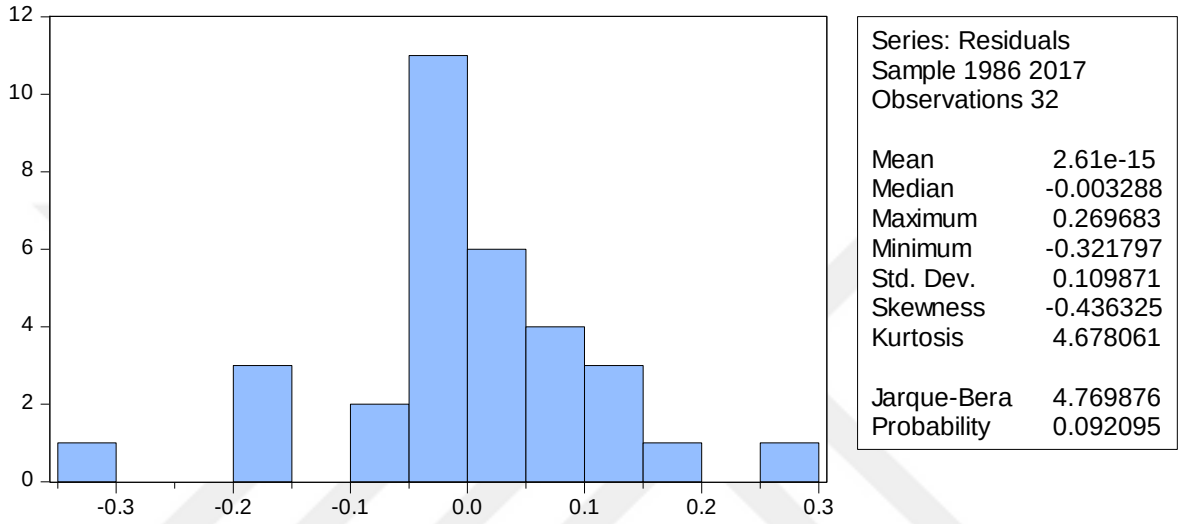


Table 8. Diagnostic test

Serial Correlation test	3.58 (0.16)
Heteroskedasticity test	0.58 (0.44)
Normality test	4.76 (0.09)

Source: Author's analysis using data from the World Bank and United Nations Statistics Division

The diagnostic checking report reveals that the model is free of either autocorrelation or heteroskedasticity, meaning that both tests are 5 percent insignificant at significant level. Normality reveals that they are correct, and normal is the distributed. Hence, the selection model is best suited since R square is 97%.

3.8 Long-Run Analysis: Co-integration Test

Co-integration studies are performed to examine the presence of a long-term equilibrium between foreign trade and economic development in Djibouti. For all variables, the analysis used full self-value and trace checks, the presumption of pattern

and intercept. After the unit root test and after determining the existence of a unit root at the first difference of each variable, the next step would be to check whether the linear combination of the series is stationary. The purpose of this methodology is to check whether the unit roots in each variable are different (non-cointegrated) or share the same (co-integrated) unit root. A non-stationary variable appears to drift over time, but a pair of non-stationary variables can be held together by a common linear combination. Johansen uses effective maximum likelihood testing to analyse the long-term relations in Djibouti between foreign trade and economic development. The tests were based on significance levels of 5% and 10%.

Table 9. Long-run Cointegration Test- Johansen

Unrestricted Cointegration Rank Test (Trace)				
Hypothesized		Trace	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.81	99.98	79.34	0.00
At most 1	0.58	50.39	55.25	0.12
At most 2	0.32	24.31	35.01	0.42
At most 3	0.28	12.88	18.39	0.24
At most 4	0.09	2.87	3.84	0.09*

Source: Author's analysis using data from the World Bank and United Nations Statistics Division

*** p<0.01, ** p<0.05, * p<0.1

The result from Johansen co-integration test confirmed that at one variable cointegrating equations at 10 percent level of significance implies that there is a significant effect on economic growth in the long-run. Thus rejecting the null hypothesis that there does not exist for co-integration while supporting the alternative hypothesis that there is a long-term association between international trade and economic growth.

3.9 Granger Causality Tests

To examine the direction between variable the study a Granger Causality tests was performed. The results, which are summarized the nexus between international trade and economic growth in Djibouti in Table 10.

Table 10. Granger Causality Tests

Null Hypothesis:	Obs	F-Statistic	Prob.
LNEX → LNGDP	30	1.20	0.31
LNGDP → LNEX		4.95	0.01
LNIM → LNGDP	30	3.27	0.05
LNGDP → LNIM		3.21	0.05
LNFDI → LNGDP	30	0.63	0.54
LNGDP → LNFDI		1.48	0.24
LNGCF → LNGDP	30	3.61	0.04
LNGDP → LNGCF		3.55	0.04
LNIM → LNEX	30	5.61	0.00
LNEX → LNIM		1.40	0.26
LNFDI → LNEX	30	6.52	0.00
LNEX → LNFDI		5.42	0.01
LNGCF → LNEX	30	7.88	0.00
LNEX → LNGCF		0.18	0.83
LNFDI → LNIM	30	5.55	0.01
LNIM → LNFDI		2.23	0.12
LNGCF → LNIM	30	5.30	0.01
LNIM → LNGCF		0.11	0.89
LNGCF → LNFDI	30	0.45	0.64
LNFDI → LNGCF		2.29	0.12

Source: Author's analysis using data from the World Bank and United Nations Statistics Division

*** p<0.01, ** p<0.05, * p<0.1

The results from Granger Causality test, indicating the existence of a unidirectional causality between Gross domestic product and export which implies that GDP has an important contribution in increasing the level of gross domestic product in the Djibouti. Also indicating the existence of bidirectional causality between GDP and import. The result indicated the existence of bidirectional causality between gross domestic product and gross capital formation this implies that the increasing of GCF commodities will lead to gross domestic product.

4. CONCLUSION

International trade plays an important role in each country's economy. The effects of international trade on economic growth remain an area of protracted theoretical and empirical controversy. The study was analysed the role of international trade on economic growth from 1986 to 2017 in Djibouti. This research employs and follows neoclassical approach used an aggregate production function approach in early studies of economic growth literature which describes the connection between economic output and international trade. According to Neo-classical foreign trade leads to higher incomes of owners compared to the product's excess production and export factors and promotes economic growth. This study used the ordinary least square (OLS) to decide whether the short-term relationship between variables exists. The root and distributive statistics of the unit were tested to determine how the regression could result and how the correlation matrix could emanate the relationships among the variables.

The study found that foreign direct investment had a positive influence on the economic growth of Djibouti, which indicates that FDI contributed to the overall positive growth of Djibouti's economy. Nonetheless, the study showed that exports with positive signals in many cross-country regressions in the East African sample were significantly reported. The significant positive export sign indicates that Djibouti's high export level contributes to economic growth. Additionally, the findings from the Granger Causality Test show the unidirectional causality between GDP and export, indicating that exports play a significant role in increasing the sum of Djibouti's gross domestic product. It implies that the causalities between GDP and imports are bidirectional. The result was that there was a two-way causality among the gross domestic product and the creation of gross capital. This means that the rise in GCF commodities would contribute to the gross domestic product.

Although the findings of this study are consistent with previous ones such as Yennu (2018) the study find macroeconomic evidence confirms the optimistic and important impact of trade on production and development. The productivity improvements are generally attributed to trade liberalization in developing economies. Most studies concentrate on trade policy's partial equilibrium analysis, and neglect macroeconomic policy's general equilibrium aspects. Therefore, before adopting policies to realize the

growth effects of international trade in growth, policymakers should take this into consideration before deciding about their policies.

Djibouti has implemented a range of reforms, including the establishment of a one-stop shop for start-ups, simplifying and opening up asset movement, enhancing access to credit, strengthening the protection of minority investors, promoting contract compliance through separate divisions in First Instance Courts to settle commercial affairs and the introduction of a new Civil Code. The country has a strategic geographical position, situated at the crossroads in the Far East, the Persian Gulf, Africa and Europe with deep-water port facilities and main assets for the railways, which is the most attractive aspect of investment.

The Government is also undertaking ambitious infrastructure programs and is providing major tax cuts to foreign investors. Chinese companies are particularly keen on these ventures, the most important being the free trade zone funded by China and Djibouti, which was opened in 2018 and is projected to become the largest in Africa. The main projects are Addis Abeba-Djibouti trains, the development of a drinking water pipeline with Ethiopia and airports, a wind farm, a solar plant with Germany and a geo-energy plant with China. In May 2017, the port of Doraleh opened an extension of the port of Djibouti and is described as potentially the most high-tech port in Africa. The government's cancelation of this long-term deal with DP World threatens to weaken the country's overall investment climate. The FDI flows may be hampered by mediocre government, corruption, lack of a strong judicial framework, an unstable global geopolitical situation, a poorly diversified economy with low resilience to external shocks and a fragile ecosystem which is environmentally vulnerable to crises.

This research has fairly clear policy implications. Djibouti should balance the costs of policies to attract FDI against policies aimed at improving local conditions. Any other methods would not be incompatible. In addition to attracting international businesses, better local conditions allow host countries to maximize FDI benefits. In attracting FDI, it should be aimed at a specific area in which foreign investment in the host country is most needed to tackle and solve major problems. To maximize the positive impact of foreign investments, the government of Djibouti needs to verify, and consult with all stakeholders, that current legislation, regulations and institutions are relevant. It is

important to research how FDI inflows lead to economic growth in Djibouti for further empirical studies. For further empirical studies, it will be necessary to research how foreign trade is linked to economic growth in Djibouti.

The study's empirical evidence indicates that policy policies should incorporate facilities for export and foreign direct investment and domestic investment by growing domestic development, generating employment opportunities, promoting local investments and attracting foreign investors to achieve the goal of sustainable economic growth. The study recommends a further study to be done on the role of international trade on economic growth in Djibouti. Future studies should apply different control variables in order to generate different aspects. Future studies needs to address the strength and robustness of the argument for the gains of trade. Therefore, future studies that use different econometric approaches to test the impact of other macroeconomic variables on the economic growth of Djibouti and other developing countries.

REFERENCES

Ahmad, W., & Ahmed, T. (2019). Energy Sources and Gross Domestic Product: International Evidence. In *The 29th Annual General Meeting and Conference of the Pakistan Society of Development Economists Islamabad* (Vol. 53).

Abbas, S. (2012). Causality between Exports and Economic Growth: Investigating Suitable Trade Policy for Pakistan. *Eurasian Journal of Business and Economics,* 5(10), 91-98

Alfaro, L., Chanda, A., & Kalemli-ozcan, S. (2004). FDI and economic growth : the role of local financial markets. *Journal of International Economics*, *64*, 89–112. https://doi.org/10.1016/S0022-1996(03)00081-3

Atlanticcouncil.org (2020). Retrieved from https://www.atlanticcouncil.org/blogs/africasource/why-djibouti-is-the-loser-of-the-horn-of-africa-s-new-peace/ (02/04/2020).

Bakari, S., & Mohamed Mabroukib, A. O. c. (2018). Munich Personal RePEc Archive The Six Linkages between Foreign Direct Investment , Domestic Investment , Exports , Imports , Labor Force and Economic Growth : New Empirical and Policy Analysis from Nigeria, (88259).

Balasubramanyam, V. N., Salisu, M., & Sapsford, D. (1996). Foreign Direct Investment and Growth in EP and is Countries. *The Economic Journal*, *106*(434), 92–105.

Bekere, B., & Bersisa, M. (2018). Impact of Foreign Direct Investment on Economic Growth in Eastern Africa. Determinants of Economic Growth in Africa. Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-319-76493-1_4

Bengoa, M., & Sanchez-robles, B. (2003). Foreign direct investment, economic freedom and growth: new evidence from Latin America. *European Journal of Political Economy*, *19*, 529–545. https://doi.org/10.1016/S0176-2680(03)00011-9

Bint-e-Ajaz, M., & Ellahi, N. (2018). Public-Private Investment and Economic Growth in Pakistan: An Empirical Analysis. In *The 28th Annual General Meeting and Conference of the Pakistan Society of Development Economists Islamabad* (Vol. 51).

Borensztein, E., Gregorio, J. De, & Lee, J. (1998). How does foreign direct investment affect economic growth? *Journal of International Economics*, *45*, 115–135.

Brenner, T. (2014). The Impact of Foreign Direct Investment on Economic Growth – An Empirical Analysis of Different Effects in Less and More Developed Countries. *Working Papers on Innovation and Space, Philipps-Universität Marburg*, 13.

Chacko, E., & Gebre, P. H. (2019). Leveraging the diaspora for development : lessons from Ethiopia , JSTOR , *78*(3), 495–505.

Chang, S. C. (2010). Estimating Relationships Among FDI Inflow, Domestic Capital, and Economic Growth Using the Threshold Error Correction Approach. *Emerging Markets Finance and Trade*, *46*(1), 6–15. https://doi.org/10.2753/REE1540-496X460101

Chia, Y. E. (2016). Export-led Growth Hypothesis: Empirical Evidence from Selected Sub-saharan African Countries. *Procedia Economics and Finance*, 232–240. https://doi.org/10.1016/s2212-5671(16)00029-0

Chinoda, T. (2020). The nexus between financial inclusion, trade and economic growth in Africa? *Transnational Corporations Review*, 1–10. https://doi.org/10.1080/19186444.2020.1742065

Choe, J. Il. (2003). Do Foreign Direct Investment and Gross Domestic Investment Promote Economic Growth? *Review of Development Economics*, *7*(1), 44–57.

De Matteis, A. (2004). International trade and economic growth in a global environment. *Journal of International Development*, *16*(4), 575–588. https://doi.org/10.1002/jid.1094

Ehikioya, L., & Mohammed, I. (2016). The Nexus between International Trade and Economic Growth: The Nigerian Experience. *Global Journal of Research in Business & Management*, *4*(1), 246–253.

EIF. (2004). Integrated Framework Diagnostic Trade Integration Study. Retrieved from https://eif-mis.org/files/user/Djibouti_DTIS_Final_march04.pdf

Ekanayake, E. M., & Ledgerwood, J. R. (2010). How Does Foreign Direct Investment Affect Growth in Developing Countries? An Empirical Investigation. *The International Journal of Business and Finance Research*, *4*.

Epaphra, M., & Mwakalasya, A. H. (2017). Analysis of Foreign Direct Investment, Agricultural Sector and Economic Growth in Tanzania. *Modern Economy*, *08*(01), 111–140. https://doi.org/10.4236/me.2017.81008

Fatemah, A., & Qayyuma, A. (2018). Modeling the impact of exports on the economic growth of Pakistan. *Turkish Economic Review*, *5*(1).

Fosu, A. K. (1990). Exports and Economic Growth : The African Case, *18*(6), 831–835.

Ghani, E., & Din, M. U. (2006). The impact of public investment on economic growth in Pakistan. *Pakistan Development Review*, *45*(1), 87–98. https://doi.org/10.30541/v45i1pp.87-98

Gnangnon, S. K. (2018). Multilateral Trade Liberalization and Economic Growthe. *Journal of Economic Integration, Vol. 33, No. 2 (June 2018), Pp. 1261-1301*, *33*(2), 1261–1301.

Gokmenoglu, K. K., Amin, M. Y., & Taspinar, N. (2015). The Relationship among International Trade, Financial Development and Economic Growth: The Case of Pakistan. *Procedia Economics and Finance*, *25*(May), 489–496. https://doi.org/10.1016/s2212-5671(15)00761-3

González-pernía, A. J. L., & Peña-legazkue, I. (2019). Export-oriented entrepreneurship and regional economic growth Export-oriented entrepreneurship and regional econ growth, *45*(3), 505–522.

Gyimah-Brempong, K. (2019). Export Instability and Economic Growth in Sub-Saharan Africa .*The University of Chicago Press Stable UR, 39(4), 815–828.*

Hamdan, B. S. S. (2016). The effect of exports and imports on economic growth in the arab countries: a panel data approach, *Journal of Economics Bibliography*, *3*(1).

Harrison, A. (1994). The role of multinationals in economic development: The benefits of FDI. *The Columbia Journal of World Business*, 7–11.

Jenkins, H. P., & Katircioglu, S. T. (2010). The bounds test approach for cointegration and causality between financial development, international trade and economic growth: The case of Cyprus. *Applied Economics*, *42*(13), 1699–1707. https://doi.org/10.1080/00036840701721661

Jilenga, M. T., Xu, H., & Gondje-Dacka, I.-M. (2016). The Impact of External Debt and Foreign Direct Investment on Economic Growth: Empirical Evidence from Tanzania. *International Journal of Financial Research*, *7*(2). https://doi.org/10.5430/ijfr.v7n2p154

Johnson, A. (2006). The Effects of FDI Inflows on Host Country Economic Growth. Electronic Working Paper Series. Retrieved from https://static.sys.kth.se/itm/wp/cesis/cesiswp58.pdf

Jugurnath, B., Chuckun, N., & Fauzel, S. (2016). Foreign Direct Investment & Economic Growth in Sub-Saharan Africa: An Empirical Study. *Theoretical*

Economics Letters, *06*(04), 798–807. https://doi.org/10.4236/tel.2016.64084

Khaliq, A., & Noy, I. (2007). Foreign Direct Investment and Economic Growth: Empirical Evidence from Sectoral Data in Indonesia. *Working Papers*, Retrieved from http://www.economics.hawaii.edu/research/workingpapers/WP_07-26.pdf

Ko, P., Evans, E., Opoku, O., & Yan, I. K. (2019). Energy demand – FDI nexus in Africa : Do FDIs induce dichotomous paths ?, *81*, 928–941. https://doi.org/10.1016/j.eneco.2019.05.030

Kunle, A., S.O., O., & Oluwafolakemi, F. O. (2014). Impact of Foreign Direct Investment on Nigeria Economic Growth. *International Journal of Academic Research in Business and Social Sciences*, *4*(8), 234–242. https://doi.org/10.6007/ijarbss/v4-i8/1092

Lawal, E. O., & Ezeuchenne, K. (2017). International Trade and Economic Growth in Nigeria. *Global Journal of Humanities and Social Science*, *22*(06), 35–43. https://doi.org/10.9790/0837-2206083543

Le, M. V., & Suruga, T. (2005). Foreign direct investment, public expenditure and economic growth: The empirical evidence for the period 1970-2001. *Applied Economics Letters*, *12*(1), 45–49. https://doi.org/10.1080/1350485042000293130

Li, X., & Liu, X. (2005). Foreign Direct Investment and Economic Growth : An Increasingly Endogenous Relationship. *World Development*, *33*(3), 393–407. https://doi.org/10.1016/j.worlddev.2004.11.001

Luiz, R., & Mello, D. (1999). Foreign direct investment-led growth : evidence from time series and panel data. *Oxford Economic Papers*, *51*, 133–151.

Mania, E., & Rieber, A. (2019). Product export diversification and sustainable economic growth in developing countries, *51*, 138–151. https://doi.org/10.1016/j.strueco.2019.08.006

Mua'zu Muhammad, Y., & Aliyu, A. (2019). International Trade and Economic Growth : A Panel Data Analysis of Some Selected Sub-Saharan African Countries. *KIU Journal of Social Sciences*, *5*(3), 99–109.

Muhammad, B., & Khan, S. (2019). Effect of bilateral FDI , energy consumption , CO2 emission and capital on economic growth of Asia countries. *Energy Reports*, *5*, 1305–1315. https://doi.org/10.1016/j.egyr.2019.09.004

Muna Sulaiman and Norma Md . Saad(2009): An Analysis of Export Performance and Economic Growth of Malaysia Using Co- Integraton and Error Correction Models,

The Journal of Developing Areas , *43*(1), 217–231.

Nair-Reichert, U., & Weinhold, D. (2001). Causality tests for cross-country panels: a new look at FDI and economic growth in developing countries. *Oxford Bulletin of Economics and Statistics*, *2*, 153–171.

Najabat, A., & Li, X. (2017). Foreign Direct Investment, International Trade and Economic Growth in Pakistan's Economic Perspective. *American Journal of Economics*, *7*(5), 211–215. https://doi.org/10.5923/j.economics.20170705.02

Odhiambo, M. N & Asongu, A. (2019). Foreign Direct Investment, Information Technology and Economic Growth Dynamics in Sub-Saharan Africa. *2019 European Xtramile Centre of African Studies Research*, 1–31.

Olayungbo, D. O. (2019). Effects of oil export revenue on economic growth in Nigeria : A time varying analysis of resource curse. *Resources Policy*, *64*(August), 101469. https://doi.org/10.1016/j.resourpol.2019.101469

Onakoya, A. B. (2012). Foreign Direct Investments and Economic Growth in Nigeria : A Disaggregated Sector Analysis. *Journal of Economics and Sustainable Development*, *3*(10), 66–75.

Orhangazi, Ö. Yalçın, C. & Gezici, A. Exports and Financing Constraints Evidence from Turkey, *Review of Middle East Economics and Finance*, *14*(01). https://doi.org/10.1515/rmeef-2017-0024

Osei-Assibey, K., & Dikgang, O. (2020). International Trade and Economic Growth: The Nexus, the Evidence, and the Policy Implications for South Africa. *International Trade Journal*, *00*(00), 1–27. https://doi.org/10.1080/08853908.2020.1737598

Ouedraogo, R., & Sandrine, W. (2018). Fiscal policy pro-cyclicality in Sub-Saharan African countries : The role of export concentration. *Economic Modelling*, (April), 1–11. https://doi.org/10.1016/j.econmod.2018.05.017

Phetsavong, K., & Ichihashi, M. (2012). The Impact of Public and Private Investment on Economic Growth: Evidence from Developing Asian Countries. *IDEC Discussion Paper 2012*, 1–10. Retrieved from https://home.hiroshima-u.ac.jp/~ichi/Kongphet2012.pdf

Ram, R., Zhang, K. H., 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.

Styan, D. (2013). Djibouti : Changing Influence in the Horn's Strategic Hub. Retrieved from http://www.chathamhouse.org/sites/files/chathamhouse/public/Research/Africa/0413bp_djibouti.pdf

Sunde, T. (2017). *Research in International Business and Finance*. https://doi.org/10.1016/j.ribaf.2017.04.035

Tah, K. A., Czerniak, C., Levine, A., Wiggin, K., & Osondu, I. N. (2019). Foreign trade and economic growth in South Africa. *Asia-Pacific Journal of Accounting and Economics*, 1–10. https://doi.org/10.1080/16081625.2019.1567352

Tawiri, N. (2010). Domestic Investment as a Drive of Economic Growth in Libya. *International Conference on Applied Economics–ICOAE*, (15), 759–767.

Thikraiat S. and Shatha A. (2014). the Causal Relationship between Exports and Economic Growth in Jordan. *Global Journal of Management and Business Research*, 1(4), 2249-4588.

Ullah, Z. W. (2018). The Impact of Trade Openness , Investment and Human Capital on Economic Growth of Pakistan, *5*(1), 44–51.

United Nations (2019). Retrieved from https://www.un.int/djibouti/djibouti/country-facts. (04/01/2020).

Wu, G., Pu, Y. U. E., Yao, X., Jiang, Y., & Du, W. (2017). Multiple Margins of China ' s Export Growth : A Two-Mode Network Dynamic Analysis, *43*. https://doi.org/10.3138/cpp.2016-074

Yennu, A. T. (2018). International Trade and Economic Growth in Ghana - Benefits, Constraints and Impacts. *International Journal of Economics & Management Sciences*, *07*(04). https://doi.org/10.4172/2162-6359.1000541

Zhang, K. H. (2001). Does foreign direct investment promote economic growth? Evidence from East Asia and Latin America. *Western Economic Association International*, *19*(2), 175–185.