THE IMPACT OF PETROLEUM SECTOR ON THE ECONOMIC GROWTH IN NIGERIA (1980-2012)

BY

AYINLA NOFISAT OMOLARA

MATRIC NO: EDS/11/0165

A RESEARCH PROJECT SUBMITTED TO THE DEPARTMENT OF

ECONOMICS AND DEVELOPMENT STUDIES,

FALCUTY OF HUMANITIES AND SOCIAL SCIENCE,

FEDERAL UNIVERSITY OYE EKITI,EKITI STATE NIGERIA.

IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF DEGREE

OF

BACHELOR OF SCIENCE (B.SC HONS) IN

ECONOMICS AND DEVELOPMENT STUDIES.

SUPERVISOR: MR. EKPENYONG IMOH. U

AUGUST, 2015.

CERTIFICATION.

This is to certify that this research work was carried out by Ayinla Nofisat Omolara (matriculation number EDS/11/0165) as meeting part of the requirement for the award of Bachelor of Science (B.sc) degree. Under the supervision of Mr. Ekpenyong Imoh. U

.....

MR. Ekpenyong Imoh. U

18-09-2015

.....

DATE

HOD
DEPT. OF ECONOMICS
& DEV. STUDIES
09 OCT 2015

.....

DR. Christopher Ehinomen

FEDERAL UNIVERSITY, OYE-EKITI
SIGN.
(HOD)

28/09/2015.

.....

DATE

.....

External Examiner

.....

DATE

DEDICATION.

This research project is dedicated to almighty Allah. The most gracious and merciful God who through his infinite mercies saw me through the writing of this project. Also to my parents, Mr.Ganiyu Ayinla, Mrs .Zainab Ayinla, and my fiancé Akiwowo Uthman Abiodun for their care, understanding and sacrifices they made for me to acquire this certificate.

ACKNOWLEDGEMENT

I give my profound gratitude to almighty Allah the creator of the whole universe who gave me life and sound health in abundance and saw me through my degree programme in this university. May all the glory, honors and adoration be ascribed unto his holy name. My deepest and unquantifiable gratitude goes to my parents Mr Ganiyu Ayinla, and Mrs Zainab Ayinla, for their love, support, encouragement and prayers throughout my learning period in this university. You are the best parents anyone could ever wish for in the whole world. May almighty Allah reward you immeasurably, and to my one and only brother Ayinla Habeeb, my siblings: Ayinla Salamot. Ayinla Sherifat, and the entire family of Suliaman you are the best. My humble appreciation goes to my supervisor Mr.Udom Ekpenyong for the guidance, support and advice throughout the duration of this research on my project work. You are truly an epitome of wisdom and a man with an impeccable character. My appreciation also goes to all the lecturers in my department: Dr Chris Ehinomen, Prof. Adebayo A.A, Prof. Ogunleye E.O, Dr. Ditimi Amassoma, Dr. Rufus Akindola, Dr.Nwosa Philip.I, Mrs.Adegoke Y, Dr. Omolade Adeleke, Mr.Agu Osmond, Mrs.Mbah Stella, Mr.Emma-Ebere O, Mr.Akinola G.W, Mr.Ugwu Ephraim Ikechkwu, Mr. Ogbuagu M.I, Mr Okoli Tochukwu, Mrs.Olaosebikan Busola and Mr Keji Sunday .A. who have at one point in time impacted knowledge in me. Thank you so much. To my friends: Abiodun A.K.A Pablo, Muslimah, Khadijat A.K.A Alhaja however, Alfa Mutiu A.K.A shuke, and to all members of MSSN, you have been wonderful and it has been fun being with you and learning amongst you. Thank you all for your different contributions to my life and I won't forget you. And to my course mates, Ibukun, Ife, Anu A.K.A Spere, Lizzy, Jonathan, Tuntun, Obviously, Dean, Godwin, Ayo, Tope, Yomi, Gbemisola, Bimbo I won't forget all the memories we have made together, without you people life would have been hell on earth.

ABSTRACT.

The study examines the impact of petroleum sector on economic growth of the Nigerian economy. Data covering the period 1980-2012 was collected from Nigeria National Petroleum Corporation (NNPC), CBN statistical bulletin, the World Bank (WB) and, analyzed using econometric approach. The stationarity properties of the time series data was examined using Augmented Dickey Fuller test. The regressand is Real Gross Domestic Product (RGDP). The regressors are Foreign Direct Investment (FDI), Oil Revenue (OILR), External debt (EXDEBT). The Engle and Granger (EG) cointegration test was conducted to ascertain the long run condition of the variables in the model. The table shows that only one of the variable is stationary at level and three of the variables become stationary after first difference. Foreign Direct Investment (FDI) is stationary at level; whereas External Debt, GDP growth (RGDP) and oil revenue (OILR) become stationary at first level. It was discovered that the variables: oil revenue impacts positively in the short run and negatively in the long run to GDP, while FDI and EXDEBT impacts negatively on Real GDP, both in the long and short run. This means that the resource curse theory is proven to be true in Nigeria. The study concludes that, if the petroleum industry bill is passed and implemented to the letters, there exists hope for the Nigerian nation.

Keywords: Petroleum, Economic growth, Natural resource abundance.

TABLE OF CONTENT

CHAPTER ONE

1.0 INTRODUCTION.

The petroleum industry in Nigeria is the biggest industry. Oil provided approximately 90 percent of foreign exchange earnings and about 80 percent of Federal revenue and contributes to the growth rate of Gross domestic product (GDP). Since the Royal Dutch Shell discovered oil in the Niger Delta in 1956, precisely in Oloibiri, in Bayelsa state, the oil industry has been flawed by political and economic strife largely due to a long history of corrupt military regimes, civil rule and complicity of multinational corporations, notably Royal Dutch Shell. Six oil companies- Shell, Elf, Agip Mobil, Chevron and Texaco dominates the oil industry in the country. Together, they hold some 98% of the oil reserves and operating assets. A range of 50 others have minor interests, some of which were recently acquired. There are three major actors in the Nigeria oil industry. They are: the ministry of petroleum resources, the Nigerian National Petroleum Corporation (NNPC) and its subsidiaries, the oil prospecting companies made up of the multinational companies and indigenous companies together with their subsidiaries (Baghebo, 2012).

Petroleum is no doubt a source of Nigeria's revenue and foreign exchange. The petroleum industry in Nigeria is divided into two main sectors. The upstream and the downstream sectors. The upstream refers to activities such as exploration, and production of crude oil or gas to an export terminal. The downstream on the other hand deals with refining petroleum crude oil and the processing and purifying of raw natural gas. It also encompasses activities like loading of crude oil at the terminal and its user especially transportation, supply trading, refining distribution and marketing of petroleum (Dominic, 1999).

The impact of a product or sector to the national economy can be measured by its size in the GDP. The impact of petroleum to the GDP in Nigeria increased steadily over the study period. Oil accounted for just 3.43 per cent of the GDP in 1965. The share of oil in the GDP increased from 9.27 per cent in 1970 to 19.37 per cent in 1975. The Figure increased to 38.87 per cent in 2005. The share of oil in the GDP decreased marginally to 37.44 per cent in 2009. Two main reasons can be offered for the increasing share of oil in GDP.

Firstly, the discovery of oil in large quantity since early 70s which led to massive oil production and export. The huge revenues from oil led to enormous rural urban migration and the abandonment of agriculture.

Secondly, the natural tendency for share of agricultural sector to fall while non agricultural sector increases as the economy develops. Sachs and Warner (1995; 1999).

Contributions of the Nigerian Petroleum Industry to Real GDP, 2000 – 2008 (Percent)

YEARS	2000	2001	2002	2003	2004	2005	2006	2007	2008
REAL GDP %	32%	31%	24%	28%	26%	24%	22%	20%	18%

Source: Constructed from the CBN Statistical Bulletin, December 2008, pp.117 – 118.

The operations and activities of petroleum are regulated by the Federal government of Nigeria; the government does this through the enactment and implementation of bills and acts. Several bill and act have been passed to check petroleum exploration and exploitation, they include among others: the petroleum act of 1969 (CAP 350), the oil pipeline act 1966, the land use decree 1978 etc.

The recent 2012 petroleum industry bill is a comprehensive development blueprint, below are some objectives of the bill:

i. Create a favorable business environment for petroleum operations
ii. Enhance exploration and exploitation of petroleum resources in Nigeria for the benefit of the Nigeria people;
iii. Optimize domestic gas supplies, particularly for power generation and industrial development;
iv. Establish a progressive fiscal framework that encourages further investment in the petroleum industry while optimizing revenues accruing to the government;
v. Establish commercially oriented and profit driven oil and gas entities;
vi. Deregulate and liberalize the downstream sector;
vii. Create efficient and effective regulatory agencies;
viii. Promote transparency and openness in the administration of the petroleum resources of Nigeria;
ix. Promote the development of Nigeria content in the petroleum industry;
x. Protect health, safety and the environment in the course of petroleum; and
xi. Attain such other objectives to promote a viable and sustainable petroleum industry in Nigeria (The Petroleum Industry Bill, 2012).

The elegant and robust objectives of the bill if taken at face value means hope for the Nigerian people. But past experience of the insincerity in achieving set objectives by the Nigeria governments leave many in skepticism.

1.1 BACKGROUND TO THE STUDY.

PETROLEUM POLICIES IN NIGERIA.

Petroleum policies in Nigeria reflect the basic goals of its membership in the Organization of Petroleum Exporting Countries (OPEC). The principal objectives of OPEC were:

The coordination and unification of the petroleum policies of member countries and the determination of the best means of safeguarding their interests individually and collectively;

1) Devising ways and means of ensuring the stabilization of prices in international oil markets, with a view to eliminating harmful and unnecessary fluctuations; and,

2) Ensuring a steady income to the oil producing countries and also ensuring an efficient, economic, and regular supply of petroleum to consuming nations and a fair return on capital to those investing in the petroleum industry. (Olorunfemi, 1982)

Though Nigeria appears to have been leading in OPEC's decisions on reduction of oil production as a necessary policy against persistent instability in the price of oil in the international oil market, the country stresses on policies that increase its proven oil reserves which has been rapidly depleted, as well as domestic consumption of refined petroleum products. As regards increases in the proven oil reserves, the Federal government and relevant authorities in the oil industry have articulated strategic policies aimed at expanding the nation's oil base. A notable policy to this effect is the federal government's privatization policy, allowing individuals the right to private ownership of oil exploration activities and oil wells. Special incentives have been provided to indigenous entrepreneurs willing to participate in upstream exploration activities. Such incentives were in the form of allocation of acreages in the nation's oil basins to indigenous

1.2 STATEMENT OF THE PROBLEM.

Petroleum income be it revenue from the sales of crude oil, can cause an increase or a decrease in economic growth and development of a nation, depending on the type of theory, policy and practical implementation the government in power adopts. (Bawa and Mohammed 2007) assert that Nigeria with all its oil wealth has performed poorly, with GDP, per capita today not higher than at independence in 1960. Yakubu (2008) suggests that income from a nation's natural resources (e.g. petroleum) has a positive influence on economic growth and development. Contrary to this opinion expressed above, Micheal Baghebo (1980-2011) found that natural resources income influence growth negatively. At this juncture it is important to investigate the impact of petroleum sector on economic growth in Nigeria.

1.3 OBJECTIVE OF THE STUDY.

This study, therefore, aims to illustrate clearly the impact of petroleum sector on economic growth in Nigeria. The objective of this study is spelt out into two namely

The general objective and specific objectives:

The general objective of this study is to examine the impact of petroleum sector on economic growth in Nigeria. Whereas the specific objectives are:

1, To determine the direction of causation between oil revenue and economic growth.

2, To examine the relationship between Foreign Direct Investment (FDI) and External Debt (EXDEBT) on gross domestic product (GDP).

investors. It is assumed that Nigerians in the Oil Industry can perform credibly well in both downstream and upstream oil exploration activities. Other notable production-related petroleum policy of the Federal Government include: first, the introduction of non-price incentives to prospective oil explorers.

Under these incentives, costs of unsuccessful wells were tax deductible in order to encourage further exploration drilling. Tangible costs of items for successful exploration wells were capitalized. All exploration drilling costs were to be expensed or tax deductible.

The second policy was the approval of investment tax credit. Companies that obtain any asset for the purposes of petroleum projects were to enjoy investment tax credits on such assets for the accounting period in which the asset was first used.

At present, it is difficult to locate an official documentation on the extent to which these incentives have encouraged production and increased the oil reserve base in Nigeria. Available information can only confirm a large increase in the number of private companies in the petroleum industry. (Olorunfemi, 1982):

Apart from production-related petroleum policies, the Nigerian government has instituted some consumption related policies, the most outstanding of which is the fuel subsidy. The policy goal here is to encourage domestic private consumption of petroleum products. This policy requires the Federal government to pay certain percent of the marginal cost of producing petroleum products in an effort to ensure uninterrupted distribution of such products, as well as effective transportation network. The policy recognizes the important distributive role of the transportation system in a developing economy. Lower unit costs of petroleum products were expected to enhance the movement of people and goods in commercial activities.

1.4 RESEARCH HYPOTHESIS.

This study is design to investigate the impact of petroleum sector on economic growth in Nigeria. The hypothesis is therefore postulated as follows:

Ho: There is no significant relationship between petroleum sector and economic growth in Nigeria.

H1: There is significant relationship between petroleum sector and economic growth.

1.5 JUSTIFICATION FOR THE STUDY.

Many authors like Odularo and Micheal Baghebo have research on the impact of petroleum sector on economic growth in Nigeria covering the period from 1970 to 2005 and 1980 to 2011. This research work also investigates the impact of petroleum sector on economic growth covering the period from 1980 to 2012. This proves that so far, there has not been any empirical research to find out the effect of petroleum sector on economic growth of Nigeria from 1980 to 2012. Hence this study becomes imperative in order to provide empirical solutions to some of the numerous problems besetting Nigerian economy. Lastly, this study is justified on the ground that it will help the Nigerian policymakers in their efforts to accelerate the growth rate of the Nigerian economy.

1.6 SCOPE OF THE STUDY.

This research work is an investigation into the impact of petroleum sector on economic growth in Nigeria (1980-2012). In carrying out this research work, the researcher encounters some

difficulties which include constraints or difficulties concerns paucity of data from different sources.

1.7 ORGANIZATION OF THE STUDY.

This research work is divided into five chapters. Chapter one which is the general introduction of the entire study comprises of the background of the study which includes (petroleum policies in Nigeria, and necessary information on Nigeria petroleum industry.) statement of the problem, objective of the study, significance of the study, organization of the study, and definition of terms. Chapter two is the literature reviews, which covers conceptual issues, theoretical framework, and empirical evidence. Chapter three consists of the research design, sources and method of data collection, model specification and method of data analysis. Chapter four presents the data and show the analysis and interpretation of findings as well as empirical result, and discussion of findings Chapter five which is the last chapter deals with the summary of findings, conclusions and recommendations.

1.8 DEFINITION OF TERMS.

DEFINITION OF FOREIGN DIRECT INVESTMENT: Foreign direct investment (*FDI*) is a controlling ownership in a business enterprise in one country by an entity based in another country.

DEFINITION OF EXTERNAL DEBT: External debt (or foreign debt) is the total debt a country owes to foreign creditors. The debtors can be the government, corporations or citizens of that country. The debt includes money owed to private commercial banks, other governments, or institutions such as the International Monetary Fund (IMF), World Bank (WB) etc.

DEFINITION OF REAL GDP: This is a macroeconomic measure of the value of economic output adjusted for price changes (i.e., inflation or deflation).

DEFINITION OF OIL REVENUE: This refers to the money that a government receives from the sales of crude oil or oil income earned from the sale of crude oil.

CHAPTER TWO

2.0 INTRODUCTION.

This section provides a succinct summary of the literature review which includes: conceptual issues, theoretical framework, and empirical evidence on the relationship between petroleum sector and economic growth in Nigeria. The purpose is to first present conceptual issues and theoretical account of the Benign perspective on the issue of resource abundance and economic progress and the Malign perspective on natural resource not a blessing. The theoretical literature on the resource abundance contains many mechanisms that may explain why 'more leads to less, in the sense that the general equilibrium effect of more natural resources may actually be lower income. Dominant theories of economic growth have suggested that significant relationship exist between petroleum sector and economic growth. Then, the various channels through which oil may impact growth and development follow each perspective.

2.1CONCEPTUAL ISSUES

PETROLEUM; The word petroleum comes from the Latin *petra*, meaning "rock," and *oleum*, meaning "oil." thick, flammable, yellow-to-black mixture of gaseous, liquid, and solid hydrocarbons that occurs naturally beneath the earth's surface, can be separated into fractions including natural gas, gasoline, naphtha, kerosene, fuel and lubricating oils, paraffin wax, and asphalt and is used as raw material for a wide variety of derivative products. (American Heritage Dictionary)

2.2 TYPES OF PETROLEUM PRODUCT.

1, Crude oil

2, Natural gas

3, kerosene

4, Jet fuel

5, Aviation gasoline.etc

2.3 ECONOMIC GROWTH: can be defined as an increase in value of goods and services produced in a country. Growth implies an increase in real GNP per unit of labor input. This refers to changes in labor productivity over time. Economic Growth is conventionally measured as the rate of increase in Gross Domestic Product (GDP).Growth is usually calculated in real term. The Central Bank of Nigeria (2010) defines GDP as the money value of goods and services produced in an economy during a period of time irrespective of the nationality of the people who produced the goods and services. It is usually calculated without making any allowance for capital consumption (or deductions for depreciation).

2.4 TYPES OF GROWTH. Growth in input can be divided into two major categories:

1, Growth through input increase input i.e. labour and capital input.

2, Growth through improvement in productivity i.e. technological progress is needed to increase or improve the standard of living in the long run.

2.5 DEFINITION OF GROSS DOMESTIC PRODUCT.

Gross Domestic product (GDP) is one of the measures of National income and output for a given country's economy. It is defined as a total market value of all final goods and services produced within a country in a given period of time usually one calendar year.

Kimberly (2008) asserts that Gross Domestic product is everything produced by all the people and all the companies within an economy. The difference between Gross Domestic Product and Gross National Product (GNP) is the fact that GDP is concerned with the region in which income is generated and focuses on where the output is produced rather who produces it.

2.6 COMPONENTS OF GROSS DOMESTIC PRODUCT.

The components of Gross Domestic Product cannot be easily identified without first considering the expenditure method of its measurement.

This method can be written as:

$$GDP=C+I+G+(X-M)$$

This is a simple National income computation for an open economy.

Where:

C= Consumption, as Economists preferred splitting general consumption into both private consumption and public sector spending. This private consumption includes personal expenditure and house spending.

I= Investment, defined as expenditure in business and capital in household.

G= Government expenditure, which could include government spending on various sectors of the economy.

X= Gross export

M= Gross import

2.7 DEVELOPMENT OF OIL INDUSTRY IN NIGERIA.

The development of oil industry in Nigeria began in the first decade of this century. According to Anyanwu (1997), it stated with exploration activities by the German Bitumen Corporation. He stated that in 1937, an oil prospecting license was granted to shell and Archy exploration parties and in 1955, mobile exploration, Nigeria incorporation obtained concession over the whole of the former northern region of the country. Anyanwu added that this company curried out some geological work, drilled three deep wells in the former western region and abandoned concession in 1961. However, Anyanwu noted that the first commercial discovery of crude oil in Nigeria was in 1957 by shell. He also added that the company started production in 1958 and that in 1961, the federal government of Nigeria issued ten oil prospecting licenses, each license on the continental shelf to five companies, each license covered an area of 2,560 squares kilometers and was subject to the payment of N1 million with these generous concession, accordingly to him, full scale one – share and off-shore oil exploration began. Oil was found in commercial quantities at Oloibiri in the Niger Delta (Ukwu 1, Ukwu 2000). Further discovered that Afam and Boma established the country as an oil producing Nation. By April 1967, oil from Nigeria had reached 2 million barrels per day (Anyanwu et al 1997 p. 32). The first oil well on the Nigeria continental shelf was struck by the Gulf Oil company at Okam field, off the coast of Bendel State. (Ukwu 2000 p. 71) more off –share well have been drilled by other companies

(ELF, Mobile Agip, Texaco etc) and production rate rose steeply year after year through the global oil glut of the 1980's steamed the trend. It is also important to note that because of the need to conserve foreign exchange, create job opportunities to some extent, in addition to other multiplier effects locally, the federal government in 1962 awarded a contract for the construction of a refinery at Alesa – Eleme, Port – Harcourt ; River State. The refinery was commissioned in 1965 with an initial designed production capacity of 35,000 barrels per day. This consumption of products for many years to come. However, between 1970 and 1978, the nation experienced an upsurge in demand for petroleum products averaging a yearly increased of 23.4 percent. Thus in 1978, the Warri refinery was officially opened with a total capacity standing at 100,000 barrels per day. By 1979, Nigeria refinery capacity stood at 160,000 barrels. Continual demand pressure led to the building of a third refinery at Kaduna in 1980 with limited capacity of 100,000 and with a potential capacity of 280,000bd. A fourth refinery has been constructed near port – Harcourt. The federal governments intends to use some of the end products from the refineries as feedstock in its petrochemical projects which are being implemented in 3 phases at Ekpan, Warri and Kaduna. (Anyanwu et al 1997; p. 101) commenting on Open and Nigeria, Agbejule (1987) noted that Nigeria is the 11th member of the organization of petroleum exporting countries (OPEC). He stressed that the organization has 13 member countries and it geared towards the development of the economics of its members through effective utilization and control of the petroleum resources of the nations. As a member of OPEC, Nigeria jointly with other members determine at what minimum price level various member countries should sell their crude oil OPEC now determines the level of crude oil production for its member countries in order to prevent a collapse in the crude oil price. The price of oil is determined by the organization of petroleum exporting countries (OPEC). On the birth of NNPC, Anyanwu (1997) noted that the

presence and activities of the oil companies in Nigeria had led to government involvement in the oil industry as well as the birth of NNPC. He explained that the role of government in the oil industry as gradually progressed from regulatory to direct involvement in all exploration. Initially government interest was only limited to the companies of royalties and other dues offered it from the companies and making rudimentary laws to regulate the activities of the oil industry. This was partly due to the fact that oil was very insignificant to the economy before the late sixties and the relative lack of trained personnel and expertise, (Anyanwu et al 1997; 113).

By 1971, a year after the Nigerian civil war, oil had started becoming more important to the economy. To strengthen and establish government control in the industry, therefore the Nigeria National Oil Corporation (NNPC) was established by a decree in 1971, as integrated oil company (Ukwu 1. Ukwupg 109 – 150) it was also in that year that Nigeria joined the organization of petroleum exporting countries (OPEC) as the 11th member country.

The NNPC had responsibility for both upstream and downstream activities in the industry. As a result of all these developments, government had acquired a new stature and, decided on active participation in the industry's activities. It was believed that if government had more say in running of the oil industry, it could achieve its goals of rapid industrialization and commercial development. Consequently, share acquired 331/3 equity interest in the Nigeria Agip Oil Company (NAOC) in 1971 and 35% in EIF (Nigeria Brief – Community issues). Meanwhile, the ministry of petroleum resources whose functions were mainly regulatory was also running concurrently with NNOC and the ministry of petroleum resource created the Nigeria National Petroleum Corporation (NNPC) combined the commercial functions of the former NNOC (namely: exploration, production, transportation, processing of oil refining, marketing of crude oil and its refined products with the regulatory function of the former ministry of petroleum

resources. These regulatory functions were then vested in an independent arm of the NNPC, the petroleum inspectorate; which is today a department in the present ministry of petroleum resources and still performing the same role. (Anyanwu et al 1997; p. 56). The NNPC is also responsible per carrying out research in connection with petroleum or anything derived from it and promoting activities for the purpose of turning to good account, the result of such research.

2.8 THEORETICAL FRAMEWORK.

THE BENIGN PERSPECTIVE: NATURAL RESOURCE ABUNDANCE BENEFICIAL TO GROWTH.

The expected wisdom before the late 80s was that natural resources had positive effect on development (Baghebo, 2012 and Rosser, 2006). This thought was shared by many development theorists and neo-liberal economists until the resurgence of new view in the 80s that claimed that natural resource abundant was not a blessing to the developing countries. The basic argument of the benign perspective is that natural resource endowments would assist the developing countries to transit from the stage of underdevelopment to that of industrial 'take-off', as obtained in such countries as Britain, the United States and Australia. Essentially, the various channels through which abundance of natural resources like oil sector could contribute to the economies of the oil producers have been identified in the literature. One, the huge revenues from oil enables the governments of the oil producing countries to spend and invest massively without recourse to taxation. Revenues from oil, if appropriately utilized, could serve as a "big push" for development. This channel is especially important for developing countries where paucity of capital often constitutes a major encumbrance to growth and development.

Oil sector can also contribute to development in the oil rich economies through provision of intermediate inputs to the rest of the economy. These intermediate inputs include crude oil, gas and liquid feed stocks, as well as oil and gas into the refining, petrochemical and electricity and energy intensive industries respectively (Al-Moneef, 2006). This channel is critical to growth and development in the developing countries. For instance, many outputs of the petrochemical industries are crucial to the development of the manufacturing industries. Likewise, provision of electricity and other basic utilities at favorable prices is of considerable importance in the process of growing and nurturing the service and manufacturing sub sectors. Growth and development in the oil rich economies could be enhanced through the market contribution from oil. The market contribution relates to the demand by oil sector for various inputs of goods and services provided by local sources.

2.9 THE MALIGN PERSPECTIVE: NATURAL RESOURCE ABUNDANCE NOT A BLESSING.

Sequel to the poor performance of most oil–rich countries in the 80s, the idea that natural resource abundance was a blessing to development was jettisoned by scholars. Critics argued that natural resource abundance is harmful to growth. Extensive literature exists on the various channels through which natural resources, especially oil, harms growth. The major transmission mechanisms include Dutch disease, volatility argument and inefficiency in resource allocation argument. The volatility argument is anchored on the fact that revenues from natural resources especially oil are very volatile, as they are driven by sharp and significant fluctuations in prices over relatively short periods of time. Consequently, in the face of fluctuating revenues, governments in the oil rich countries often find it extremely difficult to pursue a prudent fiscal

policy. In addition, there is the general apprehension that windfall revenues arising from unanticipated high export prices would be used for consumption rather than being invested or at best invested on wasteful projects.

Moreover, emphasis is placed on the political economy considerations in explaining the nature of the relationship between natural resource abundance and economic growth. This view contends that a large windfall from the resource tends to generate and promote rent-seeking activities that involve corruption, voracity and civil conflict. Several empirical studies have confirmed the natural resource curse hypothesis.

All in all, while there are strong theoretical grounds to suspect a broad correspondence between natural resource abundance especially oil and low growth, the nature of the linkage is neither direct nor simple. Empirical literature has not provided conclusive answer to whether abundant natural resource is a curse or blessing. Even among studies that claimed the curse of natural resources actually exist, there is no agreement on what exactly drives the curse of the natural resources and on how it exactly plays out. This explains why further research should be focused on the causal link between natural resource abundance and growth in the resource rich economies. (for example Yakubu (2008) and Hoffman (1999)) believes that countries lucky enough to have petroleum, can base their development on this resource. They point to the potential benefits of enhanced economic growth and the creation of jobs, increased government revenues to finance poverty alleviation, the transfer of technology, the improvement of infrastructure and the encouragement of related industries. But the experience of almost all oil-exporting countries to date, especially Nigeria illustrates few of these benefits (Terry, 2000). To say the least, Nafziger (1984) says that Nigeria's case is increasingly degenerating to a state of chaos as petroleum income is brazenly mismanaged while the basic national institutions such as

electricity, energy, road, transportation, political, financial systems, and investment environment have been decreasing and inefficient in Nigeria, the infrastructure is still poor; talent is scarce. Poverty, famine, and disease afflict many nations, including Nigeria (Chironga, et al, 2011). The importance of crude oil to the economic development of Nigeria cannot be over emphasized, and the evidence presented in Binda and Van Wijnbergen (2008) which states that Nigeria gained an extra $390 billion in oil-related fiscal revenue between 1971 and 2005, or 4.5 times 2005 gross domestic product (GDP). Unfortunately, the economy has been bedeviled by sustained underdevelopment evidenced by poor human developmental and economic indices including poor income distribution, militancy and oil violence in the Niger Delta, endemic corruption, unemployment, relative poverty (Nwezeaku, 2010). Irrespective of Nigeria's huge oil wealth, the country has remained one of the poorest in the world. In particular, the Niger Delta which produces the oil wealth that accounts for the bulk of Nigeria's earnings has also emerged as one of the most environmentally degraded regions in the world evidenced from the World Wildlife Fund report released in 2006 (Ekaette,2009). . In 2009, persistent inflation and environmental degradation led to deprivation of means of livelihood and other socio-economic factors to the people of Niger Delta which is the major oil producing state in Nigeria. Despite the fact that crude oil has been the source of Nigerian economy, the economy is faced with high rate of unemployment, wide spread oil spillage, increasing poor standard of living as a result of decreasing gross domestic product, per capita income and high rate of inflation which has led to the effect of the economic development .(Nwezeaku, 2010). Nafziger (2006) and Ibaba, (2005) state that Nigerian economy has the potentialities of becoming one of the twenty leading economies of the world before the year 2020 if their abundant crude oil wealth, human and natural resources are properly managed and corruption mitigated. In addition, Sinha and Lipton

(1999) posit that oil wealth can affect the poor by creating economic volatility. Volatility tends to hurt the poor in two ways: by causing macroeconomic shocks, and by making government revenues unstable.

It is evident from the opinions expressed in the foregoing theories that income from petroleum can cause an increase or a decrease in economic growth and development of a nation, depending on the type of theory, policy and practical implementation the government in power adopts.

2.9.1 THE DUTCH DISEASE THEORY.

Sachs and Warner (1995) developed a model of the Dutch disease to explain why a resource curse may exist in resource-rich nations. The Dutch disease simply says that an exogenous unexpected increase in foreign exchange revenues from natural resources, arising from increase prices or output, will precipitate a real exchange rate appreciation and thus a drop in output and employment in the non resource traded good sector, often manufacturing. This influential, seminal paper restarted the debate on the effect of natural resources on economic growth. Sachs and Warner examined the impact of natural resources on economic growth using data for a large number of nations (varying from 40 to 95 depending on the specific regression) from 1970 to 1989. To measure resource abundance, they used primary product exports as a percentage of GDP or GNP. However, their results indicated that, after controlling for a number of factors, natural resources had a negative impact on economic growth. Sachs and Warner's initial paper (1995) measures natural resources as primary product exports as a percentage of GDP in 1971. The main controls used by Sachs and Warner were the following: initial per-capita income; trade policy; government efficiency (measured as an average of three indices: efficiency of the judiciary, lack of red tape, and lack of corruption); investment rates (measured as average

investment to GDP). Sachs and Warner"s results were also robust to different measures of natural-resource abundance, such as share of mineral production to GDP, primary exports intensity (measured as fraction of primary exports to total exports), the log (natural logarithm) of land area per person, and natural resource wealth in total wealth. This negative impact, according to them, was likely due to the effects of the Dutch disease on the manufacturing sector, (Sala-i-Martin, X, & Arvind, S,. (2003) and Beland and Tiagi 2009).

The first wave of theory models to explain this was within what might be termed Dutch disease theory. Van Wijnbergen (1984) developed the first model showing how oil may reduce aggregate income through a learning-by-doing mechanism. When a country discovers oil, its population wants to spend part of the value of this as consumption of non-traded goods. Demand for these increases, pulling resources out of traded sectors, and decreasing production here. The decreased traded sector in turns means less learning by doing, and lower productivity growth than would otherwise be the case. This effect may be sufficiently strong to outweigh the initial increase in income that the oil discovery generated. Other models within the Dutch disease tradition include Krugman (1987),Matsuyama(1992),SachsandWarner(1995),Gylfasonetal.(1999),Torvik(2001), and Matsen and Torvik (2005).

Dutch disease models demonstrate that the existence of large natural resource sectors, or booms in these natural resource sectors, will affect the distribution of employment throughout the economy, as wealth effects pull resources in and out of non-traded sectors. These sectoral shifts can affect long term growth, as shown in another context for example in Matsuyama [1992]. In Matsuyama's model there are two sectors, agriculture and manufacturing. Manufacturing is characterized by learning-by-doing that is external to individual firms, that is, the rate of human capital accumulation in the economy is proportional to total sectoral production, not to the

production of an individual firm. Hence the social return to manufacturing employment exceeds the private return. Any force which pushes the economy away from manufacturing and towards agriculture will lower the growth rate by reducing the learning-induced growth of manufacturing. Matsuyama shows that trade liberalization in a land-intensive economy could actually slow economic growth by inducing the economy to shift resources away from manufacturing and towards agriculture.

2.9.2THE MATSUYAMA'S MODEL

In Matsuyama's model, the adverse effects of agricultural production arise because the agricultural sector directly employs the factors of production that otherwise would be in manufacturing. Such a framework may be useful for studying labor-intensive production of natural resources, such as in agriculture, but is less relevant for a natural resource sector like oil production, which use very little labor, and therefore does not directly draw employment from manufacturing. However, it is not difficult to extend Matsuyama's same point in a setting that is more appropriate for natural resource intensive economies, using the framework of the Dutch disease models. We present such a model in the working paper version of this paper, and here limit ourselves to a summary of the main points. In our version of the Dutch disease model, the economy has three sectors: a tradeable natural resource sector, a tradeable (non-resource) manufacturing sector, and a non-traded sector. Capital and labor are used in the manufacturing and non-traded sectors, but not in the natural resource sector. The greater the natural resource endowment, the higher is the demand for non-tradeable goods, and consequently, the smaller is the allocation of labor and capital to the manufacturing sector.

Therefore, when natural resources are abundant, tradeables production is concentrated in natural resources rather than manufacturing, and capital and labor that otherwise might be employed in manufacturing are pulled into the non-traded goods sector. As a corollary, when an economy experiences a resource boom (either a terms-of-trade improvement, or a resource discovery), the manufacturing sector tends to shrink and the non-traded goods sector tends to expand. The shrinkage of the manufacturing sector is dubbed the "disease," though there is nothing harmful about the decline in manufacturing if neoclassical, competitive conditions prevail in the economy. The Dutch Disease can be a real disease, however -- and a source of chronic slow growth -- if there is something special about the sources of growth in manufacturing, such as the "backward and forward linkages" stressed by Hirschman and others, if such linkages constitute production externalities, or the learning-by-doing stressed by Matsuyama. If manufacturing is characterized by externalities in production, then the shrinkage of the manufacturing sector caused by resource abundance can lead to a socially inefficient decline in growth. The economy loses the benefits of the external economies or increasing returns to scale in manufacturing. We highlight two points that come out of such a model. First, quite simply, economies with larger resource sectors will grow slower, holding constant resource booms. Second, a temporary resource boom can lead to a particular path of GDP.

Another line of argument focuses on the global conditions of the natural resource industry. For one reason or another, the general theme has been that natural resources were likely to be a declining industry at the world level. The famous hypothesis of Raul Prebisch [1950] and Hans Singer [1950] of a secular decline in the terms-of-trade of primary commodities vis-a-vis manufactures can be put into this category. They argued that resource-based growth would be frustrated by secular decline in world prices of natural resources. Closely related views

forecasted that world demand for primary products would grow slower that demand for manufacturers or that productivity growth would be faster in manufacturing than in natural resource production. The "Prebisch hypothesis" of declining relative prices of raw materials was widely taken to mean that developing countries should shun their dependency on natural resource exports by promoting industrialization. The great historical mistake of this thinking, promoted for example by the United Nations Commission for Latin America, was to recommend industrialization through prolonged import-substitution behind tariff and quota barriers, rather than through export promotion. Inward-looking state-led industrialization foundered almost everywhere that it was attempted.

The relationship between petroleum and economic growth has been given much attention to by some development economists. This has broadly classified economists into two: i.e. those that support the hypothesis that petroleum has a positive impact on economic growth and those that reject the hypothesis that there is no positive impact on the economic growth. Obadan (1987) defined petroleum as a mixture of hydro carbon oils obtained below the surface. He opined that oils in Nigeria, generally occurs at depths below 1,500 meters. According to him, it is the raw material around which a chain of commercial activities known as the petroleum industry resolves. It is a major source of energy in the world marked today and has in fact, become the bedrock of man's progress and civilization. Obadan further stressed that petroleum is the raw material for a wide range of chemicals for the production of pharmaceuticals, fertilizers, fibers, for the manufacture of textile and numerous other products essential for human existence. More so, he added that petroleum jelly for the body, candles for lightening and bitumen for tarring roads are some of the many byproducts of petroleum. The bulk of Nigeria's reserves occur between two thousand and three thousand meters (i.e 1.25 to 2 miles) depth. Oil is usually

found associated with gas the water in the pore spaces between the grains of sand and make up the oil bearing rock body (reservoir), it is usually found in areas where think columns of sedimentary rocks (about 2000 meters minimum thickness of sands, sand stone, limestone, evaporated and shale's) of mostly marine origin occurs like in the Niger Delta, Anambra and Chad basins. However, the Benue and Sokoto basin are also being investigated for all. Speaking on a seminar organized in Delta State university, Iyoha (2000) stated that the "White products" namely Premium Motor Spirit (P.M.S), Dual Purpose, Kerosene (D.P.K), Automatic Gas Oil (A.G.O) and Aviation Turbine Kerosene (A.T.K.) for the bulk of the petroleum products. The major products concerned at depot, accordingly to him are the first three mentioned above. The other A.T.K is being transported through pipeline from the Misimi depot to Murtala Mohammed Airport Lagos. Other products include the following:

2.9.3 EMPERICAL EVIDENCE.

Odularu (2010), used Harrod-Domar theory , solow's theory of economic growth, Ordinary Least Square regression and cobb-douglas production function were employed to test the impact of crude oil on Nigeria economic performance. The result shows that crude oil production contributed to economic growth but have no significant improvement on economy growth of Nigeria.

Similarly Yakubu (2008) suggests that income from a nation's natural resources (e.g. petroleum) has a positive influence on economic growth and development. Contrary to this opinion expressed above, other studies on this subject matter, found that natural resources income influences growth negatively. That is, an increase in Income from natural resources does not necessarily result in an increase in economic growth. For example, Sachs and Warner (1997) using a sample of 95 developing countries that included Indonesia, Venezuela, Malaysia, Ivory

Coast and Nigeria, found that countries that have a high ratio of natural resource exports to GDP which appears to have shown slower economic growth than countries with low ratio of natural resource export to GDP. Similarly, Collier and Hoeffler (2002), is of the opinion that increase in natural resources income does not result in increase in economic growth. This is so because they found that 23.0 per cent of countries that are dependent on oil exports are likely to experience civil war in any five-year period compared to 0.6 percent for countries without natural resources.

Empirically, few studies have provided results in support of the benign perspective on the impact of natural resources on economic growth and development. Some of these studies not only reported that resource abundance had positive impact on growth and development but also found that resource dependence had no adverse impact on growth. Several empirical studies have confirmed the natural resource curse hypothesis. Some other reasons why resource-rich countries might suffer resource curse are reduced returns to human investments, precipitated by natural resource exploitation (Gylfason, 2001) and poor economic management that leads to inefficient resource allocation (Rosser, 2006).

From CBN statistical bulletin, it was gathered that the petroleum sector contributes significantly to government revenue and Nigeria's GDP. It showed that oil revenue rose from N17.070 million in 1961/62 to N96.390 million in 1970/71 and to N4183.816 million 1974/75. In terms of presenting contribution, oil revenue's sharp was only 7.46% in 1961/62 and 9.06 in 1965/66. In 1970/71, its share rose to 95.99% therefore, oil revenue becomes the most dominant revenue (petroleum profit tax, mining rents and royalties), NNPC earnings etc (statistical bulletin, no 1 vol9, 1998). Thus in 1975, oil revenue as a percentage of total government revenue was 78.70% rising to 82.30% in 1979/80 and 97.24% in 1990, the principal factors that accounted for the dominance of oil revenue particularly in the 1970's were rapidly rising oil prices and production,

increase government participation in oil exploration and changes in fiscal arrangements. By 1974, the federal government has acquired 55% equity participation in all the companies producing crude oil in Nigeria. This was increased to 60% in 1979, the changes includes reduction in 1966 and 1971 in the rate of allowable depreciation of investment, the substitution of posted prices, realized the definition of royalties as a cost of production rather than as offsets against profit tax and the rising of tax rate, from 50% in 1975. All government share of crude oil produce apart from what is processed for domestic consumption is sold by the NNPC and proceed from it are paid into the federal account.

The NNPC sells to its customers directly as well as to some of its joint venture partners at the official selling prices Government revenue from oil also include other sources besides direct crude oil sales. Various taxes are levied on oil companied such as the petroleum profit tax, which is about 85% of the taxable oil income, royalties, rents (being taxes on non-producing concession and excise duties in filling activities, "The total revenue accruing from oil sector amount to about 80% of the Nation's total export earning" Iyoha, 1999: p 70). Oil is usually found associated with gas the water in the pore spaces between the grains of sand and make up the oil bearing rock body (reservoir), it is usually found in areas where think columns of sedimentary rocks (about 2000 meters minimum thickness of sands, sand stone, limestone, evaporated and shale's) of mostly marine origin occurs like in the Niger Delta, Anambra and Chad basins. However, the Benue and Sokoto basin are also being investigated for all. Speaking on a seminar organized in Delta State university, Iyoha (2000) stated that the "White products" namely Premium Motor Spirit (P.M.S), Dual Purpose, Kerosene (D.P.K), Automatic Gas Oil (A.G.O) and Aviation Turbine Kerosene (A.T.K.) for the bulk of the petroleum products. The major products concerned at depot, accordingly to him are the first three mentioned above. The other A.T.K is

being transported through pipeline from the Misimi depot to Murtala Mohammed Airport Lagos. Other products include the following:

L.P.G - Liquefied Petroleum Gas

L.P.F.O - Low Pour fuel Oil

H.P.F.O - high Pour Fuel Oil

He further suggested that there are others referred to as special product which are not being loaded at the depot, but are still petroleum products; such as Bose oil, Bitumen and was etc. with respect to the uses of the products he outlined that:

P.M.S. - is used as fuel for car

A.G.O. - is used for fueling compression, ignition engines, boats, heavy road transport vehicles and small generating plants.

D.P.K. - Is use for domestic purposes and aviation uses (aviation fuel).

L.P.G. Is used for cooking and lightning, Bitumen for road surfacing.

L.P.F.O and H.P.F.O. are both used for boilers, heaters and sailing of ships.

WAX - are used for making candles, polishes for wood, leather, linoleum and automobile.

Available evidence in shows that the country has proven oil reserves of 36 billion barrels, condensate of 4 billion barrels, proven gas reserves of 187 trillion cubic feet and the present average daily production of oil is 2.6 million bbl/b (Agbogun, 2004, Egbogah, 2010).

CHAPTER THREE.

RESEARCH METHODOLOGY.

3.1 RESEARCH DESIGN

Research design is the structure and strategy for inspecting the relationship between the variables of the study. Here, the multiple regressions will be used to scrutinize the impact of petroleum sector on economic growth in Nigeria. The Durbin Watson test will be used to test for serial correlation, the Augmented Dicky Fuller Test will also be computed, and the Engle and Granger cointegration test of long run association will be used.

3.2 SOURCES AND METHOD OF DATA COLLECTION.

The data used in this study are quantitative secondary data collected from three very important organizations in Nigeria. Secondary data is the name given to data that has been used for some purpose other than that for which they were originally collected. Secondary data is generally used when the term manpower resources necessary for survey are not available and of course the relevant information required. The data required for this project will be obtained from the following sources: Nigeria National Petroleum Corporation (NNPC), CBN statistical bulletin, and the World Bank (WB)

3.3 MODEL SPECIFICATION.

Model specification is the expression of a relationship into precise mathematical form. According to Koutsoyiannis (1977, p.14), economic theory does not indicates the functional

form of any relationship. This means that economic theory does not state whether a relationship will be expressed in linear form, quadratic form or in a cubic form. The specification of any relationship will be guided by existing theory or empirical evidence from previous studies.

The variables operationalization of the model specify the impact of petroleum and economic growth in Nigeria was obtain from the Resource abundance theory as postulated in the theoretical framework. The theory portrays corruption, mismanagement of resources which increases our external debt profile, and adversely affects the inflow of foreign direct investment. Revenue from petroleum goes into the hands of few Nigerians while the majority suffers in abject poverty. The variables to be use in this research work are OIL REVENUE, RGDP, FDI, and EXDEBT.

The functional form of the model for the study is specified as follows:

GDP = F (Oil REVENUE, FDI, and EXDEBT)..... (1)

The multivariate specification of the model is given thus:

GDP = ao + a1OIL REVENUE+ a2EXDEBT+ a3FDI+ μ..... (2)

Where:

GDP= Gross Domestic Product

Oil= Oil Revenue

EXDEBT= External Debt

FDI= Foreign Direct Investment

μ= error

3.4 APRIORI CRITERIA

This refers to the relationship between and or among the dependent and the independent variables of the model as postulated by economic theory. The result or parameter estimates of the models will be interpreted on the basis of the signs of the parameters as established by economic theory.

The apriori expectations are:

ao><0, a1><0, a2<0, a3<0.

3.5 METHOD OF DATA NALYSIS.

Model evaluation according to Koursoyiannis (1997-p.25) consists of deciding whether the estimates of the parameters are theoretically meaningful and statistical satisfactory. Thus, is a simple mathematical form, for investigating the relationship between the variables under consideration.

Statistical criteria: the theories of statistic prescribe some test of finding out how accurate the parameters estimates of the model are the test help to suggest whether or not the parameter estimates of the model are accurate.

Such statistical criteria tests are:

T test: The t-test is a test of significance of the individual parameter estimates. This test will be conducted at ten percent level of the significance. The coefficient of the model will be tested for

significance. The t- testing procedure is based on the assumption that the error term U follows the normal distribution.

F test: the F-test, which is the test of entire regression plane. This is a test of the significance of the parameter joined together. The F test will be used to test the validity of the assumptions non-auto correlated disturbance, an econometric techniques known as the Durbin Watson will be computed. The value of R square and adjusted R squared will be determined.

CHAPTER FOUR.

4.0 INTRODUCTION

This section of the study presents analysis of data, empirical result, interpretation of the results and discussion of findings are also made. However, basic inferences are also drawn from the findings. The major objective of the study is to assess the impact of petroleum sector on growth in Nigerian. Consequently we start by investigating the p values for the Augmented Dicky Fuller test.

4.1 DATA PRESENTATION AND DATA ANALYSIS

kkTable 1: Unit Root Test

Variables	At Level	p-value	First Difference	p-value
External Debt	Not Stationary	0.7012	Stationary	0.0100
FDI	Stationary	0.0133		
GDPG	Not Stationary		Stationary	0.0000
Oil Revenue	Not Stationary	1.0000	Stationary	0.0023
Error	Stationary	0.0001		

Table 2: The Long run Relationship Among the Variables

Variables	Coefficients	t-statistic	p-values
OILR	-1.31E-06	-1.395557	0.1751
FDI	-1.024935	-1.551298	0.1334
EDS	-0.226539	-1.661647	0.1091
C	17.56718	2.792814	0.0099

F-statistic = 3.25, Durbin Watson stat = 2.09, R-squares = 74%

Table 3: Error Correction Model (ECM)

Variables	Coefficients	t-statistics	p-values
D(OILR)	2.34E-07	0.105287	0.0171
D(FDI)	-0.842833	-1.634489	0.0458
D(EDS)	-0.044624	-0.209679	0.0358
ER(-1)	-0.81904	-5.569377	0.0000
C	-0.935536	-0.643637	0.5262
F- Statistic = 8.124, Durbin Watson = 2.221, R-squared = 0.748			

4.2 EMPIRICAL RESULT

Table 1 presents the p values for the Augmented Dicky Fuller unit root tests. The unit root table shows that only one of the variables is stationary at level and three of the variables become stationary after first difference. Foreign Direct Investment (FDI) is stationary at level; while External debt (EDS), GDP growth (GDPR) and Oil revenue (OILR) become stationary at first difference.

Next is to test if there is a long run relationship among the variables. That is, we need to test if all the variables cointegrate in the long run. To achieve this, we resort to the Engle and Granger (EG) conitegration test of long run association. The Engle and Granger test is more suitable because our variables of interest are integrated of different orders. The EG test is carried out by running a unit root test on the residuals generated from regressing the variables at level.

The last row on Table 1 one shows that the residual is stationary at level. Thus we reject the null hypothesis of no cointegration and accept the alternative hypothesis. Therefore, the conclusion is that the variables are cointegrated in the long run. This result suggests that we can obtain the short run and long run relationships among the variables.

Table 2 provides the long run relationship among variables. The coefficient of OILR is negative and insignificant at 10 percent level of significance. This implies that there is a negative relationship between Oil revenue and GDP growth rate in the long run. This means that an increase in Oil revenue will lead to a decrease in GDP growth rate in the long run. This result supports resource curse theory.

Foreign Direct Investment (FDI) is negative and insignificant at 10 percent level of significance. A one percent increase in the ratio of FDI to GDP will drag down the growth of GDP by 1.02 percent. Also, the coefficient of External debt is negative. The implication of this is that an increase in the ratio of external debt to GDP will lead to a decline in GDP growth rate in the long run.

4.3 DISCUSSION OF FINDINGS

Table 3 presents the error correction model (ECM) that shows the short run relationship among the variables. The coefficient of oil revenue is positive and insignificant. This analysis shows that an increase in oil revenue will increase GDP growth in the short run.

The error correction component of the model is Error(-1). Its coefficient is negative and significant as expected. Its coefficient shows that 1.08% of the discrepancy between the long run

and short run value of GDP growth is corrected in the current period. Alternatively, we can say that the speed of adjustment from the short run value of GDP growth to its long run value is 1.08%. This implies that it takes about three quarter of the year for the error component to be corrected.

The short run coefficient of FDI is again negative and insignificant. This implies that a 1% increase in the FDI to GDP ratio will result in a 0.84% decline in GDP growth rate in the short run. Also, ratio of external debt to GDP has a negative and insignificant impact on GDP growth rate in the short run. A one percent increase in this ratio will reduce GDP growth by 0.04% in the short run. The short run coefficient of the constant term is negative but significant.

As shown in the table, the F statistic is 8.124. This value is significant at all levels of significance. Thus, we can reject the null hypothesis that states that all our coefficients are 0 and accept the alternative. The conclusion is that our coefficients are jointly insignificant and the model is properly specified.

The computed Durbin Watson statistic is 2.221. Because this value is greater than 2, the implication is that our model is free from autocorrelation. The R-squared is 74%. This implies that 74% variation in the dependent variable (GDP) is explained by variations in the independent variables

CHAPTER FIVE

5.0 SUMMARY.

The study concentrated on the impact of petroleum sector on economic growth in Nigeria within the period of 1980-2012. A multiple regression analysis was employed to capture the influence of oil revenue, foreign direct investment, and external debt on gross domestic product (GDP) and also determine the speed of adjustment from short run to long run. The result revealed a positive relationship between oil revenue and GDP in the short run and a negative relationship between oil revenue and GDP in the long run. The result also revealed a negative relationship between foreign direct investments (FDI), external debt (EXDEBT) in the short run and the long run. The conducted T-test indicated that the explanatory variables do not significantly affect Nigeria economic growth. Whereas the conducted F-test 8.124 showed that the joint influence of the explanatory variables is insignificant at 10% level of significance. The value of the computed Durbin Watson is 2.221 because this value is greater than two the implication is that our model is free from autocorrelation. The R squared is 74%. This implies that 74% variation in the dependent variables is explained by variation in the independent variable. The study also made some effort in examining the petroleum policies in Nigeria which reflect the basic goals of its membership in the Organization of Petroleum Exporting Countries (OPEC) and the development of oil industry in Nigeria. The project also provides some theories of natural resource abundance like the Dutch Disease theory, the Malign perspectives on natural resource not a blessing.

5.1 CONCLUSION

The petroleum sector is a vital sector in Nigeria. Its output via oil revenue is generally agreed to be a catalyst to economic growth. This study explored the working of this industry on the shores of Nigeria, especially, the oil producing Niger-Delta. It equally discussed the consequence of oil revenue on the Gross domestic product (GDP) of Nigeria from 1980-2012.The study proved that there has been environmental degradation, neglect of the people, abandonment of the agricultural and manufacturing sector. The Augmented Dicky Fuller unit root tests shows that only one of the variables is stationary at level and three of the variables become stationary after first difference. Foreign Direct Investment (FDI) is stationary at level; while External debt (EDS), GDP growth (GDPR) and Oil revenue (OILR) become stationary at first difference. The cointegration test confirmed the existence of long run relationship between variables included in the model however, the result shows that oil positively affect economic growth in the short run and negatively affect economic growth in the long run. To ensure that oil continues to foster better growth there is a need to focus on two major areas. These are sustenance of increased investment inflow to the oil sector, and implementation of appropriate reforms to enhance efficiency and transparency. These reforms will entail implementing of appropriate pricing policy in the oil sub-sector and elimination of corruption in the sector by establishing institutions that will arrested and prosecute corrupt public office holders. In the meantime, the government should ensure that the various refineries are reactivated to produce refined products for local consumptions and export. This will assist in the integration of the oil sub sector into the economy through increased employment and positive value added.

5.2 POLICY RECOMMENDATIONS

Based on the analysis carried out during the research work and the conclusion drawn from it, the following recommendations are made regarding the research to the Nigerian economy.

i. The empirical evidence states that oil revenue had a negative relationship on GDP in the long run and insignificant effect on economic growth in Nigeria as a result of this the government should encourage export diversification i.e non oil sector exports should be encourage and concentration on oil sector export should be minimal.

ii. The government should also make refineries available so that crude oil would be refined within the country so as to oppose the current situation of having to import the refined crude oil from countries, whereby the crude oil is exported.

iii. The manufacturing industries should improve on their production so that their output would be competitive in the market.

iv. For petroleum product to have significant impact on economic growth and economic development of Nigeria, Government should minimize or find ways of eliminating totally the widespread corruption and leakages in the petroleum sector.

v. For Nigeria to derive more benefits from its oil resources and calm down local agitations, the petroleum industry bill if passed to Law would improve the performance of the petroleum sector. This will further address the problems of corruption, and the negative impact of Oil revenue on GDP.

vi. Government should ensure political and macroeconomic stability so as to encourage investment, both local and foreign and guarantee business survival.

vii. There is a need to develop the agricultural sector side by side with the petroleum sector, the government need to develop agricultural sector which has been neglected over the

years because too much reliance on oil to the neglect of agriculture is not of much benefit to the economy. Through this means, the industry sector will be modernized through the transfer of resources to the agricultural sector.

5.3 REFRENCES

African Economies 6, 3: 335–76. <http:// www.cid.harvard.edu/ciddata/

AgbeJule T.A.O.L (1987) Collection of revenue in Nigeria", paper presented at a seminar held at Federal palace hotel, lagos

Al-Moneef, M. (2006). The contribution of the oil sector to Arab Economic development. OFI Pamphlet series 34 vienna.

Bawa, S. and Mohammed, J. A. (2007) "Natural Resource Abundance and Economic Growth in Nigeria' Central Bank of Nigeria Economic Review, 45, No3 September 2007, Nigeria CBNISSN19572968.

Baghebo, M. (2011). Capital Accumulation and Economic Development in Nigeria 19702008.Unpublished Ph.D thesis, Department of Economics, University of Calabar, Nigeria.

Baghebo, M (2012). Petroleum and Energy Economics. Bayelsa: Kadmon Printing Press and Publishing House.

Baldwin R.E. (1972).Economic Development Growth.John Wiley & Sons Inc. U.S.A. C.B.N. Statistical Bulletin. Volume 9 No 1 June 1998.

Baridam, D. M. (2008). Research Methods in Administrative Sciences 3rd edition, PortHarcourt: Sherbrooke Associates.

CBN Statistical Bulletin, December 2008, pp.117 – 118.

Central Bank of Nigeria. (2011). Central Bank of Nigeria Statistical Bulletin. Abuja: Central Bank of Nigeria.

Dickie, R.K.,(1966) "Development of Crude Oil Production in Nigeria, and the Federal Government Control measures" (paper presented to the Institute of Petroleum, London,).

Dominic, A. (1999). The Petroleum Industry in Nigeria: Joint Operating Agreements, Memorandum of Understandings, Compensation and other Related Issues in Perspective. http://dspace.unijos.edu.ng/bitstream/10485/1469/1/The Petroleum Industry in Nigeria

Dooley, M., Folkerts-Landu, D. & Garber, P. (2003). An essay on the revised Bretton Woods system. Working Paper No. 9971, NBER. http://www.nber.org/papers/w9971

Ekaette, U.J. "Development Challenges in the Niger Delta and the Implications for the Nigerian Economy", Port Harcourt, PANAM Nigeria Publishers, pp. 6-7.

Ekunerhare B.U. (1997)."Economic Structure and Development" First in augural lecture of the Delta State University, Abraka, Nigeria.

Falegan S.B. and Okah, G.O. (1976) "The contribution of petroleum industry to Nigerian's economy and the new international economic order", proceedings of the 1996 Annual conference of Nigerian economic sobriety.

Gylfason, T. (2001). Natural resources, education and economic development. European Economic Review, 45: 847-859.

Iyoha, M.A and O.T. Ekanem (2002). Introduction to Econometrics. (Benin: Mareh Publishers).

Koutsoyainnis A. (1977). Theory of EconometricHumpshire Macmillan Education Ltd. London.

Humanitarian Emergencies in Developing Countries". Houndmills: Palgrave, Macmillan.

National Bureaux of Statistics (2010) Review of the Nigerian Economy (Abuja: FCT)

Neary and Van Wijnbergen eds. (1986) Natural Resources and the Macroeconomy, Cambridge, MA: The MIT Press.

Obadan M.I, (1987) The Impact of petroleum on the Nigerian Economy.

Odularo, G. O. (2008). Crude oil and the Nigerian economic performance. Oil and Gas Business.

Rosser, A. (2006). The political economy of the resource curse: A literature survey. IDS Working Paper 268

Sachs, D. J., and Warner, A. M. (1995). Natural Resource Abundance and Economic Growth. NBER Working Paper Series No. 5398. National Bureau of Economic Research.

Sala-i-Martin, X, and Arvind, S. (2003). Addressing the Natural Resource Curse: An Illustration from Nigeria. IMF Working Paper No. WP/03. International Monetary Fund.

YEARS	FDI	GDP	EXTERNAL DEBT %	0IL REVENUE
1980	-738,870,004	64,201,788,122.60	14.6	49632.31235
1981	542,327,289	61,076,493,506.50	19.2	47619.668564.4
1982	430,611,256	51,397,461,685.80	23.8	49069.287814.9
1983	364,434,580	35,451,565,749.20	50.5	53107.38725
1984	189,164,785	28,500,815,241.50	64.2	59622.538269.2
1985	485,581,321	28,873,977,228.10	67	67908.5510923.7
1986	193,214,908	20,721,499,308.40	115.1	69146.998107.3
1987	610,552,091	24,231,168,858.70	133.8	105222.8419
1988	378,667,098	23,272,161,396.90	130.1	139085.319831.7
1989	1,884,249,739	24,231,168,858.70	136	216797.5439130.5
1990	587,882,971	30,757,075,595.40	120	267549.9971881.1
1991	712,373,362	27,392,886,872,6	134.4	312139.7482666.4
1992	896,641,282	29,300,921,681.20	110.1	532613.831640748.1
1993	1,345,368,587	15,789,003,752.80	228.6	63,886,979,162,102.40
1994	1,959,219,858	18,086,400,535.60	210.3	899863.22160192.2
1995	1,079,271,551	28,546,958,641.30	129.5	1933211.55324547.6
1996	1,593,459,222	34,987,951,375.60	95.9	2702719.134
1997	1,539,445,718	35,822,342,617.70	84.8	2801972.58416811.1
1998	1.051,326,217	32,004,613,750.00	103.9	2708430.86324311.2
1999	1,004,916,719	35,870,792,987.90		3194014.97724422.5
2000	1,140,137,660	48,385,996,028.90	78.5	4582127.291591675.8
2001	1,190,632,024	44,138,014,092.30	75	47250861707562.80
2002	1,874,042,130	59,116,868,251.50	56.4	6912381.251230851.2
2003	2,005,390,033	67,655,840,108.20	56.9	8487031.572074280.6
2004	1.874,033,035	87,845,403,978.30	47	11411066.93
2005	4,982,533,943	112248324605.50	20.7	14572239.15
2006	4,854,416,867	145429764861.20	2.8	18564594.75287566.9
2007	6,034,971,231	166451213395.60	2.4	20657317.74
2008	8,196,606,673	208064464570.40	2.1	2429632.296530630.1
2009	8,554,840,769	169481317540	4.4	24794238.73191937.98
2010	6,048,560,226	369,062,464,570	2.1	292057835396091.00
2011	8,841,952,775	411,743,801,711.60	2.3	
2012	7,101,031,884	460,953,836,444.40	2.3	

Lag Length: 1 (Automatic - based on SIC, maxlag=8)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-1.104791	0.7012
Test critical values:	1% level	-3.661661	
	5% level	-2.960411	
	10% level	-2.619160	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(EDS)
Method: Least Squares
Date: 08/01/15 Time: 21:52
Sample (adjusted): 1982 2012
Included observations: 31 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
EDS(-1)	-0.065295	0.059102	-1.104791	0.2787
D(EDS(-1))	0.416238	0.177810	2.340908	0.0266
C	2.138679	2.507098	0.853049	0.4009

R-squared	0.170850	Mean dependent var	-0.483820
Adjusted R-squared	0.111625	S.D. dependent var	7.000062
S.E. of regression	6.597814	Akaike info criterion	6.703120
Sum squared resid	1218.872	Schwarz criterion	6.841893
Log likelihood	-100.8984	Hannan-Quinn criter.	6.748356
F-statistic	2.884757	Durbin-Watson stat	1.790800
Prob(F-statistic)	0.072588		

Null Hypothesis: D(EDS) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=8)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-3.660605	0.0100
Test critical values:	1% level	-3.661661	
	5% level	-2.960411	
	10% level	-2.619160	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(EDS,2)
Method: Least Squares
Date: 08/01/15 Time: 21:53

Sample (adjusted): 1982 2012
Included observations: 31 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(EDS(-1))	-0.632735	0.172850	-3.660605	0.0010
C	-0.300362	1.192630	-0.251849	0.8029

R-squared	0.316038	Mean dependent var	0.015705
Adjusted R-squared	0.292453	S.D. dependent var	7.873500
S.E. of regression	6.622857	Akaike info criterion	6.681272
Sum squared resid	1272.005	Schwarz criterion	6.773787
Log likelihood	-101.5597	Hannan-Quinn criter.	6.711429
F-statistic	13.40003	Durbin-Watson stat	1.764736
Prob(F-statistic)	0.000997		

Null Hypothesis: FDI has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=8)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-3.537576	0.0133
Test critical values:	1% level	-3.653730	
	5% level	-2.957110	
	10% level	-2.617434	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(FDI)
Method: Least Squares
Date: 08/01/15 Time: 22:01
Sample (adjusted): 1981 2012
Included observations: 32 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
FDI(-1)	-0.585935	0.165632	-3.537576	0.0013
C	1.883074	0.646687	2.911878	0.0067

R-squared	0.294357	Mean dependent var	0.006250
Adjusted R-squared	0.270836	S.D. dependent var	2.449613
S.E. of regression	2.091752	Akaike info criterion	4.374342
Sum squared resid	131.2627	Schwarz criterion	4.465951
Log likelihood	-67.98947	Hannan-Quinn criter.	4.404708
F-statistic	12.51445	Durbin-Watson stat	2.073711
Prob(F-statistic)	0.001336		

Null Hypothesis: GDPG has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=8)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-5.572137	0.0001
Test critical values:	1% level	-3.653730	
	5% level	-2.957110	
	10% level	-2.617434	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(GDPG)
Method: Least Squares
Date: 08/01/15 Time: 22:03
Sample (adjusted): 1981 2012
Included observations: 32 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
GDPG(-1)	-0.848884	0.152344	-5.572137	0.0000
C	1.771087	1.220906	1.450633	0.1573

R-squared	0.508589	Mean dependent var	-0.663206
Adjusted R-squared	0.492209	S.D. dependent var	9.050308
S.E. of regression	6.449202	Akaike info criterion	6.626251
Sum squared resid	1247.766	Schwarz criterion	6.717860
Log likelihood	-104.0200	Hannan-Quinn criter.	6.656617
F-statistic	31.04871	Durbin-Watson stat	2.227170
Prob(F-statistic)	0.000005		

Null Hypothesis: OILR has a unit root
Exogenous: Constant
Lag Length: 3 (Automatic - based on SIC, maxlag=6)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		4.580794	1.0000
Test critical values:	1% level	-3.724070	
	5% level	-2.986225	
	10% level	-2.632604	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(OILR)
Method: Least Squares
Date: 08/01/15 Time: 22:05
Sample (adjusted): 1984 2008
Included observations: 25 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
OILR(-1)	0.720973	0.157390	4.580794	0.0002
D(OILR(-1))	-0.679601	0.284822	-2.386055	0.0270
D(OILR(-2))	-0.874089	0.246783	-3.541932	0.0020
D(OILR(-3))	-1.285639	0.372947	-3.447243	0.0025
C	24288.67	124615.1	0.194910	0.8474

R-squared	0.604387	Mean dependent var	386919.7
Adjusted R-squared	0.525265	S.D. dependent var	725472.1
S.E. of regression	499857.7	Akaike info criterion	29.25889
Sum squared resid	5.00E+12	Schwarz criterion	29.50267
Log likelihood	-360.7361	Hannan-Quinn criter.	29.32650
F-statistic	7.638629	Durbin-Watson stat	1.928619
Prob(F-statistic)	0.000661		

Null Hypothesis: D(OILR) has a unit root
Exogenous: Constant
Lag Length: 3 (Automatic - based on SIC, maxlag=6)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		0.821032	0.9923
Test critical values:	1% level	-3.737853	
	5% level	-2.991878	
	10% level	-2.635542	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(OILR,2)
Method: Least Squares
Date: 08/01/15 Time: 22:08
Sample (adjusted): 1985 2008
Included observations: 24 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(OILR(-1))	0.283064	0.344766	0.821032	0.4218
D(OILR(-1),2)	-0.801306	0.312138	-2.567150	0.0189
D(OILR(-2),2)	-0.825172	0.274109	-3.010376	0.0072
D(OILR(-3),2)	-1.117101	0.362295	-3.083404	0.0061
C	129063.6	148055.7	0.871723	0.3942

R-squared	0.532990	Mean dependent var	72004.85
Adjusted R-squared	0.434672	S.D. dependent var	795262.8
S.E. of regression	597944.4	Akaike info criterion	29.62344
Sum squared resid	6.79E+12	Schwarz criterion	29.86886
Log likelihood	-350.4812	Hannan-Quinn criter.	29.68855
F-statistic	5.421092	Durbin-Watson stat	2.358820
Prob(F-statistic)	0.004378		

Null Hypothesis: D(OILR,2) has a unit root
Exogenous: Constant
Lag Length: 2 (Automatic - based on SIC, maxlag=6)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-6.732407	0.0000
Test critical values:	1% level	-3.737853	
	5% level	-2.991878	
	10% level	-2.635542	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(OILR,3)
Method: Least Squares
Date: 08/01/15 Time: 22:08
Sample (adjusted): 1985 2008
Included observations: 24 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(OILR(-1),2)	-3.166239	0.470298	-6.732407	0.0000
D(OILR(-1),3)	1.575600	0.376521	4.184626	0.0005
D(OILR(-2),3)	0.911719	0.259928	3.507579	0.0022
C	193006.6	124886.5	1.545456	0.1379

R-squared	0.808096	Mean dependent var	40331.74
Adjusted R-squared	0.779311	S.D. dependent var	1262417.
S.E. of regression	593052.6	Akaike info criterion	29.57497
Sum squared resid	7.03E+12	Schwarz criterion	29.77131
Log likelihood	-350.8996	Hannan-Quinn criter.	29.62706
F-statistic	28.07301	Durbin-Watson stat	2.139028
Prob(F-statistic)	0.000000		

Dependent Variable: GDPG
Method: Least Squares
Date: 08/01/15 Time: 22:09
Sample (adjusted): 1980 2008
Included observations: 29 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
OILR	-1.31E-06	9.41E-07	-1.395557	0.1751
FDI	-1.024935	0.660695	-1.551298	0.1334
EDS	-0.226539	0.136334	-1.661647	0.1091
C	17.56718	6.290135	2.792814	0.0099

R-squared	0.280343	Mean dependent var	2.812451
Adjusted R-squared	0.193985	S.D. dependent var	7.968426
S.E. of regression	7.153922	Akaike info criterion	6.900641
Sum squared resid	1279.465	Schwarz criterion	7.089233
Log likelihood	-96.05929	Hannan-Quinn criter.	6.959705
F-statistic	3.246264	Durbin-Watson stat	2.086017
Prob(F-statistic)	0.038746		

Dependent Variable: D(GDPG)
Method: Least Squares
Date: 08/01/15 Time: 22:14
Sample (adjusted): 1981 2008
Included observations: 28 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(OILR)	2.34E-07	2.22E-06	0.105287	0.0171
D(FDI)	-0.842833	0.515655	-1.634489	0.0458
D(EDS)	-0.044624	0.212823	-0.209679	0.0358
ER(-1)	-1.081904	0.194259	-5.569377	0.0000
C	-0.935536	1.453515	-0.643637	0.5262

R-squared	0.585584	Mean dependent var	-0.796129
Adjusted R-squared	0.513512	S.D. dependent var	9.633615
S.E. of regression	6.719322	Akaike info criterion	6.808284
Sum squared resid	1038.434	Schwarz criterion	7.046178
Log likelihood	-90.31598	Hannan-Quinn criter.	6.881011
F-statistic	8.124951	Durbin-Watson stat	2.221025
Prob(F-statistic)	0.000308		

Exogenous: Constant

Null Hypothesis: D(ER,2) has a unit root
Exogenous: Constant
Lag Length: 4 (Automatic - based on SIC, maxlag=6)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-5.959487	0.0001
Test critical values:	1% level	-3.769597	
	5% level	-3.004861	
	10% level	-2.642242	

*MacKinnon (1996) one-sided p-values.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(ER,3)
Method: Least Squares
Date: 08/01/15 Time: 22:15
Sample (adjusted): 1987 2008
Included observations: 22 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(ER(-1),2)	-5.653847	0.948714	-5.959487	0.0000
D(ER(-1),3)	3.506421	0.846134	4.144049	0.0008
D(ER(-2),3)	2.346314	0.650452	3.607207	0.0024
D(ER(-3),3)	1.397190	0.391151	3.571992	0.0025
D(ER(-4),3)	0.534151	0.163488	3.267214	0.0048

C	0.288515	1.765713	0.163399	0.8723

R-squared	0.945022	Mean dependent var	-1.405125
Adjusted R-squared	0.927842	S.D. dependent var	30.70658
S.E. of regression	8.248488	Akaike info criterion	7.284938
Sum squared resid	1088.601	Schwarz criterion	7.582495
Log likelihood	-74.13431	Hannan-Quinn criter.	7.355033
F-statistic	55.00542	Durbin-Watson stat	2.312804
Prob(F-statistic)	0.000000		