# AN ANALYSIS OF IMPACT OF OIL REVENUE ON THE ECONOMIC

**GROWTH IN NIGERIA**

# BY

**ATIKU SAYYADI ABUBAKAR BU/18C/BS/3505**

# DEPARTMENT OF ECONOMICS

**FACULTY OF MANAGEMENT AND SOCIAL SCIENCES BAZE UNIVERSITY, ABUJA**

# SEPTEMBER, 2020

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### A DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF BACHELOR OF SCIENCE DEGREE IN ECONOMICS

**TO THE**

### DEPARTMENT OF ECONOMICS

**FACULTY OF MANAGEMENT AND SOCIAL SCIENCES BAZE UNIVERSITY, ABUJA**

**SEPTEMBER, 2020**

# DECLARATION

### I hereby declare that this project entitled “Analysis of impact of oil revenue on the economic growth in Nigeria “has been undertaken by me under the supervision of Dr Ishaq Saidu. I further certify this work has not been previously submitted for the award of a degree or certificate elsewhere. All ideas and views are products of my research. Where the views of others have been expressed, they have been duly acknowledged.

**Name of Student Date**

### Registration number

### CERTIFICATION

### This is to certify that this research work Analysis of impact of oil revenue on the economic growth in Nigeria by Atiku Sayyadi Abubakar BU/18C/BS/3505 has been approved by the Department of Economics, Faculty of Management and Social Sciences, Baze University, Abuja, Nigeria

**Title & name Date Supervisor**

### Title & name Date Head of Department

### Title & name Date Dean, Faculty of Management

**and Social Sciences**

### Title&name Date External Examiner

### DEDICATION

I dedicate this project to Allah (SWT) for making me being able to start up and finish in sound health. Also to my late Father, Alh Sayyadi Suleiman Abubakar who did not only raise and nurture me but also taxed himself profoundly over the years of my education and intellectual development. I also dedicate this work to my mother Hadiza Sayyadi Abubakar for being a source of motivation and strength during moments of despair in the course of this project. To my brother Bello Sayyadi Abubakar and his wife Rahina tahir mamman for their support in all possible ways throughout the course of this work. Also to my sister Aisha Sayyadi Abubakar and her husband Abubakar Mahmud Gummi for their constant encouragement during the course of this work.

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I take this opportunity to record our sincere thanks to all the faculty members of the Department of Economics for their help and encouragement. I also thank my parents for their unceasing encouragement and support. And also, my friends and classmates for their sympathy and passionate encouragement to complete my work successfully. I also place on record, my sense of gratitude to one and all who, directly or indirectly, have lent their helping hand in this venture.

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# ABSTRACT

*Oil revenue is indeed an important component of economic growth of the recipient nations. Therefore, most of the oil-rich nations invest the revenue from the oil sector into the non-oil sectors for strategic reasons. However, over the past five decades there has been a blur in the practicality to fulfilling this purpose in the context of Nigerian economy. So far, there is high inconsistency on the utilization of such oil revenue in Nigeria. Over dependence on oil revenue tends to distort and discourage sourcing of funds from other source by the government, for example, as a result of huge oil revenue flows; countries tend to de-emphasize income taxes as a source of government revenue. Besides, low tax ratios and high consumption expenditures*

*(typically on imported goods) reinforce inflationary tendencies with regard to expenditure; government pay less or no attention to infrastructural development, encouragement of Private sector investment, mechanizing the agricultural and manufacturing sector of the economy because of reliance on petroleum revenue. However, it is noted that large proceeds*

*obtain form the domestic sales and exports of petroleum products, acts like a multipliers to other sector of the economy through government expenditure, thus this seek to examine the impact of oil revenue and Nigeria economic growth. The study reveals that the discovery oil in large quantity has increase the flow of FDI in the country, either through purchase or the establishment of new production facilities (green field, investment), the flow of FDI contribute to capital formation and to export earnings, contribution to technological change and growth of the economy. It further confirms all the variables exhibited their expected sign in the short run but exhibited negative relationship with economic growth in the long run except for government expenditure, which has positive relationship with economic growth both in the long run and short run. The study concluded that Government should use the revenue generated from petroleum to invest in other domestic sectors such as Agriculture and manufacturing sector in order to expand the revenue source of the economy and further increase the revenue base of the economy.*

***Keywords:*** *Oil revenue, Oil price volatility, Gross domestic products, Economic growth, Gross national products, Per Capita income*

# CHAPTER 1 INTRODUCTION

### Background to the study

Oil is a major source of energy in Nigeria. Oil, being the mainstay of the Nigerian economy, plays a vital role in shaping the economy and political destiny of the country. Although, Nigeria oil industry was founded at the beginning of the century, it was not until the end of the Nigerian civil war (1967—1970) that oil industry began to play a prominent role in the economic life of the country (Odularu, 2008). The history of petroleum industry in Nigeria reveals that oil was discovered in Nigeria in 1958 at Olobiri in the Niger Delta. The discovery was made by Shell- BP. Nigeria joined the ranks of oil producers in 1958 when its first oil field came on stream producing 5,100 barrels per day. After 1960, exploration rights in onshore and offshore areas adjoining the Niger Delta were extended to other foreign companies (Onwe, 2012). From 1956 when the first oil was drilled in Oloibiri to mid-2013 when the price of the commodity crashed beyond imagination of common sense till this day, oil remained the mainstay of Nigeria‘s economy. In Nigeria, policy formulation always appears to respond to the oil situation or attempt to take advantage of it. This usually takes the form of ―expand expenditure when oil earnings increase, maintain the position when there is a dip in earnings and seek a desperate way out when there is crisis‖ (Biodun 2004).

The need to appraise the impact of oil revenue in the Nigerian Economy has become imperative. Alley, Asekomeh, Mobolaji and Adeniran (2014), states that Nigeria gained US$390 billion in

oil-related fiscal revenue over the period 1971-2005. Nigeria has a population of about 173.6 million in 2014 is by far the most populous nation in Africa. Nigeria also has the largest economy in Africa with a Gross Domestic Product of $522.6 billion as at 2013 (www.populationaction.org). Moreover, Nigeria is Africa‘s largest producer of oil. However, Nigeria‘s Oil Wealth has proved in many ways to be a blessing and curse at the same time. The petroleum industry in Nigeria has brought unprecedented changes to the Nigerian economy, particularly in the past five decades when it replaced agriculture as the cornerstone of the Nigeria economy (Aigbedion &Iyayi, 2007).

The oil industry has risen to the commanding heights of the Nigerian economy, contributing the lion share to gross domestic product and accounting for the bulk of federal government revenue and foreign exchange earnings since early 1970. The oil and gas industry is strategic to national development and growth in Nigeria. Oil and gas constitute about 90% of Nigeria‘s foreign exchange earnings and 83% of its GDP (Ogbeifun, 2008).

Despite Nigeria‘s huge oil wealth, Nigeria has remained one of the poorest in the world. In addition, the insurgency in the North, Niger-Delta Avengers in the South, kidnappings for ransomed and the rampaging Fulani herdsmen have all compounded Nigeria‘s problem in no small measure. The problems with Nigerian economy have been traced to failure of successive governments to use oil revenue and excess crude oil income effectively in the development of other sectors of the economy (Yakub, 2008). 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). The oil industry in Nigeria plays a crucial role to the sustenance of the nation and fuels not only Nigeria‘s economic and development

activities but also socio-political life. The industry has been widely described as the nation‘s live wire and this account for the literature that abounds on its role and significance in Nigeria.

However, Nigerians have had very little share of the Country‘s oil wealth and there was an urgent need to reverse this trend. Nigeria‘s extreme reliance on the crude oil market has triggered structural difficulties for the economy, as earnings from crude oil fluctuate along with market trends (Aigbedion and Iyayi, 2007). Crude oil became the dominant resource in the mid-1970s. On - shore oil exploration accounts for about 65% of total production and it is found mainly in the swampy areas of the Niger Delta, while the remaining 35% represents offshore production and involves drilling for oil in the deep waters of the continental shelf. The massive increase in oil revenue as an aftermath of the Middle - East war of 1973 created unprecedented, unexpected and unplanned wealth for Nigeria, and then began the dramatic shift of policies from a holistic approach to benchmarking them against the State of the oil sector (Oladipo and Fabayo, 2012). The Petroleum Industry in Nigeria has brought exceptional changes to the Nigerian economy, particularly in the past five decades when it replaced Agriculture as the base of the Nigeria economy. The Oil Industry has risen to the unassailable loftiness of the Nigerian economy, contributing the lion share to gross domestic product and accounting for the bulk of federal government revenue and foreign exchange earnings since early 1970.

Crude oil discovery has had a major impact on the Nigeria economy both positively and adversely. On the negative side, this can be considered with respect to the surrounding communities within which the Oil Wells are exploited. Some of these communities suffer environmental degradation, which leads to deprivation of means of livelihood and other economic and social factors. Although large proceeds are obtained from the domestic sales and export of petroleum products, its effect on the growth of the Nigerian economy as regards returns

and productivity is still questionable. Also, given the fact that the oil sector is a very crucial sector in the Nigeria economy, there is the dire need for an appropriate and desirable production and export policy for the sector. In Nigeria, though crude oil has contributed largely to the economy, the revenue has not been properly utilized. Considering the fact that there are other sectors in the economy, the excess revenue made from the oil sector can be invested in them to diversify and also increase the total GDP of the economy (Gbadebo, 2008). Therefore, this study seek to critically examine of impact of oil revenue on the economic growth in Nigeria.

### Statement of the Problem

It is now obvious that crude oil production is as critical to Nigeria as oxygen is to life. In fact, crude oil notwithstanding current effort of government remains the driver of economic policies of government. The overdependence on it has created vulnerability to every sector of the Nigeria economy particularly the general hardship in the country now. In particular, the place of oil in the mind of the average Nigerian has become more profound since the continuous deregulation of the downstream sector of the Nigeria oil industry in 2003. Nigeria is estimated to have 37.2 billion barrels of oil reserves in 2011 and produces an average of 2.13 million barrels per day (Igberaese, 2013). The hydrocarbon sector also accounts for 82 per cent of the federal government‘s revenue (World Bank, 2013). This suggests that Nigeria is heavily dependent on the oil sector for the majority of government spending, infrastructure and most economic development activities. With the increasing volatility of oil prices, the discovery of oil in other parts of the world and the instability of the global economy, oil imports from Nigeria to major economies such as the United States has steadily decreased. The U.S once imported 9-11% of its crude oil from Nigeria but in the first half of 2012, the share of imported oil from Nigeria to the

U.S has dropped to 5% (Igberaese, 2013). Over dependence on oil revenue tends to distort and

discourage sourcing of funds from other source by the government, for example, as a result of huge oil revenue flows; countries tend to de-emphasize income taxes as a source of government revenue. Besides, low tax ratios and high consumption expenditures (typically on imported goods) reinforce inflationary tendencies with regard to expenditure; government pay less or no attention to infrastructural development, encouragement of private sector investment, mechanizing the agricultural and manufacturing sector of the economy because of reliance on petroleum revenue. However, it is noted that large proceeds obtain form the domestic sales and exports of petroleum products, acts like a multipliers to other sector of the economy through government expenditure; this has generated the needs to properly investigate the relationship between oil revenue and Nigeria economic growth.

### Objective of the Study

With the development of petroleum in the Nigerian economy, there has been a growing interest and concern towards its contributions to the economy and economic growth. By the end of the research the study aims at achieving the following objectives.

* + 1. To examine the long-run relationship between oil revenue, oil price volatility and economic growth in Nigeria.
    2. To find out the impact of oil revenue, Oil price volatility on gross domestic product (GDP).
    3. To examine the impact of non-oil revenue on economic growth and development of the country.
    4. To determine empirically whether there is any functional long-run relationship between crude oil revenue and increase/decrease of our GDP within the period under study.

### Research Question

* + 1. What is the impact of oil revenue, oil price volatility on gross domestic product (GDP)?
    2. What is the relationship between oil revenue, oil price volatility and economic growth?
    3. What are the impact of non-oil revenue on economic growth and development of the country?
    4. What are the functional long-run relationship between crude oil revenue and increase/ decrease of our GDP within the period under study?

### Research Hypothesis

The following hypothesis will be tested in this study:

H1: Oil revenue and oil price volatility has no significant impact on Gross Domestic Product of Nigeria.

H2: Oil revenue and oil price volatility has no significant impact on Gross National Product of Nigeria.

H3 Oil revenue and oil price volatility has no significant impact on Per Capita Income in Nigeria.

H3: There is no long-run impact of oil revenue, oil price volatility on real economic growth in Nigeria.

### Scope of the Study

This research work centers on an investigation into the impact of oil revenue on economic growth in Nigeria, limiting its scope and focus (1970-2018), likewise examine oil price volatility with the same period. This period also showed substantive empirical evidence about how Nigeria have managed it oil revenue to achieve economic growth. This period was also considered adequate to examine regime change(s), political choices, and institutional quality used for managing oil revenue as they affect economic growth in Nigeria. Several proxies have been identified for ‗managing‘ oil revenue in this study which include: (i) saving of oil revenue in a transparently and accountably operated sovereign (oil) wealth fund for future generation; (ii) investment of oil revenue in recognized and diversified portfolios abroad to ensure that real return on investment is added to the capital in (i) above and development of infrastructure and other sectors of the economy; (iii) smoothing out budget imbalances or deficits due to global oil price volatility or non-oil revenue shortfalls; and (iv) control of capital flight from oil revenues due to heavy expatriate involvement in the oil sector.

As it is expected with written work of this kind, the completion of this project would not be possible without limitation or problems encounter in the course of writing this project which includes difficulties in obtaining relevant and up-to-date, data due to poor nature of Nigeria‘s data collection and storage facilities, The first of such constraints or difficulties concerns data collection from different sources. Also was the reluctance of some library or Liberians to make data available. Apart from the above mentioned constraints, which are capable of adversely

affecting the accuracy of the results of this research work, all other errors and omissions are entirely those of the researcher.

### Significance of the Study

The significance of this entire research, is to determine the overall impact of the oil sector to the growth and development of the Nigeria economy. Given the fact that the oil sector is very crucial sector in the Nigeria economy. Oil wealth is a major source of government revenue in most oil producing countries in the world especially in Nigeria. This major source of government revenue has however led to both positive and negative effect on economic growth in these countries as submitted by different researchers at different times. Generally speaking, a unanimous stand as never been taken by these researchers on the impact oil wealth has on economic growth.

Thus the significant of this study cannot be overestimated, first and foremost, the research work will be useful to Nigerian policy makers by assisting them in understanding clearly the impact of policies made on crude oil revenue on standard of living of the common man. Secondly, this research work on completion could assist students of related discipline in their course of study. Also, this study did not only add to the available literature on the research topic but also contributed to an area of study that has been scantily visited by scholars. This research work also has constituted a reference material to policy makers and prospective researchers who will be interested in topics related to this research work and hence would stimulate deep and fresh ideas, practically relevant to help key stakeholders enhance the management of oil revenue for the achievement of real economic growth and development in Nigeria. Nevertheless, this study will throw more light on the role which the crude oil plays in the reformation of the Nigerian economy.

### Definition of Operational terms

*Economic growth:* This is the increase in the inflation-adjusted market value of the goods and services produced by an economy over time. It is conventionally measured as the percent rate of increase in real gross domestic product, or real GDP.

*Oil sector:* This is also known as the oil industry or the oil patch, includes the global processes of exploration, extraction, refining, transporting, and marketing of petroleum products. The largest volume products of the industry are fuel oil and gasoline.

*Oil Price Volatility:* This is the measure of the tendency of oil price to rise or fall sharply within a period of time, such as a day, a month or a year. Lee (1998) as cited in Mgbame, Donwa and Onyeokweni (2015) defines volatility as the standard deviation in a given period and noted that volatility has a negative and significant impact on economic growth instantly, while the impact of oil price changes delays until a year.

*Non-oil revenue:* This is the income or proceeds generated from the commodities that are sold in the international market excluding crude oil (petroleum product). Non-oil exports on the other hand are those commodities (excluding crude oil) that are sold abroad in order to generate revenue. These non-oil exports include agricultural products or crops, manufactured goods, tourist services/receipts, solid minerals, telecommunication services and other exports.

*Gross Domestic Product:* This implies the market value of all officially recognized final goods and services produced within a country in a given period. GDP per capita is often considered as an indicator of a country‘s standard of living. GDP is related to national account, a subject in macro -economics. It is customarily reported on an annual basis. It is defined to include all final goods and services, that is, those that are produced by economics resources located in that nation regardless of their ownership and are not resold in form.

*Inflation* is defined as a generalized increase in the level of price sustained over a long period in an economy. It is a rise in the general level of prices of goods and services in an economy over a period of time.

*Exchange rate:* An exchange rate (also known as foreign exchange rate) between two currencies is the rate at which one currency will be exchanged for another. It is regarded as the value of one country‘s currency in terms of another currency. Exchange rates are determined in the foreign exchange market, which is open to a wide range of different types of buyers and sellers where currency trading is continuous.

*Non-oil export:* These include the exportation of the non-oil produces among which are agricultural, industrial and manufacturing outputs.

*Non-oil export index:* This is the fraction of the total export of goods and services that are produced within the economy that are not directly related to the oil sector of the economy. The non-oil products exports are unlimited as they include cash crops, food crops, manufacturing, entertainment, tourism etc. the value of the non-oil export index shall be used for measuring the non-oil export.

# CHAPTER 2 LITERATURE REVIEW

### Introduction

Literature review is a well-integrated discussion and critical evaluation of different scholarly viewpoints on a given research problem as found in the previous relevant studies highlighting their strengths, weakness and indicating how a given study, for example this one will make a contribution to the existing body of knowledge, especially on the research problem and on other related areas of investigation. A coherent literature review is characterized by a logical flow of ideas, current and relevant references with consistent, appropriate referencing style; proper use of terminology or terms and an unbiased and comprehensive view of the previous study or on the research topic.

### Conceptual Framework

The concept of economic growth has to do with the increase in the output level of an economy which can also mean an increase in income level. Economic growth of a country can be determined in the productivity level, volume of trade, investment in both human and physical capital. Ochejele, (2007) deﬁnes economic growth as ―the quantitative and sustained increase in

the country's per capita output or income accompanied by expansion in labour force, consumption, capital and volume of trade‖. Accordingly, Anyanwu and Oaikhenan (1995) simply deﬁned economic growth as the increase overtime of a country's or an economic capacity to produce those goods and services needed to improve the well-being of the citizens in increasing numbers and diversity. It is conventionally measured as the percentage rate of increase on Real Gross Domestic Product (RGDP). Growth is usually calculated in real terms, that is, inﬂation- adjusted terms, in order to net out the eﬀ ect of inﬂation on the price of goods and services produced. The growth of Real Gross Domestic Product (RGDP) between 2004 and 2008 was driven mainly by the non-oil sectors as reﬂected in the non-oil GDP and that the industrial output however fell by 2.2 percent due to poor performance of the oil sector CBN (2008).

Henderson and Poole (1991) defined economic growth as the increase in output and other measures of material progress at a certain period. It is also said to be either growth in national output as measured by GDP or GNP (which measures economic power), or growth in the national average standard of living as measured by the GNP per capita (which measures the well- being of citizens).

Economic growth focuses on the expansion of productive capacity over time. The expansion of productive capacity requires an increase in natural resource, human resource, capital and technology.

Thus economic growth is due to growth in inputs, such as labor, capital and technological improvement. Economic growth generally, can be described as a positive change in the level of production of goods and services by a country over a certain period of time. In other words,

economic growth is the increase in the value of goods and services produced by an economy. It can also be referred to as the increase in the gross domestic product. It is a relatively straight forward measure of output and gives an idea of how well off a country is, compared with competitors and past performance. It is a beacon that helps policy makers steer the economy towards key economic objectives. Finally, it is a measure of the wellbeing of a state; usually in real terms, all other things being equal (Enu, 2009).

According to Haller (2012), economic growth is, in a limited sense, an increase of the national income per capita, and it involves the analysis, especially in quantitative terms, of this process, with a focus on the functional relations between the endogenous variables; in a wider sense, it involves the increase of the GDP, GNP and NI, therefore of the national wealth, including the production capacity, expressed in both absolute and relative size, per capita, encompassing also the structural modifications of the economy. In other words, economic growth is the process of increasing the sizes of national economies, the macro-economic indications, especially the GDP per capita, in an ascendant but not necessarily linear direction, with positive effects on the economic-social sector.

Haller (2012) also concludes that economic growth is obtained by an efficient use of the available resources and by increasing the capacity of production of a country. It facilitates the redistribution of incomes between population and society. The cumulative effects, the small differences of the increase rates, become big for periods of one decade or more. It is easier to redistribute the income in a dynamic, growing society, than in a static one. When the rate of economic growth is big, the production of goods and services rises and, consequently, unemployment rate decreases, the number of job opportunities rises, as well as the population‘s standard of life. We shall, for the purpose of this study, employ the definition of economic

growth by Haller (2012) as the working definition because it is broad-based and by far more encompassing in explaining economic growth than others.

* + 1. *The Determinants of Economic Growth*

The recognition that the determinants of long-term economic growth are a key macroeconomic problem was fortunately accompanied in the late 1980s by important advances in the theory of economic growth. This period featured the development of ―endogenous-growth‖ models, in which the long-term rate of growth was determined within the model (Barro, 1999). A key feature of these models is a theory of technological progress, viewed as a process whereby purposeful research and application leads over time to new and better products and methods of production and to the adoption of superior technologies that were developed in other countries or sectors. One of the major contributions in this area, according to Barro (1999), is Romer (1990), Shortly thereafter, in the early 1990s, there was a good deal of empirical estimation of growth models using cross-country and cross-regional data.

This empirical work was, in some sense, inspired by the excitement of the endogenous-growth theories. However, the framework for the applied work owed more to the older, neoclassical model, which was developed in the 1950s and 1960s (See Solow, 1956; Cass, 1965; Koopmans, 1965; the earlier model of Ramsey, 1928; and the exposition in Barro and Sala-i-Martin, 1995). The framework used in recent empirical studies combines basic features of the neoclassical model especially the convergence force whereby poor economies tend to catch up with rich ones with extensions that emphasize the role of government policies and institutions (Barro, 1997). Since the late 1980s several studies have investigated the determinants of economic growth using different sets of deterministic variables as forming sources of economic growth.

Investment is identified by both neoclassical and endogenous growth models as the most fundamental determinant of economic growth. However, in the neoclassical model, investment has impact on the transitional period, while the endogenous growth model argues for more permanent effects. The importance attached to investment by these theories has generated keen scholarly interest in the area leading to several empirical studies examining the relationship between investment and economic growth Kormendi and Meguire, 1995; Sala-i-Martin, 1997; Easterly & Levine, 1997; Podrecca and Carmeci, 2001).

Another important determinant of economic growth is the accumulation of capital. When the capital stock increases with the passage of time, it is called capital accumulation (or capital formation). According to Jhingan (2008), the process of capital formation is cumulative and self- feeding and includes three inter-related stages: (a) the existence of real savings and rise in them;

(b) the existence of credit and financial institutions to mobilize savings and to divert them in the desired channels; and (c) the use of these savings for investment in capital goods. The process of capital formation helps in providing machines, tools and equipment that lead to the exploitation of natural resources, industrialization and expansion of markets which are essential for economic progress. The accumulation of human capital is an important part of the development process, and this accumulation is influenced in major ways by public programs for schooling and health. This has become the main source of growth in several endogenous growth models as well as one of the key extensions of the neoclassical growth model. Since the term ‗human capital‘ refers principally to workers‘ acquisition of skills and know-how through education and training the majority of studies have measured the quality of human capital using proxies related to education (e.g. school-enrolment rates, tests of mathematics and scientific skills, etc) (Akighir, 2014).

A large number of studies have found evidence suggesting that educated population is key determinant of economic growth ( Mankiw 1992; Barro and Sala-i-Martin, 1995). However, there have been other scholars who have questioned these findings and, consequently, the importance of human capital as substantial determinant of economic growth (Levine and Renelt, 1992; Pritchett, 2001).

Innovation and Research Development (R&D) activities can play a major role in economic progress-increasing productivity and growth. This is due to increasing use of technology that enables introduction to new and superior products and processes. This role has been stressed by various endogenous growth models, and the strong relation between innovation/R&D and economic growth has been empirically affirmed by many studies (Fagerberg, 1987).

Again, since the late 1980s, much of the attention of macroeconomists has shifted to longer term issues, specifically, to the effects of government policies on long-term rate of economic growth. This shift reflects partly the recognition that the difference between prosperity and poverty for a country depends on how fast it grows over the long term. Although fiscal and monetary policies matter in this context, other aspects of ―policy‖ broadly interpreted to encompass all aspects of government activity that matter for economic performance are even more important. One of these aspects concerns the character of a nation‘s basic political, legal, and economic institutions. These institutions remain typically stable from year to year and, therefore, have little to do with the latest recession or boom. However, the long-lasting differences in these institutions across countries have proven empirically to be among the most important determinants of differences in rates of economic growth (Barro and Sala-i-Martin, 1995). Economic policies can influence several aspects of an economy through investment in human capital and infrastructure, improvement of political and legal institutions and so on (although there is disagreement in terms

of which policies are more conducive to growth). Macroeconomic conditions are regarded as necessary but not sufficient conditions for economic growth (Fischer, 1993).

In general, a stable macroeconomic environment may favour growth, especially, through reduction of uncertainty, whereas macroeconomic instability may have a negative impact on growth through its effects on productivity and investment (e.g. higher risk). Several macroeconomic factors with impact on growth have been identified in the literature, but considerable attention has been placed on inflation, fiscal policy, budget deficits and tax burdens. Openness to trade has been used extensively in the economic growth literature as a major determinant of growth performance. There are sound theoretical reasons for believing that there is a strong and positive link between openness and growth. Openness affects economic growth through several channels such as exploitation of comparative advantage, technology transfer and diffusion of knowledge, increasing scale economies and exposure to competition. Openness is usually measured by the ratio of exports to GDP. As clearly noted by Akighir (2014), there is a substantial and growing empirical literature investigating the relationship between openness and growth. On the one hand, a large part of the literature has found that economies that are more open to trade and capital flows have higher GDP per capita and grow faster (Dollar, 1992, Sachs and Warner, 1997, Dollar and Kraay, 2000).

On the other hand, several scholars have criticised the robustness of these findings especially on methodological and measurement grounds (Levine and Renelt, 1992; Rodriguez and Rodrik, 1999). Foreign Direct Investment (FDI) has recently played a crucial role in internationalizing economic activity and it is a primary source of technology transfer and economic growth. This major role is stressed in several models of endogenous growth theory. The empirical literature

examining the impact of FDI on growth has provided more-or-less consistent findings affirming a significant positive link between the two (Hermes and Lensink, 2000).

Another important source of growth highlighted in the literature is the institutional framework. The important role institutions play in shaping economic performance has been acknowledged a long time ago (Lewis, 1955); it is not until recently that such factors have been examined empirically in a more consistent way (Acemoglu, Johnsson and Robinson, 2002). Rodrik (2000) highlights five key institutions (property rights, regulatory institutions, institutions for macroeconomic stabilization, institutions for social insurance and institutions of conflict management), which not only exert direct influence on economic growth, but also affect other determinants of growth such as the physical and human capital, investment, technical changes and the economic growth processes.

It is on these grounds that Rodrik (2001) argued that none of the traditional factors would have any impact on economic performance if there had not been developed a stable and trustworthy institutional environment. The most frequently used measures of the quality of institutions in the empirical literature include government duplication of contracts, risk of expropriation, corruption, property rights, the rule of law and bureaucratic quality (Knack and Keefer, 1995).

The relation between political factors and economic growth had come to the fore by the work of Lipset (1959) who examined how economic development affects the political regime. Since then, research on the issue has proliferated making clear that the political environment plays an important role in economic growth (Kormendi and Meguire, 1995; Hermes and Murinde, 1998; Lensink, 2001). At the most basic form, political instability would increase uncertainty, discouraging investment and eventually hindering economic growth. The degree of democracy is also associated with economic growth. Although the relationship between democracy and

economic growth is complex, since democracy may both retard and enhance economic growth depending on the various channels that it passes through (Alesina and Rodrik, 1994). Barro (1999) noted that among the various indicators available in a democracy, the index for overall maintenance of the rule of law (also referred to as ―law and order tradition‖) turns out to have the most explanatory power for economic growth and investment.

* + 1. Concept of Oil Revenue

Oil revenue has scantily been conceptualized in the literature even though so much has been said about it by several authors and researchers. Oil revenue, for the purpose of this research, generally refers to the income earned from the sale of crude oil. According to Sunley, Baunsgaard and Simard (2002), oil and gas extraction plays a dominant role as a source of export earnings and, to a lesser extent, employment in many developing countries. But the most important benefit for a country from development of the oil and gas sector is likely to be its fiscal role in generating tax and other revenue for the government. To ensure that the state as resource- owner receives an appropriate share of the economic rent generated from extraction of oil and gas, the fiscal regime must be appropriately designed.

The government, as resource owner, has a valuable asset in the ground. This asset a crude oil or natural gas deposit can only be exploited once. In order to convert this asset into financial resources, the government must attract capital on terms that ensure it gets the greatest possible value for its resources. Sunley, Baunsgaard and Simard (2002) further assert that, the government can collect revenue from the oil and gas sector by a variety of tax and nontax instruments. Most countries collect the government share of economic rent primarily through production-based or profit-based instruments. In some countries, the government participates

more directly in project by taking an equity interest. Policymakers will also have to decide on the treatment of indirect taxes such as VAT and customs duties.

In addition to product-based and profit-based instruments, there may be bonuses and rental payments of various types. Bonuses can ensure some up-front revenue for the government and may encourage companies to explore and develop contract areas more rapidly. They are usually suitable only in highly prospective areas where there is strong competition among investors for petroleum rights. Annual rental payments typically are not a significant source of revenue but can be designed to encourage companies to explore and develop contract areas or to relinquish their rights.

In many countries with petroleum resources, revenues from different instruments accrue to different parties; for example, as contained in Sunley, Baunsgaard and Simard (2002), royalty payments may be made to local units of government, landowners or the petroleum ministry, income tax, resource rent tax, production sharing, state equity, indirect taxes, import duties, value added taxes, export duties and other nontax payments.

### Empirical Literature

The role of oil revenue to the development and well-being of many oil producing countries most especially Nigeria has remained one of the focal concern of macroeconomists and researchers for decades. A number of literatures abound on the said role of oil revenue to the economic life of the oil producing countries at large. However, there is conflicting results on the nature of the relationship between the two concepts, with some indicating reverse causality and others resulting in insignificant parameters, leading to the need for more indepth research on the subject. Odularu (2008) examined the relationship between the crude oil sector and the Nigerian

economic performance. Using the Ordinary Least Square regression method, the study revealed that crude oil consumption and export contributed to the improvement of the Nigerian economy. The study recommends that government should implement policies that would encourage the private sector to participate actively in the crude oil sector.

On the other hand, Ibeh (2013) investigated the impact of the oil industry on the economic growth performance of Nigeria. Using ordinary least square (OLS) regression technique, she regressed Gross Domestic Product (GDP), against oil Revenue (OREV) and time appeared as repressors. A two tailed test of 5% significant levels were conducted indicating that the two explanatory variables did not have any significant impact on growth performance of the Nigerian economy within the same period. The researcher therefore recommends that government should formulate appropriate policy mix that would motivate the firm in the oil sector to enhance improved performance and contribution of the sector. Her findings contradict the findings of Odularu (2008), who find a positive relationship between oil sector and Nigeria economic performance. Akinlo (2012) assessed the importance of oil in the development of the Nigerian economy in a multivariate VAR model over the period 1960-2009. He model oil sector against other four sectors i.e. manufacturing, agriculture, trade & service and building & construction. Empirical evidence shows that the five subsectors are cointegrated and that the oil can cause other non-oil sectors to grow. However, oil had adverse effect on the manufacturing sector.

Granger causality test finds bidirectional causality between oil and manufacturing, oil and building & construction, manufacturing and building & construction, manufacturing and trade & services, and agriculture and building & construction. It also confirms unidirectional causality from manufacturing to agriculture and trade & services to oil. No causality was found between agriculture and oil, likewise between trade & services and building & construction.

The paper recommends appropriate regulatory and pricing reforms in the oil sector to integrate it into the economy and reverse the negative impact of oil on the manufacturing sub sector. The findings of Ibeh and Akinlo revealed that petroleum industry have not rely contributed significantly to Nigeria economy this owned to the fact that Nigeria government have not used her revenue generated from the sector efficiently. The industry has faced enormous challenges such as lack of infrastructures, lack of proper turn around maintenance in the oil and gas industries, high rate of corruption, militant insurgences, the recent Boko haram, bunkering, and all sorts of criminal activities.

Nwezeaku (2010) point that, the economy has been bedeviled by perennial underdevelopment, poverty, increasing debt burden due to multiple problems such as poor energy supply and power outages, systematic collapsing of industries and infrastructures, lack of proper turn around maintenance in the oil and gas industries, high are of corruption, militant insurgences, criminal activities etc. The is really faced with poor human developmental and economic indices as evidenced by high rate of perennial and persistent inflation, low per capital income, poor income distribution, GDP and sustained impoverishment, mismanagement of abundant natural, human and material resources, insatiability greed and loss for excessive wealth. Corruption practices at all levels and political banditry have been the bane of the Nigeria economy. Shihab (2001) have linked abundant natural resources to show economic collapse, civil conflict and socio-economic collapse. They further state that, all natural resources, oil has been found to have the highest risk of civil conflict because of the large rents it offers. Therefore Nigeria needs to be careful about the way it manages her petroleum to avoid socio-economic collapse. Ibaba (2005) posits that the Nigeria economy has been facing developmental crisis such as high level of poverty, declining

economic growth, collapse of local economics and social infrastructure. There have been corruption, financial indiscipline, lack of proper accountability of oil revenue, co-existence of abundant foreign reserves have become the order of the day (Shihab, 2001; Ibeh, 2013).

The works of Nwezeaku (2010), Shihab (2001) and Ibaba (2005) provided evidence to contradict the facts that abundance of natural resources do not really spur economic growth but rather leads to several ethnic crisis and civil unrest. At the same vein Sachs and Warner (1997) provide empirical evidence to explain the slow growth in Sub Saharan Africa from 1965-1990. They hypothesize that factors such as geography, economic policy, demography and initial conditions all explain the growth in Africa in recent decades (Sachs and Warner, 1997). Therefore they run regressions using a variety of variables as determinants of growth and estimate a variety of factors which were shown to influence growth in Africa. Natural resource endowments were found to correlate with slower growth as the work from Sachs and Warner (1995) also showed. The regression showed that as natural resource exports increased GDP by .1, growth was projected to decrease by .33 percentage points annually (Sachs and Warner, 1997).

Eravwoke, Alobari and Ukavwe (2014) carried out a study titled Crude Oil Export and its Impact in Developing Countries: A Case of Nigeria. The objectives of the study centered on an empirical investigation of crude oil export and it impact on growth of the Nigerian economy. The study used ordinary least squares regression method, Augmented Dickey Fuller unit root, co- integration test and the short run dynamics. Data was collected from secondary sources, such as central bank of Nigeria bulletin, Bureau of statistics, Journals and Textbook. The framework for the study has its basis on the Keynesian and endogenous growth models. The study found that

there was an inverse relationship between crude oil exports on economic growth in the Nigerian economy, given the coefficient of - 2.115947, which is statistically significant with a t-value of - 3.623380. This implies that crude oil exports are a significant factor that can transform the growth of an economy. The study also found that there was a significant relationship between crude oil exports of the Nigeria economy.

Baghebo and Atima (2013) carried out a study on the Impact of Petroleum on Economic Growth in Nigeria and data covering the period 1980-2011 was collected from the Central Bank of Nigeria Statistical Bulletin and transparency international Agency annual publications. The research work made use of the econometric approach in estimating the relationship between oil export, foreign direct investment, corruption index, external debt and the Nigerian economic growth. The stationary status of the time series data was examined using Augmented Dickey Fuller test. The Johansen co-integration test was conducted to ascertain the long run equilibrium condition of the variables in the model. The variables were cointegrated because four co- integrating equations were found. The study found that FDI impacted positively and significantly on Real GDP with a coefficient of 50.15043. This implies that a unit change in FDI results to 50.15043 increased in GDP. The Parsimonious model was established to account for the short run dynamic adjustments required for stable long run equilibrium. Oil revenue on the other hand impacted negatively and significantly on Real GDP. A unit change in Oil revenue brings about a fall in GDP. The results indicate that a unit change in oil revenue result to 1.362996 reductions in GDP. This means that the Dutch disease phenomenon exist in Nigeria. The impact of Corruption index on Real GDP is negative and statistically insignificant.

The results support the negative impact of oil revenue on Real GDP. The corruption scandal that bedeviled the Nigeria oil industry which has called for the enactment of a law to transform the

Oil industry becomes necessary. The study concludes that, if the petroleum industry bill is passed and implemented to the letters, there exists hope for the Nigerian nation. The study concludes that for Nigeria to correct this anomaly, derive more benefits from its oil and gas 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.

Auwal and Mamman (2012), conducted a study on the Downstream Sector: An Assessment of Petroleum Products Supply in Nigeria. The study was necessitated by files of petroleum product scarcity and higher prices confronting the Nigerian economy. Paradoxical is the fact that Nigeria is a nation heavily endowed with oil and yet wallows in scarcity of its products. The main objective of the study was to provide an assessment of the supply of petroleum products (P.P.) in Nigeria, with emphasis on the short and long run effects of petroleum products prices, imports, local refineries output and the sales on its distribution. The study utilized monthly data ranging from 2005 to 2010 and investigated the impact of the petroleum products supply and domestic prices on the domestic distribution using Vector Auto regression (VAR) model and Ordinary Least Square (OLS) estimation to observe the interdependence as well as the impact of the variables on one another. The study found that because of their non-zero coefficients, the independent variables are responsible for the variations in petroleum products distributed. Based on the lagged and dynamic long-run equilibrium, domestically refined and prices of petroleum products remained insensitive to the quantity distributed, while the imported quantity, though with a low coefficient and weak correlation, remained the key mode of supply that is currently sustaining the economy.

Ogbonna and Appah (2012), carried out a study on the Petroleum Income and Nigerian Economy: Empirical Evidence. The main objective of the study was to ascertain the effects of petroleum income on the Nigeria economy. The study investigated the effects of petroleum income on the Nigerian economy from the year 2000 to 2009 using the gross domestic product (GDP), per capita income (PCI), and inflation (INF) as the explained variables, and oil revenue, petroleum profit tax/royalties (PPT \R), and licensing fees (LF) as the explanatory variables. The sample covered all the economic sectors of the country, including the oil sector and the non-oil sector. The study relied mostly on secondary data sourced from the Central Bank of Nigeria‘s Statistical Bulletin, Nigerian National Bureau of Statistics, and the Nigerian national Petroleum Corporation. Simple regressions models and Statistical Package for Social Sciences were used in the study to evaluate the data collected. The models used evaluated whether the variation in GDP was explained by the oil revenue using the variables such as alpha (∞), Beta (β) and Stochastic Terms (U). The study found that oil revenue has a positive and significant relationship with GDP and PCI, but a positive and insignificant relationship with INF. Similarly, PPT/R has a positive and significant relationship with GDP and PCI, but a negative and insignificant relationship with inflation. It was also found that LF has a positive but insignificant relationship between GDP, PCI and INF, respectively. Based on these findings, the study concluded that petroleum income (oil revenue and PPT/R) had positively and significantly impacted the Nigerian economy when measured by GDP and PCI for the period 2000 to 2009.

Akinlo (2012), carried out a study on How Important is Oil in Nigeria‘s Economic Growth? The study assessed the importance of oil in the development of the Nigerian economy over the period

1960-2009. The study used secondary data. The multivariate co-integration VAR model eveloped by Johansen (1988) and Johansen & Juselius (1990; 1992) was used. Quarterly time series data of GDP indices of the five sectors over the 1960-2009 were used in setting up the VAR model namely: agriculture (agr), manufacturing (man), building & construction (buc), oil (oil) and trade & services (tsr) or xt = (oil, agr, man, buc, tsr). The study found that the five subsectors were cointegrated and that the oil caused other non-oil sectors to grow. However, oil had adverse effect on the manufacturing sector. Granger causality test found bidirectional causality between oil and manufacturing, oil and building/construction, manufacturing and building/construction, manufacturing and trade/services, and agriculture and building/construction. It also confirmed unidirectional causality from manufacturing to agriculture and trade/services to oil. No causality was found between agriculture and oil, likewise between trade/services and building/construction.

### Theoretical Framework

Resource endowment theory of growth: The major advocates of this theory was Adam Smith

―absolute cost advantage‖, David Ricardo ― Comparative cost advantage‖ among others, they argues that countries should specialize to produce and export according to their comparative advantage. The theory of comparative advantage suggests a country gains the greatest economic benefit relative to other countries by producing at lower overall cost, commodities which a country has in abundance or can be easily produced. Other countries will therefore benefit form trade only if they accept the cost advantage of the trading country and focus on producing a commodity in which they have an advantage (Igbesere, 2013). It is this theory that guides resource endowment economist‘s belief in free trade, specialization and the international division of labour. This was their reasoning behind why some countries produce agricultural and mineral

commodities while others produce industrial goods (O‘Toole, 2007; Igbeasere, 2013). The doctrine of comparative advantage according to the Heckscher- Ohlin (HO) theory states that countries produce and export the commodities which require the use of its abundant productive factors intensely (Feenstra, 2004). This model is based on the assumption of two countries, two goods and two factors and assumes that both countries have identical technologies, identical tastes, free trade in goods and different factor endowments (Feenstra, 2004). This theory was based on the proposition that countries (developed nations: Japan, Germany, United Kingdom, etc.) with an abundance of capital would export capital intensive goods and import labour intensive goods, while countries (most third world countries: African and part of Asian countries) with an abundance of labour would export labour intensive goods and import capital intensive goods (Igbeasere, 2013).

A number of empirical work has evolved to test the HO theory including Leontief (1953), he studied the U.S economy in order to prove the doctrine of comparative advantage. He utilized

U.S. economy data on input- output accounts and U.S trade data from 1947 to evaluate the Heckscher- Ohlin-Samuelson (HOS) model (Igbeasere, 2013). He first measures the labour and capital used directly and indirectly in each exporting industry in order to determine the amount of labour and capital required in the production of one million dollars of U.S exports and imports (Feenstra, 2004). Leontief finds that each person employed works with $13,700 worth of capital in producing the exports and each person employed works with $18,200 worth of capital in producing the imports. Although the U.S was capital abundant in 1947, Leontief‘s findings appear to contradict the HO theory and his study would come to be known as the Leontief Paradox (Feenstra 2004; Igbeasere, 2013).2.3 History of Crude Oil in Nigeria

Oil was discovered in Nigeria in 1956 at Oloibiri in the Niger Delta after half a century of exploration. The discovery was made by Shell-BP, at the time the sole concessionaire. Nigeria joined the ranks of oil producers in 1958 when its first oil field came on stream producing 5,100 bpd. After 1960, exploration rights in onshore and offshore areas adjoining the Niger Delta were extended to other foreign companies. In 1965 the EA field was discovered by Shell in shallow water southeast of Warri. In 1970, the end of the Biafran war coincided with the rise in the world oil price, and Nigeria was able to reap instant riches from its oil production. Nigeria joined the Organization of Petroleum Exporting Countries (OPEC) in 1971 and established the Nigerian National Petroleum Company (NNPC) in 1977; a state owned and controlled company which is a major player in both the upstream and downstream sectors [Blair 1976].

Following the discovery of crude oil by Shell D‘Arcy Petroleum, pioneer production began in 1958 from the company‘s oil field in Oloibiri in the Eastern Niger Delta. By the late sixties and early seventies, Nigeria had attained a production level of over 2 million barrels of crude oil a day.

Although production figures dropped in the eighties due to economic slump, 2004 saw a total rejuvenation of oil production to a record level of 2.5 million barrels per day. Current development strategies are aimed at increasing production to 4million barrels per day by the year 2010.Petroleum production and export play a dominant role in Nigeria's economy and account for about 90 % of her gross earnings. This dominant role has pushed agriculture, the traditional mainstay of the economy, from the early fifties and sixties, to the background. While the discovery of oil in the eastern and mid-western regions of the Niger Delta pleased hopeful Nigerians, giving them an early indication soon after independent economic

development was within reach, at the same time it signaled a danger of grave consequence: oil revenues fueled already existing ethnic and political tension and actually "burned" the country.

This tension reached its peak with the civil war that lasted from 1967 to 1970. As the war commenced, the literature reflected the hostility, the impact, and fate of the oil industry. (Falola,

T. Westport, 1999). Nigeria survived the war, and was able to recover mainly of the huge revenues from oil in the 1970s. For some three years an oil boom followed, and the country was awash with money. Indeed, there was money for virtually all the items in its developmental plan. The literature of the postwar years shifted to the analysis of the world oil boom and bust, collectively known as the "oil shock." Starting in 1973 the world experienced an oil shock that rippled through Nigeria until the mid - 1980s.

This oil shock was initially positive for the country, but with mismanagement and military rule, it became all economic disaster. The larger middle class produced by the oil boom of the 1970s gradually became disenchanted in the 1980s, and rebellious in the 1990s.

The enormous impact of the oil shock could not escape scholarly attention. For almost twenty years (1970s - 1990s), the virtual obsession was to analyze the consequences of oil on Nigeria, using different models and theories. A set of radical-oriented writers was concerned with the nationalization that took place during the oil shock as well as the linkages between oil and an activist foreign policy. (Ajakaiye Olu, 2001) Regarding the latter, the emphasis was on OPEC, Nigeria's strategic alliance formation within Africa, the vigorous efforts to establish the Economic Community of West African States (ECOWAS), and the country's attempts to use oil as a political weapon, especially in the liberation of South Africa from apartheid. If many had

hoped that oil would turn Nigeria into an industrial power and a prosperous country based on a large middle class, they were to be disappointed when a formally rich country became a debtor nation by the 1980s.

The suddenness of the economic difficulties of the 1980s "bust years" had an adverse effect on class relations and the oil workers who understood the dynamics of the industry. As if to capture the labor crisis, writings on oil workers during this period covered many interrelated issues, notably working conditions, strikes, and state labor relations. To be sure, labor issues were not new in the 1980s, since the left-oriented scholars had made a point of exposing labor relations in the colonial era. What was new after 1980 was the focus on oil workers, unions, and class conflict [OPEC annual report 1983].

* + 1. The Performance of the Oil Sector in Nigeria

The Nigerian oil sector can be categorized into three main sub-sectors, namely, upstream, downstream and gas. The most problematic over the years has been the downstream sector, which is the distribution arm and connection with final consumers of refined petroleum products in the domestic economy. The incessant crisis in supply of products culminated in the decision by

Government in 2003 to deregulate the downstream sub-sector.

However, the manner of its implementation has been controversial because it ignores the economic realities in Nigeria. Oil production by the joint venture (JV) companies accounts forabout 95 % of Nigeria‘s crude oil production. Shell, which operates the largest joint venture in Nigeria, with 55 % Government interest (through the Nigerian National Petroleum Corporation, NNPC), produces about 50 % of Nigeria‘s crude oil. Exxon Mobil, Chevron Texaco, ENI/Agip

and Total final Elf operate the other JV‘s, in which the NNPC has 60 % stake. The over- dependence on oil has created vulnerability to the vagaries of the international market, as observed in the preceding section that show the contribution of oil to some macro-economic variables. In particular, the place of oil in the mind of the average Nigerian has become more profound since the deregulation of the downstream segment of the Nigerian oil industry in 2003. (Genova, A; Toyin Falola 2003)

The contradiction is more glaring now with the recent rise in crude oil prices at the global markets, which meant more external earnings for Nigeria, but also increased the expense burden on imported refined petroleum products! It is such contradictions that make the Nigerian economy appear strange at times, as policies seem to ignore what appears obvious to do. As such, policies designed to address the deficiencies and defects in the structure end up being poorly articulated and/or implemented because of regional, political or rent-seeking selfish interests. Obviously, it is the same rent-seekers that continually sabotage the reinvigoration of the domestic refineries, making Nigeria to depend on importation of refined products to meet the domestic need. At present, Nigeria has four refineries, with a combined installed refining capacity of 445,000 barrels per day (bpd).

These four refineries are:

1. The first Port Harcourt Refinery was commissioned in 1965 with an installed capacity of 35,000

bpd and later expanded to 60,000 bpd.

1. The Warri Refinery was commissioned in 1978 with an installed refining capacity 100,000 bpd, and upgraded to 125,000 bpd in 1986.
2. The Kaduna Refinery was commissioned in 1980 with an installed refining capacity of 100,000 bpd, and upgraded to 110,000 bpd in 1986.
3. The second Port Harcourt Refinery was commissioned in1989 with 150,000 bpd processing capacity, and designed to fulfill the dual role of supplying the domestic market and exporting its surplus.

The combined capacities of these refineries exceed the domestic consumption of refined products, chief of which is premium motor spirit (gasoline), whose demand is estimated at 33 million liters daily.

The refineries are however, operating far below their installed capacities, as they were more or less abandoned during the military era, skipping the routine and mandatory turnaround maintenance that made products importation inevitable.

Importation notwithstanding, there have been persistent product shortages that gave strength to the argument for deregulation of the downstream oil sub-sector in Nigeria. The monetization of oil revenue has been a major factor in liquidity management in Nigeria. Measuring liquidity as the narrow and broad money definitions by the CBN, the early 1990s saw increases that were dampened by 1995 up until the civilian administration came on board in 1999.

The new Government maintained disciplined fiscal operations for about one year and thereafter, the floodgates were opened. Since then, the CBN has been battling to keep liquidity in check, in order to ensure that it does not create adverse effects on the three key macroeconomic prices (i.e., interest rate, exchange rate and inflation rate). The greatest challenge is when Nigeria generates more revenue from crude oil sales than it budgeted, like now. Such excesses have always been monetized, creating market distortions and inflationary pressure [Biodun Adedipe 2004].

The same argument goes for deficit fiscal operations in comparison to the GDP. The pattern of this ratio indicates the optimism that accompanies increase in oil revenue and makes Government to engage in frivolous spending or unnecessary projects. Deficit spending invariably makes Government resort to borrowing from the Central Bank through the instrument of Ways and Means

Advances, which later convert into short-term debt instruments that are quite expensive to service at market rates. (Igbinedion University Okada, Eighth Convocation Lecture, 2010). At this point, there is sufficient ground to examine how economic policy formulation has been impacted or induced by petroleum oil in Nigeria. As much as possible, major economic policies since Nigeria gained political independence would be examined vis-а-vis the state of the oil sector. This should provide adequate basis for making a few specific recommendations on how to reduce the dependency.

# CHAPTER 3

**RESEARCH METHODOLOGY**

### Introduction

This chapter is concerned with the methods used in collecting, analysing and interpreting the data for the study, also explains the population of the study, sampling techniques and sampling size; model development, method used in recording and techniques used in data analysis.

### Research Design

The design used in this research is ex-post facto, as the study entails the use of time series data for the periods under study as it allowed for the collection of past documented data. This provided the basis for the full establishment of the relationship between the variables. Therefore, the non-survey design is adopted to actualize the research objectives, which aim at examining the impact of oil revenue on the economic growth in Nigeria.

### Population of the Study

Population refers to the totality of all conceivable elements or subjects relating to a particular phenomenon of interest to the researcher. The subjects or elements are the individual items that make up the population, which may be observed or physically counted (Tahir, 2012). The population of this study is the National economic data relevant to this study. However, this is restricted to oil revenue, non-oil revenue, oil price volatility, per capita income, GDP and GNP.

### Sample Size and Sampling Technique

Filter sampling technique was used through applying criteria, for a data to be part of the sample; the data should be qualified in terms of the following: it should have been sourced from CBN statistical bulletin, NBS data or world bank fact data, there should be no change in the fiscal year during the period, the required data should be available and the required data should be

accessible. The application of the criteria resulted to the selection of oil revenue, non-oil revenue, oil price volatility, per capita income, GDP and GNP for the period of thirty-eight years

(38) years as sample size of the study.

### Types and Sources of Data Collection

The study was based on empirical research method. The researcher used secondary source of data for the purpose of this study. The data are extracted from published statistical websites and Central Bank of Nigeria; statistical bulletins covered the period of thirty-eight years (38) years from 1981 - 2018.

### Instrument of Data Collection

The study was based on empirical research method. The researcher used secondary source of data for the purpose of this study. The data are extracted from published statistical websites and Central Bank of Nigeria; statistical bulletins covered the period of thirty-eight years (38) years from 1981 - 2018.

### Variable and their Measurement

The study used dependent and independent variables. The dependent variables are gross domestic product (GDP), gross national product (GNP) and per capita income (PCY) while the independent variables are oil revenue (ORV), non-oil revenue (NRV) and oil price volatility (OPV).

### Model Specification

This research set out to examine the impact of oil revenue on the economic growth in Nigeria. This relationship is designed on a linear regression model assuming a linear relationship between the variables. The model is given as:

ECG = β0 + β1ORV1 + β2OPV2 + β3NRV3 + ut

GDP = β0 + β1lnORV1 + β2lnOPV2 + β3lnNRV3 + ut I

GNP = β0 + β1lnORV1 + β2lnOPV2 + β3lnNRV3 + ut II

PCY = β0 + β1lnORV1 + β2lnOPV2 + β3lnNRV3 + ut III

Where:

ECG = Economic Growth

GDP = Gross Domestic Product GNP = Gross National Product PCY = Per Capita Income

ORV = Oil Revenue

OPV = Oil Price Volatility NRV = Non-Oil Revenue

β0 is the constant coefficients.

β 1 – β3 are the independent variables coefficients. e = error term

### Techniques of Data Analysis

The techniques for the data analysis used in this study; include descriptive statistics, correlation and regressions in E-view version 9 statistical tool. The descriptive statistics is use to organize and summarized the data with a view of reducing the cumbersomeness and making it meaningful and comprehensive, and correlation is a technique of determining the degree of relationship between two variables. The main objective of this method of determining correlation is to find out the extent to which two sets of ranking are similar or dissimilar while regression is a technique of determining the impact of the independent variable(s) on the dependent variable. The relationship is expressed as an equation that predicts a response variable from a function of regressor and parameter

# CHAPTER 4

**DATA PRESENTATION, ANALYSIS AND INTERPRETATION**

### Introduction

The chapter presents the data analysis and interpretation of result of the dependent variable and independent variables, it also presents the results obtained from the test of the research hypotheses.

### Presentation of Descriptive Statistics

The descriptive statistics shows the mean and standard deviation of each independent variable from the mean and standard deviation of the dependent variable.

### Table 4.1: Descriptive Statistics of the Variables

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | GDP | GNP | PCY | NRV | OPV | ORV |
| Mean | 148.8284 | 141.4063 | 1776.781 | 920.0058 | 42.2058 | 2309.868 |
| Median | 48.89174 | 45.28197 | 1548.300 | 269.6250 | 22.0000 | 977.6350 |
| Maximum | 568.4989 | 549.5281 | 3224.711 | 3275.030 | 145.0000 | 8878.970 |
| Minimum | 15.78900 | 13.44267 | 1324.300 | 2.9800 | 0.1500 | 7.250000 |
| Std. Dev. | 173.6739 | 167.4952 | 514.4605 | 1172.668 | 47.37152 | 2674.280 |
| Observations | 38 | 38 | 38 | 38 | 38 | 38 |

Source: Computed using E-view 9

Table 4.1 shows the descriptive statistics result of the dependent and independent variables. A total of 38 observations were recorded. The table shows the mean, median and standard deviation with minimum and maximum range of the dependent and independent variables. The Gross domestic product (GDP) which is dependent variable has an average of 148.8284bn and a median of 48.89174bn with a minimum of 15.78900bn and a maximum of 568.4989bn with standard deviation of 173.6739bn representing 100% showing that there is much variation among the GDP of the sampled companies. The Gross national product (GNP) which is dependent variable has an average of 141.4063bn and a median of 45.28197bn with a minimum

of 13.44267bn and a maximum of 549.5281bn with standard deviation of 167.4952bn representing 100% showing that there is much variation among the GNP of the sampled companies.

The Per capita Income (PCY) which is dependent variable has an average of 1776.781bn and a median of 1548.300bn with a minimum of 1324.300bn and a maximum of 3224.711bn with standard deviation of 514.4605bn representing 100% showing that there is much variation among the PCY of the sampled companies. The Non-oil revenue (NRV) which is independent variable has an average of 920.0058bn and a median of 269.6250bn with a minimum of 2.980000bn and a maximum of 3275.030bn with standard deviation of 1172.668bn representing 100% showing that there is much variation among the NRV of the sampled companies.

The Oil price volatility (OPV) which is independent variable has an average of 42.20579bn and a median of 22.00000bn with a minimum of 0.150000bn and a maximum of 145.0000bn with standard deviation of 47.37152bn representing 100% showing that there is much variation among the OPV of the sampled companies. The Oil revenue (ORV) which is independent variable has an average of 2309.868bn and a median of 977.6350bn with a minimum of 7.250000bn and a maximum of 8878.970bn with standard deviation of 2674.280bn representing 100% showing that there is much variation among the ORV of the sampled companies.

### Analysis of Data

This section presents the results of the analysis conducted on the data extracted from published statistical websites and Central Bank of Nigeria; statistical bulletins for the period of the study. It presents the descriptive statistics, correlation and regression results of the study.

* + 1. *Correlation Result*

The correlation result shows the relationship between each independent variable and the dependent variable. The values of the correlation coefficient range from -1 to 1. The sign of the correlation coefficient indicates the direction of the relationship (positive or negative) the absolute value of the correlation coefficient indicates the strength, with larger values indicating stronger relationships and lower values indicating weak relationships. The correlation coefficients on the main diagonal are 1.0, because each variable has a perfect positive linear relationship with itself.

Table 4.2: Correlation result

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | GDP | GNP | PCY | NRV | OPV | ORV |
| GDP | 1.0000 |  |  |  |  |  |
| GNP | 0.9997 | 1.0000 |  |  |  |  |
| PCY | 0.9522 | 0.9486 | 1.0000 |  |  |  |
| NRV | 0.9649 | 0.9653 | 0.8770 | 1.0000 |  |  |
| OPV | 0.8623 | 0.8631 | 0.7640 | 0.9367 | 1.0000 |  |
| ORV | 0.8358 | 0.8264 | 0.8832 | 0.7926 | 0.7374 | 1.0000 |

Source: Computed using E-view 9

Table 4.2 shows the correlation result of the dependent variable GDP, GNP and PCY and the independent variables NRV, OPV and ORV. The relationship between GDP and independent

variable NRV is positive and strong with a coefficient value of 0.9649 representing 96.49%, this means that, all things being equal the higher the NRV the higher the GDP. The relationship between GNP and independent variable NRV is positive and strong with a coefficient value of 0.9653 representing 96.53%, this means that, all things being equal the higher the NRV the higher the GNP. The relationship between PCY and independent variable NRV is positive and strong with a coefficient value of 0.8771 representing 87.71%, this means that, all things being equal the higher the NRV the higher the PCY.

The relationship between GDP and independent variable OPV is positive and strong with a coefficient value of 0.8624 representing 86.24%, this means that, all things being equal the higher the OPV the higher the GDP. The relationship between GNP and independent variable OPV is positive and strong with a coefficient value of 0.8632 representing 86.32%, this means that, all things being equal the higher the OPV the higher the GNP. The relationship between PCY and independent variable OPV is positive and strong with a coefficient value of 0.7641 representing 76.41%, this means that, all things being equal the higher the OPV the higher the PCY.

The relationship between GDP and independent variable ORV is positive and strong with a coefficient value of 0.8359 representing 83.59%, this means that, all things being equal the higher the ORV the higher the GDP. The relationship between GNP and independent variable ORV is positive and strong with a coefficient value of 0.8265 representing 82.65%, this means that, all things being equal the higher the ORV the higher the GNP. The relationship between PCY and independent variable ORV is positive and strong with a coefficient value of 0.8833

representing 88.33%, this means that, all things being equal the higher the ORV the higher the PCY.

*4.3.2. Regression Result*

The regression result shows the impact of each independent variable to the dependent variable. The regression coefficient values indicate the extent of the impact which range from 0% to 100%. This section also presents the F statistics, R2 and adjusted R2 of the model.

Table 4.3: Regression Results

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Var. | MODEL I |  |  | MODEL II |  |  | MODEL III | |  |
| GDP |  |  | GNP |  |  | PCY |  |  |
| B | t-cal | Sig. | B | t-cal | Sig. | B | t-cal | Sig. |
| Const | 18.4800 | 2.1680 | 0.0372 | 16.6341 | 1.9568 | 0.0586 | 1396.57 | 34.0025 | 0.0000 |
| NRV | 0.1669 | 10.1414 | 0.0000 | 0.1636 | 9.9700 | 0.0000 | 0.3952 | 4.9841 | 0.0000 |
| OPV | -1.2132 | -3.2987 | 0.0023 | -1.1609 | 3.1651 | 0.0033 | -4.8711 | -2.7487 | 0.0095 |
| ORV | 0.0121 | 3.2406 | 0.0027 | 0.0101 | 2.6952 | 0.0109 | 0.0962 | 5.3357 | 0.0000 |
| F | 259.0320 241.5175 90.8432 | | | | | | | | |
| P > F | 0.0001  0.9581  0.9544 | | | 0.0001  0.9552  0.9512 | | | 0.0001  0.8891  0.8793 | | |
| R2 |
| Adj. R2 |

Source: Computed using E-view 9

Table 4.3 shows regression results of the model. The model consists of dependent variables GDP, GNP, PCY and independent variables NRV, OPV and ORV. the impact of independent variable NRV on dependent variable GDP is positive with coefficient value of 0.1669, meaning that an increase in NRV by one unit while other variable remain constant lead to an increase in GDP by 16.69%; the impact of independent variable NRV on dependent variable GNP is positive with coefficient value of 0.1636, meaning that an increase in NRV by one unit while other variable remain constant lead to an increase in GNP by 16.36%; the impact of independent variable NRV on dependent variable PCY is positive with coefficient value of 0.3952, meaning that an increase in NRV by one unit while other variable remain constant lead to an increase in PCY by 39.52%.

the impact of independent variable OPV on dependent variable GDP is negative with coefficient value of -1.2132, meaning that an increase in OPV by one unit while other variable remain constant lead to a decrease in GDP by 100%; the impact of independent variable OPV on dependent variable GNP is negative with coefficient value of -1.1609, meaning that an increase in OPV by one unit while other variable remain constant lead to a decrease in GNP by 100%; the impact of independent variable OPV on dependent variable PCY is negative with coefficient value of -4.8711, meaning that an increase in OPV by one unit while other variable remain constant lead to a decrease in PCY by 100%.

the impact of independent variable ORV on dependent variable GDP is positive with coefficient value of 0.0121, meaning that an increase in ORV by one unit while other variable remain constant lead to an increase in GDP by 1.21%; the impact of independent variable ORV on

dependent variable GNP is positive with coefficient value of 0.0101, meaning that an increase in ORV by one unit while other variable remain constant lead to an increase in GNP by 1.1%; the impact of independent variable ORV on dependent variable PCY is positive with coefficient value of 0.0962, meaning that an increase in ORV by one unit while other variable remain constant lead to an increase in PCY by 9.62%.

In the model the multiple coefficient of determination R2 is 0.9581, 0.9552 and 0.8891. This means that 95.81% of change in GDP, 95.52% change in GNP and 88.91% change in PCY were caused by change in independent variables NRV, OPV and ORV while the 4.19% change in GDP, 4.48% change in GNP and 11.9% changes in PCY was caused by other factors not included in the model.

# CHAPTER 5

**SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

### Summary

The principal concern of the study is to examine the impact of oil revenue on the economic growth in Nigeria. In addition, this study also looks at the oil revenue, non-oil revenue and oil price volatility as determinants of oil revenue in Nigeria. The study comprises of five (5) chapters. The first chapter of the study is an introduction to the subject matter of the research, it talks generally about the background of the study giving full insight to the issue of oil revenue and economic growth in Nigeria. A statement was provided on the problem that prompted the study and the objectives to be achieved as were stated. Also, in line with the objectives, research hypotheses were developed as well as the scope and significant of the study.

Literature review was conducted in chapter two; this chapter examined a number of journals and articles on the topic to determine the various elements and concepts that derive the analysis of the impact of oil revenue on the economic growth in Nigeria. Empirical studies and theoretical framework were also reviewed.

Chapter three was centered on the methodology used for this research work. For the purpose of this study, data are extracted from published statistical websites and Central Bank of Nigeria;

statistical bulletins covered the period of thirty-eight years (38) years from 1981 – 2018. It also went further to reveal the sampling technique and the method of data collection and techniques of data analysis employed.

Finally, the fourth chapter is on the presentation, interpretation and analysis of the data. This was done with use of data are extracted from published statistical websites and Central Bank of Nigeria; statistical bulletins computed using statistical for social science E-view version 10.

Based on the result this study, the following findings are:

1. Oil revenue and oil price volatility has significant impact on Gross Domestic Product of Nigeria.
2. Oil revenue and oil price volatility has significant impact on Gross National Product of Nigeria.
3. Oil revenue and oil price volatility has significant impact on Per Capita Income in Nigeria.

### Conclusions

The results from the analysed data shows that oil revenue play significant role in Nigeria‘s economy through its contribution to GDP. Furthermore, Nigeria has managed oil revenue to achieve economic growth on all fronts. The data collected and analyzed showed that Nigeria has saved in a fund to diversify investment in productive portfolios. Nigeria has also saved to smoothing expenditure process without much borrowings, and has saved for infrastructural development. It can be concluded that in reality Nigeria lacked the basic key

capabilities―presence of weak political and democratic institutions which have encouraged the institutionalization of bad governance, corruption and outright disregard for the rule of law― to manage oil revenues to attain the desired economic growth.

### Recommendations

Based on the above findings and conclusions, the study recommended the Nigerian National petroleum corporation (NNPC) should diversify its export baskets through downstream production, this will enhance the refined petroleum for exports. The government should encourage more private company participation. So that better equipped refineries can be built and the cost of refining crude oil will reduce. Security should be boosted on the high sea where crude oil products are being smuggled. This will help reduce the loss from illegal export of crude oil products. Government should give immediate attention to the indigenes of the region where crude oil is being extracted from. This will reduce the unrest in that region. Government should establish an institution that will ensure that the multinational oil companies are socially responsible to their host community. Government should fight corruption by establishing institutions that will arrested and prosecute corrupt public office holders. There is the urgent need for Nigeria to diversify their export market especially the oil market.

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