THE IMPACT OF OIL REVENUE ON THE ECONOMIC GROWTH IN NIGERIA (1980-2010)

BY

IBEH FRANCISCA UJUNWA

EC/2009/723

DEPARTMENT OF ECONOMICS

FACULTY OF MANAGEMENT AND SOCIAL SCIENCES

CARITAS UNIVERSITY, AMORJI-NIKE,

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APPROVAL PAGE

This research work has been read and certified as meeting part of the requirement for the award of bachelor of science (B.Sc.) degree in the department of economics, faculty of management and social science, Caritas University, Enugu state, Nigeria.

_____ _____

Chief C.J Odike Date

Project supervisor

_____ _____

Bar. P.C. Onwudinjo(Esq) Date

(HOD)

_____ _____

External Examiner Date

DEDICATION

This research project is dedicated to almighty God. The most gracious and merciful God who through his infinite mercies saw me through the writing of this project.

Also to my parents, Mr. and Mrs. J.C. lbeh for their care, understanding and sacrifices they made for me to acquire this certificate.

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I give my profound gratitude to God almighty 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.

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you all for your different contributions to my life and I won't forget you. And to my roommates, Gimbiya, Uli, confidence, Helen, Rita and Deborah, I won't forget all the memories we have made together, without you people life would have been hell on earth.

ABSTRACT

This research work was conducted to investigate the impact of the oil industry on the economic growth performance of Nigeria. In the process of the research, the ordinary least square (OLS) regression technique was employed. Considering the impact of time on changes in economic variables, the analysis was carried out using the simple regression method in which Gross Domestic Product (GDP), proxy for economic growth was used as the dependent variable, while the oil Revenue (OREV) and time appeared as repressor's. 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.

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CHAPTER ONE

INTRODUCTION

1.1 THE BACKGROUND OF THE STUDY

The economy is the backbone of any nation. Nigeria, like other development countries of the world is paying more attention on how to accelerate the rate of development through the various sections of the economy.

Oil, a very versatile and flexible non-productive, depleting, natural (hydrocarbon) resource is a fundamental input to modern economic activities providing about 50% of the total energy demanded in the world excluding the former centrally planned economy. Oil exploiting countries of the world depend heavily on oil revenue for foreign exchange earnings and for the government budget, in most cases, reaching 90% or above.

Petroleum or crude oil is an oily bituminous liquid, consisting of a mixture of many substances mainly the elementsof carbon and hydrogen, and thus known as hydrocarbon. It also contains a very small amount of non-hydrocarbon element, chief amongst which are sulphur, nitrogen, and oxygen. Petroleum industry covers the exploration and production of crude oil as well as petroleum refining, marketing and servicing. Specific policy objectives with respect to petroleum and mining can be summed up us follows. Active government participation in mining

operations, diversification of mineral products, the organization and regulation of the development of mineral resource so as to optimize their contribution to the overall national development effort, the conservation of the countries mineral resources, research into efficient extraction methods and wider application and use of mineral manpower development of internal self sufficiency in the supply and effective distribution of petrol industry products, commercialization of gas and the control of the environmental problems of oil production (Obudun 1987).

Though oil did not assume its present significant position in the natural economy until the early 1970s, it is not a novel revelation that it has since become the mainstay of contemporary Nigerian economy. Petroleum either as petrol, diesel,fuel, oil, lubricant or petro-chemical makes Nigeria's economy wheel go round.

Petroleum has transformed poor nations into rich ones desert into watersheds and bankrupt nations into creditors. Specifically, with respect to Nigeria, there is no gain saying that the oil sector has undergone tremendous transformation over the years. (Anyanwa, et al 1997).

The industry has emerged from being merely the "supportive" economic sector it was in the 1960's to the predominant source of foreign exchange and most viable access to international investment opportunities in the 80's and 90's,

no other resources in Nigeria has played such a towering role over the national economy as crude oil. The government of Nigeria has used the revenue derived from oil through tax and royalties to carry out development projects in the country (Iyohu 2000).

This study therefore, aims to illustrate clearly the impact of oil industry on economic growth performance in Nigeria.

1.2 STATEMENT OF THE PROBLEM

The over – dependence on oil has created vulnerability to the vagaries in the progressing section that shows the contribution of oil to some macroeconomic variables. In particular, the lace of oil in the psyche of the average Nigerian oil industry in 2003. The contradiction is more external earning for Nigeria, and also increased tax burden on imported refined petroleum products.

Some scholars have advocated for the shifting of emphasis from the oil industry to other sectors owing to their belief in the negative fallouts of the oil industry; some others opined that the sectors should be promoted and developed for its benefits. These opposing views have created the problem of acceptance or otherwise of the oil industry in Nigeria.

In view of the controversy with respect to the relative contribution of the oil sector compared with other sectors, it is imperative to establish empirically the relative impact of the oil industry in the Nigeria economy.

1.3 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.

- To find out the impact of oil revenue (oil sector) on gross domestic product (GDP).
- To find the relationship between oil revenue and economic growth.

1.4 STATEMENT OF THE HYPOTHESIS

The following hypothesis will be tested in this study:

H_0: Oil has no effect on the economic growth in Nigeria

H_1: Oil has a significant effect on the economic growth in Nigeria

1.5 SIGNIFICANCE OF THE STUDY

The study will be beneficial to the following:

- ❖ It will be relevant to oil companies operating in Nigeria in many of their operational and investment decisions.
- ❖ It will equally, serve as a source of information for the policy makers and stakeholders in the industry.
- ❖ It will also guide the government and its agencies in regulating the industry.
- ❖ It will serve as a source of information (data) to students in their field of study.

1.6 SCOPE AND LIMITATIONS OF THE STUDY

This research work is an investigation into the impact of oil industry on economic growth in Nigeria (1980-2010).

In carrying out this research work, the researcher encounted some difficulties. 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.

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CHAPTER TWO

LITERATURE REVIEW

2.1 THEORETICAL LITERATURE

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:

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 t 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.

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 at 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 11^{th} 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 oil is sold for is largely 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 11^{th} 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 80 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 $33^{1/3}$ equity interest in the Nigeria Agip Oil Company (NAOC) in 1971 and 35% in EIF (Nigeria Brief – Community issues).

Meanwhile, the then 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.

2.2 EMPERICAL LITERATURE

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, the substitution f 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).

In many ways, oil has been the engine of economic growth in Nigeria. It is quite clear that the nation's economy is heavily dependent on the oil industry.

Crude petroleum's GDP rose from N0.43billion in 1960 – 69 to N12.86 billion in 1995, the highest contribution period being 1975-1979 at n17.91 billion.

Thus, the percentage share of crude petroleum Nigeria's GDP rose from 1-6% in 1960 to 17.4% in 1970-74 period and to a peak of 24.3% in 1975 -79 period. It was 22% in 1980, falling to 15.06% in 1985 and to 12.90% in 1990, in 1997; it

had further fallen to 12.4. Crude petroleum has remained the main engine of economic growth in Nigeria in spite of the volatility of the world oil market and its declining share in GDP (Agbajule 1987 p29).

Commenting on the opportunities available for Nigerian entrepreneurs in the petroleum industry (Iyoha) noted that oil industries in Nigerian have created opportunities for Nigeria Entrepreneurs. He draws attention to the fact that the Nigeria National Petroleum Corporation represents all aspects of the industry. According to him, the corporation is an integrated international oil company involved in both upstream and downstream operations. This means that virtually all business man confined something of interest in the Nigeria national petroleum corporation group, either in the upstream or in the downstream sector of the industry.

Investment opportunities exist in areas of survey and mapping these surveys are necessary before meaningful exploration work can take place. (iyoha p. 99).

These are also opportunities in civil engineering works, particularly in the area of preparation of drilling location, construction of pits and stabling or concrete gabs at register. Business men can also supply such items as cement, and pipeline. These are areas where Nigerian can harvest alone or in partnership with foreigners.

Attention is also drawn to the immense investment opportunities that exist in the important areas of explora6ion and production. Although oil exploration and production. Although oil exploration started in Nigeria over 53 years ago not up to half of the sedimentary business of the country have been seriously explored.

The Dahomey basin, the Anambra basin, the Sokoto basin as well as parts of the Chad basin have hardly been investigated for the purpose of finding oil or gas. Even in the Niger –Delta basin, which has been appreciably explored activities are limited to the only onshore areas.

A lot of people do not know that about 405 of the offshore areas of the Niger basin (up to 200 meters water depth) is currently under active exploration (Iyoha 2000 p40).

The presence of employment opportunities in any given country is one of basic social needs of the citizens of social atmosphere will be characterized by individuals who will seek to contribute meaningfully to the development of their nation. According to (Goulet 1971 p. 15) the three core values that should serve as a conceptual basin and practical guideline for understanding the inner meaning of development include life sustenance, self – esteem and freedom for servitude.

Life sustenance, which is first of the core values, is characterized by the availability of food, shelter, wealth and protection. These basic needs and other core values can only be realized when the individuals are gainfully employed.

Seers (1969) also recognized the importance of employment as a feature of economic development when he posed the basic question about development of a society. He asserted thus:

"The questions to ask about a country's development are therefore what has been happening to poverty? What has been happening to unemployment? What has been happening to equality? If all three of those have declined from levels, then beyond doubts, this has been a period of development for the country concerned. If one or two of these central problems have been growing worse, especially of all three, it would be strange to call the result development even if per-capital income double". Oladele (1991) posits that provision of employment opportunities is one of the positive side of oil industry.

Therefore, the presence and activities of the oil industries have created more opportunities for employment in Nigeria.

The trust of the education programme is to develop trained young men and women who can compete for job in industry over 57 percent of the work force in the oil companies are from the oil producing Rivers and Delta state. If staffs are

added from the other parts of the country (Imo, Abia, Akwa-Ibam and Edo States) which have oil operations on their land, the percent rises to about 69 percent of the job creation by the oil industries in Nigeria. (Oladele 1991 p. 96).

The various oil companies in Nigeria have employed contractors to handle most community projects (total contractors0, other areas of contract award are security (clearing up oil equipment as well as supplies. (Source; petroleum exploration and Development in Nigeria).

Speaking further on the provision of social infrastructure, Obadn (1987) noted that as a good corporate citizen, NNPC recognizes the importance of regular availability of social amenities in the day to day lives of people of the oil producing communities in the Niger Delta areas.

The corporation therefore, between 1986 and 1991, encouraged almost all its joint venture partners to undertake series of basic amenities in their communities as well as n higher institutions across the country. One of such contribution of the oil companies in their areas of production are:

1. **Development of rural road network:** NNPC in its desire to promote the various exploration and marketing services nationwide, place high promotion on road development and creating a road network that links effectively the various oil producing communities in the interior, with the

urban centers. On yearly basis, the corporation through its 60% share in the funding of all activities involving the various joint venture companies and invariably all community assistance initiatives undertaken by them.

Between 1989 and 1990, the NNPC in partnership with one of its joint venture partners undertook the construction of a special link – road running through four oil communities in Delta State – Idieze, benekuku, Kwale and Okpi/umusedege(Nigeria brief, Community Issues vol. 9, no 2 June 1983).

2. **Electrification:** the importance of 1978 – 2007 steady supply of electricity as the pre-requisite to stable life in this age and time cannot be over – emphasized. With this in mind, NNPC and its joint venture partners have embarked on intensive electrification work in oil producing areas across the country.

The electrification of Agbere, Aggali- Olu town, Brass, BorguEwaamu, Mgbechi, Okwuzi, Obie, Obriku and Omoku community in River State estimated at n 3.5 million by shell petroleum development company (S.P.D.C), mobile producing Nigeria Ltd (MPNL) provided 22 transformers thus enable them to tap electricity from the national grid to communities in Delta State have also benefited from electricity through the activities. (Nigeria brief Community issues vol 9, no. 4 June 1984).

3. **Portable water:** NNPC recognizes the importance of regular availability of water in the various communities of operation. In furtherance of this, not less than six water projects were undertaken in communities located in Ughelli South L.G.A. and Isoko Local Government Area five oil producing communities began enjoying steady supply of water courtesy of NNPC and its joint venture partners. NAOC constructed and drill pipe borne water wells at MgbedeOkwuzi, Obirikum and Aggah in River State, Berekuku, Kwale and Umusudege in Delta State.

Institutions of higher learning also benefited from the NNPC and its joint venture partners through the provision of portable water. They are Delta State University of Science and Technology and Petroleum Training Institution in Warri (Nigeria brief Community Development Vol. 10, no. 17 October 1983). On the part of petroleum industry contribution to Agricultural development, NNPC and its joint – venture partner have contributed to the development in Nigeria. The objective is to help farmers grow from subsistence to a commercial level of farming and thereby improve their living standard and further develop socio-economic condition of the country.

SPDC, the pioneer and largest producer of crude oil in Nigeria have assisted rural communities in the following ways.

a. Improving farming techniques and methods

b. Development and distribution disease resistant and high yielding varieties of crops

c. Encouraging crop diversification

d. Stimulate a teamwork corporate approach to problem solving.

e. Harness the resources of government agencies, research institutes and philanthropic groups involved in agricultural developments.

f. Improved the agricultural earning of farmers and the incomes of local communities. (Obadan 1987 p. 102). Also the Nigerian Agip oil company, NAOC, had a number of contributions to the agricultural sector of the economy the green river project in the following ways:

a. Improvement of the traditional agricultural system by means of an extension services.

b. The distribution of improved varieties of the main food crops used in agricultural production.

c. The introduction of new crops of nutrition and economic interest, following a monitoring programmed to test their adaptability to local conditions.

The main environmental effects of oil industry activities in Nigeria (oil producing areas of Niger Delta9 include.

i. Land degradation

ii. Air pollution

iii. Water pollution

iv. Deforestation

v. Ecosystem degradation. These are as a result of oil spillage, gas flaring and waste disposal (Iyoha 2000).

Accordingly to Onuyere (2000) oil spillage is the accidental and unwanted discharge of liquid, hydro carbon into the environment during the course of drilling, producing processing, transferring while in storage. The liquid hydrocarbon is made up of various constituents and prominent among the constituents are the heavy liquid here referred to as crude oil and light part which evaporated easily into the atmosphere called natural gas. In the oil are some other metals and sulphur.

Detwuker (1980) defined oil spillage as the running or pouring of petroleum products out of vessels, pipes or drilling wells to the environment thereby causing harmful effect to organic and inorganic matter in the affected areas. As a result of oil exploration, land is resurfaced; its shape changes and most times, the natural water ways are black leading to flooding of farmland.

Biological effects are also very serious. The effects of oil on marine life can be considered as being caused by the physical natureof its smoothening effects and the chemical components of oil. i.e. it's tonic effect. Marine life could also be affected by clean up operations or damage to the habitants on which they live. The communities affected by oil spillage lose their sources of livelihood and if not completely lost resulted depletion in fish and farm outputs results in lots of earnings. Other economic activities, the phenomenon leads to series of fire-out break that claimed many lives and valuable properties.

The weekend vanguard of May 20, 2000 in its editorial said for many situation immediately draw in their minds, horror of the vesse fire disaster of 1998 where devastating petrol inferno roasted about 1000 persons alive. The vesse fire out brake was as a result of long time petroleum products spillage that was not attended to, tough it was attributed to sabotage.

Meoliver (1980) put the effects of oil spillage in the following words "Mangroves forests have hitherto served as natural boundaries not only between one state and another, with oil cutting away that national landscape telling where one state tertiary ends and where the other begins is no longer an easy matter. This goes a long way to tell magnitude of degradation that the Niger-Delta has been subjected to.

Elas flaring has also rushed a lot of concern in communities in the Niger-Delta. Elas flaring is a major source of air pollution and releases methane gas to the atmosphere.

The major consequences of gas flaring are:

i. The release of Co_2 and methane to the atmosphere

ii. Acidification

iii. Water quality degradation like other air pollutions, gas flaring poses serious health hazard to people living near the flaring sites. The ash residue also contributes both to soil and water degradation.

Tragically, Nigeria has the dubious honor of being the foremost gas flaring country in the world in sum. Oil industry activities in the Niger Delta has caused and continue to cause consideration damage.

Although a lot of efforts have been made to curtail assorted as gas flaring. Substantial amounts exceeding 70% of total annual gas products is still flared in the Nigeria oil fields. Government efforts to control gas flaring has been mostly regular imposing of penalties for gas flaring on the joint venture partners. Blanket prohibition by government on flaring has been impossible, as the economy is dependent on oil. (Onoyere, W. and Onoyere I.A. 2000, Iyoha 2000)

The sharp increase on oil prices since 2004 prompts several more questions about the prospects for the future of oil prices and how oil exporters such as Nigeria should be using additional revenues. The current scenario of low debt levels and high oil prices (and revenues) means that Nigerian's financial position is quite similar to what it was in the 1970s. Hence determining the policy steps that should have been taken in the past could shape opinion about how to manage the country's new borrowing to avoid a debt crises similar to the one from which it has just emerged.

2.3 LIMITATION OF PREVIOUS STUDIES

The previous shelters reviewed for this project were limited by the following:

- The previous studies focused more on the benefits of all revenue on economic growth in Nigeria and less on the consequences of oil on the economy and its inhabitants.
- The previous studies omitted private (non- guarunted) external debt mostly due to lack of data regarding such debt.
- The weakness of the previous work is that it failed to analyze how Nigerian's policies mishandled its oil wind fails and debt accumulation.

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CHAPTER THREE

RESEARCH METHODOLOGY

3.1 RESEARCH DESIGN

Here, the simple regression will be used to analyze the impact of oil revenue on economic growth.

The data to be used will be a secondary data; all will be from the CBN Statistical bulletin. The F-test and the T-test will be used to determine the overall adequacy of the regression line.

3.2 METHODOLOGY

This research is designed specifically to measure the relative effect of oil industry on economic growth in Nigeria.

It focuses on the model adopted in the estimation and description of the instrument used for the presentation and analysis of the data. Consequently, the study depended on secondary data for in-depth study and analysis of the data collected, the common structural patterns have firmly been established on the basis of analytical, statistical and econometric techniques, and testing of the relationship on aggregate oil output revenue and its selected indicator, GDP.

The general ordinary least squares approach (OLS) will be used in the estimation of the parameters. The choice of OLS techniques of regression is not only as a result of its simplicity, but as a result of its optimal properties of linearity, unblusedness, minimum variance, zero mean (Kontsoyians 1997 p.26).

From the economic theory and perhaps, empirical result, it is expected that a positive relationship between oil revenue and economic growth exist.

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. On the strength of the above, the researcher has decided to specify the relationship between GDP and oil revenue (OREV) as follows:

$GDP = bo + b1\ OREVt + UE$

Where

GDP = Gross Domestic Product in time t (proxy to economic growth).

OREV = Oil Revenue in period t

bo = Constant term

Coefficient attached to explanatory variable.

Trend = Trend factor to measure the influence of time on the dependent variables.

Ut = Random variable in period t.

It is as a result of the contribution of oil that an attempt is made to measure the performance and transformation of oil organizational characteristics of production and growth rate in the Nigeria context.

The aim is to see its comparable pace of development and growth over the years. While GDP is the dependent variable. The variables are, therefore, captured in a simple regression model.

3.4 METHOD OF EVALUATION

Model evaluation according to Koursoyiannis (1997-p.25) consists of deciding whether the estimates of the parameters are theoretically meaningful and statistical satisfactory. The results of this study will, therefore, be evaluated using the economy as prior criteria.

This involves the examination of the signs and magnitude of the parameters in order to determine whether they are in line with the postulates of economic theory. As stated by Koutsoyiannis (1977, p.25) "Economic theory imposes restrictions on the signs and values of the parameter estimates of a relationship, whether they are elasticities, propensities or ordinal magnitude".

Therefore, the researcher will have to establish whether the signs and sizes of the estimates are in line with economic theory. In this case, oil revenue is expected to be positively relatively related to Gross Domestic Product, and index of economic growth.

This will be followed by the statistical criteria of determining the goodness of fit. The R^2 or the adjusted R^2 is attest of the fit of the regression model. It is a test of explanatory power of the model. The value of R^2 ranged from 0 to 1.

After the test of goodness of fit, the student t-test will be conducted on the parameter estimates. The t-test is a test of significance of the individual parameter estimates. This test will be conducted at the five percent level of the significance.

Another test is the F-test, which is the test of entire regression plane. This is a test of the significance of the parameter joined together. The value of the Durbin Watson will be used to determine the existence or not of serial correlation.

3.5 DATA REQUIRED AND SOURCES

Data for this research work are those of Gross Domestic Product, (GNP) a proxy for economic growth and oil revenue for the sample period.

The sources of the required data will be obtained from the following sources:

1. CBN economic and financial reviews for various years.
2. CBN statistical bulletin for various years.
3. National planning office.
4. Federal office of statistical annual account (FOS)
5. Nigeria National Petroleum Corporation (NNPC)

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CHAPTER FOUR
PRESENTATION AND INTERPRETATION OF RESULTS

4.1 Data presentation

Year	GDP	OREV
1980	49632.3	12353.3
1981	47619.66	8564.4
1982	49069.28	7814.9
1983	53107.38	7253
1984	59622.53	8269.2
1985	67908.55	10923.7
1986	69146.99	8107.3
1987	105222.84	19207
1988	139085.3	19831.7
1989	216797.54	39130.5
1990	267549.99	71881.1
1991	312139.74	82666.4
1992	532613.83	1640748.1
1993	638869.79	162102.4
1994	899863.22	160192.4
1995	1933211.55	324547.6
1996	2702719.13	408783
1997	2801972.58	416811.1
1998	2708430.86	324311.2
1999	3194014.97	724422.5
2000	4582127.29	1591675.8
2001	4725086	1707562.8
2002	6912381.25	1230851.2
2003	8487031.57	2074280.6
2004	11411066.9	3354800
2005	14572239.1	4762400
2006	18564594.7	5287566.9
2007	20657317.7	4462910
2008	2429632.29	6530630.1
2009	24794238.7	3191937.98
2010	29205783	5396091.05

Source; CBN Statistical Bulletin (Volume 21) December 2010

PRESENTATION OF RESULT

The estimates from the regression carried out are presented and analyzed in this chapter. As stated in the previous chapter, the modeling procedure employed in the work is the ordinary least square.

The result of the regression with one regressor is presented in the table below.

Variable	Coefficient	Std. Err.	t-value	t-prob	PartRy
Constant	8.9165e+005	1.1089+006	0.808	0.4256	0.0220
OREV	3.1807	0.46512	6.838	0.0000	0.6172

Ry = 0.617237 F (1,29) = 46.765 [0.0000] DW = 2.38

Therefore;

GDP = 8.9615 + 3.1807OREV

4.2 DATE ANALYSIS

4.2.1 ANALYSIS OF REGRESSION RESULTS:

From the result above, when all the independent variables are equal to Zero, the intercept for the GDP becomes 8.9615.

Oil revenue (OREV): A unit change in oil revenue increases the Gross Domestic Product by 3.1807 units. This shows a positive relationship between oil revenue and thegross domestic product.

4.2.2 STATISTICAL CRITERIA.

This test includes

- **Goodness of Fit Test (R^2):** From the result obtained in the regression, R^2 is 0.617237 showing a goodness of fit of 61.72%, on the grounds that the explanatory variable explains 61.72% of the explained or dependent variable (gross domestic product).
- **Student's T-test:** In order to test if the independent variables are statistically significant, we use the n-k degree of freedom at 0.05 level of significant. At 0.05 level of significance, the critical value is 2.0452. The decision rule is to reject the null hypothesis (H_0) if t cal> 2.0452 and accept it if otherwise.

Variables	**T-Statistic**	**5% critical value**	**Decision**
Constant	0.808	±2.0452	Insignificant
OREV	6.838	±2.0452	Significant

From the result, the oil revenue is seen to have a significant impact on the gross domestic product.

- **THE F-TEST:** This test is conducted to see if the regression model is well specified. The decision rule is to reject H_0 that the model is well specified in forecasting and policy analysis if F cal> F 0.05

F cal (1, 29) = 46.765

F tab = 4.18

Hence F cal > F tab, we reject H_0 and accept H_1 concluding that the model is well specified and considered as being good and adequate for forecasting and policy analysis.

4.2.3 ECONOMETRIC CRITERIA

Under this test is to verify whether the assumptions of OLS stated in the previous chapter are violated. The test is presented below

1. TEST FOR AUTOCORRELATION

To test for autocorrelation in our model, we make use of the Breusch-Godfrey Serial correlation LM test for autocorrelation. The most popular and routinely used is the Durbin-Watson test.

HYPOTHESIS:

H_0: No serial autocorrelation

Table 5

NULL HYPOTHESIS	**DECISION**	**IF**
No Positive Autocorrelation	Reject	$0 < d < dl$
No Positive Autocorrelation	No Decision	$dl \leq d \leq du$
No Negative Autocorrelation	Reject	$4- dl < d \leq 4$
No Negative Autocorrelation	No Decision	$4-dl \leq d \leq 4-dl$
No Autocorrelation	Do Not Reject	$du < d < 4-du$

Where;

d = Durbin Watson

dl = Lower limit Durbin Watson

du = Upper limit Durbin Watson

n = 31

K = 1 (excluding the dependent variable).

At 5% level of significance

d = 2.38

dl = 1.363

du = 1.496

And since du < d < 4-du (i.e. 1.496 < 2.38 < 2.504), we conclude that no positive or negative autocorrelation, thereby accepting the null hypothesis.

1. NORMALITY TEST

This test is carried out to check whether the error term follows a normal distribution. The normality test adopted the Jarque-Bera (JB) Test of Normality. The test is an asymptotic and it is based on the OLS residual. The test computes the skewness and kurtosis a measure of the OLS residuals and follows the chi-square distribution.

Hypothesis

H_0: $\sigma = 0$ (The error term does not follow a normal distribution)

Against

H_1:$\sigma = 0$ (The error term does not follows a normal distribution)

At α=5% with 2 degree of freedom.

Decision Rule: Reject H_0 if JB* >JBtab at 2df and accept H_0 if otherwise.

From the result of the normality test

JB*= 49.92, while Chi square table JB tab=5.99147

Therefore JB* > JB tab at 5% level of significance we reject H_o and conclude that the error term does not follow a normal distribution.

2. HETEROSCEDASTICITY

Heteroscedasticity Test: we shall employ the White's heteroscedasticity test. See Gujarati (2004). This test is basically on the variance of the error term. The test helps to ascertain whether the variance of the error term is constant.

H_0: Homoscedasticity (i.e. there is no heteroscedasticity)

H_1: Heteroscedasticity at 2 degrees of freedom.

DECISION RULE

If x^2 - calculated > x^2 - tabulated, reject the null hypothesis

X^2tab = 5.99147

X^2cal = 17.207

Conclusion

Since X^2cal > X^2tab that is 17.207> 5.99147, we conclude that the variance of the error term is not constant.

4.4 EVALUATION OF THE HYPOTHESIS

The hypothesis have earlier been stated as

H_0: Oil revenue has no effect on the economic growth in Nigeria.

H_1: Oil has a significant effect on economic growth in Nigeria.

The results from the regression show that oil revenue has positive significant impact on the gross domestic product. Thus we can conclude by rejecting the null hypothesis thereby stating that oil revenue has a significant effect on economic growth in Nigeria.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 SUMMARY

The study concentrated on the impact of oil industry on economic growth performance in Nigeria within the period of 1980-2010.A simple regression analysis was employed to capture the influence of OREV on GDP and also determine the trend effect that is the effect of time as variable. The result revealed a positive relationship between the variables.

The conducted t-tests indicated that the explanatory variables do not significantly affect Nigeria's economic growth. The implication is that some important variables have been omitted from the model.

While the conducted f-test showed that the joint influence of the explanatory variables is insignificant, the R2 test indicates the poor explanatory power of the model, which is also a pointer.

5.2 RECOMMENDATIONS FOR POLICY

Here, the researcher in a bid to enhance effective contribution of oil industry to GDP made the following recommendation;

- There is a need to develop the agricultural sector side by side with the oil sector, the government need to develop agricultural sector which has been neglected over the years because oil is a wasting assets and 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 from the agricultural sector.
- There is also need to renew ageing facilities, working hard to reduce the number of spill in the course of operation, the amount of gas flared and reduce waste products. All these will also help to meet the latest safety and environmental standard.
- The need to institute environmental monitoring and management. The concept of environmental impact assessment (EIA) should be encouraged and enforced by regulators. EIA is a good project development strategy that forces developers to look through the life cycle of a project from the conceptual stages through design, construction and production phases to the decommissioning or abandonment phase, in so doing, the impacts of the project on the environment through life cycle are identified, modeled and evaluated with the objectives to

mitigate the effect of all negative impacts and enhance the benefit of all positive effects in their host communities.

- As much as possible, established market based instrument like pollution, taxes, and affluent changes should be utilized. This will economize the use of bureaucracy and reduce the cost of enforcement. Also, revenue obtained from pollution taxes should be used for environmental begging projects or to compensate inhabitants of oil producing areas of the economy.
- There is also, the need to work closely with the communities. This will help to reduce or settle the various communities in the country and will enable federal and state government, oil industry and communities to plan better for developments and minimize the impact on the environment.
- More so, there should be contingency team that will comprise the representative from the oil industry, the host communities, the NNPC, professional etc. This group will be responsible for the drawing up of emergency preparedness plans and implementation, which will be used to combat spills. The group should also be in charge of relief packages for affected communities.

5.3 RECOMMENDATIONS FOR FURTHER RESEARCH.

The researchers recommend that more variable be included in the model and also more sophisticated econometric methods should be employed in determining the impact of oil industry in the economic performance of Nigeria.

5.4 CONCLUSION

The oil industry is a vital industry 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 exploration on the environment, the people, the agricultural and manufacturing sector and above all, on the Gross domestic product (GDP) of Nigeria from 1980-2010.The study proved that there has been environmental degradation, neglect of the people, abandonment of the agricultural and manufacturing sectors and a reasonable contribution to GDP, though with variation in the trend.

It is the opinion of the researcher that corruption in the Nigerian nation may have contributed immensely to the poor contribution of the oil sector to the economic growth of Nigeria. For example, allegations abound where retired military officers

and some influential politicians are offered oil licenses to the proceeds are reflected in the private pockets of such people only.

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