Oil Revenue and Output Growth in Nigeria

Asagunla, Temitope Michael
Economics Department,
Adekunle Ajasin University Akungba Akoko,
Ondo State, Nigeria.
masagunla@yahoo.com

Agbede, Moses Oyeyemi
Economics Department,
Evangel University Akaeze,
P.M.B. 129 Abakaliki Km 48 Enugu Abakaliki Expressway,
Okpoto Ebonyi State, Nigeria.
yemi_agbede@yahoo.com

Abstract
In spite of the huge rents from oil, the economy still couple with many problems including high and rising unemployment rate, declining manufacturing production, high and rising level of poverty, low per capital income and poor infrastructural development. In the light of the study, the objective of the paper was to examine the contribution of the oil revenue to Nigerian output growth for the period of 1981 to 2014.Using Beghebo and Atima model with little modification, the study employed the fully modified ordinary least squared method (FMOLS) to examine the relationship. Data covering the period 1981-2014 were sourced from the Central Bank of Nigeria Statistical Bulletin and Nigerian National Petroleum Corporation Statistical Bulletin. The study therefore discovered that oil revenue does not have short run impact on the economic activities of Nigeria. However, the long run impact of this policy gave a sterling story, as it was revealed that the persistence rise in oil revenue will ultimately lead to future economic growth of the country. It is however recommended that the government should effectively and efficiently utilize the oil fund into strategic developmental projects so as reduce the rate of poverty and facilitate output growth.

Keywords: *Oil Revenue, Nigeria, Beghebo and Atima model and economic growth,*

1. Introduction

Oil was discovered in Nigeria in 1956 at Oloibiri, precisely Bayelsa State in the Niger Delta by Royal Dutch Shell-BP. Nigeria joined the ranks of oil producers in 1958 when her 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. The petroleum industry in Nigeria is the largest industry. Oil provided approximately 90 percent of foreign exchange earnings and about 80 percent of Federal revenue and contributes to the growth rate of Gross domestic product (GDP), World Bank, 2012. The petroleum sector has not only played a dominant and strategic role in the Nigerian economy growth, but also fundamental in achieving the country's vision of becoming one of the 20 leading economy of the world by the year 2020 (Musa, 2014).

Petroleum or crude oil is an oily bituminous liquid, consisting of a mixture of many substances mainly the elements of 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 (Obadan 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, and 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). Oil production by the joint venture (JV) companies accounts for about 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. (Oil and Gas Business, 2007). Nigeria covers an area of 923,768 sq km (356,669 sq m) and is by far the most populated of Africa's countries. Nigeria has a tropical climate and about two-thirds of Nigeria lies in the watershed of the Niger River, which empties into the Atlantic at the Niger Delta. Petroleum and natural gas, the source of most of Nigeria's export earnings, are concentrated in large amounts in the Niger Delta and just offshore. Smaller deposits are scattered elsewhere in the coastal region.

Nigeria is a natural resource abundant country. In particular, over the past fifty years, the country's oil subsector has grown phenomenally. Both production and exports have increased enormously since commercial production in 1958. For example, crude oil production increased from 395.7 million barrels in 1970 to 776.01 million barrels in 1998. The Figure increased to 919.3 million barrels in 2006. The Figure however decreased to 777.5 million barrels in 2009. In the same way, crude oil exports increased from 139.5 million barrels in 1966 to 807.7 million barrels in 1979. The volume of crude oil exports dropped to 390.5 million barrels in 1987 but increased to 675.3 million barrels in 1998. The trend continued for most years after 2000. In the same way, oil revenue increased from N166.6 million in 1970 to N 1,591,675.00 million and N6, 530,430.00 million in 2000 and 2008, oil revenue in 2012 was N8025.971 billion and in 2013 and 2014 were N6809.231bn and N5403.51bn respectively. (NNPC statistical bulletin, 2014)

The enormous revenues from oil, of course, presented net wealth and thus provided opportunity for increased domestic investment; however, the huge revenues complicated macroeconomic management and also made the economy highly oil dependent. Asides, in spite of the huge rents from oil, the economy still couples with many problems including high and rising unemployment rate, declining manufacturing production, high and rising level of poverty, low per capital income and poor infrastructural development. The dismal performance of the Nigerian economy in the face of huge rent from oil has rekindled interest on oil revenue and economic growth process in Nigerian. In the light of the study, the objective of the paper is to examine the contribution of the oil revenue to Nigerian output growth.

Though, several studies have been done on oil revenue and Nigerian economic growth (Akinlo, 2012; Ujunwa, 2013; Odularu, 2004; Iyohu, 2000) but the years under review of those studies were far from 2014. Therefore, this study fills the gap. Specifically, this study will employ the Ordinary Least Square (OLS) method to examine the relationship between oil revenue and output growth in Nigeria from 1981 to 2014. The unit root test and the co-integration would be adopted to test both the short run and the long run. The findings of this study will be very useful to the government and stakeholders to be able to adopt a bottom-up approach that will be beneficial to Nigerians. The findings will also be useful to students, staff and researchers looking for reference materials on oil revenue and output growth in Nigeria, the public and private analyst will learn a lot from the findings and recommendation made in this study.

For the purpose of achieving the objectives of this study, this research work is classified into five main sections. Section one contains the introduction of the study, section two contains the literature review, section three contains the methodology, section four covers analysis of data and interpretation of result, and section five covers the summary, recommendations and conclusion of the study.

2. Literature Review

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

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.

Many theoretical studies in the last decade show that the petroleum industry has been playing a dominant role and occupies a strategic position in the economic development of Nigeria (Azaiki & Shagary, 2007). This is evidenced by the total oil revenue generated into the Federation Account from 2000 to 2009 which amounted to N34.2 trillion while non-oil was N7.3 trillion, representing 82.36% and 17.64% respectively. The mean value of oil revenue for the 10 year period is N3.42 trillion compared to non-oil revenue at N732.2 billion (Central Bank of Nigeria, 2011). Further evidence was ten year's average crude oil and condensates production of 832,866,752.1 barrels from 2000 to 2009. The importance of crude oil to the economic development of Nigeria cannot be over emphasized, Nigeria gained an extra $390 billion in oil-related fiscal revenue between 1971 and 2005 (Central Bank of Nigeria, 2011).

Irrespective of Nigeria's huge oil wealth, the country has remained one of the poorest in the world. In particular, the Niger Delta which produces the oil wealth that accounts for the bulk of Nigeria's earnings has also emerged as one of the most environmentally degraded regions in the world evidenced from the World Wildlife Fund report released in 2006 (Ekaette, 2009). According to him, 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. Over all, there has been poor performance of national institutions such as power, energy, road, transportation, politics, financial systems, and investment environment have been deteriorating and inefficient. Outside of the energy sector, Nigeria's economy is highly inefficient.

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 Odularo, (2008). Oil industry contributes to the Nigerian economy is in the attraction of FDI. Nigeria has attracted a lot of FDI particularly into the oil sector over the years and given the huge and bright potentials of this sector, it is likely that more new investments and reinvestments will be attracted. Several other channels through which oil has contributed to the Nigerian economy include provision of cheap and readily available source of energy, boosting of the foreign reserves and provision of employment.

Trend of Nigerian oil revenue between 1981 to 2014

Several studies had investigated the relationship between oil revenue and Nigerian economic activities using different methods of statistical analysis. Ibeh; (2013) examined the impact of oil revenue on economic growth of Nigeria from 1980-2010. Using ordinary least squared regression techniques and found that oil revenue has no any significance contribution on Nigerian economic growth. 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 however, found that oil has an adverse effect on the manufacturing sub sectors. Baghebo; (2012) examined the impact of petroleum on economic growth of the Nigerian. Using data covering the period 1980-2011 and discovered that, there is a long run relationship between oil revenue and economic growth in Nigeria. However, it could be deduced that the findings of those studies were based on the data far back from 20014. Hence, this study fills the gap

3. Research Methodology

This section addresses the issue that relates to the methodology of the study with emphasizes being laid on the choice of the data collected, statement of the hypothesis, method of data analysis and model specification for the purpose of the paper. This also discusses the *a-priori* proposition or expectation of the model for the deep understanding of the readers.

Data and method of data analysis

This study employed the Ordinary Least Square analysis (OLS) to investigate the relationship between fuel subsidy removal reinvestment and Nigerian economy growth. This study was designed to cover a period of 33 years (1981- 2014). A time series data used for this study are entirely secondary data and are sourced from the World Bank Database, the Nigerian National Petroleum Corporation Statistical Bulletin, and Petroleum Product Pricing Regulatory Agency (PPPRA). To estimate the relationship between the dependent variable (GDP) and the explanatory variable (oil revenue ,investment, inflation rate, unemployment rate and per capita income)**,** we made use of the unit root test to determine the statistical properties of the variables and to determine if they are stationarity, this is done in order to avoid spurious regression and misleading judgment. The unit root and the co-integration test were employed to examine whether the variables exhibit both the short and long run relationship within the variables in the model.

Specification of Model

This study adopts Baghebo & Atima (2003) model with little modification. According to them, economic growth is a function of oil revenue, foreign domestic investment proxied as domestic investment and external debt and corruption index. This is written as:

GDP= f(OILR, FDI, EXDEBT, CI)..... (i)

By turning the equation (1) into econometric model:

$GDP = \beta_0 + \beta_1 OILR_t + \beta_2 FDI_t + EXDEBT_t + CI_t + \mu_t$..... (ii)

Where $\beta_0, \beta_1, \beta_2$ are the parameters

GDP = Gross Domestic Product

OILR = oil revenue

FDI = Foreign direct investment

EXDEBT = external debt

CI = Corruption Index

μ_t =Stochastic disturbance

Several researchers have adopted these variables as a measure of economy growth, where OILR contributes largely to government revenue, FDI gives information on the contributions of various foreign companies, EXDEBT is external debt being accumulated.

But, for the purpose of this paper and to capture the research topic, the version of Baghebo & Atima (2013) model is modified and in order to grip the relevance of this specification to the objective proposed in this study; we therefore, incorporated variables that determine economic growth such as inflation rate, unemployment rate and Per capita income. The econometric function of the model is written below:

RGDP = F (OILR, PDI, IFLR, UNEMPL, PI) ……..…… (iii)

Equation 3 can be expressed in a linear form as

$RGDP_t = \beta_0 + \beta_1 OILR_t + \beta_2 PDI_t + \beta_3 IFLR_t + \beta_4 UNEMPL_t + \beta_5 PI_t$……(iv)

By turning equation (4) into econometric model, to include random term, is expressed as:

$RGDP_t = \beta_0 + \beta_1 OILR_t + \beta_2 PDI_t + \beta_3 IFLR_t + \beta_4 UNEMPL_t + \beta_5 PI_{t+} \mu_t$…… (v)

Where; $OILR_t$, PDI_t, $IFLR_t$, $UNEMPL_t$, PI_t μ_t and t represent economic growth proxied by GDP, Oil revenue as % of GDP, Public Domestic Investment as % of GDP, Inflation rate as % of GDP, Unemployment rate as % of GDP and Per Capita Income as % of GDP, stochastic error term (μ_t) term and t subscript respectively while β_0, β_1 β_2, β_3, β_4 and are parameters to be estimated for the course of this paper.
The *a-priori* expectations are: $\beta_1 > 0$, $\beta_2 > 0$, $\beta_3 < 0$, $\beta_4 < 0$, $\beta_5 > 0$.

4. Presentation and Analysis of Result

The variables considered in this research work are: Real Gross Domestic Product (RGDP) at current basic prices (dependent variable) and the independent variables include: Oil Revenue (OILR), Public Domestic Investment (PDI), Inflation Rate (IFLR) Unemployment (UNEMPL) and Per capita Income (PI). The empirical results are presented below:

UNIT ROOT TEST

Table1: Augmented Dickey Fuller Unit Root Test at level
Trend and intercept

Series	ADF Test Statistic	5% critical values	Order	Remarks
RGDP	/3.437577/	/2.9558/	I(1)	S
OILR	/0.766348/	/2.9558/	I(0)	N.S
PDI	/2.270031/	/2.9558/	I(0)	N.S
IFLR	/3.493448/	/2.9558/	I(1)	S
UNEMPL	/0.588498/	/2.9558/	I(0)	N.S
PI	/1.707546/	/2.9558/	I(0)	N.S

Table 2: Augmented Dickey Fuller Unit Root Test with Intercept at First difference

Series	ADF Test Statistic	5% critical values	Order	Remarks
OILR	/5.250097/	/3.5562/	I(1)	S
PDI	/5.970842/	/3.5562/	I(1)	S
UNEMPL	/4.938967/	/3.5562/	I(1)	S
PI	/4.623583/	/3.5562/	I(1)	S

Table 1 and 2 above represent the results of the Augmented Dickey Fuller unit root tests both at level and first difference respectively.
As can be seen from the table, at 5 percent level of significance, RGDP and IFLR of the variables were stationary at level since by comparison, their critical values were less in absolute values than their augmented dickey fuller (ADF) test statistic, while the remaining variables were not stationary at level. At first difference, OILR, PDI, UNEMPL and PI were stationary since their Augmented Dickey fuller Test statistics respectively were greater their critical values at 5 percent level of significance.

Table 4: CO-INTEGRATION RESULT

Series: RGPD INFLR OILR PDI PI UNEMPL
Lags interval: 1 to 1

Eigenvalue	Trace Statistics	5 Percent Critical Value	1 Percent Critical Value	Hypothesized No. of CE(s)
0.884730	167.2063	94.15	103.18	None **
0.742016	98.07108	68.52	76.07	At most 1 **

0.596716	54.71565	47.21	54.46	At most 2 **
0.357255	25.65598	29.68	35.65	At most 3
0.270810	11.51177	15.41	20.04	At most 4
0.042972	1.405513	3.76	6.65	At most 5

*(**) denotes rejection of the hypothesis at 5%(1%) significance level
L.R. test indicates 3 cointegrating equation(s) at 5% significance level

The results of the co-integration in Table 3 above indicated that the trace statistics is greater than the critical value at 5 percent level of significance in at least one of the hypothesized equations. This confirms that there is at least three co-integration relationship among the various variables used to model the relationship between oil revenue economic growths in Nigeria for the period under investigation. The results of the co-integration test suggested that economic growth; proxied by Real Gross Domestic Product (GDP) had a long run equilibrium relationship with Oil Revenue (OILR), Public Domestic Investment (PDI), Inflation Rate (IFLR), Unemployment (UNEMPL) and Per Capita Income (PI) which kept them in proportion to each other in the long run.

Estimated Ordinary Least Square Result

The implication oil revenue on Nigerian economic growth whether the estimated parameters are statistically significant or not, the system equation was estimated using least square and the results is presented below.

Dependent Variable: RGPD
Method: Least Squares
Date: 06/20/15 Time: 03:10
Sample(adjusted): 1983 2014
Included observations: 32 after adjusting endpoints

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.7383530	0.253335	2.914532	0.0175
INFLR	-0.5274036	0.254902	-2.069042	0.0230
OILR	0.5227464	0.174357	2.998136	0.0083
PDI	0.6348549	0.529013	1.200072	0.7952
PI	0.1092325	0.733292	0.148961	1.1298
UNEMPL	-0.632460	0.219051	-2.887272	0.0194
ECM(-1)	-0.6283831	0.311051	-2.020194	0.0542

R-squared	0.982410	Mean dependent var	16317.39
AdjustedR-squared	0.978188	S.D. dependent var	24966.12
S.E. of regression	3687.216	Akaike info criterion	19.45377
Sum squared resid	3.40E+08	Schwarz criterion	19.77440
Log likelihood	-304.2603	F-statistic	32.70631
Durbin-Watson stat	1.996687	Prob(F-statistic)	0.000000

From the estimate least square result presented above, the t-statistics and the standard error test revealed that the parameters were significant except variable for PDI and the p-values of the variables were all less than 0.05. The coefficient of the constant term is 0.7383530. This implying that at zero performance of the various explanatory variables used, Gross Domestic Product (RGDP) will stand or equal to 73%. The coefficient of IFLR is -

0.5274036. This implies that a unit increase in inflation will bring a decrease in economic growth by 52% units. The coefficient of OILR is 0.5227464 implying that a unit increase in oil revenue will lead to broad money supply which brings about 52% increases in economic growth. The coefficient of PDI is 0.6348549 implying that a unit increase public domestic investment leads to 63% rise in output growth. Similarly, PI has a coefficient 0.1092325, which indicates that a unit increase in per capita income will leads to 10% increase in economics growth in Nigeria. Finally, UNEMPL has a coefficient of -0.6324605, this implying that a unit increase in unemployment leads to 63% decrease in economic growth.

Adjusted R^2Test

The above result indicates that the adjusted R^2 is 0.978188 indicating that the explanatory variables explain about 97% of the total variation in RGDP during the period under consideration.

Durbin – Watson Test

The Durbin – Watson statistics indicates that Lower D-W (dL=1.73) and Upper D-W (dU=1.73) where Durbin Watson is calculated = 1.99. Since the calculated Durbin Watson statistics is greater than the upper Durbin Watson tabulated value, we accept the alternative hypothesis since there is absence of first order autocorrelation.

Implication of the Study

The estimated least square result shows that RGDP has a negative relationship with inflation and unemployment rate. Decrease in oil revenue, has made Nigerian economic to be stagnated. Also unemployment rate had risen tremendously from 4.3 percent in 1970 to 6.4 percent in 1980; 40 percent in 1992 and 41.6 percent in 2011. This was as a result of collapsed of hundreds of factories that depend on energy, this corroborated with Salaudeen, (2011) finding. On Oil revenue, it shows it has increased, but most of the funds been generated have been used to service debt, and maintain high cost of governance rather for government to invest the increment on a productive projects. This corroborated with Oshunkeye, (2012) finding.

Finally, it is ridiculous to expect the nation to invest heavily in oil production only for just recovering the cost of production at the end of the day. According to Soyode (2001:55), "the cost of producing crude is irrelevant in the calculation of fuel subsidy". He describes fuel subsidy as loss revenue that should have been accrued to the federation account. The classical argument for having a subsidy, relates to the need for accelerated development and to improve income distribution. However, the income distribution argument is faulted on grounds that petroleum subsidies are biased in favour of the urban sector. It is not surprising therefore that it has been concluded that fuel subsidy policy benefits the rich more than the poor (Kosmo, 1989).

Test of Hypothesis

Ho: There is no significant relationship between oil revenue and economic growth in Nigeria. From the result, it was observed that the coefficient of INFLR, OILR, PI, and UNEMPL are all significant at 5% level of significance, we therefore reject the null hypothesis and accept alternative which conclude that there is significant relationship between oil revenue and economic growth in Nigeria for the period reviewed.

5. Summary, Conclusions and Recommendations

The study examined oil revenue and output growth in Nigerian using a time series data between 1981 and 2014. The study therefore employed an Ordinary Least Square (OLS) analysis to estimate this relationship. The unit root test and the co-integration test were adopted to assess the short run and the long run effect of oil revenue and Nigerian economic growth. However, there is room for further study on this subject both in terms of scope and methodology. The use of both qualitative and quantitative techniques in determining relative effect of oil revenue on economic well-being of Nigerians will provide more realistic results. It was discovered that there is long run benefits of oil revenue, but no such relationship in the short run. Policies geared towards achieving long run term economic growth and development should be formulated and implemented and massive investment of the rent proceeds on infrastructural development (such as education, transportation, agriculture, communication and health etc) is good starting point, accompanied by sound monetary and fiscal policy to fully achieve the long run goal. Policy should also be geared towards curtailing the activities of unscrupulous marketers that create artificial scarcity of this product for their personal gain. Finally, efforts should be geared towards rebuilding and renovating the nation's refineries, this will help increase our domestic production and ultimately drive down the price of petrol while contributing to the nation's economic growth and guaranteeing energy security in the country.

References

Anyanwa J. C. (1997). The impact of oil on the NigerDelta. Seminar held at Eko le meridian Lagos State Nigeria.Adeleye, Musa & Hounsou (2014). Impact of Subsidy Removal on Socio Economic Development in Nigeria. Pp121 – 128.

Akinlo, A. E. (2012). How important is Oil in Nigeria's Economic Growth? *Journal of Sustainable Development*, Canada, 4(5): 165-179.

Beghebo, M & Atima T.O, (2013).The impact of petroleum on economic growth Nigeria. Global Business and Economic Journal.

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

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

Ekaette, U. J. (2009). Development Challenges in the Niger Delta and the Implications for the Nigerian Economy. Port Harcourt: PANAM Nigeria Publishers.

Federal Republic of Nigeria. (2012). Petroleum Industry Bill. Abuja: Federal Republic of Nigeria.

Ibeh, Francisca Ujunwa (2013). The Impact of Oil Revenues on the Economic Growth in Nigeri. Caristas University.

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

Kosmo, M. (1989). Commercial Energy Subsidies in Developing Countries. Energy Policy, 17(3).

National Bureau of Statistics, (2014). The Nigerian Statistical Fact Sheets on Economic and Social Development. Abuja: NBS.

Nigerian National Petroleum Corporation Statistical Bulletin, (2014)

Oshukeye, S. (2012) At last people power, Sunday Sunday, January . 71

Odularo, G. O. (2008). Crude oil and the Nigerian economic performance. Oil and Gas Business. [Online]Available: *http://www.ogbus.ru/eng/*

Obadan M.I, (1987). The Impact of petroleum on the Nigerian Economy. *House Journal*, 2(2): 18.

Soyode,G.A.(2001). Deregulation of the downstream sector: Matters arising NESG Economic indicators 7(2): 55-60.