

IMPACT OF CRUDE OIL PRICE AND ECONOMIC DEVELOPMENT IN NIGERIA

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Abstract

This study investigated the relationship between Crude oil price and economic growth in Nigeria. The study used ex post facto design. Annual time series data for 1986-2015 were sourced from CBN statistical bulletin, World Bank development indicators and OPEC annual statistical bulletin for analysis. The study adopted a quantitative method of analysis and specifically employed regression correlation analysis to establish the relationship between the two variables. The findings indicate that crude oil price (COPR) has a positive and statistically significant influence on the real gross domestic product of Nigeria. This finding indicates that increased revenue from crude will lead to increased growth in the economy. Furthermore, the findings showed that there is a positive but statistically non-significant relationship between Real Exchange Rate and Real Gross Domestic product in Nigeria. The study therefore concludes that economic growth in Nigeria depends on stability in crude oil price among other factors. It also recommends that measures should be taken towards ensuring high price of crude oil hence it guarantees a high flow of revenue to the economy, government should revert back to maintaining the excess crude oil account as established by Obasanjo's administration in 2004 so as to cushion the effect of dwindling fall in oil price in the economy and government should also establish functional refineries so we can save the cost of importing refined crude and also invest in production of more crude oil by-products so as to boost the economy more effectively.

KEY WORDS: *Impact, Crude Oil, Price, Development, Economic Growth.*

Introduction

In oil-based economies, crude oil prices are significant to economic development. This assertion is true examples from major oil producing countries' experiences over the years. The price of oil, determined by several internal and external variables has remained a major factor in economic development evaluations and analysis. As an oil- dependent economy for example, Nigeria's case is an ideal one for the study of how oil prices determine economic development.

Crude oil price is the spot price of barrels of oil quoted in the global market (Ishmael, Matthew and Park, 2016). Fluctuations in price of crude is a common phenomenon in the global oil market as the world economy has witnessed a number of changes in the price of crude oil at different times. These price changes, often referred to as oil price shocks are usually described by the events that herald their occurrences. As Hamilton (2011) puts it, the major post-World-War-II oil shocks are the Suez Crisis of 1956-57, the OPEC oil embargo of 1973-1974, the Iranian revolution of 1978-1979, the Iran-Iraq War initiated in 1980, the first Persian Gulf War in 1990-91, and the oil price spike of 2007-2008. Oil price surged to a historic height in 2008 when it was sold at \$140 per barrel; this was about the highest price recorded in the oil market in recent times (Sanya, 2015).

Economic development is the process that culminates in the economic, political and social well being of the citizens of country, It involves improvement in the living standards and per capital income of a country at a given period of time. Economic development is propelled by policies that aim to transform the standard of living. Economic development is usually characterized by indices such as employment opportunities, low unemployment levels, low poverty levels, presence of Scl.infrastructural facilities ~hospitals, schools, quality education, access to basic needs and active citizens' participation in governance. As noted by Eze (2008), economic development is a reflection of the quality of policies as they impact on a nation and its citizens. In many countries, attaining economic development is dependent on the countries economic diplomacy, and availability of economic resources such as crude oil, agriculture, human resources and quality of governance.

Oil occupies an important place and, plays a pivotal role in the Nigerian political economy. According to Obi (1997), oil accounts for 95% of export earnings and over 80% of national revenue. The growth of oil revenue greatly influenced the activities of the Nigerian state. The public sector expenditure for instance increased significantly. The government was able to invest a large amount of revenue in building social and economic infrastructure. Nigeria's oil revenue contributes tremendously to the nation's economy. Simultaneously, oil revenue is determined by the crude oil price per barrel in the global market which coincidentally is affected by a number of factors.

Over-dependence on oil revenue has subjected the nation's economy to a dilemma. This has put the economy in a vulnerable position and exposes it to the whims of changes in crude oil prices. In an attempt to mitigate the negative impact of such exposure on the Nigerian economy, the Obasanjo's administration in 2004 introduced the Excess Crude Account to protect planned budgets against short-falls arising from changes in crude oil prices. Although this initiative helped to cushion the effects of falling oil prices during the global financial crisis of the 2007-2009 when the price of crude oil dropped drastically, the package could not be sustained. Successive governments continued to spend even when oil prices improved leading to the depletion of excess crude account with no savings left for rainy days. The recent crashing oil prices undoubtedly plunged the largest economy in Africa into an economic mire with devastating effects on some of her major macroeconomic variables. Inflation rates began a steady rise while the exchange rate continued to depreciate, causing enormous economic difficulties among the populace.

Interestingly, as crude oil price is falling at the global market, domestic pump price of petrol in Nigeria suffered distortion and upward review. However, understanding how much impact the price of oil impacts the country's development is significant to economic analysis. This is the interest of this study.

Purpose of the Study

The major aim of the study was to investigate the relationship between Crude Oil Price and Economic Development of Nigeria. Other objectives of the study include;

1. To examine the extent to which crude oil price influences economic development in Nigeria.
2. To examine the extent to which exchange rate influences Economic Development of Nigeria.

Research Hypotheses

-The following hypotheses have-been-tested in order to achieve the objectives of the study:

Hoi: crude oil price has no significant influence on the economic development of Nigeria.

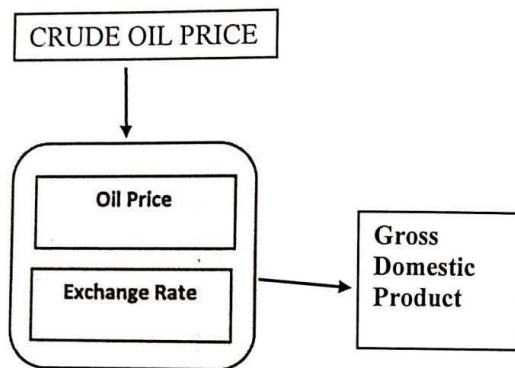
Ho2: Exchange rate has no significant influence on economic development of Nigeria.

Conceptual Framework

Crude Oil Price

The price of oil, or the oil price, (generally) refers to the spot price of a barrel of benchmark crude oil -a reference price for buyers and sellers of crude oil such as West Texas Intermediate (WTI),Brent ICE,Dubai Crude, OPEC Reference Basket, Tapis Crude, Bonny Light, Urals oil, Isthmus and Western Canadian Select (WCS). There is a differential in the price of a barrel of oil based on its grade-determined by factors such as its specific gravity or API and its sulphur content-and its location-for example, its proximity to tidewater and/or refineries. Heavier, sour crude oils lacking in tidewater access-such as Western Canadian Select-are less expensive than lighter,sweeter oil-such as WTI (Eze,2008) Crude oil is a naturally occurring, unrefined petroleum product composed of hydrocarbon deposits and other organic materials. A type of fossil fuel,crude oil can be refined to produce usable products such as gasoline, diesel and various forms of petrochemicals.

Figure 1: The Impact of Crude Oil Price on Economic Development of Nigeria



Brief history of Crude Oil Price

From 1999 till mid-2008, the price of oil rose significantly. It was explained by the rising oil demand in countries like China and India. In the middle of the financial crisis of 2007-2008, the price of oil underwent a significant decrease after the record peak of US\$147.27 it reached on July 11, 2008. On December 23, 2008, WTI crude oil spot price fell to US\$30.28 a barrel, the lowest since the financial crisis of 2007-2010 began. The price sharply rebounded after the crisis and rose to US\$82 a barrel in 2009. In July 2008 oil reached a record peak of US\$147.27 but by February 2009 it sank beneath \$40 a barrel. On 31 January 2011, the Brent price hit \$100 a barrel for the first time since October 2008, on concerns about the political unrest in Egypt. For about three and half years the price largely remained in the \$90-\$ 120 range. In the middle of 2014, price started declining due to a significant increase in oil production in USA, and declining demand in the emerging countries. The oil glut caused by multiple factors-spurred a sharp downward spiral in the price of oil that continued through February 2016. By February 3, 2016 oil was below \$30 a drop of "almost 75 percent since mid-2014 as competing producers pumped 1-2 million barrels of crude daily exceeding demand (Ayola, 2013), just as China's economy hit lowest growth in a generation." Some analysts speculate that it may continue to drop further, perhaps as low as \$18. (Citee authiex According to a report released on February 15, 2016 by Deloitte LLP-the audit and consulting who cure those firm-with global crude oil

at near ten-year low prices, 35% of listed E&P oil and gas companies are at a high risk of bankruptcy worldwide. Indeed, bankruptcies in the oil and gas industry could surpass levels seen in the Great Recession (Hakan, 2010).

Determinants of crude oil price

The two primary factors that impact the price of oil are supply and demand and market sentiment. The concept of supply and demand is fairly straightforward in the sense that as demand increases, supply decreases.

The price of oil is actually set in the oil futures market. An oil futures contract is a binding agreement that gives one the right to purchase oil by the barrel at a predefined price on a predefined date in the future. Under a futures contract, both the buyer and the seller are obligated to fulfil their side of the transaction on the specified date.

Market Forces Impacting Oil Prices

Then there's the problem of cartels. Probably the single biggest influencer of oil prices is OPEC, made up of 15 countries which are: Algeria, Angola, Ecuador, Equatorial Guinea, Gabon, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, the Republic of the Congo, Saudi Arabia (the de facto leader), United Arab Emirates, and Venezuela; collectively, OPEC controls 40% of the world's supply of oil (Fofana, 2001).

Although the organization's charter doesn't explicitly state this, OPEC was founded in the 1960s to -put it crudely - fix oil and gas prices. By restricting production, OPEC could force prices to rise, and thereby theoretically enjoy greater profits than if its member countries had each sold on the world market at the going rate. Throughout the 1970s and much of the 1980s, it followed this sound, if somewhat unethical, strategy.

While the consortium has vowed to keep the price of oil above \$100 a barrel for the foreseeable future, in mid-2014, it refused to cut oil production, even as prices began to tumble. As a result, the cost of crude fell from a peak of above \$100 a barrel to below \$50 a barrel. As of February 2018, oil prices are hovering slightly below \$62.

Unlike most products, oil prices are not determined entirely by supply, demand and market sentiment toward the physical product. Rather, supply, demand and sentiment toward oil futures contracts, which are traded heavily by speculators, play a dominant role in price determination. Cyclical trends in the commodities market may also play a role. Regardless of how the price is ultimately determined, based on its use in fuels and countless consumer goods, it appears that oil will continue to be in high demand for the foreseeable future (Korhonen, 2007).

Organization of Petroleum Exporting Countries (OPEC)

The Organization of the Petroleum Exporting Countries (OPEC) is a permanent, intergovernmental organization, created at the Baghdad Conference on September 10- 14, 1960, by Iran, Iraq, Kuwait, Saudi Arabia and Venezuela. The five Founding Members were later joined by other member countries such as Nigeria 1971 and Libya in 1962 and as of 2015 has 13 member countries. OPEC's objective is to coordinate and unify petroleum policies among member countries, in order to secure fair and stable prices for petroleum producers; an efficient, economic and regular supply of petroleum to consuming nations; and a fair return on capital to those investing in the industry.

OPEC accounts for an estimated 42 % of global oil production and 73 % of the world's "proven" oil reserves, giving OPEC a major influence on global oil prices (Fofana, 2001).

Overview of Nigerian Economic development

For the purpose of this study, Real Gross Domestic Product (RGDP) will be used as a proxy for Economic Development. A key regional player in West Africa, with approximately 184 million inhabitants, Nigeria accounts for 47 percent of West Africa's population, and has one of the largest population of youth in the world. A federation that consists of 36 autonomous states, Nigeria is a multi-ethnic and culturally diverse society. With an abundance of resources, it is Africa's biggest oil exporter, and also has the largest natural gas reserves on the continent.

The fifth consecutive national elections held in 2015 marked the first time in Nigeria's history that it saw a peaceful transfer of power between two political parties. The current administration, led by President Muhammadu Buhari, identifies fighting corruption, increasing security, tackling unemployment, diversifying the economy, enhancing climate resilience, and boosting the living standards of Nigerians as main policy priorities. Nigeria's federated structure gives significant autonomy to states.

Between 2006 and 2016, Nigeria's GDP grew at an average rate of 5.7 percent per year, as volatile oil prices drove growth to a high of 8 percent in 2006 and to a low of -1.5 percent in 2016 (Abdullahi, Aliero and Abdullahi, 2013). While Nigeria Economy has performed much better in recent years than it did during previous boom-bust oil-price cycles, such as in the late 1970s or mid-1980s, oil prices continue to dominate the country's growth pattern.

Moreover, the volatility of Nigeria's growth continues to impose substantial welfare costs on Nigerian households. The onset of the oil price shock in mid-2014 confronted the government with the pivotal challenge of building an institutional and policy framework capable of managing the volatility of the oil sector and supporting the sustained growth of the non-oil economy.

After contracting for five consecutive quarters, the economy has returned to growth in the second quarter of 2017. With a renewed focus on economic diversification, promoting growth in the private sector and driving job growth, GDP grew by 0.6 percent (year-on-year) in the second quarter of 2017, driven by recovering oil production and some recovery in non-oil industries, too, and modest growth in agriculture.

Economic growth is expected to have remained positive in the second half of 2017, averaging about 1.0 percent for 2017; driven by the continued recovery of oil production, sustained growth in agriculture, and the positive impact on investment and other private sector activities from the improved availability of foreign exchange to support imports. As the government begins to implement the structural reforms outlined in its Economic Recovery and Growth Plan 2017-2020, growth can be expected to strengthen further in the medium term, reaching about 2.8 percent by 2019.

Nigeria has made significant progress in socio-economic terms over the last 15 years. Between 2005 and 2015, Nigeria's Human Development Index value increased by Percent (Adebiyi and Olowokere, 2013). However, the country continues to face massive developmental challenges, which include reducing the dependency on oil and diversifying the economy, addressing insufficient infrastructure, and building strong and effective institutions, as well as Governance issues, public financial management systems, human development indicator and the living conditions of the population. Inequality in terms of income and opportunities has been growing rapidly, and has adversely affected poverty reduction. The North-South divide has widened in recent years due to the Boko Haram insurgency and a lack of economic development in the northern part of the country. Large pockets of Nigeria's population still live in poverty, without adequate access to basic services, and could benefit from more inclusive development policies. The lack of job opportunities is at the

core of the high poverty levels, of regional inequality, and of social and political unrest in the country (Barrell, Delannoy and Holland, 2011).

Theoretical Review

Theory of Demand and Supply

The theory of demand and supply as propounded by an English economist Alfred Marshall in 1890 is such that explains the interaction between the supply of a resource and the demand for that resource. The theory defines the effect that the availability of a particular product and the desire (or demand) for that product has on its price. Generally, low supply and high demand increase price. In contrast, the greater the supply and the lower the demand, the price tends to fall.

Empirical Review $cm\sqrt{co-r}$

Ishmael et al (2016) empirically examined the impact of changes in crude oil prices on economic growth in Nigeria from 1986 to 2015. Time series data on crude oil price, inflation rate, real effective exchange rate, fuel pump price and GDP growth rate were gathered from secondary sources that include World Bank Development Indicators, BP Statistics and Central Bank of Nigeria (CBN) Statistical Bulletin. Ng-Perron and Zivot-Andrews Tests, Johansen's co-integration Test, Granger Causality Test and the Vector Error Correction Model (VECM) were employed as techniques of analysis.

The time series property examined showed the existence of co-integration among the variables while the empirical results suggest that the ECT coefficients have negative signs and are statistically significant in all VECMs. In addition to that, the significance of ECT also exhibits that if the system is exposed to shock, it will converge to the long-run equilibrium at the following speed: for GDP (-

0.8002), inflation (-0.6714) and real effective exchange rate (-0.5715) VECMs compare to the convergence speed of fuel pump price (-0.6047) and crude oil price (-0.0436), VECMs.

The study found out that a positive relationship exists between crude oil prices and GDP. The value of R² and that of adjusted R² stood at 0.6177 and 0.5085 respectively. The value of F-statistic is 5.6570 and it is greater than the tabulated value of 2.76. The study concluded that crude oil price exert positive influence on the economic growth of Nigeria. The study recommends the need for diversification, building of buffers, more refineries and overhaul of the existing ones as well as the adoption of floating exchange rate policy.

Research Methodology

The study used ex post facto design¹. Annual time series data for 1986-2015 were sourced from CBN annual statistical bulletin, World Bank development indicators and OPEC annual statistical bulletin for analysis. The study adopted a quantitative method of analysis and specifically employed regression correlation analysis to establish the relationship between the two variables.

MODEL SPECIFICATION

Real Gross Domestic Product (RGDP), Crude Oil Price (COPR) and Real Exchange Rate (RXCH) RGDP=f(COPR, REXCH) (1)

Where:

RGDP = Real Gross Domestic Product

COPR = Crude Oil Price

RXCH = Real Exchange Rate

In an econometric form, the model can be expressed as:

$$RGDP_t = B_0 + B_1COPR + B_2RXCH + U \dots \dots \dots (2)$$

Where:

RGDP = Real Gross Domestic Product

COPR = Crude Oil Price

RXCH = Real Exchange Rate

U = Error term, P0=Intecep

Bo, B1 and B2 are the parameters

The a priori expectation is that: B1 > 0, B2 < 0

DATA PRESENTATION, ANALYSIS AND DISCUSSION OF FINDINGS

The data that was collected for the study will be analyzed using the methods specified in the previously. Thus, for the purpose of data analyses, the Ordinary Least Square (OLS) regression method will applied using Statistical Package For Social Sciences (SPSS).

DATA PRESENTATION

Table 1: Data for Real Gross Domestic Product (RGDP), Crude Oil Price (COPR) and Real Exchange Rate (RXCH)

Year	Real Gross Domestic	Crude Oil Price	Real Exchange Rate
1986	152.380	14.460	67.470
1987	152.639	18.390	85.210
1988	162.154	15.000	85.630
1989	172.947	18.300	76.250
1990	193.056	23.850	70.750
1991	191.991	20.110	59.970
1992	196.202	19.610	49.740
1993	199.280	17.410	54.500

1994	199.791	16.250	100.790
1995	203.532	17.260	160.130
1996	211.779	21.160	207.630
1997	217.891	19.330	235.920
1998	223.329	12.620	272.340
1999	224.494	18.000	70.150
2000	236.883	28.420	69.870
2001	252.675	24.330	77.840
2002	289.577	25.040	78.080
2003	317.094	28.660	73.200
2004	350.205	38.130	74.910
2005	374.749	55.690	85.550
2006	399.955	67.070	91.500
2007	429.224	74.480	89.650
2008	460.125	101.430	99.130
2009	498.561	63.350	92.140
2010	546.123	81.050	100.000
2011	575.110	113.650	100.310
2012	599.299	114.210	111.390
2013	632.187	111.950	118.810
2014	671.528	101.350	127.090
2015	690.239	54.410	126.060

Source: Sources: World Bank Development Indicators and

CBN Statistical Bulletin 2016 and OPEC statistical bulletin

DATA ANALYSIS AND INTERPRETATION

Table 2: Model Summary for Real Gross Domestic Product

(RGDP),Crude Oil Price (COPR) and Real Exchange Rate

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.904a	.817	.804	76.54775

From the model summary in table 2 above, it can be observed that there is an overall coefficient of correlation (R) between Crude Oil Price (COPR), Real Exchange Rate (RXCH) and Real Gross Domestic Product (RGDP) of about 0.904. This result implies that the strength of the relationship between the variables of the study is about 90.4%. Furthermore, the coefficient of determination (R²) gave a value of 0.817 with the implication that crude oil price (COPR) and Real Exchange Rate (RXCH) can explain as much as 81.7% of the variations in Real Gross Domestic Product (RGDP)

Table 3: Regression Coefficients for Real Gross Domestic Product (RGDP),

Crude Oil Price (COPR) and Real Exchange Rate (RXCH)

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	111.091	36.665		3.030	.005
1 COPR	4.472	.408	.903	10.971	.000
RXCH	.232	.273	.070	.850	.403

Dependent Variable: RGDP7

Table 3 above show the regression coefficients results for the study. From the table, it can be observed that the coefficient of regression (B) for Crude Oil Price (COPR) and Real Exchange Rate (RXCH) gave values of 4.472 and 0.232 respectively. These values indicate that (holding other variables constant) for every unit increase in Crude Oil Price (COPR), Real Gross Domestic Product (RGDP) is predicted to increase by 4.472 units. Furthermore, a unit increase in Real Exchange Rate (RXCH), Real Gross Domestic Product (RGDP) is predicted to increase by 0.232units and vice versa. From the above, we can infer that increase in Real Exchange Rate and crude oil price has a positive effect on real gross domestic product in Nigeria.

TEST OF HYPOTHESES

Crude Oil price has no significant impact on the Economic Development of Nigeria The computed t-statistics for the coefficient of Crude Oil Price (COPR) and Real Gross Domestic Product (RGDP) in table 3 above gave a value of 10.971 with a probability of t-statistic of 0.000 while the critical t-statistic is 2.042. From the above, it can be seen that the computed t-statistic is greater than the critical t-statistic. Thus, we reject the null hypothesis of no significant impact of Crude Oil price on Economic Growth and conclude that Crude Oil Price has a significant impact on Economic Growth in Nigeria

Discussion of Findings

This research work investigated the impact of Crude Oil Price on Economic Growth in Nigeria. For the purpose of the study, data was collected from secondary sources including the OPEC annual statistical bulletin and World Bank Database and CBN statistical bulletin. The collected data was analysed using multiple regression analyses. From data analyses conducted, it was found that crude oil price (COPR) has a positive and statistically significant effect on the real gross domestic product of Nigeria. This finding indicates that increased revenue from crude will lead to increased growth in the economy. This finding is also in line with the findings of Okoro (2014) and Oriakhi and Iyoha (2013) who found in their research that there is a strong and positive relationship between oil price and real GDP (economic growth). However, the findings contradict those of Ebele (2015) who find a negative correlation between oil price and economic growth in Nigeria.

Conclusion

Changes in crude oil price have proven to have significant impact on the level of economic activities in Nigeria. This implies that falling crude oil prices dampens the prospect of economic growth in Nigeria, it manifests in deteriorating exchange rate, skyrocketing inflation rates and eroding purchasing power.

It can therefore be concluded that economic growth in Nigeria depends on stability of crude oil prices among other things. This validates the demand and supply theory and lends support to empirical evidences obtained from related works of Matthew O. et (2016), Umaru (2016), Ebele (2015), Yusuf (2015), and Alley, Asekomeh, Mobolaji and Adeniran the country's over-reliance on crude oil, any changes in crude oil price cause serious distortions to some of the major macroeconomic variables of the economy. Inflation in Nigeria is induced by changes in

oil price while evidence of causality was established between crude oil price the price pump price of fuel in Nigeria. (2014). Crude oil remains the driving force behind any growth prospects that the country may envisage.

Recommendation

- i. Measures should be taken by OPEC and other countries like the U.S and Russia who are not members of the cartel to ensure production cut-backs so as to avoid excess supply over demand in order to ensure high price of crude oil since it guarantees a high flow of revenue to the economy.
- ii. As soon as oil price goes up, government should revert back to maintaining the excess crude oil account as established by Obsanjo's administration in 2004 so as to cushion the effect of dwindling fall in oil price which affects national budgets.
- iii. Government should establish functional refineries so we can save the importation cost of bringing in refined crude products.
- iv. Government should see to it that production of crude oil by-products are ventured into as this will boost the economic activities of the nation.
- v. Government should ensure a more proactive and prudent management of public funds for a better economic development
- vi. Government should embark on diversification of revenue sources

References

1. Adebisi, W. K. and Olowookere, J. K.(2013).Managing Nigerian Pebt: TherPpactical Solutions *Research Journal ofFinance and Accounting*, 4(19), 112-123
2. Abdullahi, Y. Z., Aliero, H. M. and Abdullahi, M. (2013). Analysis of the Relationship between External Debt and Economic Growth in Nigeria. *Interdisciplinary Review of Economics and Management*,(3)1, 1-11paye? S Alley, I.,Asekomeh, A., Mobolaji, H., Adeniran, Y. A. (2014). Oil Price hocks and Nigerian Economic Growth. *European Scientific Journal*,10(19),1857-881
3. Barrell, R., Delannoy, A. and Holland, D., (2011). Monetary Policy, Output Growth and Oil Prices.*National Institute Economic Review*,215,37-43.
4. Cohen, M.J.(1993). Economic Impact of an Environmental Accident: A Time Series Analysis of the Exxon Valdez Oil Spill in South Central Alaska.*Sociological Spectrum*, 13(1),35-64.
5. Ebele, E. (2015). Oil Price Volatility and Economic Growth in Nigeria: An Empirical Investigation.*European Journal of Humanities and Social Sciences*, 34(1),1901-1918.
6. Eze,N.(2008).The Tragedy of Oil Discovery. Ogoni. Trials and Travails. CLO, Lagos.
7. Farah,P.(2013). Energy Trade and the WTO: Implications for Renewable Energy and the PPEC Cartel.*Journal of International Economic Law*,16(3):707-740.

8. Fofana, N. F. (2001). Employment and Economic Growth in the Cote d'Ivoire: An Analysis of Structural Determinants. *African Development Bank Review*, 11,98-112
9. Hakan, M. B., Nildag, B. C. and Nukhet, D. (2010). The Impact of Oil Price Shocks on the Economic Growth of Selected MENA Countries. *The Energy Journal*, 31(1),149-176
10. Ishmael, O.,Matthew, T. R., Park, I. (2016) the Impact of Changes in Crude Oil Prices on Economic Growth in Nigeria: 1986-2015
11. Korhonen, I., Juurikkala, T., and Pankki, S., (2007). "Equilibrium Exchange Rates in Oil-Dependent Countries." Workshops No. 12/2007, Vienna, 393-407
12. <https://www.investopedia.com/terms/l/law-of-supply-demand.asp#ixzz5RGCYxIT9>
13. OPEC (2009)retrieved from:<https://en.wikipedia.org/wiki/OPEC> Okoro, E. G. (2014). Oil Price Volatility and Economic Growth in Nigeria: a Vector Auto-Regressive (VAR) Approach. *Acta Universitatis Danubius*, 10(1), 70-82.
14. Oriakhi, D. E., & Iyoha, D.O.(2013). Oil Price Volatility and its Consequences on the Growth of the Nigerian Economy: An Examination (1970-2010). *Asian Economic and Financial Review*,3(5),683-702
15. Umar M. G., Aliyu I. B., Ahmad M. (2016) Oil Price Fluctuations and Economic Growth in Nigeria (Evidence from Granger Causality Test) 1 000 Dage of your