Article

EFFECT OF CRUDE OIL PRICE VOLATILITY ON EXCHANGE RATE AND EMPLOYMENT GENERATION IN NIGERIA.

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Abstract

This study examined the effect of Crude oil price volatility on exchange rate and employment generation in planning of economic activities in Nigeria. Population of the study was 1473 and sample size of 287 was derived through the use of Borg and Gall sample size determination formula. Theories of Mercantilist trade, Absolute theory and Comparative advantage were used for the study. Descriptive survey design was used in the study, Data were collected using a questionnaire and data were analyzed using descriptive statistics, percentage mean and standard deviation. The formulated hypotheses were tested using Regression method with the help of SPSS statistical package. The study found out that crude oil price volatility had a significant impact on exchange rate and employment generation in the area under study. They study recommended that there is a strong need for policy makers to focus on policies that will strengthen and stabilize the macroeconomic structure of the Nigerian economy with specific focus on; alternative sources of government revenue (reduction of dependence on oil proceeds), reduction in monetization of crude oil receipts (fiscal discipline), aggressive saving of proceeds from oil booms in future in order to withstand vicissitudes of oil shocks in future in other to increased employment generation. Government should create another alternative for crude oil price volatility and not depend on oil price for economic growth in Nigeria.

Keywords: Crude Oil price Volatility, Exchange Rate and Employment Generation.

Introduction

Nigeria is often referred to as the "Giant of Africa", a nation of well over 200 million inhabitants which makes it the most populous black nation and one of the leading oil producing countries in the world. The country is well endowed with cultivable land, forests, very good climatic and weather condition, livestock, bountiful mineral resources e.g. tin, copper, crude oil and natural gas. Nigeria is a highly heterogeneous country filled with people of diverse cultures and beliefs, this diversity is seen as one of the strengths that place the country at an advantage. The country has great potentials to compete with the most industrialized nations of the west when it comes to economic strength, but unfortunately a lot of these potentials have been barely exploited. In Nigeria, oil was first discovered by Shell-BP in the year 1956; at Oloibiri in the Niger Delta region. In the year 1958, Nigeria joined the ranks of other oil producers when it produced 5,100 bpd from its first oil field. The exploration rights in offshore and onshore areas that were adjoined to the Niger Delta were extended to foreign oil companies. The EA field was also discovered by Shell in the South East shallow water of Warri, in the year 1965. After the Biafra war, there was an increase

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in global oil price. Nigeria benefitted from this increase and focused on oil production. In the year 1971, Nigeria became a member of the Organization of Petroleum Exporting Countries (OPEC). The country then created the Nigerian National Petroleum Company (NNPC) in the year 1977. NNPC is a key player in both the downstream and upstream sector of the Nigerian oil industry.

After the discovery of crude oil, pioneer production of oil commenced in Shell D'Arcy Petroleum's oil field in Oloibiri, the Eastern part of Niger Delta. During the late 60s and the early 70s, the country had achieved an oil production level of more than 2 million barrels in each day. However, these figures declined due to a change in economic activity in the 80s. There was a rejuvenation of oil production levels in the year 2004. As of 31 December 2023, Nigerian crude oil production further went down to 1.335 million barrels per day. The production and export of petroleum plays a key role in the Nigerian economy. This commodity accounts for more than 90% of the country's earnings. The dominant role played by petroleum production has channeled focus from agriculture. The agricultural sector was the mainstay of the Nigerian economy in the early 50s and 60s. Nigeria is a known exporter of oil to different parts of the world. It is the 8th largest oil exporter in the world. The country's oil export goes to the United States of America, India, Europe, Canada and Brazil. The earnings from oil export are of major benefit to the country's economy provided that the country and its citizens enjoy the benefits from tangible development, export earnings and foreign direct investment.

Every country in the whole World experiences destabilization at one point in time or another. This destabilization often referred to as fluctuations. According to Keynes (1936), fluctuation is the business cycle comprising of high and low economic activities in a Country. The period of high income, output and employment has been called the period of expansion, upswing or prosperity, and the period of low income, output and employment has been described as contraction, recession, downswing or depression. At times, the Country finds itself in the grip of recession when levels of national income, output and employment are far below their full potential levels. A noteworthy feature about these fluctuations in economic activity is that they are recurrent and have been occurring periodically in a more or less regular fashion. Fluctuations in economic activities create a lot of uncertainty in the Country which causes anxiety to the individuals about their future income and employment opportunities and involve a great risk for long-run investment projects (Ahuja, 2012).

This fluctuation is common in the oil market where prices are determined by external forces and this goes a long way to hinder developmental activities. Owing to the fact that revenue is a function of price, any shock in the crude oil prices will be transmitted on the oil revenue. Prior to recent economic reforms, Nigeria's history of oil revenue management had generally been poor (Okogu & Osafo-Kwaako, 2008). This is premised on the fact that managing oil wealth has proven to be a difficult challenge for many countries across the world, and this is evident in Ecuador, Mexico, Nigeria, and Venezuela. In Nigeria, oil revenues have led to huge investments in capital and infrastructure in the 1970s and 1980s but productivity declined and per capita GDP remained at about the same level as 1965. In other words, accumulated oil wealth over a 35 year period of some $350 billion did not raise the standard of living but worsened the distribution of income in Nigeria (Ahuja, 2012).

In finance, an exchange rate (also known as the foreign-exchange rate, forex rate or FX rate) is the price of one currency in terms of another currency. That is, the current market price for which one national currency can be exchange for another (CBN, 2016). It is normally expressed as a number of units of a domestic currency that will purchase one unit of a foreign currency or the number of unit of a foreign currency that will purchase one unit of a domestic currency. Exchange rate is required by a country for the purpose of transacting business with the rest of the world. Some countries have convertible currencies, which mean that their domestic currencies can be accepted for international transactions. And examples of convertible currencies are the United States Dollar; the

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Japanese Yen; the European Union Euro; the Swiss Franc; etc. Meanwhile, countries whose domestic currencies are not convertible have to buy foreign currencies to be able to transact with the rest of the world. Thus, foreign exchange is used by the government of any country to fund their external reserves, payment for external debt as well as goods and services, investment abroad, and monetary policy management among others.

Exchange rate is determined in the foreign exchange market, which is open to a wide range of different types of buyers and sellers. And where currency trading is continuous: 24 hours a day except weekends. The foreign exchange market on the other hand is defined according to the Central Bank of Nigeria, as the medium of interaction between the sellers and buyers of foreign exchange. It is the medium through which the interaction of demand and supply result in the determination of the rate of exchange of a local currency against other foreign currency. The rate of exchange is an important macroeconomic variable used as parameter for determining international competitiveness and it is being regarded as an indicator of competitiveness of currency of any country and an inverse relationship between this competitiveness exists. The pursuit of economic development has been a major goal of many developing nations of the world. Developing countries are confronted with several problems such as high rate of poverty and unemployment which have continued to hinder the attainment of socio-economic development. For any nation to attain economic development, industrialization, gainful and meaningful employment are important indices used as a measurement of economic growth and development.

Statement of Research Problem

All over the world, crude oil business contributes positively towards the growth of the global economy. Oil business has brought unprecedented wealth and development to some Countries of World. Nigeria is not left out of this as one of the largest oil producing Country. This is because, as at the beginning of 2020, Nigerian daily oil production stood at more than two million barrels per day. Oil continues to be the mainstay of the Nigerian economy. At as 2022, oil revenue stood at 83% of the Nigeria total revenue. Again, Nigerian oil contributes to 90% of her export and 9% of the entire GDP of the nation.

Despite the fact that crude oil has been the engine of growth of the Nigerian economy, its price fluctuation has led to poor stability of revenue generation, thereby reducing the predictability and planning of economic activities. According to Nigerian Bureau of Statistics of 2018, the revenue from crude oil used to be about 95% of the entire Nigerian annual revenue, but due to oil price volatility on exchange rate, it has come down to 83% of the nation's total revenue. As a result of this, the economy generally is now faced with high rate of unemployment, increasing poor standard of living, decrease in gross domestic product, per capita income and high rate of inflation; all these have led to adverse effect on economic development

Therefore, this indicates that fluctuations in crude oil revenue significantly affect the economy at large especially Countries whose oil revenue significantly contributes to national revenue.

According to the international Energy Agency (IEA, 2014), higher oil price causes inflation, increase in input costs, reduced non-oil demand and lower investment in oil producing Countries. Again, Adeniyi et-al (2012), empirically asserted that changes in oil prices have significant effects on exchange rates.

This has no doubt vindicated the assertions that several studies have been carried out on oil revenue fluctuations and exchange rate responses and how these affect the national economy. However, these studies considered the policy reactions in general without specifically highlighting the relative impact of the individual policies. Notwithstanding the fact that several studies have been conducted on oil price/revenue and their exchange rate responses, very little attention has been given to its impact on employment generation. This has created a lacuna leading to an impediment to lack of proper policy formulation towards reduction of high rate of unemployment in Nigeria and lack of implementation of other economic policies of the government. This lacuna motivated the

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researcher to venture into this study to unravel the effect of crude oil price volatility on exchange rate and how it has impacted on unemployment generation in Nigeria, identifying the various causes of oil price volatility and the possible ways of mitigating oil price volatility on exchange rate so that its impact will not have a negative effect on employment generation.

Objectives of the Study
(i) To determine effect of crude oil price volatility on exchange rate in selected Local Government Areas in Enugu State.
(ii) To determine effect of crude oil price volatility on employment generation selected Local Government Areas in Enugu State

Research Questions.
i. What is the effect of crude oil price volatility on exchange rate in selected Local Government Areas in Enugu State?
ii. What is the impact of crude oil price volatility on employment generation in selected Local Government Area, Enugu State?

Research Hypotheses
H_{O1}: Crude oil price volatility has no significant effect on exchange rate in selected Local Government Areas in Enugu State.

H_{O2}: Crude oil price volatility has no significant impact on employment generation in Enugu selected Government Areas in Enugu State.

Review of Related Literature
Conceptual Review
The Concept of Crude Oil Volatility
According to IMF (2012) oil price volatility is the sudden increase and decrease of crude oil prices in the world market. In recent years, our understanding of the nature of oil price shocks and their effects on the economy has evolved dramatically. Only a few years ago, the prevailing view in the literature was that at least the major crude oil prices increases were exogenous with respect to the OECD economies and that these increases were caused by oil supply disruptions triggered by political

disturbances in the Middle East. This view has little empirical support. Likewise, the popular notion that OPEC constitutes a cartel that controls the price of oil has not held up to scrutiny. At the same time, there has been increasing recognition of the importance of shifts in the demand for oil. Recent research has provided robust evidence that oil demand shocks played a central role in all major oil price shock episodes since the discovery of oil in Nigeria..

There is no consensus in the literature on how to model the global market for crude oil. One strand of the literature views oil as an asset, the price of which is determined by desired stocks. In this interpretation, shifts in the expectations of forward-looking traders are reflected in changes in the real price of oil and changes in oil inventories. The other strand of the literature views the price of oil as being determined by shocks to the flow supply of oil and flow demand for oil with little attention to the role of inventories in smoothing oil consumption. Unlike shocks to the flow demand or flow supply, speculative demand shocks can cause large immediate effects on the real price of oil, for example in response to geopolitical events.

Although speculative trading appears to have played an important role in some historical episodes, there is no evidence that it caused the surge in the real price of oil during 2003-06 and only very limited evidence that it helps explain the 2007-08 oil price surge. As the world economy collapsed in late 2008, so did the real price of oil. More than half of the observed decline in the real price of oil, however, was driven by expectations about a prolonged global recession. The gradual recovery of the real price of oil in 2009 can be attributed equally to a partial reversal of these expectations and to a recovery of the demand for industrial commodities, reflecting the improved state of the global economy. The distinction between different oil demand and oil supply shocks has far-reaching implications because each shock has different effects on the U.S. economy and on the real price of oil. In addition, not all such shocks are unambiguously harmful to oil importing economies. For example, shocks to the global flow demand for oil have both a stimulating effect on the U.S. economy and

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adverse effects on economic growth working through higher oil prices in particular and higher industrial commodity prices more generally. Empirical estimates suggest that, in the short run, the positive effects on the U.S. economy are strong enough to sustain growth, while global commodity prices are slow to respond and the world economy is booming. Only subsequently U.S. real GDP gradually declines, as commodity price increases gain momentum and the economic stimulus from higher global demand weakens. This response pattern differs sharply from the typical effect of higher energy prices driven by shocks to the speculative demand for crude oil, for example, or by shocks to the flow supply of crude oil, but it helps explain why the 2003-08 surge in the real price of oil did not create a major recession long before the global financial crisis.

One of the direct implications of recent models of the endogenous determination of the real price of oil is that conventional estimates of the response to unanticipated oil price changes are best thought of as the response to an average oil price shock and in practice may be sensitive to the sample period, as the composition of the underlying demand and supply shocks evolves over time. This helps understand why regressions of macroeconomic aggregates on oil prices tend to be unstable over time and in particular why the average effect of oil price shocks appears to have diminished since the late 1980s.

Concept of Exchange Rate

Exchange rate (also known as the foreign-exchange rate, forex rate or FX rate) is the price of one currency in terms of another currency. That is, the current market price for which one national currency can be exchange for another.CBN (2016).It is normally expressed as a number of units of a domestic currency that will purchase one unit of a foreign currency or the number of unit of a foreign currency that will purchase one unit of a domestic currency. Exchange rate is required by a country for the purpose of transacting business with the rest of the world. Some countries have convertible currencies, which mean that their domestic currencies can be accepted for international transactions. And examples of convertible currencies are the United States dollar; the Japanese yen; the European Union Euro; the Swiss Franc; etc. Meanwhile, Countries whose domestic currencies are not convertible have to buy foreign currencies to be able to transact with the rest of the world. Thus, foreign exchange is used by the government of any country to fund their external reserves, payment for external debt as well as goods and services, investment abroad, and monetary policy management among others. It is undoubtful that Currencies and their values are central to the world economy, they affect international trade, investment, finance, migration, aggregate demand, manufacturing sector's output and travel. The prevailing exchange rate system often defines the international economic order. Exchange rate is an important variable in macroeconomic variables. And due to its degree of importance, it should be monitored and taking good care of so that it will not bring unnecessarily lose to economic activities in the economy.

An exchange rate has a base currency and counter currency. In a direct quotation, the foreign currency is the base currency and the domestic currency is the counter currency. But in an indirect quotation, the domestic currency is the base currency and the foreign currency is the counter currency. Most exchange rate use the US dollar as the base currency and other currency as the counter currency. However, there are few exceptions to this rule, such as the Euro and common wealth currencies like the British pounds, Australian dollar, and New Zealand dollar. Exchange rate is quoted in value against US dollar. However, it can also be quoted against another currency which are known as cross currency or cross rate.

Exchange rate is determined in the foreign exchange market, which is open to a wide range of different types of buyers and sellers. And where currency trading is continuous: 24 hours a day except weekends. The foreign exchange market on the other hand is defined according to the central bank of Nigeria, as the medium of interaction between the sellers and buyers of foreign exchange. It is the medium through which the interaction of demand and supply result in the determination of the rate of exchange of a local currency against other

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foreign currency. Exchange rate is determined by the interaction of the business firm, household, government, private financial institution, and central bank that buy and sell foreign exchange. It plays a critical role in a country's manufacturing sectors because import and export constitute a large part of the economy. Essentially changes in exchange rate affect the price of imported goods, services and our export. Hossain (2002) agreed that exchange rate helps to connect the price system of two different countries by making it possible for international trade and also it affect the volume of import and export as well as country balance of payment position. In recognition of this role, Rodrick (2007) argues that poorly managed exchange rate can be disastrous for a country's economic growth and this can be possible through decrease in the output of goods, service and the availability of capital in the economy….. .In Nigeria, the foreign exchange market consist of the official window (DAS),the open inter-bank (OIB) market and the bureau de change (BDC) which are legal market: as well as the parallel market, which is not officially recognized but operate as the underground window.

In Nigeria, there are two main types of exchange rate: the official exchange rate and the market exchange rate. The official exchange rate is the exchange rate determined by the monetary authority/ central bank. While the market exchange rate is basically determined by market forces of demand and supply, and when the demand of foreign exchange exceeds supply, the value of the Naira will go up and if the exchange rate supply exceeds demand, the value of the Naira will go down. Exchange rate for most major currencies are generally expressed to four places after the decimal, except for currency quotations involving the Japanese yen, which are quoted to two places after the decimal.

Concept of Employment Generation

Employment generation is the process of providing or creating job opportunities for the number of people that are actually willing to work at the existing wage rate in the country. Thus unemployment is said to occur when people who are ready to work at the going wage rate are unable to obtain work. Englama (2001) captured this

fact when he said: "There are many people without a job and looking for work but have not bothered to register as unemployed, these people will not be included in the official statistic for the registered employed labour force, nor will they appear in the register of the unemployed labour force. Although, reduction of unemployment has been the policy objective of every government, achievement of this objective is like a journey in sheer futility. Employment generation no doubt, has remained a frequent topic of political debate and politicians often claim that their proposed policies would help create job.

The goal of achieving full employment among other macroeconomic goals is an important one in many developing nations where unemployment and underemployment have been a major cause and consequence of widespread poverty. In spite of the importance of employment, the implementation of policies on employment creation in many developing nations has not yielded much impact as there is a wide gap between the jobs available and the number of job seekers actively seeking work in most poor nations.

Employment is one of the most important social and economic issues in every country. As a result, measures of utilization and non utilization of labour are usually of considerable concern to researchers and policy makers. The stock of unemployment usually attracts smaller attention than the flow; that is, how the rate of unemployment is moving. It is not easy to measure the rate of unemployment because of the conceptual problems of defining who is employed, unemployed or underemployed. Employment refers to the number of people who either work for pay in cash or kind, work on their own account or are unpaid family workers (NBS, 2012).

In Nigeria, Iyoha (2008) opined that employment generation is a significant drive of the growth rate of GDP in Nigeria. However, in the Nigerian economy, most employment is in the informal sector. A large proportion of these people are under self-employment with very low income (Jodie and Ogunrinola, 2011). Individuals and firms were motivated to go into informal economy activities for survival purposes following the economic downturn experienced

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by the country. Structurally, the country shifted from the agricultural sector to the petroleum industry following the oil boom of seventies. This resulted in unemployment, as persons moved from the agricultural sector in search of opportunities that were none existent in the official sector, thereby increasing the number of shadow economy activities. Thus, most of the time, decent works are very hard to come by in the country.

Employment is an economic drift through which human resources are put into productive use. The Keynesian economic analysis has posited that employment is envisaged as a pathway to enhance the growth rate of an economy. This is because when there is employment, there is productivity (Keynes, 1936). Hence, the achievement of full employment has often been seen as one of the germane macroeconomic objectives facing any civilization.

Theoretical Review
The work is anchored on two theoretical models: theories of trade and exchange rate theories.
Theories of Trade
Mercantilist Trade Theory
According to Ram (1986), Mercantilist theory was formulated in 16th to 18th century by Antorio Serra, David Hume, Von Hornick, Josiah Child and many more in Western Europe mainly in France and England. Mercantilist theory stated that national wealth should be increased through trade.

This theory identifies the fact that a country can only be rich and be powerful if it ensures that its export is more than its import. Other propagandists of this theory are Jean Baptiste Colbert and Thomas Hobbes. It was understood then, that, the most important way in which a country could be rich was by acquiring precious metals such as gold. This was achieved by ensuring that the volume of export was better than the volume of import. The mercantilists believe that an economy will grow if it can achieve three objectives which are: "Bullionism, self-sufficiency and Colonialism". The three objectives formed the central teaching or thought of the mercantilists. Nation seeking to grow and expand should keep on acquiring bullions (precious metals). The volume it is able to

acquire defines its speed of growth and affluence. Such economy should also rely heavily on the production and exportation of goods so as to acquire these bullions. Little attention should be paid to importation as this will deplete its stock of precious metals. They also suggested that such economy should source for weak economies, colonize and use them as a market for its wares. It should exploit such economies by obtaining cheap raw material from them which it will in turn transport to its domestic economy to refine. After production, it should sell such commodities to the same victim economy at higher prices so as to build its bullion stock. However, this ideology later collapsed as other economy later started to benefit more from its proponent's economy. As mercantilist proponents continued to acquire more bullion, it later turned out that other economies found their import goods expensive to buy but there was easy to export to. This led to falling trade balance for the adherent economies. Thus, it was said that Mercantilist planted a seed of its own destruction.

Theory of exchange rate
The Purchasing Power Parity Theory
The purchasing power parity (PPP) is one of the earliest and perhaps most theory of exchange rate between two currencies would be equal to the relative national price levels, it assumes the absence of the trade barriers and transactions cost and existence of the purchasing power parity (PPP). In its version, the purchasing power parity (PPP) doctrine equates the equilibrium exchange rate of the ratio of domestic to foreign price level .

$$E - \frac{pd}{PE}$$

Where,
E = is the nominal exchange rate defined inter-ims of domestic currency per unit of foreign currency.
Pd is the foreign price, PE level with perfect efficiency and absence of trade barriers transactions cost and the purchasing power parity./ the PPP doctrine would be tantamount to the application of the law of one price if all the countries produced exactly the same tradable goods. It is important to know that the PPP is a major component of the monetary approach. The

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PPP between the two currencies as provided by Gustav Cassel 1998 is the amount of the purchasing power. The PPP is long-term approach used in the determination of equilibrium exchange rate. It is often applied s a proxy for the monetary model in exchange rate analysis (CBN, 2008).

The relative version of PPP doctrine relates the equilibrium exchange rate to the product of the exchange rate in a base period and the ratio of the countries price Indices by definition, we have the relate

Purchasing power party (PPP) as

$$E - \frac{pd}{PE} R0$$

Where

Ro is the actual exchange rate at the base period (the number of units of domestic currency per unit of foreign currency). The purchasing power theory parity theory defines two equilibrium rate systems. The first is the short run equilibrium exchange rate which is defined, in this context, as the rate that would exist under a purely freely floating exchange rate balance. Second is the long-run equilibrium that would yield balance of payment equilibrium over a time period in cooperating and cyclical fluctuations in the balance of payments (including those of prevailing exchange rate from the relative purchasing power in a currency are generally attributed to problem of arbitrage and expectations in the goods market. Some4 of the assumption of PPP theory however are quite unrealistic. Efficiency level for examples varies from country to country and as such there are deferring cost functions. To align international comparisons on the assumption of some technological efficiency in all countries could be deceptive. Again the choice of the base year for the relative purchasing power parity (PPP) is often arbitrary.

Finally, PPP is often presented as if causality runs from price level to exchange rate. Actual experiences are often more complicated when monetary fiscal policies move both causality could be quite exogenous or bi-directinal (Argy and Frenkel, 1978).

Empirical Review

Madueme and Nwosu (2010) investigated the relationship between Crude oil price volatility and macroeconomic variables in Nigeria. They used the GARCH and VAR models with the aid of secondary time series for 1981-2016. Their findings showed that the variables: capital expenditure and crude oil prices showed a positive sign indicating that crude oil prices during the period under review contributed positively to the Nigerian economic growth. It also shows that oil price irrespective of its shocks and volatility during the period under review continued to become the main stay of the nation's economy. They recommend that there is a strong need for policy makers to focus on policies that will strengthen/stabilize the macroeconomic structure of the Nigerian economy with specific focus on; alternative sources of government revenue (reduction of dependence on oil proceeds), reduction in monetization of crude oil receipts (fiscal discipline), aggressive saving of proceeds from oil booms in future in order to withstand vicissitudes of oil shocks in future.

Kolawole (2016) examined the impact of oil price fluctuation and fiscal policies on economic growth in Nigeria, from the period of 1970-2010. It employed the Vector Error Correction Model (VECM) in modeling the relationship between oil price fluctuation and performance of the Nigerian economy. The results indicated that the Nigerian economy in the short run is positively affected by an increase in oil price. However, in the long run result showed that oil price fluctuation has a negative relationship with the Nigerian economy and fall in employment rate.

Hooker (2017) conducted a study on Economic Implications of crude oil price volatility in Nigeria: An Overview. His approach was basically descriptive in nature. Available time-series data on relevant variables were critically examined to ascertain the economic implications of the various petroleum policies. Among his findings, he observed a significant improvement in the gross domestic product (GDP), foreign direct investment, and employment levels. He further observed some negative implications of crude oil price fluctuation, especially in relation to household consumption.

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Methodology

The study made use of descriptive survey design. The total population was 1,473 employees of male and female employers and employees in all the three selected Local Government Areas within Enugu metropolis. The statistical formula devised by Borg and Gall (1973) was employed to determine the sample size of 287, while the 256 returned questionnaires' were used in the analysis. Regression analysis was used to measure the effect of the independent variable to the dependent variable of hypotheses one and two and proper interpretation and analysis techniques were used to explain the hypotheses testing.

Hypothesis One

H_0: Crude oil price volatility has no significant effect on exchange rate in Enugu State.
H_1: Crude oil price volatility has a significant effect on exchange rate in Enugu State.

Regression Model Summary for Hypothesis 1

Model	R	R Square	Adjusted R Square	Std. Error of the estimate
1	.872[a]	.838	.831	.192

a. Predictors: (Constant), Exchange Rate

From the table, it is clear that the R value was .872 showing a positive direction of R is the correlation between the observed and predicted values of the dependent variable. The values of R range from -1 to 1 (Wong & Hiew, 2015). The sign of R indicates the direction of the relationship (positive or negative). The absolute value of R indicates the strength, with larger absolute values indicating stronger relationships. Thus the R value at .872 shows a stronger relationship between observed and predicted values in a positive direction. The coefficient of determination R^2 value was 0.831. This shows that 83.1 percent of the variance in dependent variable (exchange rate) was explained and predicted by independent variable (Crude oil price volatility)

ANOVA (b) (for hypotheses 1)

Model	R	Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	29.589	1		81.020	.000(a)
	Residual	91.574	254	29.589		
	Total	121.162	255	.361		

a. Predictors: (Constant): Crude Oil Price Volatility
b. Dependent Variable: Exchange Rate

Interpretation of Results

The F-statistics produced (F = 81.020) was significant at 5 percent level (Sig. F< 0.05), Thus confirming the fitness of the model and therefore, there is statistically significant relationship between product advertisement and consumer switch behaviour. Hence Crude oil price volatility has a significant effect on exchange rate

Coefficients (a) (for hypothesis 1)

Model	Unstandardized Coefficient		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
Exchange Rate	1.521	.251		6.057	.000
Crude Oil Price Volatility	.603	.067	.494	9.059	.000

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. Predictors: (Constant): Exchange Rate
b. Dependent Variable: Crude Oil Price Volatility

The coefficient table above shows the simple model that expresses how crude oil price volatility significantly impact exchange rate. The model is shown mathematically as follows; $Y = a+bx$ where y is exchange rate and x is crude oil price volatility, a is a constant factor and b is the value of coefficient. From this table therefore, exchange rate = 1.521 +0.603 crude oil price volatility. This means that for every 100% change in crude oil price volatility contributed 60.3%

Decision
The significance level below 0.01 implies a statistical confidence of above 99%. Hence the alternative hypothesis was adopted. This implies that Crude oil price volatility has a significant effect on exchange rate in Enugu State, Nigeria.

Hypothesis Two
H_0: Crude oil price volatility has no significant impact on employment generation.
H_1: Crude oil price volatility has a significant impact on employment generation.

Regression Model Summary for Hypotheses 2

Model	R	R Square	Adjusted R Square	Std. Error of the estimate
1	.846ᵃ	.652	.671	.4353

a. Predictors: (Constant), Crude Oil Price Volatility

ANOVA (b) (for Hypotheses Two)

Model	R	Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	111.468	1		533.655	.000(a)
	Residual	51.312	254	111.468		
	Total	162.780	255	.202		

a. Predictors: (Constant), Crude oil price volatility
b. Dependent Variable: Employment Generation.

Interpretation of Results
The results from the model summary table above revealed that the extent to which the variance in Crude oil price volatility can be explained by employment generation is 65.2% i.e (R square = 0.652). The ANOVA table 4.33 shows the Fcal to be 533.655 at 0.0001 significance level. The implication is that crude oil price volatility has a significant impact on employment generation.

Coefficients (a) (for hypothesis 2)

Model	Unstandardized Coefficient		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
Employment Generation	.167	.154		1.084	
Crude oil price volatility	.971	.041	. 846	23.490	.000

. Predictors: (Constant): Crude Oil Price Volatility
b. Dependent Variable: Employment Generation.

The coefficient table above shows the simple model that expresses the extent to crude oil price volatility quality impact employment generation. Crude oil price volatility quality had a of Coefficient 23.490 with a p value of .000, which is less than 0.05.

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The model is shown mathematically as follows; $Y = a+bx$ where y is employment generation and x is crude oil price volatility, 'a' is a constant factor and b is the value of coefficient. From this table therefore, employment generation = 0.167 +0.971. This means that for every 100% change in employment generation, employment generation is responsible for 97.1% of the change.

Decision

The significance level below 0.01 implies a statistical confidence of above 99%. This implies that Crude oil price volatility has a significant impact on employment generation in Enugu State, Nigeria. Thus, the decision would be to reject the null hypothesis (H_0), and accept the alternative hypothesis (H_1).

Summary of Findings

1   Crude oil price volatility has a significant effect on exchange rate in Enugu State, Nigeria.
2   Crude oil price volatility has a significant impact on employment generation in Enugu State, Nigeria.
3   Causes of crude oil price volatility has significant impact on economic growth in Enugu State.

Conclusion

This study examined the impact of crude oil price volatility on exchange rate and employment generation in Enugu East Local Government Area of Enugu State using primary data. The study was subjected to multiple analysis and the result showed that crude oil price volatility has a significant effect on exchange rate and rude crude oil price volatility has a significant impact on employment generation in Enugu State, Nigeria. Causes of crude oil price volatility has significant impact on economic growth in Enugu East Local Government in Enugu State.   Therefore, the study concluded that crude oil price volatility had a significant impact on exchange rate and employment generation in Enugu East Local Government Area of Enugu State.

Recommendations

1.   The study suggests strongly that diversification of the economy is necessary in order to minimize the consequences of oil price fluctuations on exchange rate and government revenue, by implication government expenditure planning in the country.
2.   They recommend that there is a strong need for policy makers to focus on policies that will strengthen/stabilize the macroeconomic structure of the Nigerian economy with specific focus on; alternative sources of government revenue (reduction of dependence on oil proceeds), reduction in monetization of crude oil receipts (fiscal discipline), aggressive saving of proceeds from oil booms in future in order to withstand vicissitudes of oil shocks in future in other to increased employment generation.
3.   Government should create another alternative for crude oil price volatility and not depend on oil price for economic growth in Enugu East Local Government in Enugu State.

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