The impacts of Foreign Direct Investment (FDI) and Oil export on Economic growth in Nigeria from 1970 -2011.

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Abstract

The study examines the impacts of Foreign Direct Investment (FDI) and Oil export on Economic growth in Nigeria from 1970 through 2011. The Augmented Dickey Fuller (ADF) unit root test was adopted to determine the stationary properties of the data, while the order of integration of the data was tested using the Johansen Co-integration test. The co-integration result produce two co-integrating equations, which confirms the existence of long-term relationship among the variables- Gross Domestic Product (GDP) and Foreign Direct Investment (FDI,) Oil Export, Exchange rate Inflation as well as Trade Openness. Also the ordinary Least Square (OLS) or short run regression analysis result shows that 87 percent of total changes in economic growth are explained by the explanatory variables. Equally the F-test/statistic value of 50.58807 shows that the model or equation has a good fit, which signifies that the exogenous variables are good explainers of changes in economic growth in the Nigerian economy. The t-statistic shows that foreign direct investment is not statistically significant in explaining the level of economic activities as a result of non-conducive environment for investment as well as oil theft. The negative value of the t-statistic on oil export could be explained by the fact that part of the oil exported are for refining abroad and later imported for domestic consumption. Premised on the above the study recommends that there should be improvement of institutions, economic and social infrastructure, so as to attract cross boarder investment. Also required is improvement of code of conduct on foreign direct investment to limit the repatriation of profits, which will ensure reinvestment, and increase the volume/value of FDI in Nigeria. In addition domestic investors/investment should be encouraged especially down stream of the oil sector, to increase the level of employment and economic activities. Policy makers should appreciate the effects of lag, in order to ensure appropriateness and consistency, in the implementation of policies.

Keywords: Foreign direct investment, Crude oil, oil export, economic growth co-integration, Augmented Dickey Fuller

INTRODUCTION
1.1   Background to the Study

The relevance of the oil sector to the National economy cannot be over emphasised but suffices to state that oil constitutes about 90% of Nigerian exports as well as export earnings or foreign exchange earnings and foreign reserve. At independent Nigerian economy was agrarian, however after a decade of independent there was a shift towards the oil sector. Indeed by the 70s Nigeria was already in economic honeymoon with oil wealth, hence she could afford the implementation of the popular Jerome Udoji's award in retrospect. On the other hand the crash of oil prices in the international oil market in the early 80s arising from glut, resulted precarious economic situation that over stressed the balance of payment, keeping it in chronic deficit. This condition not only made it difficult for the government to fund her recurrent expenditure (leading to salary arrears) let alone being able to execute capital expenditure. Consequently the average Nigerian was in economic quagmire.

In addition to the above, is increasing fiscal deficit, trade arrears, a falling reserve, and import ratio as well as increasing foreign debt stock. The debt overhang and the draconian conditionality by the multilateral financial institutions coupled with the inadequacies or inability of portfolio investment to jumpstart the economy led many developing countries including Nigeria to adopt Structural Adjustment Programme (SAP) thereby shoring for Foreign Direct Investment. This position is justified by Ibi-Ajayi (2006) who asserted that Africa and Nigeria in particular, joined the rest of the world in search of FDI as evidenced by the formation of the New Partnership for Africa's Development (NEPAD), which has the desirability of increasing foreign investment to Africa, as a major component.

According to Ashiedu (2002) worldwide Foreign Direct Investment (FDI) is increasing at an extraordinary speed in the 21st century which begins making Africa different. To be specific FDI to Nigeria has been on the increase since 1970, which could be associated with increase demand for Africa's natural resources, particularly oil by the United States who reduced her dependence on the Middle East during the Israeli – Arab war. To buttress this UNCTAD (1999 and 2006) posited that from 1970 – 1990, Nigeria accounted for 30% of FDI inflow to Africa, this was largely as a result of its oil attractiveness. FDI inflow to West Africa is mainly dominated by inflow to Nigeria, who received 70% of the sub-regional total and 11% of Africa's total. Out of this Nigeria's oil sector alone received 90% of the FDI inflow. The rise in FDI worldwide in the last few decades is further emphasised in the work of Barrel and Pain (1997) which states that between 1975 and 1995

the aggregate stock of FDI was reputed to rise from 4.5% to 9.7% of world Gross Domestic Product (GDP), with sales of foreign 48 states of multinational enterprises substantially exceeding the value of world exports. While the rise of FDI in Africa as expressed in UNCTAD (2007) reports, opined that FDI flow to Africa has increased from $9.68 million in 2000 to $13 trillion in 2006.

However, of late precisely since the world wide financial crisis in 2008, Foreign Direct Investments have globally reduced drastically. To attest to this UNCTAD (2010a) reports that global FDI inflows fell by 37 percent from $1,771 billion in 2008 to $1,114 billion in 2009. Developed countries were relatively less affected by the global financial crisis and recorded a decline of 24 percent in 2009 as opposed to 44 percent in developing countries.

After almost ten years of growth, FDI inflows to Africa fell from a peak of US$72 billion in 2008 to US$59 billion in 2009 – a 19 percent decline compared to 2008 due to the financial and economic crisis (UNCTAD 2010b). This reduction in FDI in Africa excludes South Africa and North African countries. This is affirmed by Multilateral Investment Guarantee Agency (MIGA) (2011), which states that while North African countries and South Africa have recorded impressive FDI inflows over the past years, the FDI business environment in a large number of sub-Sahara African countries have been perceived to be economically and politically unstable and FDI inflows in particular outside the natural resource extraction sector, remained relatively sparse.

In 2007 inspite of the oil boom, Nigeria accounted for only about 16% of total FDI inflow to Africa. It's most important role in terms of attracting FDI started grinding due to surge of FDI to other oil rich countries such as Angola and Sudan (Ibi-Ajayi 2006).

According to Central Bank of Nigeria (2007) Gross Domestic Product growth rate was 6.5% in 2005, 6.0% in 2006, and 6.5% in 2007. This impressive performance in terms of GDP growth rate can arguably be attributed to a robust oil export growth rate as well as FDI growth rate of 163% and 172% in 2005 and 2006 respectively. Also International Monetary Fund (2008) asserts that the robust oil sector growth had offset the drag from a decline in non-oil production by boosting growth in the Nigerian economy.

1.2   Statement of the Problem

Nigeria is undoubtedly facing crisis situation of inadequate infrastructural facility grinding poverty level, low capacity utilization and open unemployment which dampens long-term economic development. Worse still is that achievement of some millennium development goals (MDG) by 2020 is increasingly becoming unattainable.

Studies have attempted analyzing the impact of foreign direct investment on economic growth in Nigeria (Omoniyi and Omobitan 2011, Egbo and Onwumere, 2011). Some other works are on the magnitude of direction and prospects of foreign direct investment (Ayanwale and Bamire 2001, Jerome and Ogunkola 2004). Other studies focused on determinants, structure and potentials of foreign direct investment in Nigeria or sub-Sahara Africa or Africa as a whole (Anyanwu 1998, and 2012, Odozi 1995, Adefeso and Agboola 2012). These earlier works that attempted examining foreign direct investment are highly aggregated as they either focused on Africa, sub-sahara Africa (cross-country) or Nigeria. In addition these studies attempted analysis of the primary, secondary and tertiary production. And considering the fact that these studies are not sector specific, it is reasoned that foreign direct investment and the Nigerian Economy is under researched or that the researches are less in-depth. Hence the topic "An Empirical Analysis of the Impact of Foreign Direct Investment and Oil Export on economic growth: "Nigerian Experience", which hopes to generate and analyzed data between 1970 and 2011 is timely.

1.3   Research Question
Does FDI and Oil export contribute to economic growth in Nigeria?
1.4   Objective of the Study
The General objective of this study is to analyze the impact of foreign direct investment and oil export on economic growth in Nigeria.

However the specific objective is to establish the nexus between FDI, Oil export, Exchange rates, Inflation, Trade openness and Gross Domestic Product. The analysis will be by means of regressions for the period 1970 through 2011.
1.5   Hypothesis
The hypothesis to be tested in the course of this study to answer the research question and achieve the objective stated above is that there is no significant relationship between foreign direct investment, oil export and economic growth in Nigerian.
1.6   Significance of the Study
The Nigerian economy to some extent is monocultural or cargo in shape, relying mainly on the oil sector as the driver of the economy. Since FDI apart from helping to augment domestic savings propels the growth and development of host country's economy, it is therefore worthwhile to identify the impacts of FDI

and oil export on economic growth in Nigerian. This will assist policy makers and is equally important in economics, business, politics and academia.

1.7   Scope of the Study

The study will focus on foreign direct investment, oil export, and economic growth in Nigerian from 1970 through 2011. In doing so, there will be econometric analyses to determine the impact of exchange rate, inflation, trade openness, oil export and FDI on the Nigerian economy.

1.8   Organization of the Study

Section one of this study is on introduction, while section two will be devoted to the review of related literature- conceptual, theoretical and empirical as well theoretical frame work. Section three deals with methodology and specification of models, whereas section four is analysis, presentation and interpretation of results obtained. Finally section five is devoted to conclusion, recommendation and policy implications.

2,0   Review of Related Literature

2.1   Conceptual Literature Review

According to the World Bank (1996) Foreign Direct Investment (FDI) is an investment made to acquire a lasting management interest (normally 10% of voting stock) in a business enterprise operating in a country other than that of the investor defined according to residency. This definition has some implications – thus FDI is not limited to cross-border investment by Multinational Corporations (MNCs) or Trans National Corporations (TNCs) in the form of human and physical capital, as well as technology. Equally portfolio investment is not just purchase of ordinary shares that transcends national boundaries irrespective of voting stock, as ownership of voting stock that is 10% or above in ordinary share is referred to as direct investment, while ownership that is less than 10% is portfolio investment.

Direct investment could take the form of Green Field otherwise Mortar and Brick investment, Merger and Acquisition (M & A) and Joint Venture (JV). Indian investors are relatively better integrated than Chinese investors, which is reflected in higher levels of local content and higher proportion of mixed Indian – African joint ventures with strong entrepreneurial orientation (UNIDO, 2007, Broadman 2008, Probhakar 2008). Evidence abounds in Nigeria of these types of direct investment. However, a few are mentioned here – the acquisition of the mobile phone network of Kuwait's Zain by India's Bharti Airtel, the Joint Venture between United Geophysical Nigeria Limited (UGNL) and Integrated Data Services Limited (IDSL) involve in seismic operations and the Greenfield investment of MTN telecommunication.

Oyinlola (1995) conceptualized foreign capital to include foreign loans, direct investment and export earnings in his examination of the contributions of foreign capital to the prosperity or poverty of LDCS. To a large extent this study pitches tent with this conceptual definition as the foreign loans and export earnings are invested in the same way as the direct investment. In some cases the export earnings are made possible by already existing direct investment in which case they are reinvested.

Crude oil often referred to as petroleum, "is any naturally occurring flammable mixture of hydrocarbons found in geologic formations, such as rock strata. Most petroleum is a fossil fuel, formed from the action of intense pressure and heat on buried dead zooplankton and algae" (Anne, online) which is nickname "black gold." John (2003) Oil is use mainly for fuel but also, in the manufacture of lubricants and chemicals. It is the most important single fuel source in the world at present.

Crude oil is of little use until it is subjected to refining processes to obtain a variety of products such as gasoline for cars, diesel, fuel for heavy transport, bitumen for road, and paraffin for paraffin lamp. Aside these, are various forms of petrochemicals use in making products as records, plastic, toys, tooth paste, carpet, curtains, detergents, aspiring to mention but a few products.

Omotoso (2010) opines that it is interesting to note that Nigeria is being rated as the Africa's second largest producer of crude oil after Libya, eightieth largest exporter in the whole world and the tenth largest reserves.

Little quantities of crude oil are refined locally while the bulk are exported for refining and later imported to augment locally refined quantities to meet domestic consumption. They are also wholly exported to earn foreign exchange and beef up foreign reserve.

Bjork(1999) defined export as surplus goods and services of a country that are sent to countries in the world for sale. There are two types of export: Visible and Invisible export. Visible implies exports that are tangible and touchable as in the case of crude oil, while invisible connotes exports that are intangible and cannot be seen such as haulage and insurance.

The domestic prices according to Iwayeme (1993) have been under government control since 1973, with Nigerian National Petroleum Corporation (NNPC) as the parastatal whose sole responsibility is the determination of the prevailing international market price and removing 20% of it as subsidy to come up with the domestic price. According to John (2003) growth is an increase in economic variable normally persisting over successive period. The variable concern may be real or nominal and may be measured in absolute or per capita terms. CBN (2010), defines Gross Domestic Product as the money value of goods and services produce in an

economy during a period of time irrespective of the nationality of the people who produce the goods and services. It is calculated without making deduction for depreciation. Gross Domestic Product is classify as real GDP otherwise GDP at constant Basic Prices, GDP at current Market Prices and GDP at current Producers prices. Ogbanje et al (2010) GDP is the total value of output resulting from all productive activities within the domestic economy irrespective of the ownership of the business activities. It is gross because it includes the amount allowed for depreciation or capital consumption. In the views of Uduh (2010), economic growth is symbolize by availability of goods and services in the country, i.e more input and output. It is the process of increasing national output and income per head of a nation.

2.2   Theoretical Literature Review

Premised on the endogenous growth and by extension the notion that there is an endogenous relationship between FDI inflows and domestic growth. Ruxanda and Muraru (2010) examined the linkage between FDI and economic growth in the Romanian economy. The results of their simultaneous equation models showed evidence of bi-directional relationship between FDI and economic growth, implying that incoming FDI enhances economic growth, and in its turn, a higher GDP attracts FDI.

The "cultural distant theory" posited that investors from cultural distant economies avoid entry modes of M&As where they have to accommodate the target firm's national and corporate culture into their own specific and more distant firm culture (Kougut and Singh 1988, Pandmanbhan and Cho 1995, Barkema and Vermeulen 1998, Shenkar 2001). This theory is very relevant because it helps firms to be more cost effective, considering the fact that it would involve more cost and less profit to enter through M&As, hence majority of Asian firms prefer Greenfield investment entry mode.

Borrowing a leave from the export-led growth hypothesis Helpman and Krugman (1985), Krugman (1997) assert that export expansion will increase productivity by offering potential for scale economies. In the same vein Esfahani (1991) posited than export are likely to alleviate foreign exchange constraints and can thereby provide greater access to international market. To Rahmanddi and Ichinashi (2011), export-growth hypothesis implies that an increase in export would lead to an increase economic growth due to potential positive externalities derive from exposure to foreign market. According to Jordan and Eita (2010), the export-led growth hypothesis states that 'the growth of exports has an accelerating influence on the economy through the spillovers of technology and other externalities. Adopting the export-led growth hypothesis, Boame (1988) and Alimi and Muse (2013) in their separate studies of Ghana and Nigeria respectively, using the unit root testing, Co-integration and VAR procedures observed that output growth causes economic growth in both countries.

2.3   Empirical Literature Review

Numerous extant empirical literatures show the nexus between FDI, oil export and economic growth as presented under this sub-heading.

Ayashagba and Abachi (2002) explore the relationship between FDI and economic growth in Nigeria during the periods 1980-1997 and found that FDI has significant impact on economic growth. In a study on the impact of FDI on economic growth in Nigeria for the period of 1970-2001, Akinlo (2004) through his ECM results show that both private capital and lagged foreign capital have little and not statistically significant effect on economic growth. The results seem to support the argument that extractive FDI might not be growth enhancing as much as manufacturing FDI.

De Gregorio (2003) finds that FDI allows a country to bring in technologies and knowledge that are not readily available to domestic investors, and in this way increases productivity growth throughout the economy. Balasubramanyam et al (1996) using cross-sectional data and OLS regressions found that FDI has a positive effect on economic growth in host countries with an export promotion strategy but not in countries using an import substitution strategy.

The result of the study by Dritsaki et al (2004) shows a positive longrun equilibrium relation between FDI and economic growth and a one-way causality between FDI and economic growth running from FDI to growth. Using a co-integration causality approach in their study.

Tang et al (2008) explores the causal link between FDI, domestic investment and economic growth in China between 1988-2003 using the multivariate VAR and ECM. The results indicate that there is bi-directional causality between domestic investment and economic growth while there is a single directional causality from FDI to domestic investment and economic growth.

Ogbokor (2005) examines the role of export and FDI on the growth of Namibian economy from 1991-2001, using a combination of bi-variate and multi-variate variable model the study concludes that FDI and export aid economic growth potentially.

Athukorala (2003)'s study on the impact of foreign direct investment on economic growth in Sri Lanka between 1959-2002 concludes that the regression results do not provide much support for the view of robust link between FDI and growth in Sri Lanka. He posits that the situation is due to lack of improvement in investment climate such as good governance, accountability, political instability and disturbance, bureaucratic inertia among other reasons.

Durham (2004) Fail to establish a positive relationship between FDI and growth but instead suggests that the effects of FDI are contingent on the "absorptive capacity" of host countries. Ayanwale (2007) employ an augmented growth model via the ordinary least square and the 2SLS methods to ascertain the relationship between FDI, its components and economic growth. His result suggests that the determinant of FDI in Nigeria is markets size, infrastructural development and stable microeconomic policy. Openness to trade and available human capital are however not FDI inducing but FDI was found to contribute to economic growth in Nigeria. Ayadi (2009) investigate the relationship between FDI and economic growth in Nigeria between 1980-2007 and finds a very weak correlation and causality between the variables. And recommence that infrastructural development, human capital building and strategic policies towards attracting FDI should be intensified. Osinubi and Amaghionyediwe (2010) investigates the relationship between Foreign Private Investment (FPI) and economic growth in Nigeria for the periods 1970-2005 and find that FPI, domestic investment growth, net export growth and the lagged error term were statistically significant in explaining variations in Nigeria economic growth.

Ayanwale and Bamire (2001) find a positive spillover of foreign firm's FDI on domestic firm's productivity in Nigeria and went ahead to conclude that FDI influences firm's level of productivity in Nigeria. Adelegan (2000) explore the seemingly unrelated regression to show that FDI is pro-consumption and pro-import and negatively related to gross domestic investment.

The majority of these studies are without doubt, unanimous on a positive FDI-growth relationship in Nigeria. However, s similar conclusion cannot be made in the case of the Export-FDI relationship. Moreover, no study linking the role of FDI in the oil export-growth relationship in Nigeria could be cited from available related literature.

However, Greenaway et al (2007), noted that developing countries with progressively more liberal trade policies are the ones with upward ratios of trade and inward investment to national income and with advance growth rates. Fosu and Magnus (2006) examine the long-run impact of foreign direct investment and trade on economic growth in Ghana between 1970 and 2002. Using an augmented aggregate production function growth model and by applying the bounds testing approach to co-integration, they found long-run relationship between growth and its determinants in the aggregate production function model. The consequences of their work pointed toward negative impact of FDI on growth which is a divergence from most past studies. Trade however, was found to have considerable positive impact on growth. This study or work is similar to that of Fosu and Magnus 2006. However, this work focuses on Nigerian economy and has longer time frame as it spans from 1970-2011

From the foregoing review of literature this author is poised to observe that institutional weakness as in the case of the judiciary in Nigeria where glaring evidence abound, could explain in parts the decline of FDI inflow into Nigeria. Equally infrastructural inadequacy or poverty, which will increase cost of production or operation on the part of source MNCS by providing such fundamental infra-facilities in host countries could dampen the attraction of FDI. In addition insecurity – Boko Haram insurgence in the northern part of Nigeria which gained prominence since 2010 could make FDI to nosedive.

On the other hand institutional strength or the formation of functional organs such as Economic and Financial Crime Commission (EFCC), independent Corrupt Practices Commission (ICPC), the establishment of Nigerian Investment Promotion Commission (NIPC) by Decree 16 of 1995, the Export Processing Zone Decree of 1991 as well as the Structural Adjustment Programme of 1986 could be catalyst for attraction of Foreign Direct Investment inflow into Nigeria.

2.4   Theoretical Frame Work

The theoretical frame work of this study is in line with Obwona (2001) which is derive from a neoclassical aggregate production function comprising export. The model equation is stated as follows: $G_y = a_1 + a_2FDI + a_3GDS + a_4OCF + a_5EXGR + a_6AID + \mu$

Where: G_y = Annual growth rate of norminal GDP

FDI = Foreign Direct Investment

GDS = Gross Domestic Savings as proportion of GDP

OCF = Other Capital Inflows

EXGR = rate of growth of real exports

AID = Net current transfers to government plus official long-term borrowing

μ = disturbance term

The inclusion of export in his model could be justify by Osinubi and Amaghionyeodiwe (2010) trade, especially export may increase competition, permit the realization of comparative advantage, enable countries to purchase from abroad and provide opportunities to gain access to new technology as well as managerial skills. Whereas the coefficient of EXGR is expected to be positive, the coefficient of FDI which is its impact on growth is positive by modernization hypothesis and uncertain by dependency hypothesis. Also the coefficients of OCF and AID are uncertain, on the other hand GDS in the model is expected to be positive.

3.0 Materials and Methods

3.1 Methodology

To investigate the impact of foreign direct investment, and oil export on economic growth, the study performed some regression analyses using the ordinary least squares (OLS), Augmented Dickey Fuller (ADF) unit root test and the Johansen co-integration test.

3.2 Model Specification

Based on the theoretical framework presented above and to capture the impact of foreign direct investment and oil export on the growth of Nigerian economy Obwona's model was modified and the model for this study specified as follows:

GDP = F(FDI, EXR, OEX, INF, TON)……………………….1

Using econometrics specification, equation 1 is transformed to have

GDP = $\beta_0 + \beta_1$FDI$+\beta_2$EXR$+\beta_3$ OEX$+\beta_4$ INF$+\beta_5$TON$+ V_t$……………........2

According to economic theory, it is expected that an increase in the level of foreign direct investment will increase the level of economic activities and an increase in exchange rate will hinder the growth of economic activities. Equally, if an economy exports more of it commodities (i.e. oil exports) it is expected that it will help to boast foreign direct investment; and by implication economic growth. On the other hand, the higher the level of inflation the lower the attraction of foreign direct investment. Foreign exchange rate, inflation and trade openness are included because they are significant determinants of Foreign Direct Investment Eravwoke and Eshenake . (2011). Trade openness is import plus export over GDP.

On a priori ground the various theoretical expectations explatined above are: β_0,β_1,β_3 and β_5>O. while β_2 and β_4 <O

3.3 Definition of Variables

The variables used in the model are defined as:

GDP = Real Gross Domestic Product
FDI = Foreign Direct Investment
EXR = Exchange Rate
OEX = Oil Export
INF = Inflation
TON = Trade Openness

3.4 Data Sources

Data used for the study were obtained from secondary sources, precisely the Central Bank of Nigeria Annual Report and Statement of Account, as well as the Central Bank of Nigeria Statistical Bulletin for various years. The study employs Nigerian Annual time series data from 1970-2011.

4.0 Results and Discussion

The current specification and estimation of model requires that the time series properties of the data be tested in order to determine whether or not the variables contain integrated components. Hence, the study used the standard Augmented Dickey-Fuller (ADF) test (Dickey and Fuller, 1981). This is in preference to the alternative nonparametric test. proposed by Philips and Perron (PP) (1980) as the PP has been found to have poor size properties (i.e. the tendency to over reject the null hypothesis when it is true (Robinson and Okowa 2011).

4.1 The Unit Root Test Results

Most times series data are not stationary and using such data in the model might result to spurious regression (Granger, 1969). Variables can be stationary at levels 1(0), or after first difference 1 (1), depending on the value of Augmented Dickey Fuller test statistics and the critical value at 1 per cent, 5 per cent or 10 per cent level of significance. A variable that is stationary after first difference at 5 percent is said to be integrated of order 1 at 5 per cent level of significance.

The summary of the Augmented Dickey Fuller (ADF) unit root test is presented below:

Table 1: Summary of ADF Unit Root Test

Variables	Levels Data	1st Difference	1% Critical Value	5% Critical Value	10% Critical value	Status
GDP	0.310913	-4.204969	6067	-2.9378	-2. 6069	1(I)
FDI	-3.085838	-10.12278	-3.6067	-2.9378	-2. 6069	I(I)
EXR	-0.021346	-3.858500	-3.6067	-2.9378	-2. 6069	I(I)
INF	-3.835526		-3.6019	-2.9358	-2.6059	I(0)
OEX	-2.840384	-6.113728	-3.6067	-2.9378	-2.6069	I(1)
TON	-0.747808	-5.277581	-3.6067	-2.9378	-2.6069	I(1)

Source: Author's Calculation using e-views

The unit root test results revealed that all the variables except one were not found stationary at levels. This can be seen by comparing the observed values (in absolute terms) of the Augmented Dickey Fuller (ADF) unit root test statistics at 1 percent, 5 percent and 10 percent levels of significance. In the table above, the result shows that Gross Domestic Product (GDP), Foreign Direct Investment (FDI), Exchange Rate (EXR), Oil exports (OEX) and Trade openness (TON) are all stationary after taking their first difference. Since all these stated variables were stationary at first difference except one, on the basis of this, the null hypothesis of non-stationary is rejected and it is safe to conclude that the variables are stationary. This implies that the variables are integrated of order one i.e. I(1). For inflation (INF) the result came out different, the variable was stationary at levels that is order of one i.e. I(O). The long run relationship among the variables was examined using Johansen (1997) co-integration framework. The results of the co-integration test are reported below:

4.2 Johansen Co-Integration Test Result

The Johansen co-integration test result which is the existence of a long-term linear relationship is presented in table 2 below, adopting trace statistics and maximum Eigen value using methodology proposed by Johansen and Juselius (1990).

Having confirmed the stationary of the variables at I (1), we proceed to examine the presence or non-presence, co-integration among the variables. When a co-integrating relationship is present, it means that the variables have long run relationship. The co-integration test result likelihood ratio (LR) indicates two co-integrating equations. This confirms the existence of long-term relationship among the variables.

Table 2: Johansen Co-Integration Tests Result

Eigen Value	Likelihood Ratio	5 Percent Critical Value	1 percent Critical Value	Hypothesized No. of CE (S)
0.700561	121.1437	94.15	103.18	None **
0.537647	72.90990	68.52	76.07	At most 1*
0.438426	42.05286	47.21	54.46	At most2
0.275774	18.97241	29.68	35.65	At most 3
0.139520	6.066333	15.41	20.04	At most 4
0.001393	0.055758	3.76	6.65	At most 5

Source: Author's Calculation using e-views

*(**) denotes rejection of the hypothesis at 5% (1%) Significance Level

The likelihood Ratio (L.R.) test indicates 2 co-integrating equation (s) at 5% significance level. The Johansen co-integration test reveals that the likelihood ratio (LR) rejects the null hypothesis of no co-integration and accepts the alternative hypothesis that long run relationship exists among the variables.

Conclusively, the results show that oil export and macroeconomic stability are important determinants that can influence the level of foreign direct investment and economic activities in the Nigerian economy.

TABLE 3: Short Run Result of GDP and Foreign Direct Investment, Exchange Rate, oil Export, Inflation and Trade Openness.

Summary of Ordinary Least Square/Short Run Regression Result.

Dependent Variable GDP

Variables	Coefficient	Std Error	t-statistic	Prob
FDI	0.015702	0.012860	1.221004	0.2300
EXR	2164.072	479.9340	4.509104	0.001
OEX	-0.284825	0.114687	-2.483505	0.0178
INF	1694.131	738.4227	2.294256	0.0277
TON	0.058094	0.017908	3.244135	0.0025
C	263217.6	71309.03	3.691223	0.0007

R^2=0.875180　　F-statistic=50.48307　　Prob(f-statistic)=0.0000000

Adjusted R^2=0.857844　　D.W-statistic=2.671689.

Source: Author's calculation using e-views

The short run result shows that 87 percent of the total changes in the economic activities have been explained by foreign direct investment, inflation, exchange rate, oil export and trade openness taken together. This suggests a nice fit as the unexplained variation is just 12 percent. The F-test/statistic with a value of 50.48307 and probability of 0.0000000 suggests that foreign direct investment, Exchange Rate, Oil Export, Inflation and Trade openness are important factors to be taken into consideration when explaining the changes in the level of economic activities in Nigeria. This indicates a rejection of the overall hypothesis (which states that there is no significant relationship between foreign direct investment, oil export and the Nigerian economy and the acceptance of the alternative hypothesis.

The t-test with a value of 1.221004 and probability of 0.2300 suggests that Foreign Direct Investment is not statistically significant in explaining the level of economic growth in Nigeria, the implications of this is that the level of foreign investment in the Nigerian economy is not large enough to translate into effective growth of the economy. Some factors that could be responsible for this include youth restiveness, oil theft or bunkery and non-conducive environment for effective investment, to mention but a few factors. This is in agreement with the work of Eravwoke and Eshenake (2012) who found out that Foreign Direct Investment does not granger cause growth in Nigeria, especially with poor external image problem, and particularly the concept of European economic union that include eastern Europe. This translates to the fact that investment flows that would ordinarily have come from countries of surplus capital like western Europe to capital deficiency countries like Nigeria would now be going to poor European economic communities, which include Eastern Europe. Equally, they reasoned that investment needed to be allowed some time lag to translate to any significant impact on growth. Also exchange rate with a value of 4.509104 and probability of 0.0001 suggest that the rate of exchange of one currency with another is a significant factor that can translate into efficient economic growth/development of Nigeria. The t-statistics in the short run result on oil export with a value of -2.483505 and probability of 0.0178 is statistically significant in explaining the level of increase in Gross Domestic product (GDP) of the economy as a whole. The implication of this is that the revenue Nigeria gets from the exportation of crude petroleum product contributes to the growth and development of the Nigerian economy. The negative sign could be explained by the fact that part of the oil export, are merely to refine the product abroad and there after import it into the country for domestic consumption. The significance of the oil export on the Nigeria economy is in line with the work of Gbadebo (2008) who concludes that despite significant effect of crude oil export on the growth of Nigerian economy it has not significantly improved the growth of the economy due to many factors like misappropriation of public funds (corruption) and poor administration.

lastly inflation and trade openness with the values of t-statistic of 2.294256 and 3.244 135 as well as probability of 0.0277 and 0.0025 respectively, suggest that the variables are statistically significant in explaining the level of changes in the level of economic activities (GDP) of the Nigerian economy.

The value of the F-statistic with a value of 50.48307 shows that the model or equation has a good fit, this signifies that the explanatory variables are good explainers of changes in economic growth in the Nigerian economy.

The Durbin Wastson (DW) test statistic with a value of 2.671689 indicates non existence of positive first order serial correlation. The implication is that the estimates and influences drawn are reliable.

5.0 Conclusion, Recommendations and Policy Implications

5.1   Conclusion

The study explored the association between foreign direct investment, oil export and the Nigeria economy. The broad work of this study is based on the critical examination of some key variables as related to economic development. The general objective of this work is to analyze the impact of foreign direct investment, oil export and the Nigerian economy and the hypotheses formulated is that there is no significant relationship between FDI, oil export and the Nigerian economy.

From the results, the ADF unit root test shows that all the variables GDP, FDI, EXR, OEX and TON are stationary after taking their first difference i.e I(I) and for inflation it become stationary at levels i.e I (O). The study equally reveals that the Johansen co-integration test indicates two (2) co-integrating equations at 5% significance level.   The variables were estimated using the ordinary least square (OLS) estimation method to derive the relative regression coefficient, Augmented Dickey Fuller (ADF) unit root test, and the Johansen co-integration test.

5.2   Recommendations

Evident from the finding of this study calls for conscious and deliberate attention and action to make the variables tested in the course of this work more additive to economic activities/growth. Consequently this paper is posed to advance the following:

(a)   the trade liberalization policy enunciated under the structure adjustment program in 1986, should be pursued with more vigor and consistency so as to increase the openness of the economy.

(b)   there should be an improvement of the business environment through government conscious effort by way of providing economic and social infrastructure, in order to lower the cost of doing business and encourage or attract foreign direct investment into Nigeria.

(c)   government should develop code of conduct on FDI not only to curb the restrictive business practice by multi Nationals but to limit the repatriation of profits from the country by foreign firms and ensure re-investment of the profit into the Nigerian economy.

(d)   there should be improvement in institutions to make them more functional reduce the level of corruption as well as, political, social and religions crises to ensure stable government and guarantee the sustainability of democratic rule free from unwarranted changes, or intervention by the military.

5.3 Policy Implications

a. policy frame work to encourage and improved domestic investment rather than relying on foreign investment as a prime mover of the economy to accelerate growth is required.

b. the local contents requirement requires revisiting, so as to repackage it to ensure greater participation by domestic investors.

c. policy makers should appreciate the effects of lag in order to ensure appropriateness in the timing of policies so that such policies are evaluated at the right time to ascertain their positive effects on the economy.

d. there is the urgent need not only to rehabilitate existing refineries but to build more refineries and stop the export of crude oil for refining before importing same for domestic consumption. By extension this will create jobs and increase the level of economic activities.

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