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Abstract
Economic Development of any nation depends on the efficient use of available resources and the integrity of people entrusted with the management of those resources. This paper investigated the impact of the Management of derivation funds accruable to Niger Delta States and how it affects Economic Development of Nigeria. The study employed a descriptive research design and made use of Ordinary Least Squares (OLS) technique to test the hypothesis. The time series data used covered a period from 1981 to 2016 and were collected from the Central Bank of Nigeria (CBN) Statistical Bulletins and World Bank reports. The data gathered were on Real Gross Domestic Product (RGDP) which is the dependent variable and Niger Delta States Derivation Funds (NDSDF) as the explanatory variable. The regression result revealed a positive relationship between the RGDP and NDSDF. The study also found evidence that NDSDF has significant positive impact on the RGDP. These findings led to a conclusion that the lack of infrastructures and other physical evidences of Economic Development in the Niger Delta States have been as a result of mismanagement of funds and embezzlement. If the derivation allowance is well utilized the economic well-being of the people in the area will improve and the clamour for resource control will cease.

Keywords: economic development, real gross domestic product, Niger Delta, derivation fund

1. Introduction
The States in Nigeria classified as Niger Delta States of Nigeria comprise Abia, Akwa Ibom, Bayelsa, Cross River, Delta, Edo, Imo, Ondo and Rivers. The region lies between Latitudes 4° and 6° North of the Equator and Longitudes 5° and 9° east of the Greenwich Meridian (Tamuno, 2008). The entire Niger Delta region covers an area of over 70,000km² of the coastal borders of the country and constitutes the largest river delta in Africa, the third largest wetland in the world after Mississippi and Pantanal, and the most extensive mangrove forest regions in the world (Eyinla & Ukpo, 2006; World Bank, 1995). Due to the natural endowments of the region, the inhabitants engage more in occupations such as farming, fishing, hunting pottery, mat-making, such that they accounted for a large percentage of Nigeria’s commercial fisheries industry (Afinotan & Ojakorutu, 2009; Asua, 2013; Okonkwo & Etemire, 2017). Over fifty years ago, crude oil was discovered in commercial quantity in the Niger Delta by Shell Petroleum Development Company in the place called Oloibiri, Bayelsa State in 1956. Since then and following the discovery of over 35 billion barrels of proven crude oil reserve, the area has been subjected to oil exploration and exploitation (Afinotan & Ojakorutu, 2009). The crude oil exploration from the Niger Delta region has accounted for more than 75% of Nigeria’s export earnings and about 80% of the national gross income (Amnesty International, 2009; Federal Government of Nigeria, 2008). Due to ecological problems, environmental degradation and pollution caused by oil drilling activities in the Niger Delta States, derivation allowance was introduced to ameliorate the effect of the crude oil exploration in the area. During the administration of Sir Abubakar Tafawa Balewa (1960-1965) the allowance to the region was 50% of the oil revenue and it was fully implemented (Forward Nigeria Movement, 2016). Between the periods of 1967 to 1981, the derivation allowance ceased. In the 1990s it declined to 1%, until the current 13% which is contained in S.162 (2) of the 1999 Constitution of the Federal Republic of Nigeria (FRN) as amended (FNM, 2016). The problem in the Niger Delta region is not just the derivation allowance, but the usage
of this derivation fund which the Federal Government of Nigeria allocates to the area on a monthly basis. The lack of Economic Development in the area has led to arms carrying and agitations and protests by the youths in various ways including kidnapping of expatriates, pipeline vandalism and robbery (Amnesty International, 2009). The establishment of Oil Mineral Producing Areas Development Commission (OMPADC) and its subsequent replacement by Niger-Delta Development Commission (NDDC) were attempts by the Federal Government to encourage Economic Development in the Niger Delta region (Mukhtar, 2014). The Elites in the region have kept demanding for increase in the derivation allowance, while the common people in the area are soliciting for economic development which has eluded the area despite the derivation fund and federal allocations accruing to the states on monthly basis (Akinola & Adesopo, 2011). This lack of economic development in the Niger Delta States has been attributed to corruption, party patronage, embezzlement, misappropriation of public funds and greed (Akinola, Ayee, 1999, 2006; Devas & Grant, 2003; Galooba-Mutebi, 2004; Makara, 2000; Olowu, 2006; Wunsch & Ottemoeller, 2004). The people in the Niger Delta region are currently agitating and clamoring for total resource control by themselves as a perfect way of actualizing fiscal decentralization in Nigeria (Mukhtar, 2014). Arif and Ahmad (2017) posit that fiscal decentralization has some potential risks that can adversely affect Economic Growth and Development. Also stressing that, central agencies and controls will be lost and opportunities for more grievous corrupt practices will be created.

Many studies on Niger Delta Derivation allowance have focused on the theoretical and constitutional analysis of the principle and the problems in the area (Adangor, 2015; Afinotan & Ojakorotu, 2009; Eyinla & Ukpo, 2006; Okonkwo & Etemere, 2017). Similar empirical studies were focused on the impact of oil revenue on economic growth and development (Alvarez, Sanchez & Urtasun 2017; Baghebo & Atima, 2013; Hassan & Addullah, 2015; Nweze & Edame, 2016; Odular, 2008; Offiong et al., 2016). There has not been an empirical study on how the derivation funds affect economic development of Nigeria. This study therefore examines the impact of the management of the derivation funds that has accrued to the Niger Delta States on economic development measured by Real Gross Domestic Product (RGDP) in Nigeria.

1.1 Hypothesis

The following null hypothesis is formulated to drive the study:

H01: The Derivation Funds Accruable to Niger Delta States (NDSDF) does not have significant impact on Real Gross Domestic Product (RGDP) of Nigeria.

2. Literature Review

2.1 Conceptual Review

2.1.1 Concept of Derivation Principle

The principle of derivation was initially recommended by the Phillipson Commission of 1946 as the yardstick for revenue sharing in Nigeria. Derivation principle means that the proportion of revenue receivable by State Governments from the central pool (Federation Account), must be in the same proportion with their contribution to pool (Abubakar, 1986; Ashwe, 1986; Okunrounmu, 1999). The underlying reason is that, the people in the area where the revenue is being derived from must have suffered some form of economic and health loss or the other and should be compensated for it (Abubakar, 1986). The principle therefore does not give any State right to resource control or governance (Adangor, 2015). The principle does not only apply to the oil/gas producing states (Niger Delta States) but to all States with solid minerals that generate income to the Federal Government. Although the income from solid minerals in the North presently is very insignificant (Adangor, 2015).

2.1.2 Economic Development as Measured by RGDP

Economic development connotes the improvement of economic well-being of countries, regions or communities for the comfort of their inhabitants (Salmon, 2011). According to Adams (2006) it is the eradication or reduction in poverty, inequality and unemployment within a growing economy. RGDP is inflation-adjusted gross domestic product, measuring the value of finished goods and services at constant base year prices (Investopedia, 2017; My Accounting Course, 2017). Economic development is well measured by RGDP by countries for comparison and to easily assess the economic health of a country, hence the adjustment for inflation or deflation.

2.2 Theoretic Review

The Endogenous economic growth theory by Roma (1994) is the theory underpinning this study. The theory supports government policies that encourage economic development and also stresses on human capital development, innovation and knowledge management. It holds strongly that education has positive spillovers that can grow an
economy. In an economy where education of young people and skill acquisition are given priority attention, arms carrying and militancy will not be seen because a well cultured and educated mind will know the value of life and property and will help to preserve them. This is why endogenous theory encourages all government policies that can improve the economy especially human capital development due to its positive externalities that lead to economic development.

2.3 Empirical Review

2.3.1 Foreign Studies

Torben (2012) examined the economic impact of natural resource endowment using quantitative comparative case study and focusing on Norwegian economy. The discovery of oil in Norway in 1971 has increased the GDP per capita by at least 20%. The secondary data used for the study covered the period from 1971 to 2007 and were obtained from Norway Statistics website and US Energy Information Administration (EIA). To achieve the objective of the study, several statistical tests were carried out including sensitivity test, robust test and dose-response test. The findings revealed that about 20% of the annual GDP per capita increase is due to the endowment of petroleum resources such as oil, natural gas, natural gas liquids and condensate.

Hassan and Addullah (2015) used linear regression and ordinary least square (OLS) methods to assess the impact of oil revenue on the service sector GDP of Sudan for the period 2000 to 2012. The variables used were the service sector contribution to Gross Domestic Product (which is the dependent variable) and the oil revenue (OR) as the independent variable. The study stressed the problem of the shift from Agriculture and Industry to Service Sector such that 50% of the developing countries’ GDP is from the services sector. This implies that the economic growth in Africa is heavily reliant on services sector. The GDP in Sudan’s economy is made up of agricultural, industrial and services sectors. The specific objective of the study was to investigate the impact of oil revenue on the service sector GDP. The data used for the research were gathered from the annual reports of Central Bank of Sudan. The findings indicated that oil revenue contributed about 78.8 percent of variation in GDP between 2000 and 2012. A causal relationship between oil revenue and GDP was found and oil revenue has significant positive impact on GDP.

Alkhateeb, Sultan and Mahmood (2017) studied the relationship between oil revenue and employment level by augmenting two variables such as Gross Domestic Product (GDP) and public spending for a period 1991 to 2016. The study was concerned about the over dependence of Saudi Arabia on oil sector which serves as the major employer of labour in the country. The time series data employed for the research were obtained from SAMA an UNCTADSTAT. The predictor variables were the oil revenue (OR), Gross Domestic Product (GDP) and Public Spending (GEXP) while the dependent variable was the number of labour employed (N). The regression results indicated that oil revenue and public spending are boosting employment level in Saudi Arabia. As a result the decline in the oil prices globally might have adverse effect on the economy especially as it concerns employment. The study suggested that the government should diversify the economy and reduce over dependence on oil sector.

Alvarez, Sanchez and Urtasun (2017) examined the effect of oil prices variations on Spanish inflation using a time series data which spanned from 2002 to 2016. The study considered the effect of increase in oil prices on the consumer price index of the major consumer goods and services which are vehicle and heating fuel. The research employed t-statistics, coefficients and charts to determine the extent to which oil price changes affect consumer fuel prices for vehicle and heating. The evidence the study provided revealed that the CPI components tied to heating and vehicle fuel were substantially and adversely affected by the fluctuation in oil prices in Spain. The study suggested that the absence of fresh shocks in the oil prices might help to temporarily force down the prices of these consumer goods and services.

2.3.2 Studies in Nigeria

Oduluru (2008) researched on the relationship between the crude oil sector and the economic performance in Nigeria. The study made use of Cobb-Douglas Production function. The dependent variable was the Real Gross Domestic Product (RGDP) while the explanatory variables include the crude oil price, external reserve, domestic consumption and crude oil export. The time series data used covered the period from 1970 to 2005 and were obtained from the Central Bank of Nigeria (CBN) Statistical Bulletin. The Ordinary Least Squares (OLS) technique was applied and the regression result revealed that crude oil consumption and export had contributed to the improvement of the Nigerian economy. The study suggested the formulation and implementation of government policies that could encourage the involvement of private sectors in the crude oil sector.

Baghebo and Atima (2013) investigated the impact of petroleum on economic growth in Nigeria using Augmented Dickey Fuller test, Johanson co-integration test and Parsimonious Model. The study was concerned about the
adoption of the Petroleum Industry Bill of 2012 that could give hope to Nigerian people. Emphasizing that since the discovery of oil in the Niger Delta in Oloibiri, Bayelsa State in 1956 by Royal Dutch Shell, the Oil Industry has been flawed by corrupt military and civil rule that have been known for their political and economic strife. Time series data covering the period from 1980 to 2011 were collected on Real Gross Domestic Product (RGDP) which was the criterion variable and on the predictor variables which include: Foreign Direct Investment (FDI), Oil Revenue (OIL), Corruption Index (CI) and External Debt (EXDEBT). All data were sourced from the Central Bank of Nigeria Statistical Bulletin and Transparency International Agency. The findings revealed that oil revenue and corruption index had negative impacts on RGDP, while FDI and EXDEBT had positive impact on the RGDP. The study concluded that the passing and implementation of Petroleum Industry Bill will restore hope for the Nigerian nation.

Nwaze and Edame (2016) studied the impact of oil revenue on economic growth in Nigeria. The study addressed the problem of overdependence on oil and lack of attention to other economic sectors of the country. The Federal Government’s revenue consisting of over 80% of oil revenue (World Bank, 2013) was indeed a problem. The study made use of time series data obtained from Central Bank of Nigeria Statistical Bulletin covering the period from 1981 to 2014. The data were obtained on GDP (dependent variable) and on the explanatory variables (Oil Revenue and Government Expenditure). Using Augmented Dickey Fuller Unit Root Test, Johansen Co-integration Test and Error Correction Mechanism (ECM), the study found evidence that all the variables had significant negative impact on the GDP but government expenditure which also exerted negative impact on GDP was not significant. The study therefore, suggested that the government should invest in other sectors such Agriculture and Manufacturing using the revenue derived from the oil resources. This could help to boost economic growth in Nigeria.

Offiong, Atsu, Ajiaude, and Ibor (2016) assessed the impact of oil price fluctuation on economic growth and development of Cross River State in Nigeria. The inability of the State to cope with its expenditure responsibilities due to the oil prices fluctuation in Nigeria which has reduced Federal allocations to the states motivated the study. The study employed an ex-post facto research design and the secondary data obtained covered periods from 2006 to 2014. The data were gathered from the CBN annual reports, the Cross River State Department of Budget, Office of the Accountant General and the State Planning Commission. The dependent variables used was Gross State Product (GSP) while the independent variables consisted of Average Crude Oil Price (ACOP), Average Crude Oil Production quota for the country (ACOPQ), allocation from Federation account (FAAC), the state total internally generated revenue (TIGR) and the total expenditure (TEXP). The regression result of the analysis revealed that ACOP, FAAC and TEXP had negative but insignificant impact on GSP while the rest variable had no impact on the GSP. The study suggested that the economy should be diversified and wastage of resources avoided.

3. Methodology
The study adopted descriptive research design which allows numerical collection of research data on variables for statistical analysis in the manner that they naturally occurred. The secondary data used in this research were obtained from the Central Bank of Nigeria (CBN) Statistical Bulletin and World Bank from 1981 to 2016. The data gathered were on Real Gross Domestic Product (RGDP) being proxy for economic development, and on the predictor variable which is the Niger Delta States Derivation Fund (NDSDF). The statistical tool for analysis was Ordinary Least Squares (OLS) Technique. The data were captured on excel sheet and analysis done with the Statistical Package for Social Sciences (SPSS) software.

The model specification for the study is:

\[ \text{RGDP} = f (\text{NDSDF}) \]

This is mathematically stated as follows:

\[ \text{RGDP} = \beta_0 + \beta_1 \text{NDSDF} + \epsilon \]

Where:

- RGDP = Real Gross Domestic Product
- NDSDF = Niger Delta States Derivation Fund
- \( \epsilon \) = Error term
- \( \beta \) = Intercept
- \( \beta_1 \) = Coefficient of the independent variable
4. Result and Interpretation

Table 1. Result on the impact of NDSDF on RGDP

<table>
<thead>
<tr>
<th>Variable/Test Statistics</th>
<th>Test Result</th>
<th>Test Result for Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>21028.717</td>
<td></td>
</tr>
<tr>
<td>NDSDF</td>
<td>31.107</td>
<td></td>
</tr>
<tr>
<td>R</td>
<td>0.859</td>
<td></td>
</tr>
<tr>
<td>R^2</td>
<td>0.739</td>
<td></td>
</tr>
<tr>
<td>Adjusted R^2</td>
<td>0.731</td>
<td></td>
</tr>
<tr>
<td>Std. Error of the Estimate</td>
<td>9417.53495</td>
<td></td>
</tr>
<tr>
<td>Durbin Watson</td>
<td>0.892</td>
<td></td>
</tr>
<tr>
<td>F-Statistics</td>
<td>96.026</td>
<td></td>
</tr>
<tr>
<td>P-value of F-test</td>
<td>0.000</td>
<td></td>
</tr>
<tr>
<td>T-Statistics</td>
<td>9.799</td>
<td></td>
</tr>
<tr>
<td>P-value of T-test</td>
<td>0.000</td>
<td></td>
</tr>
</tbody>
</table>

Sources: Result of Researchers’ Statistical Analysis

The Table 1 above shows the result of the impact of NDSDF on RGDP. The correlation (R) is 85.9% revealing the existence of high association between the NDSDF and RGDP. In the same vein the coefficient of determination (R^2) which is 73.9% showing the extent to which NDSDF determines the level of variation in RGDP is very high too. The p-value of F-statistics which is 0.000 < 0.05 indicates that the model is a good fit and statistically significant. However, the t-test used for test of hypothesis shows that NDSDF has a significant positive impact on RGDP (0.000 < 0.05). Therefore, the null hypothesis which states that NDSDF does not have significant impact on RGDP is hereby rejected and alternative which specifies otherwise accepted.

4.1 Discussion on Findings

The findings from the result that emerged from this study has shown that the derivation allowance to the Niger Delta States for these number of years reviewed is capable of developing the Niger Delta region in particular and Nigeria at large if properly utilized. This anchored on the belief that with increased development in the region, there will be an enduring peace, giving room for more economic activities and in turn more revenue for the nation. The impact of this derivation funds on real gross domestic product is very significant and positive, meaning that the original intention of the fund is to boost economic development in the area which will have multiplier effect on other parts of the country thereby enhancing economic development. However, due to mismanagement of fund, embezzlement and corruption the expected impact is not backed up by physical evidences, that is why the common people in the area are still crying for development because they have not witnessed any one. According to the communities in the Niger Delta States, there are no infrastructures to reckon with. They equally alleged that the governors are embezzling the derivation funds and embarking on projects that are not beneficial to the common man in the area (Nuruddeen, 2014; Oyibode, 2017).

5. Conclusion and Recommendations

This research has the intention of making recommendations that could be helpful in policy making in the Nigerian system. One of the suggestions is the regular audit by reputable audit firms, of the Niger Delta Development Commission (NDDC) established to oversee and carry on capital projects that will benefit the Niger Delta region. The audit should be done by firms with no Nigerian affiliation for the purpose of independence and objectivity of audit practice. The Federal government should engage in taking inventory of abandoned capital projects and completed ones. For the abandoned ones, the contractors should be brought to book or where lack of fund is justified should be encouraged to finish the work. The quality of the completed projects should be investigated in line with value for money audit. Substandard jobs should be reviewed and followed with disciplinary action on contractors in question and government officials involved in the approval. This study will benefit the policy makers in Nigeria who...
will ensure that the derivation allowance to the Niger Delta States will be well managed to develop the area and improve the living standard of the people. If the recommendations are implemented by the government, the common people and communities in the Niger Delta States will no longer clamour for economic development, since the derivation allowance is capable of mitigating the effect of oil exploration in their region and also provide them with adequate infrastructures.

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