THE EFFECTS OF BUDGETARY ALLOCATIONS ON EDUCATION SECTOR REFORM AGENDA: EVIDENCE FROM NIGERIAN PUBLIC SECTOR

ABADA UCHECHUKWU DANIEL (ACIB, ANIM)
Department of Banking & Finance
Madonna University,
Okija Campus, Nigeria
ucheabada@yahoo.com, +2348023862353

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OKUMA NWACHUKWU CAMILLUS
Department of Banking & Finance
Madonna University,
Okija Campus, Nigeria
Okumanc73@gmail.com, +2348034076419

&

UGWU KEVIN OKOH (ANIM)
Department of Accountancy
Enugu State University of Science & Technology,
Enugu, Nigeria.
kevinugwu@ymail.com, +2348036735211

ABSTRACT
This study examined the effects of budgetary allocations on public sector reform agenda in Nigeria. In particular, allocations to educational sector were examined in order to determine whether they have positive impact on literacy rates of the citizenry. The relevant literature to the study was reviewed to identify and fill the existing gap. The data were presented and analyzed using trend analysis to show the increases and decreases in data trend as well as interactions between variables. The findings revealed that the Federal Government budgetary allocations to the educational sector do not have a positive and significant impact on the citizens’ literacy level. Also, it revealed that there is a positive relationship between literacy rate and economic growth in Nigeria.

Keywords: Reforms, Education, Public sector, budgetary allocations.

INTRODUCTION
According to the European Commission (2002), “the quality of management of public finances in Nigeria represents the principal constraint on development”. It was against this backdrop that the federal government of Nigeria under Olusegun Obasanjo embarked on far reaching economic reforms designed to deliver sustainable economic growth, wealth creation and improve the quality of life of the average Nigerian.

The economic management reforms which is an integrated package of various economic reforms was kick started in 2004 of which include educational sector reform. Under the educational sector reform, there was a restructuring of some government agencies/institutions and an increased focus on service delivery (Olaopa, 2013). The reforms in this area have given rise to a number of bills and Acts such as the education reform act of 2007.
The public sector refers to all organizations that exist as part of government machinery for implementing policy decisions and delivering services that are of value to citizens. It is a mandatory institution under the Nigerian Constitution of 1999. However, reforms in educational sector in Nigeria were conceptualized as the main vehicle for accelerating individual, community and national developments (Kazeem and Ige, 2010). It was embarked upon to ensure the acquisition of both physical and intellectual skills to enable individuals to develop into useful members of the society. The education reforms was embarked upon to improve efficiency, by speeding up both individual and national development and in turn, should translate to improved economic and development indicators such as per capita, GDP, Citizen Welfare in terms of life expectancy, availability of other social services, as well as good business climate needed to improve the economy (Soludo, 2003).

Despite the tremendous efforts and resources allocated to reforms, little progress has been made and the country has not come close to her goal of developing and transforming the society to the same standard as developed countries (Lawanson and Adeoye 2013). Adult literacy is still low and other services to the ordinary citizens have not seen appreciable improvement. This may therefore needs to be done so that the objectives of the education reforms can be achieved.

The objectives of the study are:
1. To determine the impact of budgetary allocations to the educational sector on Literacy level in Nigeria.
2. To ascertain the relationship between literacy rate and economic growth in Nigeria.

This study is guided by the following questions:
1. What is the impact of budgetary allocations to the educational sector on Literacy level in Nigeria?
2. What is the relationship between literacy rate and economic growth in Nigeria?

STATEMENT OF RESEARCH HYPOTHESES
- Budgetary allocations to the educational sector do not have a positive and significant impact on Literacy level in Nigeria.
- There is no positive relationship between literacy rate and economic growth in Nigeria.

This study seeks to establish how increase in budgetary allocation could achieve the economic objective of improved literacy rate, poverty reduction and economic growth in Nigeria. The research also seeks to evaluate the relationship between total government expenditure and per capita GDP. The study is intended to be useful as a guide to policy makers in implementation of public sector reform. It will also provide useful insight for academic administrators on the dynamism of education and the role it plays towards achieving the objectives of any economic reform process.

The scope of the study is the federal republic of Nigeria. The education reform act 2007 and fiscal Responsibility Act 2007 are acts of the federal Republic Nigeria. Sections 17 and 54 of the fiscal responsibility act provide that states and local governments that wish to implement the provisions contained therein may receive assistance from the federal Government. This implies that the Act is not binding on the states and local governments. Therefore, in line with the objectives set out in this study, the macro-economic indices used for this study are the GDP, adult literacy rate, Federal government expenditure, and budgetary allocations to the relevant sector. The period of the study is from 1999 to date which so far has remained the longest democratic dispensation in the history of Nigeria.

This study therefore, will focus on the effect of budgetary allocations on education sector reform agenda.

REVIEW OF RELATED LITERATURE
Theoretical Framework
Several theories have provided the theoretical underpinnings of public sector reforms and have helped shape its ideas. The theory considered suitable for this study is “the fund theory”.

The system is used by non-profit organizations, particularly governments. Because there is no profit motive, accountability is measured instead of profitability. The main purpose here is stewardship of financial resources received and expended in compliance with legal requirements. Financial reporting is directed at the public rather than the investors. The accounting equation is Assets = Restrictions on Assets. Funds are established to ensure accountability and expenditure for designated purposes. Revenues must be
raised and expended in accordance with special regulations and restrictions. Budgets are adopted and recorded in the accounts of the related fund while contractual obligations are given effect in some funds.

**Theoretical/Conceptual Review**

The budget documents the direction of government policies and spending priorities for a financial year, including details of expected revenue and expenditure. The law requires the President to present the Federal Government’s budget to the National Assembly for approval. By law, it covers a stated period, called a financial year, which in the Nigerian case, runs from 1 January to 31 December every year. The Budget is therefore the Federal Government’s instruction for delivering essential public goods and services, such as education, healthcare, infrastructure and national defence to its citizens to meet their social and economic needs (Okonjo-Iweala and Osafo-Kwaako, 2007). To provide these goods and services and generally carry on the business of governance, government needs to plan its financial activities and come up with detailed spending plans (King, 2003). As a statement of government’s policy direction and spending priorities, the Federal Budget also affects the (a) general price level of goods and services in the economy (b) interest rates at which individuals and businesses can borrow money (c) exchange rate of Naira against other currencies and (d) the rate at which the economy grows. These are some of the major factors, or ‘macroeconomic variables’, which affect the wellbeing of the economy as a whole and by extension the social and economic wellbeing of the citizenry.

The responsibility for the Federal Budget is shared between the executive and Legislature, which are two of the three arms of the federal Government. The Constitution requires the President to submit a budget for the next financial ear to the National Assembly for approval. While the Executive is responsible for preparing the Budget, the Legislature approves it. These plans indicate what the Government intends to do to reduce poverty, generate wealth and create jobs (Bunse and Firtz, 2012). As the preparation of the budget is done against the background of these development plans, it serves as a policy tool for attaining the immediate, medium and long-term development goals of Government.

**Concept of Public Sector Reform**

Public sector reform is one of the elements of economic reforms. Public sector reform has in the past focused on structural reforms and capacity building. However, the focus now is the need for governments to demonstrate quality improvements and value for money in public services (NEEDS, 2004). It is an integrated package of reforms that may include financial reforms, public service reforms and workplace relations (Okonjo - Iweala, 2012).

Public sector reform is a process in which the private sector styles of management approaches are introduced into the public sector; this has come to be termed New Public Management (Lane, 2000). New Public Management has become a trend and its ideas have come to be regarded as universal and as being applicable everywhere, regardless of the special circumstance of different countries or regions of the world.

The techniques associated with New Public Management including accrual accounting, have now become generalized in the sense that they are now seen to be how public sector entities in general should be managed, controlled and structured (Walter, 2003). They have become apolitical and are now promulgated and defended on the basis of technical expertise rather than on their ideological considerations (Ellwood and Wynne, 2003).

**Education Sector Reform**

Education sector reform in Nigeria is conceptualized as the main vehicle for accelerating individuals, community and national development for accelerating individual, community and national development. Education is a mechanism through which the society generates that knowledge and skills required for its survival and sustenance. It improves the quality of their lives and leads to broad social benefits to individuals and society. It is against this backdrop that Education Act of 2007 was enacted.

The purpose for which this Act was enacted is:

- The inculcation of permanent literacy and numeracy, and the ability to communicate effectively;
- To develop and project Nigerian culture, as well as universal and cultural heritage;
- The acquisition of both physical and intellectual skills to enable individuals develop into useful members of the society;
The promotion and encouragement of scholarship and research etc. According to Okonjo-Iweala(2012), there is compelling evidence that education attainment both in terms of years of schooling and cognitive skill is positively linked to earnings and productivity. Education leads to better health, improved resilience to economic shocks, and greater civic participation. It also leads to an enhanced ability to adopt new technologies.

**RESEARCH METHODOLOGY**

This section deals with the research design and the procedure adopted in carrying out this study. This work is aimed at evaluating the effects of budgetary allocations in achieving the objectives of the educational sector reforms in Nigeria. It therefore stands to reason that it is interested in finding out if the educational sector reform has led or can lead to improved literacy of the citizenry. Therefore, the design adopted in this study is the Ex-post facto research design. This design is appropriate because it seeks to determine the extent of the association between the variables and to draw inferences. Such inferences concerning the relationship between the variables involved can then be used for purposes of prediction, in this case, the effects of budgetary allocation on educational sector reform agenda.

The area of the study is the geographical area or boundaries where the study is carried out. The study was carried out among the MDA’s of the Federal government of Nigeria. Since the fiscal responsibility act 2007 is not binding on the states and local governments, the researcher concentrated his research program on the federal educational agencies and institutions within Nigeria.

The data for this research work were sourced from Central Bank of Nigeria and National Bureau of Statistical yearbooks and Journal articles.

The population of the study therefore is the federal republic of Nigeria as the study covers the entire economy of the country.

The sample size of the study therefore, is the educational sector of the economy. The sample used here was drawn from raw data extracted from the sources listed below and were used in constructing tables for data presentation and analysis as well as testing of the hypotheses in this study:

i. Central Bank of Nigeria Annual Report and statement of Accounts (covering financial years 1997 - 2015);
ii. The Nigerian Statistical Fact sheets on Economic and Social Development (2015)
iii. Central Bank of Nigeria Statistical Bulletin;

**Analytical Methods/Techniques**

To achieve the objectives of this study, the frameworks and objectives of the public sector reforms and the fiscal strategy designed to achieve them are examined. In particular, the Fiscal Responsibility Act 2007, being a major framework for carrying out the public sector reforms in Nigeria was examined in order to determine the effect of budgetary allocations on the educational sector reform agenda so as to enhance literacy, accountability, and economic development in Nigeria.

To this end, the data collected in the course of the study were subjected to analysis and used to test the hypotheses using appropriate statistical tools. The application of correlation co-efficient statistical formulae was considered suitable.

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**Budgetary Allocation to Education & Literacy Rate**

<table>
<thead>
<tr>
<th>Years</th>
<th>Literacy</th>
<th>Budgetary</th>
<th>% Changes in</th>
<th>% Changes in</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Year</td>
<td>Rate</td>
<td>Allocation to Education</td>
<td>Literacy rate</td>
<td>Budgetary Allocation to Education</td>
</tr>
<tr>
<td>------</td>
<td>------</td>
<td>-------------------------</td>
<td>---------------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td>1997</td>
<td>57</td>
<td>16840</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>1998</td>
<td>57</td>
<td>23688.1</td>
<td>0</td>
<td>40.66568</td>
</tr>
<tr>
<td>1999</td>
<td>57</td>
<td>27713.5</td>
<td>0</td>
<td>16.99334</td>
</tr>
<tr>
<td>2000</td>
<td>57</td>
<td>56568.2</td>
<td>0</td>
<td>104.1178</td>
</tr>
<tr>
<td>2001</td>
<td>57</td>
<td>62567.1</td>
<td>0</td>
<td>10.60472</td>
</tr>
<tr>
<td>2002</td>
<td>57</td>
<td>19033.8</td>
<td>0</td>
<td>-69.5786</td>
</tr>
<tr>
<td>2003</td>
<td>57</td>
<td>79436.1</td>
<td>0</td>
<td>317.3423</td>
</tr>
<tr>
<td>2004</td>
<td>62</td>
<td>85600</td>
<td>8.77193</td>
<td>7.75957</td>
</tr>
<tr>
<td>2005</td>
<td>63.1</td>
<td>104,600.00</td>
<td>1.774194</td>
<td>22.19626</td>
</tr>
<tr>
<td>2006</td>
<td>57.2</td>
<td>151700</td>
<td>-9.35024</td>
<td>45.02868</td>
</tr>
<tr>
<td>2007</td>
<td>66.9</td>
<td>197600</td>
<td>16.95804</td>
<td>30.25709</td>
</tr>
<tr>
<td>2008</td>
<td>66.9</td>
<td>212800</td>
<td>0</td>
<td>7.692308</td>
</tr>
<tr>
<td>2009</td>
<td>66.9</td>
<td>249000</td>
<td>0</td>
<td>17.01128</td>
</tr>
<tr>
<td>2010</td>
<td>66.9</td>
<td>245300</td>
<td>0</td>
<td>-1.48594</td>
</tr>
<tr>
<td>2011</td>
<td>66.9</td>
<td>306300</td>
<td>0</td>
<td>24.86751</td>
</tr>
<tr>
<td>2012</td>
<td>61.3</td>
<td>400150</td>
<td>-8.3707</td>
<td>30.6399</td>
</tr>
<tr>
<td>2013</td>
<td>61.3</td>
<td>426530</td>
<td>0</td>
<td>6.592528</td>
</tr>
<tr>
<td>2014</td>
<td>61.3</td>
<td>493000</td>
<td>0</td>
<td>15.5839</td>
</tr>
<tr>
<td>2015</td>
<td>61.3</td>
<td>392200</td>
<td>0</td>
<td>-20.4462</td>
</tr>
</tbody>
</table>

Source: CBN Annual Reports and Statistical bulletins.
-National Bureau of Statistics year books
-Nigerian Statistical Fact sheets on Economic and Social Development (2015)

Table 1 presents the percentage changes in literacy rates against the percentage changes in their respective budgetary allocations to education from 1997 – 2015. The table above is represented graphically in figure 1 below to vividly illustrate the increases or decreases in literacy rates and annual budgetary allocations to education.
Fig. 1: Graphical Representation of Changes in Literacy Rates and Budgetary Allocation to Education.

Source: Table 1.

Fig. 1 shows that there are slight changes in literacy rates in years 2004 to 2007 and 2012. In 2004, literacy rate increased by 8.77% to stand at a rate of 62. In 2005, the literacy rate slightly moved up by 1.77% to stand at 63.1 but dropped in 2006 by 9.35% to stand at a rate of 57.2. It then increased in 2007 by 16.96% to stand at a rate of 66.9 which it maintained until 2012 when it dropped by 8.37% to stand at 61.3.

For budgetary allocations to education sector, it had been on increase from 1997 to 2014.

Table 2 below presents the summary statistics of the raw data.

Descriptive Statistics for Budgetary Allocation to Education and Literacy Rate

<table>
<thead>
<tr>
<th>BUDGETARY ALLOCATION TO EDUCATION</th>
<th>LITERACY RATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>186875.1</td>
</tr>
<tr>
<td>Median</td>
<td>151700.0</td>
</tr>
<tr>
<td>Maximum</td>
<td>493000.0</td>
</tr>
<tr>
<td>Minimum</td>
<td>16840.00</td>
</tr>
<tr>
<td>Std. Dev.</td>
<td>154990.6</td>
</tr>
<tr>
<td>Skewness</td>
<td>0.581569</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>2.027433</td>
</tr>
<tr>
<td>Jarque-Bera</td>
<td>1.819865</td>
</tr>
<tr>
<td>Probability</td>
<td>0.402551</td>
</tr>
<tr>
<td>Sum</td>
<td>3550627.</td>
</tr>
<tr>
<td>Sum Sq. Dev.</td>
<td>4.32E+11</td>
</tr>
</tbody>
</table>

Source: Author’s Eviews 7.2 Output

Table 2 presents the descriptive statistics for the descriptive statistics for the literacy rates and budgetary allocations to education sector in an independent sample.
Test of Hypothesis
The hypotheses test was carried out in four steps as follows:

Step One: Re-Statement of the hypothesis in null and alternate

Step Two: Statement of decision criteria

Step Three: Presentation of the test result.

Step Four: Decision.

The hypothesis seeks to determine the impact of increased budgetary allocation to the education sector by the Nigerian Federal Government on literacy rates in Nigeria.

Step One: Statement of Hypothesis
H_0: Budgetary allocations to the education sector do not have a positive and significant impact on literacy rates in Nigeria.

H_1: Budgetary allocations to the education sector have a positive and significant impact on literacy rates in Nigeria.

Step Two: Statement of Decision criteria:
Accept H_0 if the sign of the correlation coefficient is -tive, t-Statistic of the regression result is < 2, and the probability of the t-statistics > 0.05 otherwise reject the H_0.

Step Three: Presentation of the Regression Analysis Result for Test of Hypothesis.
Table 2: Regression Analysis for Test of Hypothesis

Dependent Variable: DLITERACYRATE
Method: Least Squares
Date: 10/13/16 Time: 11:28
Sample (adjusted): 1998 2015
Included observations: 18 after adjustments

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DBUDGETALLOCED</td>
<td>-0.005275</td>
<td>0.027441</td>
<td>-0.192240</td>
<td>0.8500</td>
</tr>
<tr>
<td>C</td>
<td>0.002155</td>
<td>0.006025</td>
<td>0.357773</td>
<td>0.7252</td>
</tr>
</tbody>
</table>

R-squared 0.002304 Mean dependent var 0.001755
Adjusted R-squared -0.060052 S.D. dependent var 0.023293
S.E. of regression 0.023982 Akaike info criterion -4.518583
Sum squared resid 0.009202 Schwarz criterion -4.419653
Log likelihood 42.66725 Hannan-Quinn criter. -4.504942
F-statistic 0.036956 Durbin-Watson stat 2.628813
Prob(F-statistic) 0.849973

Source: Author’s Eviews 7.2 Output
Given the decision rule to accept H_0 if the sign of the correlation coefficient is -tive, t-Statistic of the regression result is < 2, and the probability of the t-statistics > 0.05 otherwise reject the H_0. From table 2 above, the correlation coefficient is -0.005275, the t-Statistic is -0.192240 < 2 and not been significant at 0.8500 > 0.05, we therefore, accept H_0 and conclude that Federal Government budgetary allocations to the education sector has no positive and significant impact on Literacy rates in Nigeria.

Budgetary allocation to education does not have a significant impact on literacy rate

Relationship between Literacy Rate & GDP
Covariance Analysis: Spearman rank-order
Date: 10/13/16  Time: 11:33
Sample (adjusted): 1998 2015
Included observations: 18 after adjustments
Balanced sample (listwise missing value deletion)

<table>
<thead>
<tr>
<th>Observations</th>
<th>DLITERACY</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>DGDP</td>
<td>1.000000</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>-----</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>18</td>
<td></td>
</tr>
<tr>
<td>DLITERACY</td>
<td>0.043100</td>
<td>1.000000</td>
</tr>
<tr>
<td>RATE</td>
<td>0.172559</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>0.8652</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>18</td>
<td>18</td>
</tr>
</tbody>
</table>

There is a positive relationship between literacy rate and gross domestic product.
Summary of findings, Conclusions, and Recommendations.
This section summarizes findings arising from the study, concludes the study and made possible recommendations based on the research findings.
Findings from the study were summarized as follows:

1. That Federal Government budgetary allocation to the educational sector has no positive and significant impact on Literacy level in Nigeria.
2. That the relationship between literacy rate and the gross domestic product in Nigeria are positive.

Conclusion.
The budget plays a very important role in identifying the performance of governments. Traditionally, the importance of budget relates to the allocation of money to each sector or program. To ensure operational accountability the achievement of sustained economic growth, a Federal Fiscal Responsibility bill and a Public Procurement bill were passed into law in 2007. Achieving the above objectives depends largely on the successful implementation of the FRA, while the successful implementation of the FRA depends on the existence of enabling structures and environment to translate the provisions into workable solutions and to monitor its performance.
For budgetary allocations to have a positive effect on the educational sector reform agenda, each budgeting method adopted must have a relevant accounting system that is consistent with its nature and requirements as each accounting basis has a special nature and characteristics that makes it appropriate for a specific use, and hence consistent with one of the budgeting methods.
Recommendations:
The findings of this study have demonstrated that the Federal Government budgetary allocation to the educational sector does not have a positive and significant impact on literacy level in Nigeria. It was also established that there is positive relationship between literacy rate and economic growth in Nigeria.
Based on the findings of this study, the following are recommended:

1. The Federal Government should continue with the implementation of the educational sector reform program. This will ensure economic growth and improvement of the country’s macro-economic indices as achieving the various national development goals will depend on the ability of the government to implement the reform agenda.
2. The federal government must ensure that its budgetary allocations to the education sector must maintain the existing positive relationship between literacy rate and economic growth in Nigeria.
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