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Impact of Public Education Finance on Private Sector Investment in Nigeria

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Abstract

The study empirically examined the impact of public education finance on private investment in Nigeria from 1986 to 2016. The study used time series data from the Central Bank of Nigeria Statistical Bulletin of December, 2016 and Annual Statistics Report of the National Bureau of Statistics in Nigeria of (2017). The study used multiple regression analysis with Johansen Co-integration and Error Correction Model (ECM) for the estimation of the variables. The co-integration result shows that the variables are co-integrated and there is a long run relationship among the economic variables. While Error Correction Model (ECM) results revealed that there is a significant and positive relationship between public education finance and private investment in Nigeria and the result shows that public education finance has positive impact on private investment in Nigeria. The government recurrent education expenditure (GCEX), government capital education expenditure (GREXH) and total number of schools in Nigeria (TNOSN) were statistically significant in explaining the variations in the private investment in Nigeria (PIVN). On the other hand, the level of total number of students' enrolment in Nigeria (TNSRN) was negatively related to private investment in Nigeria and it was statistically insignificant in explaining the variation in private investment in Nigeria. Therefore, the study recommends that, government should focus on educational reforms and policies that will help to increase the education expenditures especially the capital expenditure through the annual budgets to enable the sector provide the needed physical facilities, human resources and effective educational services for sustainable private investment in Nigeria.

Keywords: Public Finance, Education, Private Investment, Capital and Recurrent Expenditures
JEL Codes: A10, A20

1. Introduction

Investment is one of the main components and elements of aggregate demand in any economy. It plays an important role on aggregate output in the economy. Investment is divided into two forms the public investment which is fully conducted by the government and the private which is fully conducted by private investors in the economy. By public investment, the government can improve economic situation of the country and by private investment, the private investors can contribute to the performance of the gross domestic product through income generation and job creation in the country. Currently, it was observed that both public and private investments simultaneously play great role to rapid economic growth (Uddin, Chowdhury and Uddin, 2015). According to Amana, Aigbedion, Nmo-Oyeleke and Onyishi (2018) reliable and continuous increase in domestic private investment also helps in reduction of poverty. Understanding the status and determinants of private investment is essential for successful and effective

implementation of sustainable development goals (SDGs) and for the private sector investment to increase, there is a need for huge public finances especially in the area of infrastructure development and human capital development which are needed in the production process.

Therefore, private sector investment requires effective skilled labour that will help to drive the production process to optimum point of productivity that will guarantee maximization of production output and profit which is the major goal of any organization or private investor. However, education remains the main process of providing highly skilled human resources and supply of trained manpower in any given economy. The educational system of a nation determines the type, nature and caliber of manpower to be supplied to the various sectors in the nation and it is needed to drive the huge potential of the private sector investment in developing countries like Nigeria. The major asset any organization requires to drive any production process is human capital. Yesufu (2000), in agreement with this view, opines that "the essence of human capital development becomes one of ensuring that the workforce is continuously adapted for, and upgraded to meet, the new challenges of its total environment". In the words of Marimuthu, Arokiasamy and Ismail (2009), human capital simply refers to the "processes that relate to training, education and other professional initiatives in order to increase the levels of knowledge, skills, abilities, values, and social assets of an employee which will lead to the employee's job satisfaction, performance and productivity especially efficiency in the productive process of the organization.

According to Obaji (2006), the duties of providing highly quality manpower and specialist is that of the nation's educational system especially the tertiary educational institutions. According to her, in the time past, thousands of well-trained manpower turned out in the tertiary institutions across the country were highly sought after both at home and abroad. The exploit of Nigerian experts abroad is a clear affirmation of the quality of training impacted on them by the educational institutions. However, that is not the same situation now as most Nigerian graduates are no longer employable. In recent times, the caliber of manpower graduated from the tertiary educational institutions in Nigeria is an indicator that the educational system is ineffective. This is so, because the knowledge acquired make them readily unfit for the labour market. This simply means that there is a mismatched between the skills acquired and labour market requirements for the needed private sector driven economy which is attributed to poor funding of the educational system in Nigeria (Adamu, 2003).

Therefore, in order to produce highly skilled and trained manpower for the readily private sector investment and meet the recent demand for high skilled labour in Nigeria, the government instituted deliberate educational policies and have constantly increased the educational expenditures that will guarantee the needed educational investment to stimulate the private investment in the country. In an effort to increase their share of public finance spent on education, the current national policy of education in Nigeria proffers ten percent of the total budgetary allocation as benchmark investment expenditure in education. However, the trend in the budgetary allocation to education in Nigeria has continuously fallen short of the 26% target as recommended by the United Nations Educational Scientific and Cultural Organization (UNESCO) for developing countries. There are also the challenges of delay in the release of the allocation, lack of accountability for funds allocated, the government preference for higher education, as well as frequent unhealthy political interference in education (Adetula, 2017).

Despite the government increased investment in education, the educational sector in Nigeria is beclouded by uncertainties. Most schools in Nigeria are characterized by overcrowding, poor sanitation, poor management, low students-teachers' ratio, poor teachers' remunerations and welfare packages. Other problems

include: abandoned capital projects, inadequate funding, poor condition of service and others (National Education Policy, 2004). The resultant effects of these myriads of anomalies can be production of half-baked graduates, unsatisfied yearnings and aspirations**,** corruption, bribery and so on. The obvious poor performance in Nigerian education sector in spite of the government spending on education can lead to low level of skilled manpower needed for competitive private sector investment driven. Therefore, the question that comes to mind, is what is the level of private sector investment contribution to economic growth in Nigeria that is attributed to the performance of government increasing investment in education? Based on this, the study seeks to empirically examine the impact of public education finance on private investment in Nigeria. To achieve this objective, the paper is subdivided into five sections which are introduction, literature review, methodology, presentation of data and analysis and finally, the conclusion and recommendations.

2. Literature Review and Theoretical Framework

Conceptual Review

This study main concept is the concepts of education, public finance and private investment, each of these concepts are discussed briefly below. According to Ukeje (2002) education is a process, a product and a discipline. As a process, education is a set of activities which entails handling down the ideas, values and norms of the society across generation. As a product, education is measured by the qualities and traits displayed by the educated person. Here, the educated person is traditionally conceived of as a "knowledgeable "and "cultured" person. While as a discipline, education is defined in terms of the benefits of organized knowledge to which students are exposed to. The aims of Education in Nigeria as stated in the Nigerian National Policy on Education (2004) include: "the desire that Nigeria should be a free, just and democratic society; a land full of opportunities for all citizens; able to generate a great and dynamic economy; and growing into a united strong and self-reliant nation".

Borode, (2006) opined that educational finance is the relationship between cost and expenditure in the production of educational services. The real cost of an activity is not simply money spent on it, but the alternative opportunities that have to be foregone or sacrificed when a particular choice is made. Resources allocated to an activity can either be measured in terms of expenditure (paid or money value) or in real terms (opportunity cost); it could be time put in by the teachers and students and services rendered by physical facilities(buildings, equipment and furniture) with respect to an educational process. The measurement of real cost is based on the opportunity cost concept. This means, if a particular choice of an activity has been made, then opportunity cost of that activity is the alternative opportunities that have been given up (Borode, 2006).

According to Ibadin (2004), public finance refers to government's securing of financial resources to pay for goods and services which the citizens enjoy. It concerns the need for revenue, expenditure and debt operations of the government and the impact of these on the society. It also relates to the effects of collecting and spending money on the economy and the society with a view of bringing about reforms on revenue and expenditure processes. Public finance tends to concentrate on an assessment of how to reform the revenue and expenditure of government and an examination of the reform of individual taxes. On the other hand, Olagboye (2004) defines public education finance as a means by which money is provided for the development and maintenance of the entire education system. All activities that are geared towards the process of sourcing, allocating and managing public school revenues in the production of educational services for the attainment of educational objectives constitute education finance.

According to Fakiyesi (2008), investment is the process of changes in capital stock that result from a situation where an economy

uses part of its current resources to create material and human capital and this process is to enhance the future earnings of the investor. Therefore, for investment to occur, a reasonable amount of resources must be transferred from one person to another. It also involves the forgoing of present consumption for the future earnings. Whereas according to Bakare (2011) public investment involves the investment carried out by the government and public corporations and organizations on social, welfare and economic infrastructure and other welfare goods and services. In summary private domestic investment refers to net changes in the level of inventories and gross fixed capital formation.

Empirical Review

Most authors have also examined how spending on education affects long–term growth generally finding a positive, significant relationship among them are Omotor (2004), Adebiyi and Oladele (2005), Aighokhan, Imahe and Ailemen (2005), Owoeye and Adenuga (2005), Aigbedion (2015) and Aigbedion, Iyakwari and Gyang (2017) which shows significant impact of education expenditure on economic growth in Nigeria. The studies believe that increased government expenditures will increase the level of economic growth in Nigeria. On the other hand, there are some studies that examined the determinants of private investment in some economies including Nigeria.

For instance, Asante (2000), analyzed the determinants of private investment in Ghana using a time series analysis and complementing it with a cross-sectional one over the period, 1970-1992. The results showed that the variables that had a significant positive relationship with investment are: lagged investment, public investment, private sector credit, real interest rate, and real exchange rate. Ribeiro (2001) employed the Johansen multivariate co-integration technique and Engle-Granger Two-step approach to model private-sector investment in Brazil during the period, 1956-1996. The results reveal a positive impact of output, public investment and financial variables and the negative effect of exchange rate. While Luintel and Mavrotas (2005) investigated domestic private investment behavior in a panel of 24 low-income and middle-income countries spanning the period, 1981-2000. The study revealed that indicators of financial sector development and other standard macroeconomic determinants of private investment appear significant in explaining private investment behaviour in the sample. However, the estimated parameters and adjustment dynamics exhibit important cross-country differences. Lesotlho (2006) study supports the existence of short-run dynamic adjustment and the long run equilibrium relationship between the macroeconomic variables used in the study and private investment level. Public investment, bank credit to the private sector and the real interest rate affect private investment level in the short run, while GDP growth and real exchange rate affect private investment in the long run.

Also, Frimpong and Marbuah (2010) did an empirical assessment of factors that have either stimulated or dampened private sector investment in Ghana. Their results suggest that private investment is determined in the short run by public investment, inflation, real interest rate, openness, real exchange rate and a regime of constitutional rule, while real output, inflation, external debt, real interest rate, openness and real exchange rate significantly influenced private investment response in the long-run. Fowowe (2011) conducted an empirical investigation of the effect of financial sector reforms on private investment in selected Sub-Saharan African countries. An index is developed to track the gradual progress made with the implementation of the phases of the reforms. The results show that financial sector reforms (measured by the index) have had a positive effect on private investment in the selected countries considered for his study, thus offering support to the financial liberalization hypothesis.

More recently, the work of Amana, Aigbedion, Mmo-Oyeleke and Onyishi, (2018) examined the impact of government

to expenditure on private investment in Nigeria from 1986-2016. Time series data and econometric tools was used to test for the stationarity, and co-integration, while Auto Regressive Distributed Lag Model were adopted to estimate the long-run and short run impact of government expenditure and private investment in Nigeria. The study revealed that at the long run, Government Recurrent Expenditure and Inflation Rate were positively related to Private Investment in Nigeria while Government Capital Expenditure and Interest Rate in Nigeria were negatively related to Private Investment.

Finally, most of the empirical studies reviewed are centered on the impact of education expenditure on economic growth, the determinants of private investment and the impact of government expenditure on private investment. But this study focuses on the impact of public education finance on private investment in Nigeria.

Theoretical Framework

This study foundation is hinged on the theoretical framework of Solow (1994) because the growth model is an endogenous model of economic growth and output theory and this theory appears to be the most suitable for the study and studies on education finance, private investment out and public investment output. The model suggests that endogenous factors such as government policies (fiscal and monetary policies), political stability, market distortions, human capital (education and health expenditures), etc., can significantly affect national output which is the summation of private and government investment in the economy. It is a widely used growth model to provide a systemic investigation of the human capital-national output growth nexus. For example, Uwatt (2003), Adamu (2003) and Aigbedion (2015), used it to assess the impact of human capital and education on economic growth in Nigerian.

This modern output growth model depends on the accumulation of physical capital and an increase in labour force with improved technological embodiment without which labour cannot be effective. Human capital is a factor influencing labour productivity because it facilitates the absorption of new technology, increases the rate of innovativeness and promotes efficient management (Adamu, 2003). Consequently, for high labour productivity, an integral part of technological progress is investment in human capital and thus is termed endogenous factor because accumulation of physical capital is enhanced by the knowledge, skills, attitudes and health status of the people who partake in such exercise. Thus, there is a strong and positive relationship between human capital development in terms of increased expenditure on educational investment and private investment and private output growth in the economy.

3. Methodology

Sources of Data and Methods of Analysis

This study used time series data collected from the publications of various organizations and agencies. Data on private investment in Nigeria, recurrent education expenditure and capital education expenditure were collected from Central Bank of Nigeria (CBN) Statistical Bulletin of December, 2016. The data on total number of schools and total number of student's enrolment in Nigeria were gotten from Annual Statistics Report of the National Bureau of Statistics (NBS) reported in July 2017. The Johansen Co-integration and the Error Correction Model (ECM) were adopted for this study because they help to determine the short run and long run relationships among the economic variables. Also, the error correction model (ECM) was used to establish the short-run impact of public education finance on private investment in Nigeria.

Model Specification

The model used in this study was adopted from the works of Uwatt (2003), Adamu (2003) and Aigbedion (2015) on the relationship between public education investment and national output (economic growth) in Nigeria. The models were

modified based on the objective of the study. Therefore, the equation is the modified model.

$PIVN_t = f(RECEXP_t, CAPEXP_t, TNOSN_t, TNSRN_t)$ …………..3.1

Therefore, explicitly the model becomes

$PIVN_t = \beta_0 + \beta_1 RECEXP_t + \beta_1 CAPEXP_t + \beta_2 TNOSN_t + \beta_3 TNSRN_t + \mu_t$ ………………………..…………………..3.2

Where: $PIVN_t$ is private investment in Nigeria at time t , $RECEXP_t$ is recurrent education expenditure in Nigeria at time t, $CAPEXP_t$ is the capital education expenditure in Nigeria at time t , $TNOSN_t$, is the total number of schools in Nigeria at time t and $TNSRN_t$ is the total number of student's enrolment in Nigeria. While β_0, β_1, β_2, β_3 and β_4 are Parameters to be estimated and μ_t is white noise error term. While the Error Correction Model (ECM) that was used in this study is specified as follows:

$$\Delta PIVN_t = \beta_0 + \sum_{g=0}^{l} \beta_{1i}\, \Delta PIVN_{t-i} + \sum_{h=0}^{m} \beta_{2i}\, \Delta RECEXP_{t-i} + \sum_{i=0}^{n} \beta_{3i}\, CAPEXP_{t-i} + \sum_{j=0}^{o} \beta_{4i}\, \Delta TNOSN_{t-1} + \sum_{K=0}^{p} \beta_{5i}\, \Delta TNSRN_{t-1} + \beta ECM_{t-1} + \varepsilon_t \dots \quad 3.3$$

The model above is used to adjust the estimation until the ECM turned negative. The negative sign of coefficient of the error correction term ECM (-1) shows the statistical significance of the equation in terms of its associated t-value and probability value. The a priori expectation is that, β_1, β_2, β_3, β_4 and β_5, $>< 0$ indicating a positive or negative relationship between public education finance and private investment in Nigeria.

4. Presentation and Discussion of Results

Descriptive Analysis of the Variables

The major summary of descriptive analysis of relevant variables of study is as reported in Table 4.1.

Table 4.1: Descriptive Analysis of the Variables

	PINV	RECEXP	CAPEXP	TNOSN	TNSRN
Mean	404.7484	108.0029	53.31484	71769.06	27105022
Median	132.4000	57.96000	30.03000	56223.00	29319493
Maximum	1360.300	390.4200	154.7100	145614.0	38310638
Minimum	3.100000	0.230000	0.620000	30890.00	14625140
Std. Dev.	446.7406	130.1996	54.94986	34075.38	7059369.
Skewness	0.769135	1.075357	0.709465	0.718573	-0.429955
Kurtosis	2.123221	2.663601	2.090707	2.119057	1.973352
Jarque-Bera	4.049391	6.120872	3.668564	3.670203	2.316542
Probability	0.132034	0.046867	0.159728	0.159597	0.314029
Sum	12547.20	3348.090	1652.760	2224841.	8.40E+08
Sum Sq. Dev.	5987315.	508557.8	90584.61	3.48E+10	1.50E+15
Observations	31	31	31	31	31

Source: *Author's Computation from E-views 9.0, (2018)*

The mean, median, standard deviation as well as the skewness and kurtosis measures of the variables under consideration are given. The mean values of PINV, RECEXP, CAPEXP, TNOSN and TNSRN are 404.75, 108.00, 53.31, 71769.06 and 27105022 with various units and values respectively. Their respective standard deviations are 446.74, 130.11, 54.95, 34075.38 and 7059369 with various units and values respectively. The Jarque-Bera test of normality shows that the error term in our specified equation is normally distributed. This is evidenced by the respective insignificant Jarque-Bera statistics of the relevant variables.

Trend Analysis of the Variables

Graphically, the trend analyses in Fig. 4.1

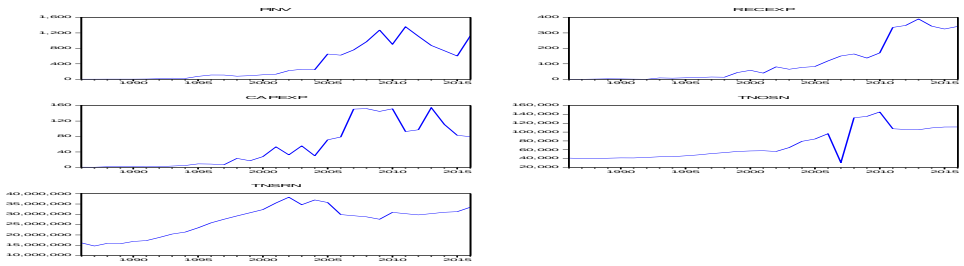

Figure 4.1 Trend Analysis

show that the variables fluctuate at one point or the other during the period under review. This was attributed to the effects of public education finance and private investment conditions that would have had attendant effects on some of the variables.

Stationarity Test of the Variables

The four variables were subjected to unit root test using the Augmented Dickey-Fuller (ADF) test.

Table 4.2: Augmented Dickey-Fuller Results

Variables	ADF Statistics	Critical Value	Stationary Status
		-3.679322(01%)	
PIVN	-6.553987	-2.967767(05%)	1(1)
		-2.622989(10%)	
RECEXP		-3.679322(01%)	
	-4.908456	-2.967767(05%)	1(1)
		-2.622989(10%)	
CAPEXP		-3.679322(01%)	
	-6.262084	-2.967767(05%)	1(1)
		-2.622989(10%)	
		-3.679322(01%)	
TNOSN	-8.374451	-2.967767(05%)	1(1)
		-2.622989(10%)	
		-3.679322(01%)	
TNSRN	-8.374451	-2.967767(05%)	I(1)
		-2.622989(10%)	

Source: *Author's Computation from E-views 9.0, (2018)*

As is the case most times, all the variables were found to be non-stationary at levels as shown in Table 4.2. All the variables were stationary at first difference. This implies that the variables can be estimated using the co-integration test to show the long run relationships among them and Error Correction Model can be used to determine the short run relationships among the economic variables.

Pairwise Granger Causality Tests

Table 4.3 presents the results of the Pairwise Granger Causality Tests.

Table 4.3: Pairwise Granger Causality Results

Null Hypothesis:	Obs	F-Statistic	Prob.
CAPEXP does not Granger Cause PINV	29	4.32883	0.0248
PINV does not Granger Cause CAPEXP		3.67032	0.0407
PINV does not Granger Cause TNOSN		6.32890	0.0062
TNSRN does not Granger Cause CAPEXP	29	5.14825	0.0138

Source: *Author's Computation from E-views 9.0, (2018)*

All the listed pair of variables have causal relationships among them. This means that CAPEXP Granger Cause PINV, PINV Granger Cause CAPEXP, PINV Granger Cause TNOSN and TNSRN Granger Cause CAPEXP. That is there is a causal relationship among the variables given the probability values of the variables at 5 percent level of significance. Therefore, the null hypotheses which stated that there are no causal relationships among variables are rejected.

Co-integration Results

Table 4.4 shows the co-integration results and long run relationships existing among the variables of study.

Table 4.4: Co-integration Results

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.910059	141.8708	69.81889	0.0000
At most 1 *	0.779934	72.02132	47.85613	0.0001
At most 2	0.479080	28.12026	29.79707	0.0771
At most 3	0.226939	9.207666	15.49471	0.3465
At most 4	0.058338	1.743155	3.841466	0.1867

*Trace test indicates 2 cointegrating eqn(s) at the 0.05 level, * denotes rejection of the hypothesis at the 0.05 level, **MacKinnon-Haug-Michelis (1999) p-values*

Unrestricted Cointegration Rank Test (Maximum Eigenvalue)

Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value	Prob.**
None *	0.910059	69.84945	33.87687	0.0000
At most 1 *	0.779934	43.90106	27.58434	0.0002
At most 2	0.479080	18.91260	21.13162	0.0994
At most 3	0.226939	7.464511	14.26460	0.4357
At most 4	0.058338	1.743155	3.841466	0.1867

Max-eigenvalue test indicates 2 cointegrating eqn(s) at the 0.05 level, * denotes rejection of the hypothesis at the 0.05 level and **MacKinnon-Haug-Michelis (1999) p-values

Source: Author's Computation from E-views 9.0, (2018)

The result shows the various variables converge in the long run thereby depicting the existence of long run relationships among the economic variables (private investment in Nigeria (PIVN), government recurrent education expenditure (GRCEXP), government capital education expenditure (CAPEXP), total number of schools in Nigeria (TNOSN) and total number of student's enrolment in Nigeria (TNSRN)). The long run relationships exist at 5% level of significance according to the Trace test statistics and the Eigenvalue. This implies that there exists seven (7) co-integrating

relationship among the variables. Therefore, since there are long run relationships among the variables the study then employs the Error Correction Model to estimate the short run relationships and impact among the economic variables.

The Error Correction Model

Since the variables were found to be cointegrated implying that they have long run equilibrium relationships, it is necessary to test for shortrun relationships.

Table 4.5: The Error Correction Model Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(PINV(-1))	2.820488	0.571756	4.933031	0.0079
D(RECEXP(-1))	3.992575	1.145200	3.486357	0.0252
D(CAPEXP(-2))	10.318981	3.031162	3.404299	0.0272
D(TNOSN)	0.019504	0.004380	4.453070	0.0112
D(TNSRN)	0.000001	0.000008	0.134372	0.8996
ECM(-1)	-0.415186	0.082061	-5.059478	0.0072

Source: Author's Computation from E-views 9.0, (2018)

From Table 4.5, the ECM parameter is negative (-) and significant which is -0.415186, this shows that 42 percent disequilibrium in the previous period is being corrected to restore equilibrium in the current period. It has been established that the variables are cointegrated and also have short run relationships established from the ECM. Also, the results show that a unit increase in private investment in Nigeria (PIVN) at lag one, government recurrent education expenditure (GRCEXP) at lag one, government capital education expenditure (CAPEXP) at second lag, total number of schools in Nigeria (TNOSN) at current period and total number of student's enrolment in Nigeria (TNSRN) at current period on the average holding other independent variables constant will lead to 2.820488, 3.992575, 10.318981, 0.019504, and 0.000001 unit increase in private investment in Nigeria (PIVN).

Furthermore, based on the probability, the private investment in Nigeria (PIVN) at lag one, government recurrent education expenditure (GRCEXP) at lag one, government capital education expenditure (CAPEXP) at second lag, total number of schools in Nigeria (TNOSN) at current period were statistically significant in explaining the variation in private investment in Nigeria (PIVN) while the total number of student's enrolment in Nigeria (TNSRN) at current period was statistically insignificant in explaining the variations in private investment in Nigeria. Finally, this implies that increase in these variables will increase the level of private investment and national output in Nigeria positively and significantly and this finding is in agreement with the a priori expectation of the study and with the studies of Owoeye and Adenuga (2005), Aigbedion (2015) and Aigbedion et. al. (2017) and Aigbedion et. al. (2018) that show that government recurrent education expenditure, government capital education expenditure and total number of schools in Nigeria are positively related to national output in Nigeria.

Cumulative Sum Test for Model Stability

The cumulative sum (CUSUM) result shows that the CUSUM falls within the critical region.

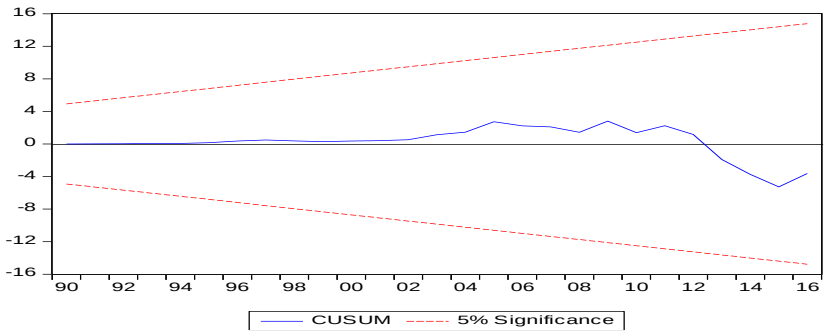

Figure 4.2: CUSUM Result

This shows that the parameters are stable over the sample period studied, (1986– 2016) as such, there is no structural break in the parameters.

5. Conclusion and Recommendations

The co-integration result shows that the variables are co-integrated and there are long run relationships among the economic variables. While Error Correction Model (ECM) results revealed that there is a significant and positive relationship between public education finance and private investment in Nigeria and the result shows that public education finance has positive impact on private investment in Nigeria. The government recurrent education expenditure (GCEX), government capital education expenditure (GREXH) and total number of schools in Nigeria (TNOSN) were statistically significant in explaining the variations in private investment in Nigeria (PIVN). On the other hand, the level of total number of students' enrolment in Nigeria (TNSRN) was negatively related to private investment in Nigeria and it was statistically insignificant in explaining the variation in private investment in Nigeria. This was against the expectation and though positive but it was statistically insignificant in explaining the variation in economic growth and output in Nigeria.

The following policy recommendations are raised from the study findings and discussions:

i. Government should focus on education reforms and policies that will help to increase the education expenditures especially the capital expenditure on education through the annual budgets to enable the sector provide the needed physical facilities and human resources for effective educational services in Nigeria.

ii. Government should design a mechanism for feedback as a mean of evaluation to make sure monies released for education services are used for what they are meant for. This will help to improve the impact of public education finance on private investment in Nigeria.

iii. Government should regulate the school enrolment in Nigeria for efficient and effective educational service delivery and reduce the negative impact of total number of students' enrolment in Nigeria on private investment in Nigeria.

References

Adamu, P.A. (2003)." The Impact of Human Capital formation on Economic Development in Nigeria: An Error Correction Approach", Human Resource Development in Africa: Selected Papers for the Year 2002 Annual Conference, The Nigerian Economic Society (NES), Part Two, 53-77.

Adetula, D., (2017). Investment in Education for the Nigerian Economic Development. *Journal of Internet Banking and Commerce*. 22(1), 1-15.

Aigbedion, I. M., Iyakwari, A. D. B. and Gyang, J. E. (2017): Education Sector

and Economic Growth in Nigeria: An Impact Analysis, *International Journal of Advanced Studies in Economics and Public Sector Management*, 5(3).

Aigbedion I. M. (2015). The Impact of Human Capital Development on Economic Growth in Nigeria: 1980-2012. Journal of Research on Humanities and Social Sciences. 5(11), 39-49.

Aigbokhan, B., O. Imahe and M. I. Ailemen (2005). '*Education Expenditure and Human Capital Development in Nigeria: Any Correlation so far*', Research Paper, Ambrose Alli University, Ekpoma, Nigeria.

Amana, S. A., Aigbedion, M. I., Mmo-Oyeleke, S. A., Onyishi, A. I., (2018). Assessing the Impact of Government Expenditure on Private Investment in Nigeria. *International Journal of Advanced Studies in Business Strategies and Management (IJASBSM)*. 6(1), 24-38

Asante, Y. (2000). Determinants of Private Investment Behaviour, AERC Research Paper No. 100, Nairobi: AERC.

Bakare, A. S. (2011). The Determinants of Private Domestic Investment in Nigeria. *Far East Journal of Psychology and Business, 4* (2),

Borode, M. (2006)." Cost Benefit Analysis of Education." In: Babalola, Ayeni, Adedeji, Suleiman & Arukewuyo (Eds) *Educational Management: Thoughts and Practice*. Ibadan: Codat Publications.

Fakiyesi, O. M. (2008). The performance of the Nigerian Financial Sector Since 1986. In: Ben A. Aigbokhan, ed: Rekindling Investment for Economic Development in Nigeria. The Nigerian Economic Society, Ibadan, 127-144.

Fowowe, B. (2011). 'Financial Sector Reforms and Private Investment in sub-Saharan African Countries ''. Journal of Economic Development 79, 36(3).

Frimpong, J.M and Marbuah.G. (2010). The Determinants of Private Sector Investment in Ghana: An ARDL Approach. European Journal of Social Sciences. 15(2).

Ibadin, V.O. (2004). 'Economics and Financing of Education,' In: Nwagwu, Ijeoma and Nwagwu (Ed) *Organisation and Administration of Education: Perspective and Practices*.

Lesotlho, P. (2006). An Investigation of the Determinants of Private Investment: The Case of Botswana. Being a Mini-thesis Submitted in Partial Fulfillment of the Requirements for the Degree of Masters (Structured) in Economics, University of the Western Cape.

Luintel, K.B and Mavrotas, G. (2005), 'Examining Private Investment Heterogeneity ''. Discussion Paper No 2005/11 for World Institute for Development Economic Research (WIDER).

Marimuthu, M. Arokiasamy L. and Ismail M. (2009) "Human Capital Development and Its Impact on Firm's Performance: Evidence from Developmental Economics," in The Journal of International Social Research, 2-8

National Bureau of statistics (2017) Annual Statistics Report of the National Bureau of Statistics in Nigeria.

Nigerian National Policy on Education, (2004). Federal Ministry of Education, Abuja, Abuja.

Obaji, C.W. (2006) "Reforming the Nigeria Educational System" Address at the 15th Convocation Lecture, Olabisi Onabanjo University.

Olagboye, A. A. (2004). *Introduction to Educational Management in Nigeria*. Ibadan: Daily Graphics (Nigeria Limited).

Omotor, D. G. (2004). An Analysis of Federal Government Expenditure in the Education Sector of Nigeria: Implications for National Development. *Journal of Social Sciences*, 105-110.

Owoeye and Adenuga (2005). Human Capital and Economic Development: An Empirical Analysis of A Developing Economy (1970 – 2000) A Working Paper. University of Ado-Ekiti, Nigeria *http//Paper.ssrn.com/so13/papers.cfm?abstract-id=726748* (accessed February 10, 2010)

Pesaran, H.M.Y. Shin R.J. Smith (2001): "Bounds Testing Approaches to the Analysis of Long-run Relationships". *Journal of Applied Economics, 16,289-326.*

Ribeiro, M. B. (2001): An Econometric Analysis of Private-Sector Investment in Brazil, CEPAL Review 74, 153-166.

Solow, R. M. (1994). "Perspectives on Growth Theory." *Journal of Economic Perspectives*, 8(1): 45-54.

Thorbecke, E. (2003), "The Impact of Public Education Expenditure on Human Capital, Growth, and Poverty in Tanzania and Zambia: A General Equilibrium Approach", *Journal of Policy Modelling*, 25(8), 701-725.

Udin, M., Chowburry, M. and Udin, N. S (2015) Effect of Public Investment on Economic Growth in Bangladesh: An Econometric Analysis. *International Journal of Developing and Emerging Economies*, 3(2) 72-97

Ukeje, E. U. (2002). 'Towards Accelerated Industrial Crop Production: Problems and Prospects' CBN Bullion, July/ Sept 2002, 26(3):1-2.

Uwatt, B.U. (2003) Human Resource Development and Economic Growth in Nigeria, 1960- 2000 *Human Resource Development in Africa*. Selected Papers for 2002 NES Annual Conference, Nigerian Economic Society, Ibadan, 53-78

Yesufu, T. M. (2000), "The Human Factor in National Development in Nigeria", Spectrum Books, Ibadan.