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GOVERNMENT EXPENDITURE AND PRIVATE INVESTMENT IN NIGERIA.

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ABSTRACT

In view of the changing role that government plays in enhancing and ensuring economic development amid the internal societal economic challenges widely attributable to a sharp decline in government income, evidence abound that most of the state trade and business policies have been made including but not limited to policies on deregulation, privatization, among others targeted at sectoral reforms to support the economy and to boost public confidence in private and public sector investments. It is against this backdrop that this paper takes a look at the impact of government expenditure on the Nigerian economy and the sphere of the Nigerian private investment between the period of 1981 – 2018. Johansen co-integration approach, Error Correction Methodology (ECM) and Granger Causality text were used for the analysis in the study. The findings show that capital expenditure had positive (crowd-in) effect on Private investment while recurrent expenditure showed a negative standing on the Nigerian private investment quota. Similarly, in line with the Granger causality techniques, there are evidences to show that government recurrent expenditure, inclusive of the capital expenditure granger causes private investment in the country within the period under review. Thus, this paper posits that it is more profitable to prioritise capital spending and direct it to public infrastructural services such as electricity, ICT, education and health for active development in the delivery of services of private investment.

Key Words: Government expenditure, Private Investment, Health, Education

INTRODUCTION

The explanation in defence of the massive spending by government on economic stimulation have been the backdrop of the emergence of Keynes in the 1930s. In view of the market failure, it becomes necessary that the government must leverage on its budgetary frameworks towards implementing and furthering its objectives. It is widely perceived that public expenditure can be a catalyst for growth and sustainable development. This fact is even more salient within the context of underdeveloped countries where government effort to mitigate regional inequalities, to boost social amenities, to further infrastructural development and ultimately enhance economic growth must be reflected in the public expenditure. For example, areas of the economy such as the transportation sector, communication sector, education and manpower training sectors, industry and manufacturing sector, etc are areas of the economy where adequate government spending produces growth

(Peter 2012).

Some scholars have argued that fiscal policy through government spending do sometimes occasion negative effect on the private sector when the larger percentage of government revenue are sourced through debt financing means such as through bank loans or credit facilities. Scholars view this as incidences that could raise interest rates which in turn may affect the cost of capital for private sector from banks and hereby crowd-out private investment thereby affecting economic growth . In contrast, fiscal policy through government spending crowd-in private investment. For instance, given the low rate of national savings and gross shortage of essential facilities (such as education, electricity, roads among other) especially in developing countries which are prerequisites for investment climate and growth, there is the need for government to provide such investment-enhancing essentials (Nwosa, Adebiyi & Adedeji, 2013). Closely related to this is also that the spontaneous response of government particularly in form of stimulus packages (such as the historic American stimulus $2.2 trillion package) to the 2020 financial crisis caused by the COVID-19 pandemic declared by the World Health Organization, have also portrayed the importance of governments spending as a stimulus to enhancing private investment (Independent, 2020).

On public expenditure, much can be said about the level at which Nigeria as a country have attained since her independence especially in areas including but not limited to works, rail projects, oil sector, among others. The considerable increase in expenditure and budgeting of the government can be attributable to numerous factors among which are policies targeted at driving industrialization and economic diversification (Okpara and Nwaoha, 2010). However, it is noteworthy that from 1981, fiscal crisis marred the level of expenditure due to the low returns on crude oil occasioned by price fall at the international market. For this reason, many economic policies such as privatization and deregulation as well as reforms in different sectors targeted at economic restructuring and other economic growth propellants such as enhancement for the public and private sectors are always formulated and consequently implemented.

An analysis of the records on Nigerian government expenditure shows that both aspect of government spending, that is, capital and recurrent expenditure, soared from 1,115 billion LCU to 16,829 billion LCU within the period between 1999 to 2018; a record average annual rate of 17.70%, while a larger percent of this soaring rate is attributable to the level of recurrent expenditure as against capital expenditure (Knoema 2018). Nigeria capital investment in percentage to GDP, according to World Bank from 1981 to 2018 provide that the average value for the same time under consideration totalled 36.65 percent with a minimum range of 14.9% in 2013, while the maximum range stood at 89.38% in the year 1981. The average value for 2018 is 19.81%.

There is a consensus of opinion among relevant economic literatures that to achieve and attain the height of sustainable development, a strong relationship between savings and investment must exist. Unfortunately, this relationship remains blurry within the context of savings and investment, whether domestic or foreign, due to some uneasy factors not limited to low income earnings, unfair wages, increased lending rates, inconsistency in policy formulation, unavailable capital, lack of adequate facilitation to boost savings such as provisions of workplace incentives, etc. in fact, there are evidence to show that Nigeria presently have its investment model's largely influenced by Gross Domestic Products (GDP) and Gross Savings (Oji, 2020)

Government expenditure, therefore has often been used to fill the gap between private saving and investment, if it is better based on development expenditure. While considering government expenditure vis-à-vis economic growth and an increase in the investment portfolio within the economy, it is to be noted that such part of government spending set aside for the construction of roads, rail lines, increased power generation, telecommunication services, etc, will go along way in stimulating growth of both the economy and private partnerships in the economy because these sectors lack desired standards as yet. Without expenditures targeted at these key sectors, Nigeria will still continue to experience huge deficit in her infrastructural development as presently the case because government expenditure is largely channelled to other nominal sectors such as consumption expenditure, political institutions at federal and state levels with little attention for other stronghold areas of the economy(Adeyemi, Ogunleye, & Oloruntuyi, 2018). It is against this backdrop that the study examines government expenditure and private investment in Nigeria.

The broad objective of the study is to look at the effect of government expenditure on private investments within Nigeria. Specifically, it intends to:

I. examine the nature and magnitude of gross domestic savings on the standard and attained height, if any, of private investment in the country.
II. examine causality between private investment in the country with government capital and recurrent expenditure.

LITERATURE REVIEW

Research on the nexus between public expenditure, private sector investments and the level of agricultural

productivity in Nigeria during the 1970 – 2008 era was conducted by Udoh (2011). Towards analysing the short-term impact and long-term impacts of public expenditure and all forms of private participation in the economy on agricultural productivity, the bounds test and the Autoregressive distributed Lag (ARDL) were employed by the research. Udoh (2011) further found that an increase in public expenditure by the government could positively inspire a significant growth in agricultural produce and output. The study found out that the implication of the approaches used would mean invariably that there will be no short-term benefits on foreign investment. The paper proposed that there is a need to consolidate on the short and long-run productivity assessment by investment from both the public and private sectors in other not to undermine the agricultural sector.

Nwosa, Adebiyi & Adedeji (2013), analysed the linkage that ought to exist among both the public expenditure components and privately owned investment in Nigeria. The components of government spending include Capital Expenditure (CAP), Recurrent Expenditure (REC) and Government Final Consumption Expenditure (GCE) as the explanatory variables while privately driven businesses and investments were assessed by Credit to the Private Sector (CPS) and Foreign Direct Investment (FDI) as the dependent variables for the period of 1981 to 2010. The estimated regression result using the error correction modeling revealed that the spate of recurrent expenditure and the final consumption expenditure by the government had a cheering impact on privately driven investment while the capital spending on the other hand left a negative rating and impact on private investment. Thus, the paper sounded the need to emphasise a paradigm shift in budgeting to accommodate more capital expenditure.

Ajayi (2013), looked at the role policy plays on private investment using the same Auto Regressive Distributed Lag (ARDL)Bounds with a view to test the approach to understand the long run impact and effect on an Annual data ranging from 1970 -2010. The description and measurement of the variables used in the empirical analysis includes Private Domestic Investment (PDI) as the explained variable and Real Gross Domestic Product (RGDP), Inflation rate (INF), Degree of Openness (OPENX), Real Interest Rate (RINR), Savings (SAV), Governance indicators (GOV_IND) as the explanatory variables. Findings from the analysis of the estimated models reveals that there exist certain differences between the long run and short run determinants of privately-driven investment. Usually, in the long run determinants, the degree of openness, values of inflation rates previously recorded, and indications from the analysis of data related to governance are the most salient drivers. other data relating to accountability and political stability appears to have high influence on government indicators with negative effect and with an adverse influence on the support and mobilization for privately driven investments. On the other hand, an analysis of the short run determinants reveals that important factors such as scheduled savings, real GDP, the degree of openness available, the applicable interest rates, prevailing inflation rates, and other governance measures appears to have huge effect as determining variables on the mobilization and growth of private investment. However, findings further revealed that governance indicators such as relate to political stability appears distinctive among others. Thus, this paper opines that adopting measures and taken of steps relating to the minimization of the adverse cost of inflation on the masses, adopting market interest rates that are at equilibrium and not outrageous, making use of restraining liberalization regulations and showing support for thrifts cooperation with a view towards harvesting future dividends will greatly help in ensuring the growth of privately driven investment.

Dantama & Gatawa (2017), analysed the effect of monetary deficit on privately-driven investment in Nigeria by using strategy such as by analysing annual time series data that covers a year range of 1980 -2014. The paper employs quantitative methodology using private investment (INV) as the dependent variable and Fiscal Deficit (FD), Government Expenditure (GEXP), Government Revenue (GREV), Exchange Rate (EXR) as the explanatory variables. The modelling approach employed is Johansen cointegration test and Error Correction Model (ECM). The results of data analysed from the ECM-1 reveals that a significant 38% number of errors were corrected from the short run alteration to the long run. This evidences that there have been a certain unit increase in the monetary debit, government income and the prevailing interest rates as they relate to private investments by 0.0003, 0.276 and 0.205 percent respectfully. On the other hand, finding revealed a unit increase in government spending as it affects privately-driven investment by -0.570 % on the long run. This paper opined that it is best if government spending will be dispensed in manners that will develop critical infrastructure through basic provision for social amenities such as public roads, power supply, and others which in turn directly boost the level of investment; with close watch on officials involved in the process so as to checkmate corruption, misuse of public fund and unlawful diversion of funds.

Adeyemi, Oguneleye & Oloruntuyi (2018), examines the effect of public capital disbursement on private investment in sub-Saharan Africa. The study employed panel data analysis to examine the modelling of (PI) for Private Investment (Gross fixed capital formation less public spending) as the dependent variable and

Government Capital Expenditure (CAPEX), Official Development Assistance-Gross Domestic Product Ratio (ODA/GDP), Public Debt (DT), Tax Revenue (TAX), Inflation Rate (INF) and Real interest Rate (RIR) as the explanatory variables for the period of 1980 to 2015. Findings from their research showed that public capital expenditure has an inconsequential positive impact on the level of privately-driven investment from data collated from selected countries within sub-Sahara Africa. It is noteworthy that other variables and determinants such as revenue generated from tax, debt stocks, do have consequential impact on privately-driven investment among the countries under consideration. Furthermore, the study also showed that development support from official sources within a territory, the rates at which inflation and interest stood, do have inconsequential negative impact on privately-driven investments. Pursuant to this, the paper is of the opinion that the government of the countries under consideration can do more if they channel their spending on capital project towards boosting the productivity level of critical infrastructure and enhancing competition, especially in areas of the economy with potentials for high yields.

From the literature reviewed, a number of studies have been carried out on government expenditure and private investment in Nigeria. However, this study has a literature time gap. The most recent data of the study end in 2015, which warranted the extension of this study to 2018. Also, the study is modifying the pervious researchers model reviewed by including lending interest rate as a determinant of private investment.

Theories on Government Expenditure

The role of government in promoting economic growth is mostly depicted through their choice of monetary and fiscal policies.

Wagner's Law

Wagner (1893) fashioned out three major models for the occurrence of an increase in government spending and disbursement. To start with, Wagner theories noted during the process of industrialization, it is imminent that activities within the public sector will usually take the place of activities in sectors like the private sector. It further noted that that the functions of the government including but not limited to administrative and protection duties will also consequently upsurge. Again, Wagner noted the it is imperative for the government to support the masses by providing services such as welfarism and culture-preserving services like increased training on education, training on public health, maintenance of the senior / aged citizens inform of pension and retirement schemes, food and product subsidies, emergency aids in readiness for the outbreak of natural disasters, programs geared towards maintaining the physical and aquatic environment , among others. (Amire,2020)

In addition to this, Wagner noted that an increase in the level of industrialization, will occasion more change and development in technology, and that consequently, beak the monopolistic tendencies of large firms. It then implies that there is a task of offsetting these unwanted monopolises and other negativities on the shoulders of the government to be achieved through budgeting means. Wagner further noted that government spending is endogenous in nature and same is largely determined by the increase in available government income. Thus, national income does stimulate public expenditure.

Peacock and Wiseman Theory of Public Expenditure – 1961

These proponents did analysis on the nature and form for which public expenditure is to be expected based on their initial study on government spending in England. They noted that development and increase in public disbursement and expenditure by government does not always occur in the ways and manner that the Wagner's theory posited. The proponents adopted the political agenda purpose rather than the organic state theory where findings revealed that government will be moved to spend money to achieve their purposes while the citizen's on the other hand do not like increase in taxation to cover government spending, but the voting population cast their vote in favour of political purposes that further social services and amenities. (Amire 2020)

The proponents also observed that it is not out of place to have different opinions on public expenditure that is suitable for the government which will also limit the level of taxation at its barest minimum, but these opinions can be limited by an unforeseen event or state-threatening event such as the declaration of a state of war. In line with the position of Peacock and Wiseman, a disturbance of huge magnitude like a state of war will not only force the hands of government into adjusting its spending, but it will also affect revenue generation. This invariably mat translate to a reduction in government income and when this occurs, the government maybe forced to consider increased taxation. At first, this may prompt unrest and revolt form citizens, but later on, the new status quo of taxation will become common among them which will then produce a new level of tax tolerance. There will however be underground reasoning among the populace that things will heal up in the state and adjustment will be made. The authors further opined that the period in time when displacement occurs in expenditure will eventually reduce certain barriers which will grant protection to local autonomy together with an increase in the centralization of power to control public spending to the central government. The moment centralization of public expenditure has been

achieved; the resultant effect will be that the activities of the state begins to grow larger; requiring increased spending.

The Classical vis-à-vis the Keynesian Approach on Public Expenditure

It is the believe of the classical economist that government intervention in the affairs of the economy are not as beneficial to it compared to interventions from the private sector, as such, the private sector is best positioned to carry out all economic activities. Classical economists posits that the best way to assume that the economy is fully functioning is when it is evident that it is at full employment level with a balanced wages/salary rates for workers and the interest rate is flexible such that it balances it with the external balance of trade; this then means the government budgets will tend towards more savings and more investments strength. The aftermath of the Great depression between 1929-1930 witnessed a change in tide for some classical economist that earlier opposed government interventions as their theories were forced to acknowledge that the rise of trade unions meant inflexibility in the market place; thereby occasioning high rate of unemployment.

The Keynesian theory proponent on the other hand preferred the intervention from the government due to failings in the market. As evident in 1963, John Keynes piece on – General Theory of Employment, Interest and Money – criticised the position of the classical economist that their positions meant too much burden on the market on the long run. Keynes opined that in the face of depression, it is eminent that the intervention of government will be needed immediately and on the short run to boost market operations and that it was time for the government to spend to help stabilise the economy rather than savings. Keynes observed that when government spends, it will empower the private sector players by giving them the needed purchasing powers, while the manufacturers in industries will be able to produce more; thereby requiring more labour which will reduce unemployment. Keynes believed that public spending is exogenous in nature because it has the potential of stimulating growth compared to the endogenous phenomenon.

Theories on Investment

Since the Keynes analysis on the linkage between savings and investment, many other research works have been undergone and have produced other investment theories like the accelerator theory of investment, the neoclassical and the Tobin's Q Theory of investment, etc. there is no gain saying that these theories have also been sourced out to shape investment in existing literatures related to investment (Ajide 2013)

With respect to a flexible accelerator model, this can be viewed as developing model where analysis have ascertained that the more the gap or difference between the stock capital in existence and the desired level of capital stock, the bigger and more developed a business stock will be. This is because it is always the goal of businesses to close up the differences between the desired stock K* and the available stock, that is, the actual stock capital K, for every given period. This is widely expressed by the model below -

$I = \phi (K^* - K - 1)$; indicating that I represent Net Investment, and further that K* represents the Desired Capital Stock, whereas K - 1 is the value of the last period's capital stock and ϕ represents a fractional adjustment coefficient.

In line with the flexible accelerator model, findings revealed that the recognised outputs, the present internal funds, the overall rate of peripheral financing, and other variables may be useful while assessing the elements of K*. Also, it is imperative to note that among all the models used to assess capital formation as a determinants for privately-driven investment, the flexible accelerator models have more credit and popularity, and same as widely been applied in relevant researches carried out in developing countries (Ouattara, 2004; Adeyemi, Ogunleye & Oloruntuyi, 2018). The reason for this is not far-fetched as it appears that it is widely supported due to the existing institutional elements and factors readily available in developing countries including but not limited to functional financial market systems, provision of basic social amenities by governments, stable foreign exchange rates, etc.

Apart from the accelerator theory considered above, there are other theories such as the neo-classical approach to investment as formulated by Jorgenson (1971). Jorgenson believed that the desired future capital stock as represented by K* can be proportional to the level of output and attributable cost of capital by users determined by the charge on capital goods, the actual charge on interest, rate of depreciation, and current taxation.

Another rated investment theory is the Tobin (1969) investment theory. This theory is widely popular for its position/ assessment on level of the prevailing market value of stock capital in existence compared with the replacement cost (the Q ratio) as the main investment driver. According to this position, the position will be that businesses will be willing to pour money into investment if the upsurge in the market value of the available supplementary unit supersedes the replacement cost. The proponent believed that the level of market delivery and the up surging marginal cost relating to investment are usually the reasons for a difference in Q ratio. The biggest criticism faced by the

Q theory is usually that it tends to be opted for on a temporary basis instead of being used as an optimization theory. Hence, the Q theory appears to be silent on the elements that control the shape and length of the circulated lag specification.

METHODOLOGY, PRESENTATION AND INTERPRETATION OF RESULTS

To examine the short run and the long run relations that exist with respect to government expenditure and privately-driven investment, this paper made use of the Johansen co-integration method together with the Error Correction Methodology (ECM). The Johansen approach gives information pertaining to the long run connection that exist among variables as compared with the ECM which gives information on the short run connections existing between the variables. The ECM provides data on the level and speed of adjustment available from the short run instability to the long run stability where the chances exist that deviations may occur from the stability that the long run enjoys.

Also, Granger causality technique was utilized to examine the causality between private investment and government expenditures. The type of data employed in carrying out this research was secondary data acquired from different sources including World Bank Bulletin in Nigeria and CBN Statistical Bulletin 2019 for the period of 37 years (1981-2018) and its time series in nature.

Model Specification

Keynes, one of the pioneers of investment theories carried out an analysis to justify the equality of investment and savings.

$I = S$ ..... (1)

The model for this study follows the work of Adeyemi, Ogunleye & Oloruntuyi (2018) which gained roots from flexible accelerator theory. Their model modifies the foregoing incorporated model with the inclusion of variables like gross domestic savings, lending interest rate, gross domestic product and recurrent expenditure. Consequently, the model for this work is as detailed below.

$PI = f(REEX, CAPEX, GDS, LIR, GDP)$ .....(2)

The mathematical form of the model is:

$$PI = \beta 0 + \beta 1REEXt + \beta 2CAPEXt + \beta 3GDSt + \beta 4LIRt + \beta 5GDP \ldots\ldots\ldots\ldots\ldots (3)$$

The econometric form of the model is:

$$PI = \beta 0 + \beta 1REEXt + \beta 2CAPEXt + \beta 3GDSt + \beta 4LIRt + \beta 5GDP + \mu t \ldots\ldots\ldots\ldots (4)$$

Where; (PI) Private investment (Gross fixed capital formation minus public capital spending) is the dependent variable while Recurrent Expenditure (REEX), Capital Expenditure (CAPEX), Gross Domestic Saving (GDS), Lending interest rate (LIR) and Gross Domestic Product (GDP), are the explanatory variables.

Empirical Results

The empirical result is presented below starting with unit root test.

Unit Root Test (Stationary test)

The result for the test of stationarity is presented in Table 1.

Table 1: Augmented Dickey-Fuller test statistic

Variables	T. Statistics	Prob	Order of Integration	Decision Criteria Prob < 5%
LPI	-5.245457	0.0001	I(1)	Stationary
LREEX	-8.134727	0.0000	I(1)	Stationary
LCAPEX	-6.268888	0.0000	I(1)	Stationary
LGDS	-7.125284	0.0000	I(1)	Stationary
LIR	-6.808519	0.0000	I(1)	Stationary
LGDP	-3.345248	0.0200	I(1)	Stationary

Sources: Researcher's computation from E-view (version 10)

From above, all the variables are stationary at 1st difference at the 1 percent (%), 5percent (%) and 10percent (%) levels of significance shown in Table 1. Since all the variables are I(1), there is possibility of long run co-integration among them.

Co-integration Estimate

Table 2: Result of Co-integration test

	Trace Statistics				Maximum Eigen-Value Statistics		
Hypothesized No. of CE(s)	Statistics	5% critical value	Prob***	Hypothesized No. of CE(s)	Statistics	5% critical value	Prob***
None *	129.1417	95.75366	0.0000	None *	50.46284	40.07757	0.0024
At most 1 *	78.67889	69.81889	0.0083	At most 1	26.80541	33.87687	0.2739
At most 2 *	51.87347	47.85613	0.0200	At most 2	21.28722	27.58434	0.2592
At most 3 *	30.58625	29.79707	0.0405	At most 3	16.20680	21.13162	0.2130
At most 4	14.37945	15.49471	0.0731	At most 4	10.51141	14.26460	0.1805
At most 5 *	3.868038	3.841466	0.0492	At most 5 *	3.868038	3.841466	0.0492

Note: HCE(s) = Hypothesized No. of Co-Integrating Equations(s)

* signifies a rebuff of the premise at the 0.05 level

Source: Author's Computation using Eviews 10, 2020

The Johansen co-integration reveals five (5) co-integrating vectors for Trace statistics and two (2) co-integrating vector Maximum Eigen-value at 5% critical level, which depict a long-term equilibrium relationship between private investment and some of the explanatory variables.

Normalized Co-Integration Coefficients (Standard errors in parentheses)

LPI	LREEX	LCAPEX	LGDS	LIR LGDP
1.000000	14.81170	1.792746	-	
5.872593	-0.091800	-11.92127		
(2.08619)	(1.16971)	(2.42755)		
(0.15499)	(2.36200)			

This can be written as:

LPI 14.81170 LREEX + 1.792746 LCAPEX – 5.872593 LGDS – 0.091800 LIR – 11.92137 LDGP ……. (5)

Short Run Estimate

When there exists a certain level of co-integration from the Johansen, the use of an ECM model increasingly appears necessary for modeling the special connection

and the relevant pace of adjustment from short run balance to the long run equilibrium. This invariably infer that the bigger the quantity of the parameters, the more sophisticated the pace of the model from short run to the long run and vice versa. The rule of ECM holds that there should be a negatively signed and statistically significant error correction. As shown in Table 3, ECM has a coefficient of – 0.073717 and p value of 0.0185. The borne sign and the significance of the coefficient are the necessary conditions for any disequilibrium to be corrected. This means that the identified economic variables add 7.4% per year to private investment for equilibrium to be restored in the long run.

Table 3: Parsimonious short run regression estimates on private investment

Null Hypothesis	Obs	F-Statistic	Prob.
LREEX does not Granger Cause LPI	36	6.20951	0.0054
LPI does not Granger Cause LREEX		2.24923	0.1224
LCAPEX does not Granger Cause LPI	36	6.38793	0.0048
LPI does not Granger Cause LCAPEX		0.89916	0.4173
LGDS does not Granger Cause LPI	36	5.14132	0.0118
LPI does not Granger Cause LGDS		2.47540	0.1006
LIR does not Granger Cause LPI	36	1.23576	0.3045
LPI does not Granger Cause LIR		1.23852	0.3038
LGDP does not Granger Cause LPI	36	5.70279	0.0078
LPI does not Granger Cause LGDP		1.04038	0.3653

Source: Author's Computation using Eviews 10, 2020

While considering the parsimonious regression evaluation comprising the short run breakdown, it is observed that one-unit increase in recurrent expenditure (LREEX) lagged in year 1 and 2 could cause decreases in private investment in the current year by 0.28 and 0.33 units respectively. By inference there is a negative relationship between recurrent expenditure (LREEX) lagged in year 1 and 2 and private investment which is considerably substantial at 5percent (%). Therefore, the coefficient of capital expenditure (LCAPEX) lagged in year 1 and 2 affects private investment positively and statistically significant at 5%; as a unit in (LCAPEX) increases private investment in the current year by 0.50 and 0.19 unit accordingly.

The coefficient of gross domestic savings (LGDS) lagged also in year 1 and 2 affects private investment in the country negatively; as the unit increase reduces private investment by 0.54 and 0.39 units respectively and the variable is considered very essential in explaining private investment in the country as it is significant at 5% while the coefficient of lending interest rate (LIR) lagged in year 1 and 2 have positive impact on private investment in the country and significant at 5%. Meanwhile, the coefficient of gross domestic product (GDP) lagged also in year 1 and 2 found to be positively connected with the level of private investment in the country; as a unit increase raise private investment by 0.73 and 0.03 units accordingly and considered not to be significant value.

Nevertheless, the coefficient signs of recurrent expenditure (LREEX), capital expenditure (LCAPEX) and gross domestic product (GDP) conforms to the theoretical (a'priori) expectation while gross domestic savings (GDS) and lending interest rate (LIR) were against the theoretical expectation. But this does not mean that our variables of choice are insignificant in the explanation of the dependent variable.

Also, the coefficient of determination R^2, account for 61% of the disparity of private investment during 1981 to 2018 are captured by the variables available in the model while the residual 39% are explained by other variables not captured by the model. The Durbin-Watson of 1.8 shows that there is no presence of serial correlation in the model

Granger Causality Test

Table 5

Variables	Coefficient	Std. Error	T-Statistic	Prob.
ECM(-1)	-0.073717	0.028734	-2.565483	0.0185
C	0.024408	0.065420	0.373097	0.7130
LREEX (-1)	-0.279454	0.123645	-2.260135	0.0351
LREEX (-2)	-0.333315	0.162992	-2.044982	0.0542
LCAPEX (-1)	0.495437	0.080226	6.175500	0.0000
LCAPEX (-2)	0.191290	0.064200	2.979618	0.0074
LGDS (-1)	-0.544376	0.132212	-4.117447	0.0005
LGDS (-2)	-0.390994	0.147774	-2.645898	0.0155
LIR (-1)	0.017877	0.008071	2.214847	0.0385
LIR (-2)	0.015803	0.023558	0.670811	0.5100
LGDP (-1)	0.713194	0.448190	1.591278	0.1272
LGDP (-2)	0.033303	0.471426	0.070644	0.9444
R-squared	0.769713	S. D dependent Var:		0.257169
Adjusted R^2	0.608512	F-Statistic		4.774858
D. W Stat	1.842511	Prob. (F-Statistic)		0.000828

Source: Author's Computation using Eviews 10, 2020

From the above Granger causality test, using 5 per cent level of significance, it is discovered that there is unidirectional causality between recurrent expenditure, capital expenditure, gross domestic savings and gross domestic product on private investment in the country. It revealed that government expenditure, savings and national income has an influence on the private investment in the county under the years reviewed.

However, there is also no direction of causality between lending interest rate and private investment in the country as they act independently of another. This implies that lending interest rate has no influence on private investment in the country.

This result shows that private investment in the country is very much related to government spending, savings habit and the economic growth in the country.

Major findings

In view of the changing role that government plays in enhancing and ensuring economic development amid the internal societal economic challenges widely attributable to a sharp decline in government income, evidence abound that most of the state trade and business policies have been made including but not limited to policies on deregulation, privatization, among others targeted at sectoral reforms to support the economy and to boost public confidence in private and public sector investments. It is against this backdrop that this paper takes a look at the impact of government expenditure on the Nigerian economy and the sphere of the Nigerian private investment between the period of 1981 – 2018. The long-run estimate revealed the existence of a long-run relationship between components of government expenditure and private investment in the country using Johannsen co-integration techniques.

In addition, the short run estimates showed that the first and second lagged value of recurrent expenditure, capital expenditure, gross domestic savings and the first lagged value of lending interest rate had significant influence on private investment while first and second lagged value of gross domestic product and second lagged value of lending interest rate had insignificant influence on private investment at 5% level of significance. Consequently, the coefficient of capital expenditure, gross domestic product and lending interest rate had a positive impact on private investment in the country while the coefficient of recurrent expenditure and gross domestic saving had a negative impact on private investment in the country. This simply implies that government capital expenditure, economic growth and lending interest rate crowd in private investment while recurrent expenditure and domestic savings crowd out private investment.

However, from the short-run analysis, it is observed that gross domestic savings has a negative magnitude on the level of private investment as against the theoretical expected sign. This is imperative and very important because there has not been any interaction amid the rate of savings and investment in the country. Regrettably, the link between savings, investment and growth in Nigeria are weak due largely to low level of income, decreased saving habit, high loaning rate, irregularity of plans and policies, over-dependence on sales and revenue from crude oil and most importantly, corruption.

Also, to examine causality between private investment and government expenditure was part of the specific objectives of this research. Using the Granger causality techniques, it is observed that government recurrent and capital expenditure granger causes private investment in the country within the period under review.

Recommendations

The authors of monetary policies drum support for the position that government expenditure should compliment private investment in the economy. They further posit that in line with the low level of savings in the national purse, alongside the significant level of shortage presently being experienced in areas requiring core critical infrastructures and social developments such as in the education and training sector, roads and transportation sector, etc., it is increasingly becoming important for the government to provide the platform for investment that will boost the system and drive economic growth. Also, judging from the findings of this study, the following recommendation are made:

Governments should raise the share of capital spending and direct it to public infrastructure services such as electricity, ICT, education and health for effective improvement in the delivery of services. Besides, the excellence and efficacy of capital disbursement should be improved through excellent institutional framework, fiscal discipline, quality and integrity of legal system.

Government should promote national savings culture through the provision of appropriate incentives. Savings mobilization and restrain from mainly subsidizing consumption, as exemplifies by fuel subsidy will result in huge capital formation. If the venture panorama in an economy is promising, a significant part of the wages earned by individuals will in no doubt be reflected in private investment compared to consumption because individuals will find it easier to leverage on an enabling investment environment created the government.

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