Private Investment and Economic Performance in Nigeria

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Abstract

This study examines the impact of private investment on economic performance in Nigeria using time series data from 1980 -2018. Multiple regression and co-integration methods are employed to analyze the data. The objectives of this study is to, among other things, examine the casual relationship between private investment and economic growth in Nigeria and to investigate the impact of private domestic investment on economic performance in Nigeria. Being a time series data, the first step is to test for the stationarity of the data by using Phillips Perron-Fuller unit root test. Ordinary least square (OLS) and Auto regressive distributed lag (ARDL) technique is used to estimate the models. The results of the unit root test show that some variables; Labour Force Participation rate (LPR), Private Domestic Investment (PDI),Foreign Direct investment (FDI), Misery Rate (MR), Private Investment (PI), Exchange Rate (EXR), Unemployment Rate (UNEM) and Trade Openness (TOP) are integrated of order one (1) while two variables; Real Gross Domestic Product Growth Rate (RGDPR) and Real Interest Rate (RINTR) are integrated of order zero (0). The findings from the analysis using the Ordinary Least Square (OLS) and Auto Regressive Distributed Lag (ARDL) methods show the following: that there is no causal relationship between private investment and economic performance in Nigeria. Private Domestic Investment (PDI) recorded a positive but insignificant impact on economic performance (RGDPR) both in the short run and long run; unemployment rate reveal a negative but insignificant impact on economic performance (RGDPR) in the short run but the impact is statistically significant in the long run. There is no long run significant impact of Foreign Direct Investment (FDI) on economic performance in Nigeria, Trade Openness showed a significant inverse relationship with Misery Rate which was proxy for economic performance. The co-integration tests also confirm the existence of long run relationship between the variables and results gotten from stationarity and normality test reveal that the model is fairly well specified and could be used for policy analysis. Based on these findings, the study recommends that the

Nigerian government should promote and encourage both domestic and foreign direct investment. The investment policy should be more transparent, attractive and competitive.

Keywords: Private investment, economic performance, labour force participation rate, Auto Regressive Distributed Lag.

1.0 Introduction

1.1. Background to the Study

Economic performance is the outcome of a combination of several factors among them is an increase in investment. Investment as a component of aggregate demand has an effect on the level of aggregate demand. It is indeed the component of the aggregate demand that is more volatile since the other components such as household consumption and public expenditure are relatively stable. A slowdown in investment is translated to a slowdown in economic performance hence, growth. Bayrakfer (2003) postulated that investment is the result and cause of economic performance; no wonder it is often said that there cannot be a reasonable level of economic performance in any economy without investment. Therefore, in achieving a high level of economic performance, the nation level of investment must be high. Investment involves both public and private investment however for the purpose of this study great emphasis will be laid on private (sector) investment. The role of private sector is important in enhancing the quantity of gross domestic product and its ability to allocate scare resources efficiently. European Commission EU, (2014) and International Finance Corporation IFC, (2011) asserted that private sector has the potential for addressing the development and growth challenges of developing countries via its contributions in many areas like poverty reduction, employment creation, crime rate reduction, environmental sustainability etc.

Moreover, since investment consist of accumulation of production capacity, it determines the productive capacity of the economy and the size of the labour utilized in making the capacity operational.One of the cardinal economic objectives of developing economies, including Nigeria is to achieve high economic performance (growth) that will lead to rapid economic development and reduction of poverty even with the scourge of Corona virus (COVID19) pandemic. Notwithstanding the theoretical ground one may analyze it, economic performance indicates the ability of an economy to increase production of goods and services with the stock of capital and other factors of production within the economy. It is assumed therefore that a high level of capital accumulation, with the right combination of other factors of production will lead to a high performance in output level. According to Nnanna, et al; (2004) economic performance is theoretically and empirically established to be dependent on capital accumulation. Investment in a broad sense refers to both investment in machine and human capital in the form of quality education and training, the controversy as to whether an economy may experience an increase in economic performance without experiencing any increase in investment or an increase in investment without economic performance has been traced to the classification of investment. Capital accumulation without the appropriate human capital as well as other supporting factors like good macroeconomic environment and policies may not result in an increase in economic performance. Further, an economy may experience an increase in economic performance without any visible increase in investment if it has idle or unutilized capacity which it now utilizes.

Nigeria as a developing country has experienced lot of challenges in achieving rapid economic performance in the economy. The public sector dominated in the 1970s due to the oil

boom in the country as this gave rise to sector led government strategy. In 1986, Structural Adjustment Programme (SAP) was put in place with the focus on facilitating the development of the private sector. As time passes on, the upward trend of private investment in Nigeria keeps evolving and improving thus giving rise to a high level of economic activities which boost the economic performance of the country. However private sector is faced with various challenges as its rate of investment continues to decline with its attendant overdependence of the nation on the oil sector revenue. Ibenta (2005) noted that foreign investors are exposed to currency risk hence they divest from Nigerian economy and this is due to the fact that Nigerian government pays much attention on creating policies to boost private investment without a vast knowledge on the factors that could influence the effect of private investment on economic performance in the country. Negligence of such important fact by the government causes the reduction in the level of private investment in the country. It is however noted that private investment will flourish only in supportive environment of cost reduction and reasonable level of stability in the economy.

Over the years, successive government in Nigeria have viewed Private Investment (both foreign direct investment and private domestic investment) as a vehicle for political and economic domination. This culminated in the formation of the Nigeria Enterprise Promotion Degree (NEPD) to regulate foreign investment at a maximum rate of 40% (indigenization policy). The result of this policy implementation was a decline in both foreign private investment and foreign portfolio investment as it slowed down economic performance of all sectors of the country including money market and capital market.

Since the return to democracy in 1999, Nigeria has embarked upon an ambiguous reform programme towards greater economic openness and liberalization. As a result, Nigeria has become a top recipient of foreign direct investment in Africa with inflows which had surpassed those to South Africa since 2009, OECD (2009). Growth has not however yet been translated into inclusive development and the investment climate still suffers from severe challenges. To address these challenges, the government had examined their investment policies in light of the OECD policy framework for investment. In the late 1990's towards the end of the military rule with the take-off of civilian government, public private participation gained momentum, the essence was to allow private sector engage with government in matters of investment in a more systematic manner.

In spite of the rapid adoption of public private partnership to improve infrastructure development in the country hence boost investment options there are numerous issues in infrastructures and standard of living such as poor and insufficient housing, epileptic power supply, inadequate healthcare facilities, dwindling resources and deteriorating transport sector. Others are inequalities, high poverty incidence, high level of misery rate etc,

Private investment as a catalyst for increase in economic performance has been recognized by different governments globally. However, the underdeveloped state of Nigerian capital and money markets coupled with government regulations may have been responsible for the undesirable outcome of investment especially foreign investment on the private sector in the country. Though different efforts have been made in making these markets more effective, yet, they are not vibrant as compared to their counterpart in developed nations thus cannot compete favourably for investment funds.

Conducive business environment and strong legal system have been identified as a major incentive for foreign investment. Nigerian business environment is marred by insecurity, weak and slow judicial process, inconsistencies in government policies and non-transparency of government operations.These unfavorable conditions discourage foreign and domestic investors from investing in the capital and money markets which indirectly promotes private investment in a country. It is in this light that this study is carried out to analyze the link as well as show the impact of private investment (both domestic and foreign) on economic performance in Nigeria over the last 38 years (1980 – 2018). The rest of the paper is organized as follows: The next section discusses the review of conceptual framework, theoretical and empirical evidences. Section 3 discusses the methodology. Results and interpretations are presented just before the summary and conclusions.

2.0 Literature Review

2.1. Conceptual Review

Private sector is the part of the free market economy that is made up of companies and organizations that are not owned and managed by the government. The Central Bank of Lesotho (2009) defined the private sector as a basic organising principle for economic activity in a market based economy where physical as well as financial capital is generally privately-owned and production decisions are made for private gain. Thus the private sector in this study is the business organisations that are owned by individuals for their own economic gains. In Keynesian terminology, investment refers to addition to capital equipment which enables increase in the production of capital goods (Jhingan, 2003). The term, investment, according to Ibenta (2005), may be defined as accumulation and commitment of fund in financial and real assets with the objective of obtaining income over time. According to (Heim, 2008), Investment can also be referred to as the production of capital goods. Hence, Investment include; new plant and equipment, construction of public works like roads, dams, buildings, etc. Agu, (2005) defined Investment as the outlay of money for future use.

From the above definitions, it is established that investment involves an outlay of fund with the expectation of future income. Investment can be divided into autonomous and induced investment. Autonomous investment is service based and not induced by demand as it is not influenced by immediate returns it is independent of demand. Induced investment on the other hand is largely profit motivated. Autonomous investment is in the purview of the public sector and therefore propelled by the government. Investment is broadly classified into four major components: the private domestic investment, public domestic investment and portfolio investment and foreign direct investment. Private domestic investment refers to gross fixed capital formation plus net changes in the level of inventories, whereas public investment includes investment by government and public enterprises on social and economic infrastructure, real estate and tangible assets Bakare (2011). The combination of both private and public investments is referred to as gross fixed capital formation in order to distinguish them from their counterpart, foreign investment.

Foreign private investment on the other hand comprises foreign direct investment and foreign portfolio investment. Foreign direct investment according to World Bank (1996) is defined as investment that is made to acquire a lasting investment management interest (usually10% of voting stock) in an enterprise operating in a country other than that of the

investors. FDI is a direct investment into production or business in a country by an individual or company of another country, either by buying a company in the target country or by expanding operations of an existing business in that country. In contrast, portfolio investment is a passive investment in the securities of another country such as stocks and bonds. The major issue in policy formulation and implementation is how to use available resources (capital and human) and natural resources to achieve economic development. Todaro and Smith (2006) in their view expressed economic performance as a steady process by which the productive capacity of the economy is increased over time to bring about rising levels of national output and income. Jhingan (2006) defined economic performance as an increase in output. Jhingan further explained that it is related to a quantitative sustained increase in the country's per capita income or output accompanied by expansion in its labour force, consumption, capital and volume of trade.

The key points of economic performance according to Ochejele (2007) are increasing rate of growth of per capita income or output, increasing rate of productivity, increasing rate of structural transformation and international flows of labour, goods and capital. However, economic performance traditionally is assessed with the following key measures; economic growth (real GDP growth), inflation-target CPI of 2%, unemployment target of full employment, current account, misery index (inflation + unemployment rate), investment level, Government borrowing/ National debt, as well as Human Development Index (HDI), which is an index that measures national growth based on measures of life expectancy at birth, education attainment, literacy and adjusted real per capita income.

2.2 Theoretical Framework

2.2.1. The Neo-classical Growth Model

The Solow and Swan (1956) models of economic growth, which commonly represent the Neoclassical model are based on an aggregate production function (Cobb-Douglas) and a capital accumulation equation. These models do not account for technological progress and predict that the level of per capita income is determined by the population growth rate and the investment rate. Accordingly, economic growth can happen only temporarily and lasts only until income per capita reached its steady state level. The second model introduced by Solow in 1956 incorporates technology as exogenous variable. The important implication of the neoclassical growth model is the level of per capita output is determined by the level of technology, investment rate and population growth rate. While sustained growth rate of per capita output overtime is determined by technological changes. Other temporary shocks such as policy changes can affect growth only temporarily just until a new steady state level is reached. Hence, according to Solow's model, per capita output defers across countries and overtime is explained by the country's population growth, investment rate and technology (Jones 1995, Romer 1986).

In this model, if there is no technological progress, steady state per capita output does not grow and it depends on exogenous factors (that is technological progress and population growth). In this framework, in the short run, an increase in the savings rate increase per capita income. However, due to diminishing returns to capital, per capita output in the long run grows at the rate of exogenously given technological progress. Although economic policies can affect the level of output (growth rate) when the economy is in transition from one steady state to another, they do not affect steady state economic growth. One might object to the neoclassical model on the

grounds that it does not, in the end, shed light on economic growth. In the steady state of the neo classical model, all growth is due to improvement in technology, but model unravels the mystery of economic growth simply by assuming that there is economic growth (Mankiw 1995). In other words, the neoclassical growth model is criticized on the grounds that it leaves technological growth as an exogenous factor and without technological growth, the model asserts that economic growth will, ultimately, cease.

2.2.2 Accelerator Theory of Investment

According to Lipsey and Crystal (2007) the accelerator theory of investment relates investment to economic growth. It says that the possibility of systematic fluctuations arise because investment is assumed to be related to changes in the economic growth. The demand for machineries and factories is obviously derived from the demand for the goods that the capital equipment is designed to produce, if there is a demand that is expected to persist and that cannot be met by increasing production with existing industrial capacity, then new plants and equipment was needed. The theory assumes fixed capital output ratio, meaning that firms in the domestic economy always desire to keep a relatively fixed ratio of the existing stock of fixed capital assets to the level of output or growth. It believes that a rise in output may prompt increased levels of investment as firms adjust to reach the new optimal capital stock. Gbanador (2007) observed that in the accelerator theory, the level of current net investment in fixed capital depends on the change in income or output in the previous year. Thus $I_t = V (Y_t - Y_{t-1})$ Where I_t = Net Current investment, Y_{t-1} = National Income of the Previous Year and V = Capital output ratio (the accelerator).The weakness of accelerator theory is that is it seen by many to be too mechanical due to its assumption that all firms reacts in the same way to increased demand for their outputs. This is because some firms may react promptly by purchasing more plants and machineries while some may wait to see if the increased demand will persist. The reason for the adoption of this theory is that it relates the level of investment to increase in output.

2.3 Empirical Literature Review

Scholars have delved into studies focusing on investments and overall economic performance measured by growth and development. It is believed by many scholars that there is serious infrastructural gap in third world economies and economic growth is attainable by sufficient close of the gap which will improve demand patronage by developed economies, thereby raising the needed capital for further investment. Based on this, empirical studies addressing the impact of private investment on economic growth in developing countries started to appear in economic literature following the 1980s and 1990s structural adjustment program. The robustness of investment to GDP ratio in explaining economic growth and economic policy through investment variables led most studies to focus their analysis on economic policy towards explaining cross-country differences in investment level. In addressing the role of private and public investment in the economic growth process for 24 Latin American and Asian countries using a cross section sample, Khan and Reinhart (1990) found that private investment and public investment have a different effect on the long run rates of economic growth.

Furthermore, they identified that private investment plays a much larger and more important role in the growth process than public investment. In contrast, public investment has no statistically significant effect on growth. However, the problem in this analysis was the quality of the methodology employed. The causal correlation between dependent variables and

the independent variables was not addressed properly. The causality runs directly from private investment to economic growth. The correlation between private and public investment may cause public investment to contribute indirectly to GDP growth by providing the necessary infrastructure like roads, electricity, telecommunication and schools.

Similar study, which tried to show the role of the private investment on economic performance, is that of Ghura (1997) for Cameroon. He used more than three decade‘s data to test the Cameroon hypothesis and employed modern econometric tools of time series to avoid any spurious correlation. He found that private investment plays a crucial role in output expansion. The analysis established a significant robust causal linkage between private investment and economic growth implying that increases in private investment ratio boost economic growth. An increase in the private investment ratio by one percentage point raises economic growth by about 1.4 percentage points; this impact is larger than that of an increase in government investment. Khan and Kumar (1997) using pooled time series cross section data, which has a relatively larger number of country coverage 95 developing countries including (Nigeria) and a long time period (1970-1990) came up with similar positive contribution of private investment to economic growth. Their result revealed that there is a substantial difference in impact of private and public investment on economic growth. Private investment had a much larger impact compared to public investment especially during the 1980s. This relationship holds even when other determinants of per capita growth are taken into account such as population and technical change, human capital enrollment ratio (secondary) and fiscal balance. Calamitsis, Basu and Ghura (1999) using data for 1981-1997 for Sub-Saharan Africa found that private investment is large and statistically significant compared to government investment in growth analysis. This result underscores the crucial role played by private investment in boosting growth.

Although the magnitude of the impact of private investment declines once other factors influencing growth are taken into account, the coefficient remains statistically significant, the effect of government investment is not robust. Button and Sumlinshi (2000) confirmed Khan and Kumar‘s (1997) results and found out even larger coefficient for private investment and smaller coefficient for public investment. Paterson (2003) used data from 1981 to 2000 to analyses the relationship between growth in real GDP and investment in a simple Harrod-Domar growth model and found a positive connection between investment and GDP growth rate in Ethiopia. The result also suggests that investment from exports and capital inflow is a viable way to promote growth. However, the analysis and the conclusion are based on three explanatory variables (the ratio of investment to GDP, the ratio of export to GDP and the ratio of capital inflow to GDP) for a short period, which exposes the analysis to econometric problem like multicollinearity and endogeneity. Furthermore, the Harrod-Domar model is criticized for its assumption of a fixed coefficient production function, which does not allow for factor substitution and the saving ratio is assumed to be fixed. Ghazali (2010) in his study of private investment and economic growth identified the causal relationship between private domestic investment and economic growth (GDP) in Pakistan over the period 1981 to 2008. He discovered the following: That there is a bi-directional causality between private domestic investment and economic growth; increased economic growth encourages large private domestic investment, and vice versa. The co integration results from his study showed that there is a long run relationship between private domestic investment and economic growth. From the result, it is obvious that private domestic investment in Pakistan spurs economic growth.

Similarly, Tan and Tang (2011) examined the dynamic relationship between private domestic investment, the user cost of capital and economic performance in Malaysia during the period 1970-2009. Their results of Johansen co-integration test suggested that private domestic investment, user cost of capital and economic growth co-integrated in Malaysia. They also carried out Granger Causality test and found that unidirectional causality runs from private domestic investment (PDI) to economic growth (GDP) and from PDI to user cost of capital in the long-run. Suhendra and Anwar (2014), studied the effect of private investment and public investment on economic performance in Indonesia from 1990-2011. Using Ordinary least square OLS they found out that government investment, economic growth, credit available for private investment, and the exchange rate have a positive and significant impact on private investment. Interest rates and inflation have a negative and significant impact on private investment. The higher the interest rate and inflation, the lower private investment. Zinabe (2014) analysed the impact of investment on economic growth in Ethiopia. The theory adopted are the new neo-classical growth model of Cobb Douglas Production Function utilizing the error correction model (ECM). The model is implemented empirically using macroeconomic data for Ethiopia from 1981 to 2011 period. The co integration tests confirmed the existence of long term relationship between the variables. The findings of the study concluded that there exist a short-run and long-run relationship between investment and economic growth in Ethiopia. This implies that investment impacts positively on economic growth in the short and long run process. Hussein and Benhin (2015) used Co-integration and error correction models to investigate public and private investment and economic Development in Iraq based on a neoclassical growth framework between 1970 and 2010. They found that in the long run, private investment, public investment, growth in the labour force and growth in oil revenues affected real gross domestic product (GDP) positively and statistically significant.

Warner (2014) in his study empirically examined the role of big infrastructure and public capital in successfully enhancing the economic performance in low income countries. The study revealed that on the average, the evidence denotes weak positive association between investment spending and growth, and there exists a little long run positive effects. However, an exception to this situation is Ethiopia that its high public investment gave rise to high growth rate of gross domestic product. Osman (2014) applied the auto-regressive distributed lag (ARDL) model as an approach to co integration, on annual time series data from 1974-2012 to investigate the relationship between private sector credit and economic growth in Saudi Arabia. The study found that there is a long-run relationship between private sector credit and economic growth. Moreover, private sector credit has positive long and short run relationship and the elasticity of GDP to the private sector credit was (0.054) and (0.068) for long-run and short-run respectively. Sumei Tang et al; (2008), investigated the causal link between foreign direct investment (FDI), domestic investment and economic growth in China for the period 1988 - 2003 using a multivariate VAR system with error correction model (ECM) and the innovation accounting (variance decomposition and impulse response function analysis) techniques. The results indicated that while there is a bi-directional causality between domestic investment and economic growth, there is only a single directional causality from FDI to domestic investment and economic growth. Rather than crowding out domestic investment, FDI is found to be complementary with domestic investment.

There are also studies conducted in Nigeria over the years, which show various determinants of economic performance. Most of them, like others, focused on investigating the macro economic factors of growth. However, studies have been carries out on private investment

and economic performance in the country. In a study on the determinants of private domestic investment in Nigeria, Bakare (2011) discovered that changes in real private investment in Nigeria are best explained by changes in political trend. The study used time series data with dummy variable representing political instability, macroeconomic instability and poor infrastructure. The econometric results of the study suggested that political crises may have created a climate that is hostile to private investment in Nigeria. He therefore submitted that the overall measure of political and macroeconomic instability has been a major hindrance to private investment in Nigeria.Taiwo and Abayomi (2011) empirically investigated the trends and impact of government spending on growth rates of real GDP in Nigeria from 1970-2008 using the Ordinary Least Square (OLS) technique. The results illustrated that there is a direct relationship between real GDP, recurrent and capital expenditure of government. They suggested that government should encourage efficient distribution of development resources by stressing on private sector participation as well as commercialization privatization.

For economic activity in a market–based economy where physical as well as financial capital is generally privately-owned and production decisions are made. Ogujiuba and Obiechina (2012) examined the relationship existing among foreign private capital components and foreign portfolio investment, economic growth and some macroeconomic indicators; interest rate and inflation rate as well as policy implications, using time series data from 1986-2008. A non-restrictive vector Autoregressive (VAR) model was developed while restriction is imposed to identify the orthogonal (structural) components of the error terms – structural vector Autoregressive (SVAR). The study indicated that the response of the GDP to shocks from the foreign portfolio investment is not contemporaneous and this is applicable to other variables. It is somewhat sluggish but returns faster to equilibrium compared to the response from the Net Portfolio Investment. Restructuring the recursive Cholesky structural decomposition of the impulse response function, both in the short-run and long-run, the result indicated that the Net Portfolio Investment impact on the GDP at the short-run, while the Net Direct Investment does not. Also, the interest was shown to impact on the Net Portfolio Investment in the short-run.

Baghebo and Edoumiekumo (2012) empirically investigated domestic private accumulation and economic development in Nigeria. They applied co-integration and error correction model of data analysis and found that the variables private investment, public investment, real interest rate and inflation rate impacts positively on real gross domestic product. The outcome of data analysis implies a high degree of macroeconomic stability and allows inflation rate are imperative to ensure desirable effect of private investment on economic progress. Baghebo and Edoumiekumo (2012) study on domestic private accumulation and economic development in Nigeria, it can be inferred that given adequate environmental, monetary and fiscal incentives to private investment to thrive, the expected and required economic development has a high rate of propelling the economy forward. Orji (2012) examined the effect of bank savings and bank credits on Nigeria's economic growth from 1970-2006. He adopted two models: Distributed Lag Error Correction Model (DL-ECM) and Distributed Model. The result showed a direct relationship between the lagged values of total private savings, private sector credit, public sector credit, and economic growth.

Thus, he recommended among others, that government's effort should be directed towards increasing income per capita by decreasing the rate of unemployment in the country in an attempt to accelerate growth through improved savings and private investment. Nasiru (2012) examined the relationship between government expenditure (both capital and recurrent) and

economic growth in Nigeria from 1961-2010. His results indicated that there is no long-run relationship between government expenditure and economic growth in Nigeria when real GDP is used only as the dependent variable. Also, the causality results showed that government capital expenditure granger causes economic growth. While no causal relationship was observed between government recurrent expenditure and economic growth. Abdullah, Ladan and Bakari (2012) carried out a study on impact of foreign private investment on economic growth in Nigeria, 1970 to 2000 using the following variables; private investment, interest rate, inflation rate and gross domestic products. They made use of VAR and VECM model which helped them to show that there is a long run relationship between foreign portfolio investment (FPI) and GDP and there exist a unidirectional causality between foreign portfolio investment (FPI) and GDP.

Umoh et al (2012) empirically investigated the relationship between foreign direct investment and economic growth in Nigeria between1970-2008. The study found that there is bidirectional relationship between FDI and economic growth in Nigeria, that is, FDI contributes to growth which in turn promotes FDI. The study encouraged further openness and increased private participation to ensure that Nigerian economy benefits from FDI and heightens economic growth rate. Udoka and Anyingang (2012) conducted a research on the effect of privatization on economic growth and development in Nigeria, 1979-2007 using gross domestic product, public sector capital spending, and private sector capital spending as variables. The method used was co-integration test and ordinary least square Regression. Their finding showed that private sector spending has significant positive relationship with GDP. Simon Oke (2014) conducted a study to show the relationship between foreign private investment, capital formation and poverty reduction in Nigeria from 1978 -2008. Simon in his study used these variables ; poverty rate, foreign private investment, exchange rate, inflation rate, Government investment on education and Government investment on Health Using co-integration and error correction mechanism (ECM) and Granger Causality tests showed that inflow of foreign private investment has not significantly contributed to poverty alleviation. A unidirectional relationship runs from poverty rate to private investment.

Aliyu and Yusuf (2015) carried out a study on impact of credit to private sector (CPS) on the real sector in Nigeria from 1986-2010. Using ordinary least square method, their study revealed that credit to private has a significant impact on the real sector. According to Imoisi, Abuo and Sogules (2015), they investigated the impact of domestic investment on economic growth in Nigeria from 1970 to 2013. Using co-integration and error correction mechanism techniques, their result indicate that private investment has positive but insignificant impact on economic growth. The study showed that private domestic investment and government productive expenditure influenced economic growth positively, but was not significant for the period of study

2.4 Evaluation of Literature Review

Though there exist a vast economic literature, which demonstrates the relationship between private investment and economic growth for groups of developing countries and country specific studies. It is obvious for country like Nigeria that private investment is the engine for sustained economic performance. Given this fact, it is useful to investigate the contribution of private investment to economic performance using long time series data. All the results indicated that private sector investment has positive effect on economic growth in both Nigeria and Asian

countries. Out of the studies, only four (Ghazali, 2010 in Pakistan, Tan and Tang, 2011 in Maylasia; Abdullah, Ladan and Bakari, 2012 and Simon-Oke 2014 in Nigeria) addressed the causal effect of private investment on economic growth. However, the results are conflicting. While Ghazali, 2010 indicated a bi-directional causality between private domestic investment and economic growth; others posited a unidirectional causality. More so, the direction of the unidirectional causal effect of equally conflicting. While Tan and Tang, 2011 showed that domestic private investment causes economic growth, Abdullah, Ladan and Bakar (2012) showed that foreign private investment causes economic growth.

However, Simon-Oke (2014) adopted poverty rate as proxy for economic growth and found that growth causes private investment. These inconsistencies in results created doubts on the direction on the relationship between private sector investment and economic growth. This study thus fills this gap by reinvestigating the causal relationship between private investment and economic growth in Nigeria. From the review of empirical literature, it is seen that all the studies in Nigeria except Aliyu and Yusuf (2015) expanded their studies of private investment-growth nexus beyond the market based era. However, Aliyu and Yusuf (2015) ended in 2010 (1986 to 2010) while the present study covers more time frame from 1980 to 2018. This implies that this study addressed both time frame gap and economic reform problems.

3.0 Methodology

3.1. Research Design

An empirical study becomes necessary to create a more specific relationship between private investment and economic performance in the economy. The research design used in this study is the quantitative design. This design is adopted because it seeks to know the cause and effect relationship between the variables of interest in any study, and it combines both theoretical considerations (a priori criterion) with empirical observations, aimed at obtaining information from the data that are available.

3.2. Model Specification

This section involves the determination of dependent and independent variables. It becomes imperative to specify the model to be used in the regression. The specification of the model will be based on the information relating to the phenomenon being studied. The main exercise at this stage is to make an attempt to model the relationship between private investment and economic performance in Nigeria. In line with the conceptual, theoretical and empirical literature, we therefore make an effort to model the measure of private investment on economic performance indicators.

3.2.1. Model 1: The Relationship between Private Investment and Economic Performance

In a bid to examine the relationship between private investment and economic performance, Granger Causality test is conducted for each of the variables in the model. We therefore specify the functional form for the above model in form of a Cobb-Douglas production function.

$$Y = AK^{\alpha} L^{\beta} \quad \text{……..…….(1)}$$

Taking log of both sides

$$\text{Log}Y = \log A + \alpha \log K + \beta \log L$$

The neoclassical model of economic growth stresses capital, labour and technological progress as the determinant of economic growth. The focus is restricted to technological progress in the form of private investment. The relationship between economic growth and the variables is stated as:

$Y = f(K,L,T)$……..……(2)

Where

Y = Economic growth

K = Capital

T = Technological Progress

Model 1: PI = f(RGDP, MR, TOP)……..(3)

$$\Delta PI_t = \sum_{i=1}^{m} \alpha_i \Delta RGDPR_{t-1} + \sum_{j=1}^{m} \beta_j \Delta PI_{t-j} + \mu_{1t} \ldots\ldots\ldots\ldots (3.1a)$$

$$\Delta RGDPR_t = \sum_{i=1}^{m} \pi_i \Delta PI_{t-1} + \sum_{j=1}^{m} \delta_j \Delta RGDPR_{t-1} + \mu_{2t} \ldots\ldots\ldots\ldots\ldots (3.1b)$$

$$\Delta PI_t = \sum_{i=1}^{m} \alpha_i \Delta MR_{t-1} + \sum_{j=1}^{m} \beta_j \Delta PI_{t-1} + \mu_{3t} \ldots\ldots\ldots\ldots\ldots (3.1c)$$

$$\Delta MR_t = \sum_{i=1}^{m} \pi_i \Delta PI_{t-1} + \sum_{j=1}^{m} \delta_j \Delta MR_{t-1} + \mu_{4t} \ldots\ldots\ldots\ldots\ldots (3.1d)$$

$$\Delta PI_t = \sum_{i=1}^{m} \alpha_i \Delta TOP_{t-1} + \sum_{j=1}^{m} \beta_j \Delta PI_{t-1} + \mu_{5t} \ldots\ldots\ldots\ldots\ldots (3.1e)$$

$$\Delta TOP_t = \sum_{i=1}^{m} \pi_i \Delta PI_{t-1} + \sum_{j=1}^{m} \delta_j \Delta TOP_{t-j} + \mu_{6t} \ldots\ldots\ldots\ldots\ldots (3.1f)$$

Where;

PI = Private investment

RGDP = Real Gross Domestic Product

MR = Misery Rate

TOP = Trade Openness

Δ = the first difference operator

Σ = summation

α , π, β and δ = coefficient

i and j = lagged period

t = time

$\mu_{1t}, \mu_{2t}, \mu_{3t}, \mu_{4t}, \mu_{5t}, \mu_{6t}$ = error term

m = maximum number of lags

3.2.2. Impact of Private Domestic Investment on Economic Performance

This model is a modification of the models used by Baghebo and Edoumiekumo (2012) where they studied domestic private investment and economic development in Nigeria. In this study, RGDP is used as the dependent variable while Labour force participation rate (LPR), Private Domestic Investment (PDI) and Unemployment rate (UNEM) are used as independent variables. Real interest rate is added to the estimated model as a control variable.

RGDPR = f(LPR, GFCF, PDI, UNEM, RINTR)…… 3.2

Where:

RGDPR = Economic Performance (Measured by Growth Rate of Gross Domestic Product)

LPR = Labour Participation Rate

GFCF. =. Gross Fixed Capital Formation

PDI = Private Domestic Investment

UNEM = Unemployment Rate

RINTR = Real Interest Rate

Econometrically, equation 3.2 can be expressed as

$$\text{LogRGDPR} = \beta_0 + \beta_1 \text{logLPR} + \beta_2 \text{logGFCF} + \beta_3 \text{logPDI} + \beta_4 \text{logUNEM} + \beta_5 \text{logRINTR} + \mu_{2t} \quad (3.2a)$$

β_0 is the fixed effect of the constant term

β_1 - β5are the coefficient of the explanatory variables and

μ_2 is the error term which captures the effect of the variables not included in the model.

Based on economic theory, the following should be expected:

$\beta_1 > 0$, $\beta_2 > 0$, $\beta_3 > 0$, $\beta_4 < 0$, $\beta 5 > 0$.

3.2.3. Impact of Private Foreign Investment on Economic Performance

To show the impact of private foreign investment on economic performance in Nigeria, Foreign Direct Investment (FDI) will be used to carry out the regression analysis. Adopting the model used by Abdullah, Ladan and Bakari (2012) to examine foreign private investment; their studies used interest rate, inflation rate and Private Consumption and Public investment as control variables for private investment. However for the purpose of these study foreign direct investment (FDI), labour force Participation Rate(LPR) and trade openness (TOP) are used as independent variables while Misery rate

(MR) is used to measure economic performance is the dependent variable. Exchange rate (EXR) is added to the model as a control variable.

Therefore the model is formulated below:

MR = f(LPR, GFCF, FDI, TOP, EXR)……..3.3

Where:

MR = Misery rate

LPR = Labour Participation Rate

FDI = Foreign Direct Investment

TOP = Trade openness.

EXR = Exchange Rate

Econometrically, equation 3.3 can be expressed as

Log MR = $\beta_0 + \beta_1 \log LPR + \beta_2 \log FDI + \beta_3 \log TOP + \beta_4 \log EXR + \mu_3$..(3.3a)

β_0 is the fixed effect of the constant term

$\beta_1 - \beta_5$ are the coefficient of the explanatory variables and

μ_3 is the error term which captures the effect of the variables not included in the model.

Based on economic theory, the following should be expected:

$\beta_1 < 0, \beta_2 < 0, \beta_3 < 0, \beta_4 < 0, \beta_5 > 0$.

3.3. Estimation Technique

This work uses classical ordinary least square (OLS) method and the Auto regressive distributive lag (ARDL) method. Granger causality test was conducted to trace the direction of causality between Private Investment and Economic Performance in Nigeria from 1980-2018. Further, since the variables in the model are time series there is probability that the series are non-stationary. Thus, there is need to determine their properties with respect to mean reverting. The study applies Auto regressive distributive lag (ARDL) bound test approach put forward by Persian et al; (2001) based on unrestricted error correction model. The bounds test methodology as compared to other conventional co- integrating procedures such as Engel and Granger (1987) and Johansen and Jucelius (1990) have gained popularity in recent times for some reasons. First it can be used with a mixture of I(0) and I(1) variables, second it involves just a single equation which makes implementation and interpretation simpler. Third it has superior statistical properties on small samples as it is relatively more efficient in small state samples. Fourth, all the variables are homogeneous and lastly different variables can be assigned different lag length.

The following Auto Regressive distributive lag (ARDL) representation of equation (3.2a) will be estimated in order to test the difference of long - run relationship between Private Domestic Investment (PDI) and economic performance:

$$\Delta RGDPR_t = \beta_o + \sum_{i=1}^{k} \beta_1 \Delta LPR_{t-1} + \sum_{i=1}^{k} \beta_2 \Delta GFCF_{t-1} + \sum_{i=1}^{k} \beta_3^i \Delta PDI_{t-1} + \sum_{i=1}^{k} \beta_4^i \Delta UNEM_{t-1} + \sum_{i=1}^{k} \beta_5^i \Delta RINTR_{t-1}$$

$$+ \sum \beta_6 \Delta RGDPR_{t-1} + \beta_7 LPR_{t-1} + \beta_8 GFCF_{t-1} + \beta_9 PDI_{t-1}$$

$$+ \beta_{10} UNEM_{t-1} + \beta_{11} RINTR_{t-1} + \beta_{12} RGDPR_{t-1} + \mu_t \ldots (3.2b)$$

Where:

RGDPR = Economic Performance (Measured by Growth Rate of Gross Domestic Product)

LPR = Labour Participation Rate

GFCF. =. Gross Fixed Capital Formation

PDI = Private Domestic Investment

UNEM = Unemployment Rate

RINTR = Real Interest

Δ = the first difference operator

Σ = summation

$\beta_1 - \beta_{12}$ = coefficient

i and j = lagged period

t = time

k = maximum number of lags

μ_t = error term

To obtain the optimal lag length for Auto Regressive Distributive Lag (ARDL) in equation (3. 2b) lag selection Criteria such as Final Prediction Error (FPE), Schwartz Information Criterion (SIC), Akaike Information Criterion (AIC) etc are applied and the lag combination that minimizes these criteria is the optimal lag for the model. Once the co-integrating relationship is established the short run dynamic is also analyzed. The error correction model is specified in equation (3.2c) below:

$$\Delta RGDPR_t = \beta_0 + \sum_{i=1}^{k} \beta_1 \Delta LPR_{t-1} + \sum_{i=1}^{k} \beta_2 \Delta GFCF_{t-1} + \sum_{i=1}^{k} \beta_3 \Delta PDI_{t-1}$$

$$+ \sum_{i=1}^{k} \beta_4 \Delta UNEM_{t-1} + \sum_{i=1}^{k} \beta_5 \Delta RINTR_{t-1} + \alpha Z_{t-1} + e_t \ldots . (3.2c)$$

Where:

RGDPR = Economic Performance (Measured by Growth Rate of Gross Domestic Product)

LPR = Labour Participation Rate

PDI = Private Domestic Investment

UNEM = Unemployment Rate

RINTR = Real Interest rate

Σ	=	summation
$\beta_1 - \beta_5$	=	coefficient
i and j	=	lagged period
t	=	time
k	=	maximum number of lags
e_t	=	error term

The negative significant α implies that any short term disequilibrium between the dependent and explanatory variables will converge back to the long run equilibrium relationship. Z is the error correction term which is the Ordinary Least Square residuals series from the long-run cointergrating regression and et is a white noise error term. Additionally, we performed a CUSUM test for parameter stability.

3.4 Descriptions of Variables Used

Real Gross Domestic product growth rate (RGDPR): Real gross domestic product is a measurement of economic output that accounts for the effects of inflation or deflation. It provides a more realistic assessment of growth than nominal GDP. Without real GDP, it could seem like a country is producing more when it's only that prices have gone up. Real GDP measures an economy's total goods and services in a given year, taking into account changes in price levels. It allows you to compare GDP by year because it takes into account inflation. Real Gross Domestic product is a good indicator of where the economy is in the business cycle. Knowing real GDP trends can help you prepare for recessions or make good financial decisions.

Real Interest rate (INTR): real interest rate is an interest rate that has been adjusted to remove the effects of inflation to reflect the real cost of funds to the borrower and the real yield to the lender or to an investor. The real interest rate reflects the rate of time-preference for current goods over future goods. The real interest rate of an investment is calculated as the difference between the nominal interest rate and the inflation rate:

Real Interest Rate = Nominal Interest Rate - Inflation (Expected or Actual).

The real interest rate adjusts the observed market interest rate for the effects of inflation. It reflects the purchasing power value of the interest paid on an investment or loan and represents the rate of time-preference of the borrower and lender. Because inflation rates are not constant, prospective real interest rates must rely on estimates of expected future inflation over the time to maturity of a loan or investment.

Private Domestic Investment (PDI): Domestic credit to private sector refers to financial resources provided to the private sector by financial corporations, such as through loans, purchases of non-equity securities, and trade credits and other accounts receivable, that establish a claim for repayment. For some countries these claims include credit to public enterprises. The financial corporation's include monetary authorities and deposit money banks, as well as other financial corporations where data are available (including corporations that do not accept transferable deposits but do incur such liabilities as time and savings deposits).

Foreign Direct Investment: Foreign direct investment (FDI) is an investment from a party in one country into a business or corporation in another country with the intention of establishing a lasting interest. Lasting interest differentiates FDI from foreign portfolio investments, where

investors passively hold securities from a foreign country. A foreign direct investment can be made by obtaining a lasting interest or by expanding one's business into a foreign country. An investment into a foreign firm is considered an FDI if it establishes a lasting interest. A lasting interest is established when an investor obtains at least 10% of the voting power in a firm. The key to foreign direct investment is the element of control. Control represents the intent to actively manage and influence a foreign firm's operations. This is the major differentiating factor between FDI and a passive foreign portfolio investment. For this reason, a 10% stake in the foreign company's voting stock is necessary to define FDI. However, there are cases where this criterion is not always applied. For example, it is possible to exert control over more widely traded firms despite owning a smaller percentage of voting stock.ng interest or by expanding one's business into a foreign country.

Real Exchange Rate (EXR): The exchange rate captures the reaction of foreign investors to currency risk of investing in Nigeria in the face of exchange rate uncertainty. It compares a nation's currency value against the weighted average of the currencies of its major trading partners. It is an indicator of the international competitiveness of a nation in comparison with its trade partners. Therefore, to calculate the EXR, you need to know two things: the nominal exchange rate and the price of the two countries' consumption baskets. The Real Exchange Rate (EXR) represents the nominal exchange rate adjusted by the relative price of domestic and foreign goods and services, thus reflecting the competitiveness of a country with respect to the rest of the world. More in detail, an appreciation of the currency or a high level of domestic inflation reduces the RER, thus reducing the country's competitiveness and lowering the Current Account (CA). On the other hand, currency depreciation generates an opposite effect, improving the country's current account.

Misery Rate or misery index (MR): The misery index (sometimes known as the Economic Discomfort Index EDI) is simply the sum of the inflation rate and the unemployment rate. The higher the combined score, the worse the economic situation. The Misery index was developed by economist Arthur Oku. Although Misery Index is a rather blunt and simplistic tool, it has been used to predict social issues, such as crime, poverty, suicide rates and even election results.

Trade openness: refers to the orientation of a country's economy in the context of international trade. The degree of openness is measured by the actual size of registered imports and exports of an economy. Trade openness ratio may be seen as an indicator of the degree of globalisation of an economy.

Labour Force Participation Rate: The labor force participation rate is a measure of an economy's active workforce. The formula for the number is the sum of all workers who are employed or actively seeking employment divided by the total noninstitutionalized, civilian working-age population. Labour force participation rate is defined as the section of working population in the age group of 16-64 in the economy currently employed or seeking employment. People who are still undergoing studies, housewives and persons above the age of 64 are not reckoned in the labour force.

Gross Fixes Capital Formation: Gross fixed capital formation, abbreviated as GFCF, consists of resident producers' investments, deducting disposals, in fixed assets during a given period. It also includes certain additions to the value of non-produced assets realized by producers or institutional units.

3.5 Evaluation Criteria

The study applies three (3) basic criteria used in evaluating the results of the parameter estimates in multiple regression analysis. These criteria aid in testing the accuracy and reliability of the parameter estimates in the model which confirms if the models are theoretically meaningful and statistically significant. The three basic evaluation criteria includes: the economic *apriori* criterion, the statistical criterion and the econometric criterion.

4.0 Empirical Results and Discussions

4.1. Unit Root Test

In order to check the time series data properties of the variables used in the model, we apply the unit root test. It is important to determine the order of integration of series. However due to the probability of structural changes that might have occurred during the time period covered by the study, the ADF test might be biased in identifying data as been integrated even if there are structural changes. Consequently, the analysis was conducted using Phillip' Perron (PP) test that was developed by Perron (1997). {reference Perron, P (1997). Further evidence on breaking trend functions in macroeconomic variables. Journal of econometrics vol 80, no 2, pp 335-385}. According to Herzer et all (2004) {Herzer, D. Nowka; Lehmann, F and B, Ciliverstovs (2004). Export-led growth in chile accessing the rule of export composition in productivity growth, www. Igi.wiwi.uni-goettingen. de}. This test evaluate the time series data in terms of structural changes at unknown points in time and therefore endogensises these structural changes.

Table 4.1. Unit Root Test

Variable	@Level	@1st Difference	Lag(s)	Model	Order of Regression
RGDPR	-5.055850		1	trend/intercept	1(0)
LPR	-1.572987	-6.948725	1	trend/intercept	1(1)
PDI	-0. 390646	-5.436677	1	trend/intercept	1(1)
FDI	-3.142940	-24.17393	1	trend/intercept	1(1)
MR	-3.040486	-11.86125	1	trend/intercept	1(1)
RINTR	-6.020437		1	trend/intercept	1(0)
PI	-0.392787	-5.432245	1	trend/intercept	1(1)
EXR	-1.059935	-4.440123	1	trend/intercept	1(1)
UNEM	-1.020646	-10.61924	1	trend/intercept	1(1)
TOP	-3.452814	-9.411631	1	trend/intercept	1(1)

Source: Authors computation using Eviews 9

NOTE: Test critical value @ 5 % =-3.533083

The resultof the table 4.1. above shows that all the variablesLPR, PDI, FDI, MR, PI, EXR, UNEM and TOP were integrated of order one (I(1)) except RGDPR, and RINTR, which are integrated of order zero (0).

4. 2 Granger Causality Test Result

It is increasingly necessary to know the direction of causality between Private Investment and Economic Performance in Nigeria. The Granger causality test result sheds light on this by using the lag specification as obtained from Eviews 9.

Table 4.2: Pair-wise Granger Causality Tests
Lag: 2

Null hypothesis	Obs.	f-statistic	Prob.	Decision	Direction
RGDPR does not Granger cause PI	37	1.13722	0.3333	Accept	No causality
PI does not Granger cause RGDPR	37	1.14182	0.8683	Accept	No causality
MR does not Granger cause PI	37	0.94755	0.3983	Accept	No causality
PI does not Granger cause MR	37	0.53549	0.5905	Accept	No causality
TOP does not Granger cause PI	37	1.55506	0.2267	Accept	No causality
PI does not Granger cause TOP	37	1.01160	0.3750	Accept	No causality

Source: Author's Computation Using Eviews 9

The result of table 4.2 shows that all null hypotheses are accepted which implies insignificant **row** P-values for all the variables. It therefore implies that there is a case of Independence meaning that Private Investment measured by the sum of Private Domestic Investment (PDI) and Foreign Direct Investment (FDI) does not Granger cause Gross Domestic Product growth rate RGDPR and Misery rate at 5% significant level.

4.2.1 Test of Hypothesis (H_0:1)

The hypothesis that there is no causal relationship between Private Investment and Economic Performance is answered based on the result obtained in table 4. 2. Using the F-statistic result for all variables and comparing it with the critical value and checking their individual **row** P-values, the null hypothesis is accepted. By this the decision rule follows that we do not reject the null hypothesis if F-statistic values are all less than the critical value. Therefore, since the F-statistic values are all less than critical value we do not reject the null hypothesis hence concludes that there is no causal relationship between Private Investment and Economic Performance in Nigeria. These findings were at variance with the works of Sumei Tang *et al;* (2008) in China and Abdullah, Ladan and Bakari (2012) in Nigeria.

4.3 VAR Lag Order Selection Result

The foremost exercise in the application is the determination of the autoregressive lag length.

Table 4.3.: VAR Lag Order Selection Criteria

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-120.8072	NA*	50.86633	6.767064	6.811051*	6.782416*
1	-119.7074	2.082477	50.58260*	6.761370*	6.849343	6.792075
2	-119.6154	0.163586	53.22237	6.811969	6.943928	6.858026

Source: Author's Computation Using Eviews 9

The results of the optimal lag length selection using Sequential Modified LR test (LR), Final Prediction Error (FPE), Akaike information criterion (AIC) and Schwarz information criterion (SC) and Hannan-Quinn information criterion (HQ) are diverse. The tests run over lag length of 0 and 1 to determine the optimal lag length. The SC and HQ indicates lag length of zero while FPE and AIC indicates lag length of one. At lag length of zero the model was not stabled we therefore choose lag length of one. Further considering the sample size of 38 observations lag length is determined using AIC which will not only minimize the probability of under estimation but can simultaneously maximize the chance of getting the correct lag length. In real term it implies that would take one (1) period before the impact of the independent variables could be felt on the dependent variable, although this is only applicable when estimating the short-run model as every shock in the short run would have converged in the long run.

4.4. Co-Integration Test Result

Was conducted after the stationarity of the variables have been established to ascertain the long run relationships among the variables

Table 4.4: Bound Test for existence of co-integration

REARRANGE THIS TABLE USING IMAGE IN PHONE

T-Statistic	Value	Significance	10 Bound	11 Bound
Statistic	3.550746			
	5	10%	2.26	3.35
		5%	2.62	3.79
		2.5%	2.96	4.18
		1%	3.41	4.68

Source: Author's Computation Using Eviews 9.

Table 4.4.Presents the result of Bounds test for existence of co-integration. The result revealed that the computed F statistic value of 3.55 exceeds the lower and the upper bounds critical values of 2.26 and 3,35 respectively at the 10% significant level but at 5% significant level the computed F statistic value is only greater than the lower bounds using Pesaran et al

(2001). Therefore the null hpoyhtesis of no cointegration is rejected implying long run relationship among RGDPR, LPR, GCFC, PDI, UNEM and RINTR of the test is greater than the upper critical value bounds I(1) of 3.79 at 5% level of significance. Thus, there is long run relationship among the variables. Consequently, long run (dynamic) model was estimated using ARDL co-integrating and long run form regression technique. The use of ordinary lease square (OLS) technique on this study estimate is inappropriate because some of the assumptions of the technique had been violated.

4.5 Long and Short run dynamics

The long run estimated coefficients are presented in table 4.5

Table 4.5 EstimatesOf The Long Coefficients

ARDL Dependent Variable: RGDPR

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	135.489616	109.462594	1.237771	0.2395
LPR	42.735532	35.022120	1.220244	0.2458
GFCF	0.000003	0.000008	0.431150	0.6740
PDI	0.000433	0.000823	0.526502	0.6081
UNEM	-2.594007	3.354281	-0.773342	0.4543
RINTR	0.200687	0.258137	0.777442	0.4543

Source: Author's Computation Using Eviews 9

Table 4.5 shows that the coefficients of Gross Fixed Capital Formation (GFCF), Private domestic investment (PDI), Labour force participation rate (LPR) and Unemployment rate (UNEM) have expected signs as such they are theoretically acceptable, although none of the variables are statistically signifcant. However, the sign of real interest rate (RINTR) signs is not theoretically acceptable. Labour force participation rate (LPR) shows a significant positive relationship with economic performance, this implies that for 1% point increase in labour force participation rate (LPR), there will be about 42.7% increase in real gross domestic product growth. This is in line with the work of Hussein and Benhin (2015). Gross fixed capital formation exhibits a positive relationship with real gross domestic product growth rate implying that for 1% increase in GFCF the RGDPR will increaseby 0.000003. this result is in line with Calamitsis, Basu and Ghura (1999) in Sub-Saharan. Private domestic investment (PDI) reveals a positive relationship with real gross domestic product growth rate, this indicates that for 1% increase in PDI the RGDPR increases by0.000433. this result is in line with the work of Ghazali,

A. (2010) in Pakistan. . Unemployment rate (UNEM) exhibits an inverse relationship with economic performance measured by real gross domestic product growth rate (RGDPR). This implies that for 1% increase in unemployment rate will decrease RGDPR by about 2.59% . The real intrest rate RINTR shows a positive relationship with RGDPR which implies that foe 1% increase in RINTR, RGDPR will increase by 0.2 which is in line with the work of Baghebo and Edoumiekumo (2012) in Nigeria.

4.5.1 Short Run Dynamics

The short run estimated coeffiecient are presented in table 4.5.1

Table 4.5.1. Estimates of The Short Run Correction Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(RGDPR(-1))	0.077483	0.282628	0.274153	0.7886
D(RGDPR(-2))	-0.313983	0.225738	-1.390921	0.1895
D(LPR)	2.387185	8.461919	0.282109	0.7827
D(LPR(-1))	52.693489	14.605818	3.607705	0.0036
D(PDI)	0.057940	0.003030	1.911885	0.0801
D(PDI(-1))	0.015067	0.001823	0.859633	0.4068
D(UNEM)	3.605874	1.908559	1.889317	0.0832
D(UNEM(-1))	-6.637389	2.377158	-2.792153	0.0163
D(UNEM(-2))	5.929524	2.277996	2.602957	0.0231
D(UNEM(-3))	4.445445	1.358862	3.271446	0.0067
D(RINTR)	0.011122	0.152850	0.072764	0.9432
D(RINTR(-1))	0.735935	0.215241	3.419118	0.0051
D(RINTR(-2))	-0.532322	0.152384	-3.493304	0.0044
D(GFCF)	0.000003	0.000004	0.915762	0.3778
D(GFCF(-1))	0.000007	0.000004	1.859184	0.0877
D(GFCF(-2))	-0.000008	0.000005	-1.619974	0.1312
CointEq(-1)	-0.777118	0.375955	-2.067049	0.0610

Source: Author's computation using Eviews 9

From the table above, the short- run results indicates that the estimated lagged error correction mechanism (ECM (-1)) is negative and highly significant at 10%. The results is in line with the cointergation among the variables represented in equation (3.2c). The feedback coefficient of about -0.78 suggests a high speed of adjustments to equilibrium after disturbances. Approximately 78% of the disequilibrium from the previous year's disturbances converges to the long- run equilibrium in the current year. Further, lag values of real gross domestic product growth rate (RGDPR), labour force participation rate (LPR), unemployment rate (UNEM), gross fixed capital formation (GFCF) and real interest rate and RINTR shows greater influence of the variations in the current year.

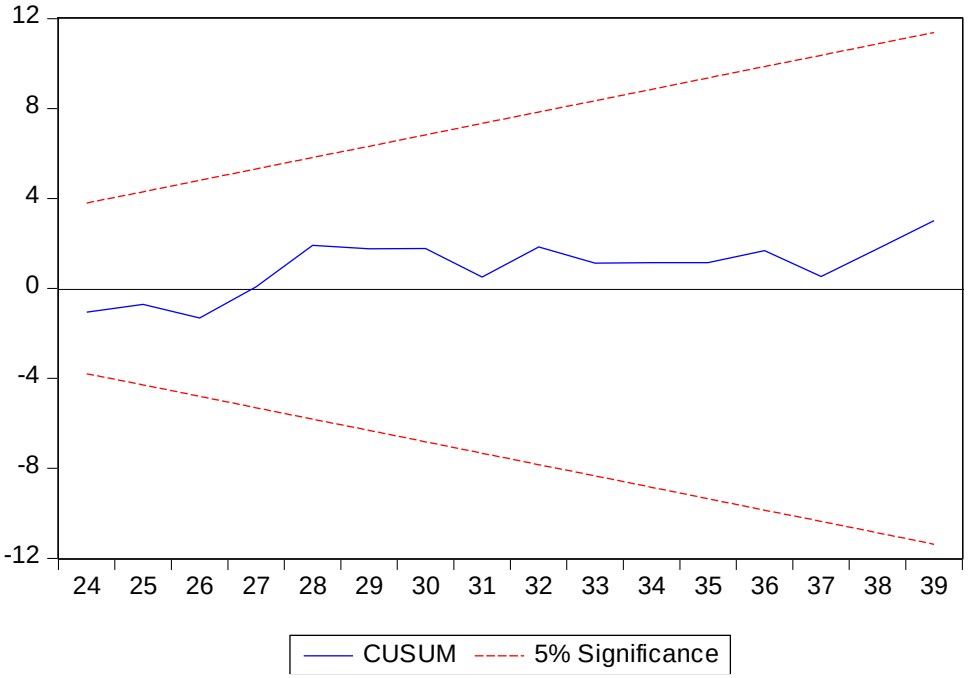
4.5.2. Test of Hypothesis (H_0:2)

From table 4.5 above, the value for t- statistic of private domestic Investment (PDI) which is 0.5265 is less than 2. The rule of thumb is that we do not accept null hypothesis if the t-statistic is greater than 2, otherwise we accept the null hypothesis. From the estimated model, the t-statistic value is less than 2; thus we do not reject the null hypothesis and conclude that there is no significant impact of private domestic Investment (PDI) on Economic Performance in Nigeria. This finding is not in line with the works of Tan and Tang (2011) in Malaysia.

4.6. Diagnostic Test

4.6.1 Stability Test (CUSUM Residual Test)

Figure 4.1 Stability Test



The CUSUM test for stability is meant to determine the appropriateness and the stability of the model. In addition, the CUSUM test is used to show whether the model is stable and is suitable for making long run decision. The CUSUM is also reported below. For the Nigeria, the

CUSUM test also shows that the estimated model is stable; this is because the plot of CUSUM statistic stays within a 5% significance level portrayed by two straight lines.

4.6.2. Heteroscedasticity Test

Language multiple (LM) test is a diagnostic test carried out to identify the presence of serial correlation to prevent the model from spurious result.

Table 4.6.2

Heteroskedasticity Test: Breusch-Pagan-Godfrey			
F-statistic	1.811618	Prob. F(22,12)	0.1437
Obs*R-squared	26.90058	Prob. Chi-Square(22)	0.2150
Scaled explained SS	4.582256	Prob. Chi-Square(22)	1.0000

Source: Aurthors computation using Eviews 9

4.7. Impact of Private Investment on Economic Performance In Nigeria

Table 4.7: Long Run Relationship Between Foreign Direct Investment and Economic Performance In Nigeria – FDI, MR

Variables	Coefficient	Std. Error	t-statistic	Prob.
C	-186.6535	54.09470	-3.450495	0.0024
MR(-1)	0.607727	0.154464	3.934413	0.0008
MR(-2)	-0.577024	0.186995	-3.085771	0.0056
FDI	-0.438697	1.910930	-0.229572	0.8206
FDI(-1)	-3.012657	1.947515	1.546923	0.1368
LPR	21.90815	10.73189	2.041407	0.0540
LPR(-1)	-6.871758	10.84367	-0.633711	0.0051
LPR(-2)	18.75530	19.39818	0.966859	0.3446
LPR(-3)	-55.89710	15.71125	-3.557776	0.0019
TOP	-0.705763	0.348311	-2.026242	0.0556
TOP(-1)	-0.898209	0.331411	-2.710260	0.0031
EXR	-0.247184	0.159220	-1.552469	0.1355
EXR(-1)	0.119827	0.223489	0.536167	0.5975
EXR(-2)	-0.384920	0.236257	-1.629242	0.0082

EXR(-3)	-0.314535	0.190008	-1.655377	0.1127
R-squared	0.7365		Prob (f-statistic)	0.091
Adjusted R-squared	0.5608		AIC	6.87
F-statistic	4.1929		Schwarz criterion	7.30
DWS	2.1746		Hannan-Quinn	7.02

Source: Authors Computation Using Eviews 9

The table above presents the long term estimate of equation (3 .3a) in chapter three. The estimated coefficient represents the relationship between Private Foreign investment measured by foreign Direct Investment (FDI) and Economic Performance measured by Misery rate. The linear function is chosen because Akaike Information Criterion (AIC) and Schwartz Information Criterion (SIC) are the lowest while Durbin Waston statistic is within the accepted regions. The computed R- squared value of 73.6% obtained simply implies that specified explanatory variables explained about 73.6% of the total variations on misery rate. The F-statistic of 4.19 which is significant at 10% level indicates that the overall model is statistical significant. The coefficient of Foreign Direct Investment (FDI) recorded a significant impact on misery rate when it is lagged. The past values of Misery rate have significant impact on the present misery rate. Also, Labour force Participation Rate (LPR) exhibited significant impact on misery rate. Trade openness has significant impact on misery rate while exchange rate exhibited significant impact when lagged by two years. The signs of the estimated coefficients are all in line with the theoretical expectations. The result reveals that for 1% increase in Foreign Direct Investment (FDI), misery rate falls by 0.44%.this implies that Foreign Direct Investment (FDI) exhibits an inverse relationship on misery rate in Nigeria.

For 1% increase in labour force participation rate, misery rate falls by 6.87% after the first year, for 1% increase in trade openness misery rate falls by 0.71%.

4.7.1 Test of Hypothesis (H_0:3)

From table 4.7 above, the value of t- statistic for Foreign Direct Investment (FDI) which is 0.229 is less than 2. The rule of thumb is that we reject the null hypothesis if the t-statistic is greater than 2, otherwise we do not reject the null hypothesis. From the estimated model, the t-statistic value is less than 2; thus we do not reject the null hypothesis and conclude that there is no significance impact of Foreign Direct Investment (FDI) on Economic Performance in Nigeria. These finding contradicts with the works of Umoh et al; (2012) in Nigeria and Zinabe (2014) in Ethiopia, however, it supports the work of Ogujiuba and Obienchina (2102) in Nigeria which shows that in the long run there is no impact of Foreign Direct Investment (FDI) on Economic growth.

5.0 Summary, Conclusion and Recommendations

5.1 Summary

This study was principally designed to analyze the impact of private investment on economic performance in Nigeria from 1980-2018. In a bid to achieve this objective, standard econometric method ordinary least square (OLS) and auto regressive distributed lag; (ARDL) were used.

Time series data were collected from the publications of central bank of Nigeria, world development indicator and national bureau of statistics. the properties of the data were analyzed using Phillips Perron (PP) unit root test, the results revealed that Labour force participation rate (LPR), private domestic investment (PDI), foreign direct investment (FDI), misery rate (MR), private investment (PI), exchange rate (EXR), unemployment rate (UNEM) and trade openess (TOP) variables were integrated of order one(1) while reall gross domestic product growth rate (RGDPR) and real interest rate (RINTR) were stationary at level. Pair-Wise Granger causality test was used to investigate the causal relationship between private investment and economic performance. Major findings from the study are outlined as follows:

(i). There is no causal relationship between private investment and economic performance in Nigeria

(ii). Private domestic investment (PDI) recorded a positive but insignificant impact on economic performance (RGDPR) both in the short run and long run.

(iii). Unemployment rate revealed a negative but insignificant impact on economic performance (RGDPR) in the short run but the impact is statistically significant in the long run.

(iv). There is no long run significant impact of foreign direct investment (FDI) on economic performance (MR) in Nigeria.

(V). Trade openness showed a significant inverse relationship with misery rate which was proxy for economic performance.

5.2 Conclusion

This study as attempted to trace a link between private investment and economic performance in Nigeria from 1980-2018. Private sector investment was disaggregated into domestic and foreign private investment. Useful policy options were suggested in line with our findings. Several specifications and empirical literature suggested that economic performance is a consequence of a combination of several factors among them is an increase in investment (capital accumulation). Overall, the empirical results revealed a case of independence between private investment and economic performance. It also discloses an insignificant positive relationship between private domestic investment and economic performance. Furthermore, it reveals an insignificant inverse relationship between foreign direct investment (FDI) and misery rate (MR). The central opinion of this study is that there is no significant impact of private investment on economic performance. Therefore, conscious effort should be challened at liberalizing investment policies and interest rate to stimulate inclusive growth.

5.3 Recommendations

Arising from the findings of this study the following recommendations are made:

1. The government should create a conducive environment for private domestic investment so that both short run and long run gains are achieved. This could be achieved by the removal removing the seemingly obstacles and encouraging savings and investment instruments to boost private investment in the economy and in turn enhance economic performance.

2. Nigerian government should promote and encourage both private domestic and foreign direct investment by ensuring that investment policies are more transparent, attractive and competitive.
3. Government should continue to partner with foreign investors and stabilize the polity so that foreign direct investment will increased in both short and long run. As this will scale down unemployment rate hence reduce poverty incidence.
4. More so, it is recommended that the monetary and fiscal authorities need toimprove on the fiscal incentives and monetary policy actions that could bolster the existence of local private investment.

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