

Is Government Capital Expenditure Productive? Evidence from Nigerian Manufacturing Sector (1971-2012)

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Abstract

This paper investigates the relationship between Nigeria's capital expenditure and the growth of the manufacturing sector from 1971-2012. The ordinal least square method is used to show the relationship between capital expenditure and manufacturing output. Manufacturing Gross domestic product is taken as dependent variable while exchange rate, interest rate, political stability, recurrent expenditure, money supply, interest rate, index of energy consumption, credit to private sector, degree of openness and rate of growth of GDP as independent variables. All the variables used are integrated of order one except political stability which is a dummy variable. The results suggest that there is a positive relation between rate of growth of GDP, capital expenditure, money supply, openness of the economy, recurrent expenditure and manufacturing output in the country. In the light of the above, the papers recommends, among other things, government should increase the capital expenditure and reduce recurrent expenditure and also make sure that government funds are properly managed in a manner that it will raise the nation's production capacity and accelerate economic growth.

1. Introduction

Public expenditure plays an important role in aggregate economy in multiple dimensions. Usually, it is used to produce various public goods and services, to build and upgrade various types of infrastructure, the benefits of which are derived over subsequent years. It is also used by government to adopt various fiscal measures, such as transfer payments, to stimulate economic activities particularly during recessions. Government capital expenditure refers to government spending on investment goods. This means spending on things that last for a period of time. This may include investment in hospitals, Agriculture, Industries, Security, schools, equipment and roads.

Some scholars have argued that increase in government spending can be an effective tool to stimulate aggregate demand for a stagnant economy and to bring about crowd-in effects on private sector. According to Keynesian view, government could reverse economic downturns by borrowing money from the private sector and then returning the money to the private sector through various spending programs. High levels of government consumption are likely to increase employment, profitability and investment via multiplier effects on aggregate demand (Chude and Chude, 2013). Thus, government expenditure, even of a recurrent nature, can contribute positively

to economic growth. On the other hand, endogenous growth models such as Barro (1990), predict that only those productive government expenditures will positively affect the long run growth rate.

In the neoclassical growth model of Solow (1956), productive government expenditure may affect the incentive to invest in human or physical capital, but in the long-run this affects only the equilibrium factor ratios, not the growth rate, although in general there will be transitional growth effects. Others have argued that increase in government expenditures may not have its intended salutary effect in developing countries, given their high and often unstable levels of public debt. The government consumption crowd-out private investments, dampens economic stimulus in short run and reduces capital accumulation in the long run. Vedder and Gallaway (1998) argued that as government expenditures grow incessantly, the law of diminishing returns begins operating and beyond some point further increase in government expenditures contributes to economic stagnation and decline.

There have been several empirical studies on the relationship between government expenditure and economic growth and they arrived at different and even conflicting results. Some studies suggest that increase in government expenditure on socio-economic and physical infrastructures impact on long run growth rate. For instance, government expenditure on health and education raises that productivity of labour and increase the growth of national output. Similarly, expenditure on infrastructure such as road, power etc. reduces production costs, increase private sector investment and profitability of firms, thus ensuring economic growth (Barro, 1990; Barro and Sali-i-Martin, 1992; Roux, 1994; Okojie, 1995). On the other hand, observations that growth in government spending, mainly based on non-productive spending is accompanied by a reduction in income growth has given rise to the hypothesis that the greater the size of government intervention the more negative is its impact on economic growth (Glomm and Ravikumar, 1997; Abu and Abdullah, 2010).

Despite the rise in government capital expenditure in Nigeria over these years, there are still public outcries over decaying infrastructural facilities. Also, merely few empirical studies have taken holistic examination of the effect of government capital expenditure on the growth of the manufacturing sector regardless of its importance for job creation. More so, for Nigeria to be ready in its quest to become one of the largest economies in the world by the year 2020, determining the effect of public expenditure on economic growth is a strategy to fast-track growth in the secondary sector of the economy.

A crucial question that requires an urgent answer is whether the government capital expenditure impact positively on the growth of the country's manufacturing sector. This study attempts to provide an answer to this question by empirically estimating the effects of government capital expenditure on the output of the manufacturing sector using time series data for 43 years ending 2012. This study comprises section one introduction, section two review of related literature, section three is methodology and section four is conclusion and recommendation.

2. Review of Related Literature

Keynesians argue that increasing government spending and reducing tax rates are the best ways to stimulate aggregate demand as an essential tool in times of recession or low economic activity, for building the framework for strong economic growth and working towards full employment. The resulting deficits, they postulated would be paid for by an expanded economy during the boom that would follow (Onakoya and Somoye, 2013). The New Deal during the American Great depression in the later part of the World War II, and the post-war economic expansion (1945–1973) were considered as manifestations of this school of thought. Keynesian economics submit that decisions taken by the profit-seeking private sector operators sometimes lead to inefficient macroeconomic results (Sullivan and Sheffrin, 2003). Therefore, advocates active fiscal policy responses by the

government to stabilize output over the business cycle. This in the opinion of Blinder, (2002) can be achieved by government investment through the injection of income resulting in greater spending in the general economy.

The consequential effect of this is stimulation of firm productivity and investment involving still more income and spending and so forth. The original stimulation starts a cascade of events, whose total increase in economic activity is a multiple of the original investment. This contrasted with the classical and neoclassical economic analysis of fiscal policy. Although they agree that fiscal stimulus (deficit spending) could actuate production, these schools saw no reason to believe that this stimulus would exceed the side-effects that "crowd out" private investment. They argued that the incentive would increase the demand for labour and raise wages and impair the profitability of the firms. Also, such unbridled government expenditure would increase the stock of government bonds and reduce their market price which may lead to high interest rates. Thus, efforts to stimulate the economy would be self-defeating since the rise in the rate of interest would make it more expensive for business to finance fixed investment. The Austrian economist Hayek (1989) criticized Keynesian economic policies for what he called their fundamentally collectivist approach, arguing that such theories encourage centralized planning, which leads to wrong investment of capital which may also result business cycles boom and doom. On empirical grounds, there are mixed findings on the impact of government expenditure on growth. Several empirical studies are country-specific using time series data across several years. Some of these studies are cross-country utilizing panel or cross sectional data. Chih-Hung Liu, et al. (2008) investigated the causal relationship between GDP and public expenditures for US federal government covering the time series data 1974-2002, they found in this study that total expenditures does cause the growth of GDP, which is consistent with the Keynesian theory. However, the growth of GDP does not cause the increase in total public expenditure which is inconsistent with Wagner's law. Mwafaq (2011) investigates the impact of public expenditures on economic growth using a time series data on Jordan for the period 1990-2006 and found that the government expenditure at the aggregate level has positive impact on the growth of GDP which is attuned with the Keynesian's theory. The review of the relationship between fiscal policy and economic growth in three North African countries of Egypt, Morocco and Tunisia by Mansouri (2008) shows positive correlation between the two variables and that 1 percentage rise in public expenditure the real GDP by 1.26 percent in Morocco, 1.15 percent in Tunisia and 0.56 percent in Egypt. The results also affirmed existence of long-run relationships for all the three countries.

The study of 30 developing countries between of 1960 and 1970 by Bose et al., (2007) focused on sectoral expenditures. Their results of the research which employed the Seemingly Unrelated Regression technique (SURE) reported that the share of government capital expenditure in GDP is positively and significantly correlated with economic growth. Koeda and Kramarenko (2008) evaluated the swift scaling-up of expenditure followed by a quick scaling-down of Azerbaijan government expenditure due to upsurge in the crude oil production. The research which relied on the neoclassical growth model suggests that the sharp variations in the fiscal policy pose significant threat to sustainable economic growth. Muritala and Taiwo (2011) examined the trends and effects of government spending on the growth rates of real GDP in Nigeria between 1970 and 2008 using Ordinary Least Square (OLS) technique. The findings show that there that there is a positive relationship between real GDP as against the recurrent and capital expenditure. In addition, Thirty-two (32) years' time series data from 1977 to 2008 was reviewed by Nurudeen and Usman (2010) in analysing the impact of government expenditure on economic growth in Nigeria. The study revealed that government total capital expenditure has negative effect on economic growth. Comparing the relative effectiveness of fiscal versus monetary policies on economic growth in Nigeria, Adefeso and Mobolaji (2010) suggest that the effect of monetary policy is dominant than fiscal policy on economic growth in Nigeria. This result was arrived at having utilised annual time

series data during the year 1970 to 2007 and considering GDP, broad money (M^2), Government expenditures (G.E) and degree of openness (DOP) as key parameters and error correction and cointegration framework. Ighodaro and Okiakhi (2010) examine government expenditure which was disaggregated into general administration, and community and social services in Nigeria using time series data for 46 years ending 2007 and applying the Granger causality test. The results showed that government expenditure has negative impact of on economic growth.

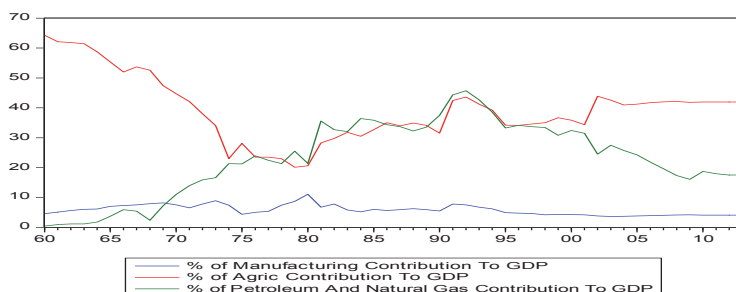
3. The Nigerian Manufacturing Sector

Nigeria is Africa's most populous country and the 9th most populous country in the world. With an estimated population of 160 million, one in every five Africans is a Nigerian it is also the biggest oil exporter in Africa, with the largest natural gas reserves in the continent. The country is a middle income, mixed economy and emerging market, with expanding financial, service, communications, technology and entertainment sectors. It is ranked 30th (40th in 2005, 52nd in 2000), in the world in terms of GDP (PPP) as of 2013, and the 2nd largest economy in Africa (behind South Africa and on track to become the largest economy in Africa in 2014 when their new GDP rebasing result is out early 2014 and also becoming one of the 20 largest economies in the world by 2020 (World Bank, 2013).

In 1960, Agriculture contributed 64.3% to the GDP, while Petroleum and manufacturing contributed 0.4 and 4.6 respectively. By 1970 the share of agriculture's contribution reduced by 43.7% while that of petroleum increased by 23.7% and manufacturing increased by 6.6%. This was as a result of oil boom that led the country to neglect its strong agricultural and light manufacturing bases in favor of an unhealthy dependence on crude oil because any policy that affects agriculture in a developing country, also affects manufacturing because of agriculture's contribution to raw materials to the industrial sector.

While agriculture's relative share of GDP was falling and petroleum increasing, manufacturing's contribution rose from 7.8 percent in 1970 to 11.0 percent in 1980, before falling during the recent oil boom of the 2000-2012 which averaged 4 percent see figure 1. Whereas manufacturing increased rapidly during the 1970s, tariff manipulations encouraged the expansion of assembly activities dependent on imported inputs; these activities contributed little to indigenous value added or to employment, and reduced subsequent industrial growth. The manufacturing sector produced a range of goods that included milled grain, vegetable oil, meat products, dairy products, sugar refined, soft drinks, beer, cigarettes, textiles, footwear, wood, paper products, soap, paint, pharmaceutical goods, ceramics, chemical products, tires, tubes, plastics, cement, glass, bricks, tiles, metal goods, agricultural machinery, household electrical appliances, radios, motor vehicles, and jewelry. As the government tries to diversify the economy, it is working to reinvigorate the manufacturing sector so as to increase its contribution to Nigeria's prosperity. Lagos and its surroundings are home to about 60% of Nigeria's industrial base. Other key industrial centres are Kano, Ibadan and Kaduna (corporate Guilds, 2011).

Figure 1: Agriculture, Petroleum & Natural Gas and Manufacturing contribution to GDP (1960-2013)



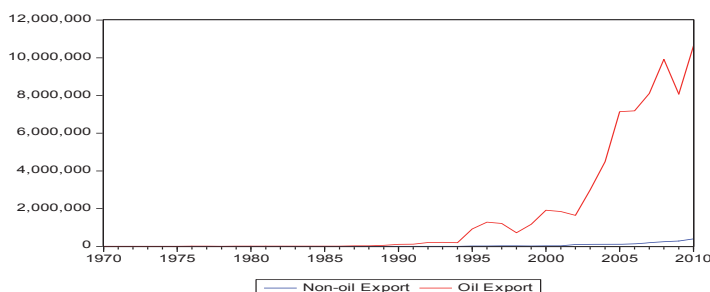
Source: CBN Statistical Bulletin, 2010. 2011-2013 computed by Authors.

Nigerian export history over this period is the history of its oil exports and the very large changes in the price of oil on the world market. The rich endowment of oil has important implications for the tradable sector of the economy generally and the manufacturing sector in particular, and it is often argued that Africa's resource endowments mean that it will not be able to export manufactures (Wood, 1997). The World Bank (2000) discusses the need for African countries to diversify their exports. This is highly relevant in the case of Nigeria; the failure of exports to grow essentially reflects the failure of Nigeria to reduce its dependence on oil exports. Oil export in the country expanded by 99.9% while that of non-oil expanded by 3.7% see figure 2.

Capital expenditure of Nigerian expanded by 63.3% between 1970 and 2010 and rose to a peak growth of 61.5% in 1972 between 1970 and 2010 (CBN, 2010). Manufacturing contribution to GDP expanded by 9533% and rose to a peak of 126.1% in 1981 when there was glut in the oil industry as a result of relative peace in the world see figure 3. The mismatch between the performances of Nigeria's manufacturing sector and increase in government capital expenditure over the years raises a critical question on its role in promoting the growth and development of this very important sector.

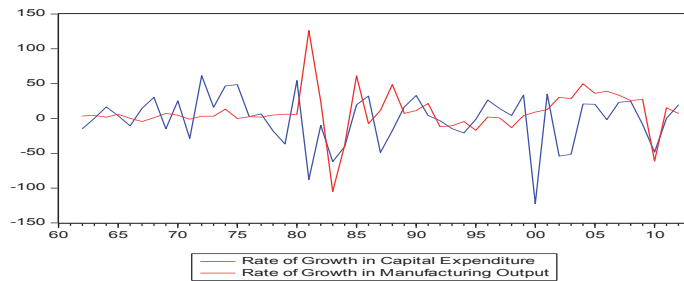
Some authors contend that the link between public expenditure and economic growth is weak or nonexistent while others have reported varying degree of causality relationship in Nigeria (Onakoya *et al.*, 2012). The paper however believes that a disaggregated examination of the impact of government expenditure on the different sectors of the real sector of economy would give better insights into the intrinsic variations within.

Figure 2: Oil and Non-oil Export (1970-2012)



Source: CBN Statistical Bulletin, 2010

Figure 3: Rate of Growth in Capital Expenditure and Manufacturing Output (1960-2013)



Source: CBN Statistical Bulletin, 2010. 2011-2013 computed by Authors.

4. Variables Description

Data analyzed for this study were those significant in the growth of the manufacturing sector in Nigeria, as well as those relating to the measurement of the impact of capital expenditure in the short and long run period. The data and their relationships are defined as follows:

1. Manufacturing contribution to Gross Domestic Product (MGDP): This is usually employed to denote the size of the manufacturing sector, which is indicative of the level of manufacturing activity in the country.
2. GDP growth rate: this is a proxy for the level of accumulation of physical capital and expansion of the labour force. It follows the Solow growth model, which was subsequently modified by Mankiw et al (1992) and is termed the "Augmented Solow growth model.
3. Capital expenditure: it is believed that government capital expenditure on things that last for a very long period like infrastructure impacts positively on growth. It is expected to bear a direct relationship to the growth of the manufacturing sector because a higher level of government expenditure should translate into provision of infrastructure that should encourage production, manufacturing and export.
4. Return on Capital (INTR): In this study, this connotes the interest rate paid on deposits by banks in Nigeria. The manufacturing sector will do well in countries that pay a higher return on capital, which is indicative of a higher level of productivity and economic growth.
5. Exchange Rate (EXR): This measures the price of one currency in terms of another currency. In this study, the exchange rate of Nigeria (Naira) to USA (Dollar) is adopted. A weak/depreciated exchange rate makes import expensive and export cheap and hence may likely impact positively on Manufacturing.
6. Index of electricity consumption: This measures the change in electricity consumption. If consumption increases, it will attract firms to come and do business at a cheaper rate.
7. Political stability (PS): This represents the dummy variable used to capture the investment climate in Nigeria. Years of military rule and civil unrest imply instability and are represented by (0), while years of civil rule that indicate stability are represented by (1).
8. Money supply: this measures the sum of currency held by the public and transaction deposits at depository institutions (which are financial institutions that obtain the funds through deposits from the public such as commercial banks, savings and loans associations, savings banks and credit unions plus savings deposits, small denomination bank deposits.
9. Degree of openness: this measures the level to which the economy is globalised by way of trade with the economies around the world and measured by $(X+M/GDP)$ where X and M

are for absolute values of exports and imports respectively and GDP is Gross Domestic Product.

10. Recurrent expenditure: this measures expenditure on operations, wages and salaries, purchases of goods and services and grants and subsidies.

11. Credit to private sector: it refers to the financial resources provided to the private sector, such as through loans, purchases of nonequity securities and trade credits.

The study made use of annual time-series data on a number of macroeconomic variables between 1971 and 2012 inclusive both local and foreign sources are used. The main local sources include publication of the Central Bank of Nigeria such as the statistical bulletin and annual reports and statement of accounts. Some foreign data are from the International Monetary Fund, World Bank and UNCTAD

Table 1: A priori Signs of the Variables

Explanatory Variables	Abbreviations	Expected Sign
GDP growth rate	GDPGR	Positive
Interest rate	DIR	Negative
Capital expenditure	DLCEXP	Positive
Credit to private sector	DLCPS	Positive
Money supply	DLMS	Positive
Degree of openness	DLOPEN	Positive
Recurrent expenditure	DLREXP	Negative
Political stability	PS	Positive
Electricity consumption	DEC	Positive
Exchange rate	DEXR	Negative

5. Hypothesis

Based on the literature, we hypothesize that there is a significant relationship between Agriculture output and GDP growth rate, Credit to private sector, Money supply Degree of openness, recurrent expenditure Electricity consumption, Exchange Rate, Interest Rate, Political stability and Capital expenditure.

6. Methodology

6.1 Models Specification

We specify the model based on the hypothesis as:

$$MGDP = f(EXR, INTR, PS, CEXP, CPS, MS, OPEN, REXP, EC, GDPGR) \dots \dots \dots (1)$$

Where:

MGDP = Agriculture contribution to Gross Domestic Product

EXR= Exchange Rate

INTR= Interest Rate

PS= Political stability

CEXP= Capital expenditure

REXP= recurrent expenditure

IR= interest rate

EC= Index of energy consumption

CPS= credit to private sector

Open= Degree of openness =Exports + Imports divided by GDP x 10

RDPGR= rate of growth of GDP

MGDP, CEXP, REXP, CPS, OPEN and MS are all in logarithmic values political stability is a dummy variable. In log stochastic form, this can be rewritten as:

$$\text{LogMGDP}_t = c0 + c1 \text{LogREXP}_t + c2 \text{IR}_t + c3 \text{EXR}_t + c4 \text{LogMS}_t + c5 \text{PS}_t + c6 \text{LogCEXP}_t + c7 \text{EC}_t + \text{Log8CPS}_t + c9 \text{GDPGR}_t + \text{Log10OPEN}_t + e_t \dots (2)$$

Where:

MGDP = Agriculture contribution to Gross Domestic Product at time t

EXR= Exchange Rate at time t

INTR= Interest Rate at time t

PS= Political stability at time t

CEXP= Capital expenditure at time t

REXP= recurrent expenditure at time t

IR= interest rate at time t

EC= Index of energy consumption at time t

CPS= credit to private sector at time t

Open= Degree of openness =Exports + Imports divided by GDP x 10 at time t

RDPGR= rate of growth of GDP at time t

c0 = intercept

c1-c9 = Intercept

e = Error term

7. Data Analysis Techniques

7.1 Unit root Test

In order to avoid estimating spurious regression, the stochastic properties of the series were tested. This we did by testing for unit root which involved testing the order of integration of the individual series under consideration. Several procedures for the test of order of integration have been developed in which the most popular one is the Augmented Dickey-Fuller (ADF). The ADF test relies on rejecting a null hypothesis of unit root in favour of the alternative hypothesis of stationarity. The tests were conducted with or without a deterministic trend for each of the series in order to ascertain the level of their stationarity. The general form of the ADF is estimated by the following regression.

$$\Delta y_t = ao + a_1 y_{t-1} + \sum_{i=1}^n a_i \Delta y_t + e_t \dots (3)$$

$$\Delta y_t = ao + a_1 y_{t-1} + \sum_{i=1}^n a_i \Delta y_t + \vartheta_t + e_t \dots (4)$$

Where:

y_t = time series, it is a linear time trend,

Δ = First difference operator,

ao = constant

n = optimum number of lags in dependent variable

e_t = random error term.

Table 2: ADF unit root test result

Variables	Test For Unit Root	ADF Test	Critical Value			Result
			1%	5%	10%	
MGDP	Level	-1.720	-3.306	-3.937	-2.607	Not Stationary
	1 st Difference	-6.125	-3.306	-2.937	-2.607	Stationary I(O)
EXR	Level	-1.645	-4.199	-3.524	-3.193	Not Stationary
	1 st Difference	-5.891	-3.606	-2.937	-2.607	Stationary I(O)
IR	Level	-1.333	-4.212	-3.530	-3.196	Not Stationary
	1 st Difference	-7.297	-3.610	-2.939	-2.608	Stationary I(O)
CEXP	Level	-2.151	-3.600	-2.935	-2.606	Not Stationary
	1 st Difference	-6.670	-3.606	-2.937	-2.607	Stationary I(O)
CPS	Level	-0.567	-3.601	-2.935	-2.606	Not Stationary
	1 st Difference	-4.393	-3.606	-2.937	-2.607	Stationary I(O)
MS	Level	-1.272	-3.606	-2.937	-2.607	Not Stationary
	1 st Difference	-3.750	-3.606	-2.937	-2.607	Stationary I(O)
OPEN	Level	-0.809	-3.601	-2.935	-2.606	Not Stationary
	1 st Difference	-6.742	-3.606	-2.937	-2.607	Stationary I(O)
REXP	Level	-0.617	-3.606	-2.937	-2.607	Not Stationary
	1 st Difference	-7.718	-3.606	-2.937	-2.607	Stationary I(O)
EC	Level	-0.046	-3.606	-2.937	-2.607	Not Stationary
	1 st Difference	-8.724	-3.606	-2.937	-2.607	Stationary I(O)
GDPGR	Level	-9.524	-4.273	-3.558	-3.212	Stationary I(O)

Table 2 reveals that all variables are nonstationary at level except but are stationary at their first-difference. Political stability is a dummy variable, so it was not differenced. In short, all variables are integrated of order one (i.e. they are I (1) processes) which sets the stage for Ordinary Least Squares test. Below is the Ordinary Least Squares test result.

Table 3: The Impact of Foreign Direct Investment on Nigeria's Economic Growth 1970–2011 (Ordinary Least Squares Technique)

Dependent Variable	Explanatory Variables	Coefficients	Standard Error	t-Statistic	(Prob)
DLMGDP	C	0.053911	0.054966	0.980820	0.3345
	GDPGR	0.002523	0.000486	5.188362	0.0000
	DIR	-0.004514	0.014649	-0.308146	0.7601
	DLCEXP	0.120542	0.068279	1.765443	0.0877
	DLCPS	0.074428	0.222783	0.334084	0.7406
	DLMS	0.507428	0.264914	1.915448	0.0650
	DLOPEN	0.195726	0.092738	2.110526	0.0433
	DLREXP	-0.269460	0.123755	-2.177367	0.0375
	PS	-0.070004	0.052452	-1.334627	0.1920
	DEC	0.016969	0.019744	0.859464	0.3969
	DEXR	0.001382	0.002303	0.599847	0.5531

R-Squared = 0.65: DW = 2.1: F = 0.000101

8. Discussion

The results show an R-square of about 65.0 percent, indicating that about 65.0 percent change in dependent variable (DLMGDP) is jointly explained by the explanatory variables (GDPGR, DEXR, DIR, DLCEXP, DLCPS, DLMS, DLOPEN, DLREXP, DEC, DEXR and PS); On the test of individual significance, only rate of growth of GDP (GDPGR), Capital Expenditure (DLCEXP), Money Supply

(DLMS), Openness of the Economy (DLOPEN) and Recurrent Expenditure (DLREXP) performed well while the remaining did not perform well. They remaining five failed the t-test of significance at 1 percent, 5 percent and 10 percent levels of significance as reflected in table 3 above. This reveals the presence of multi-colinearity among the variables in the estimated model. A Durbin Watson (DW) statistic of 2.10 which falls into the acceptable zone of 1.59 and 2.41 shows the absence of serial correlation.

Meanwhile, one percent change in GDP growth rate will bring about a positive change of 0.002 percent in MGDP. A change in Interest rate will bring a negative change of -0.004% in MGDP. Increase in Capital expenditure by one percent will increase MGDP by 0.12%; this is in line with Blinder, (2002) that government investment through the injection of income resulting in greater spending in the general economy can lead to economic growth. There is a positive relationship between electricity consumption and MGDP, a percent increase in electricity consumption will increase MGDP by 0.07%. Credit to private sector has a positive relationship with MGDP; a percent increase in Credit to private sector will increase MGDP by 0.07%. Money supply also has a positive relationship with MGDP; a percent increase in Money supply will increase MGDP by 0.50%. There is a positive relationship between Degree of openness and MGDP, a percent increase in Degree of openness will increase MGDP by 0.19% and also Exchange rate has a positive relationship with MGDP; a percent increase in Exchange rate will increase MGDP by 0.001%.

Recurrent expenditure and Political stability have negative relationship with MGDP: a percent increase in recurrent expenditure will decrease MGDP by -0.27% which is in line with our a priori expectation and also going by the nature of what recurrent expenditure stands for. Political stability is expected to have a positive relationship, but the findings is a negative relationship which can be as a result of long military rule and also, whenever there is glut in the oil industry, manufacturing output increases. Most times we have had it was during the military rule.

9. Conclusion

The study set out to investigate the impact of capital expenditure on the growth of Nigeria manufacturing sector. Earlier contributions by scholars and various schools of thought showed supportive and contrary views that government expenditure has positive impact on economic growth. Thus, in order to authenticate the earlier stand that capital expenditure favorably impacts on the growth of the manufacturing sector of Nigerian economy; GDPGR, DEXR, DIR, DLCEXP, DLCPS, DLMS, DLOPEN, DLREXP, DEC, DEXR and PS, while Manufacturing contribution to GDP was used as the dependent variable in an ordinary least squares regression process.

Five of the regressors, rate of growth of GDP (GDPGR), Capital Expenditure (DLCEXP), Money Supply (DLMS), Openness of the Economy (DLOPEN) and Recurrent Expenditure (DLREXP), were correctly signed while the other five, Interest Rate (DIR), Credit to the Private Sector (DLCPS), Electricity Consumption (DEC), Exchange Rate (DEXR) and Political Stability (PS) were wrongly signed and so did not fulfill the a priori expectations.

Capital expenditure has positive relation with the growth of the manufacturing sector of Nigeria's economy in the short and long run. If we want to increase the output of the manufacturing sector, then there is a need to increase the capital expenditure and reduce recurrent expenditure. So government of Nigeria should try to increase the weight of capital expenditure in order to promote the sector that has the capacity to reduce unemployment and also increase export. The positive sign of the capital expenditure variable could be explained by infrastructure development and other benefits government funding bring to a country. In short, the above findings suggest that Nigerian's capacity to progress on economic development will depend on her manufacturing sector.

Following the results reported the paper makes the following recommendations. Firstly,

government should increase the capital expenditure and reduce recurrent expenditure and also make sure that government funds are properly managed in a manner that it will raise the nation's production capacity and accelerate economic growth. Secondly, government should increase its funding of anti-graft or anti-corruption agencies like the Economic and Financial Crime Commission (EFCC), and the Independent Corrupt Practices Commission (ICPC) in order to arrest and penalize those who divert and embezzle public funds.

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