

## **Relationship between Government Expenditure on Security and Exportation in Nigeria**

**Ebhotemhen, Wilson<sup>1</sup> & Olusola, Abere Benjamin<sup>2</sup>**

<sup>1,2</sup>Department of Economics, Edo State University Iyamho – Uzairue Edo State, Nigeria.

Email: [harlyns1974@gmail.com](mailto:harlyns1974@gmail.com), [ebhotemhen.wilson@edouniversity.edu.ng](mailto:ebhotemhen.wilson@edouniversity.edu.ng)

Phone NO: 08023477157

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### **Abstract**

*This research work examined the impact of Government expenditure on security and export in Nigeria for the period 1986-2020. In a bid to actualize the main objective of the study, data were collected from secondary sources such as 2020 editions of CBN statistical Bulletin and National Bureau of statistics. The model of this study was built based on Keynesian National income model and data were analyzed using the Vector Autoregressive Technique. The result of the study showed that one lagged period of export ( $\ln(EPT(-1))$ ) has a direct and significant effect on export performance in Nigeria. The result further established that two lagged period of government expenditure on emergency care ( $\ln(GSE(-1))$ ) has no significant, but positive effect on export performance. The result proved that one lagged period of government expenditure on Amnesty ( $\ln(GSA(-1))$ ) has no significant, but positive effect on export performance. The finding also show that one lagged period of government expenditure on Ammunitions ( $\ln(GSM(-1))$ ) is positive and statistically significant on export performance. The study recommends that governments should introduce policies that will promote exports through effective spending on security and infrastructural development; while firms should be encouraged to spend more on fixed capital which include properties, plants, and equipment.*

**Keywords:** National Insecurity, Investment, Government Spending, emergency case, Amnesty, Ammunitions.

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## **1. Introduction**

Before the discovery of oil in 1960's, agriculture was the main stay of the economy and the greatest foreign exchange earner, and as a result the Nigerian government was able to executed investment projects through domestic savings, earnings from exports of agricultural products and foreign aids (Ezike & Amah, 2017). But since the advent of oil in 1974 as a major source of foreign exchange earning in Nigeria, the picture has been almost that of general stagnation in agricultural exports. This led to the loss of Nigeria's position as an important producer and exporter of palm oil produce, groundnut, cocoa and rubber (CBN annual report, 2016). Between the year 1960 and 1980, agricultural and agro-allied exports constituted an average of 60% of total export in Nigeria, which is now accounted for, by petroleum oil export, (CBN annual report 2014).

However, the dominant position of the oil sector in the country's total export, foreign exchange earnings and government revenue generation cannot be overemphasized, as it is the determinant of the federal government yearly budget (CBN annual report, 2006). Notwithstanding, the agricultural sector performance is non to be ignored as in the pre-oil boom era accounted for about 40% of the GDP; contributes around 80% of non-oil exports and generates employment for over one third of the labour force in Nigeria (CBN annual report, 2006). The post oil boom era saw a drastic change in the composition of Nigeria's export. Olaleye, Femi and Taiwo, (2013) asserts that Nigeria experienced an "oil boom" during the period 1973-1977, and its effect lingered on through a substantial part of the second quarter of the decade of the 1970s, and well up to 1981. The oil boom, did not only create tremendous changes in the patterns of economic indicators such as consumption, investment and production, but also altered the country's societal values, political and economic style of management. A further effect is on the perception and the role of government in the economy, which is reflected in the policies and programs that it embarked upon through the various development plans implemented from 1970-1980.

Despite the impressive performance of the major sector of the Nigeria economy as drivers for economic growth, notwithstanding, the country has over decades experience national insecurity across the regions in the country, prominent among them is the unrest in the North East part of Nigeria due to the activities of Boko-Haram ideologies.

Boko Haram emerged as radical fundamentalist Islamic sect, formed by Ustaz Mohammed Yusuf in (2002) in Maiduguri, Borno state. In 2004, it moved to Kanamma, Yobe state, where it set up a base called Afghanistan (Ikenga & Efebeh, 2013). The sect officially calls itself “jama’atul Alhul Sunnah Liddo’ wati Wal Jihad” which means “people committed to the propagation of the prophet’s teaching and Jihad” (Nwanegbo & Odigbo, 2013; Ikenga & Efebeh 2013; Meehan & Speier, 2011). Their violent activity started in 2009. The report by World Bank (2014) on conflict, security and development reveals that about 1.5 billion people live in countries affected by political and criminal violence, which has exacerbated human misery and disrupted development. Consequently, more proactive initiatives regarding tackling menace of insecurity are needed in Nigeria since security is to growth and development, and the national transformation agenda of the current administration may not be achieved if there is no solution to the menace of insecurity.

According to Punch “Nigeria newspaper of October 31<sup>st</sup>, 2018”, over 1.1 million Nigerians have stripped into extreme poverty through loss of job, loss of business and displacement from Boko-haram insurgencies areas in just four months which brings the total number of Nigerians living below poverty (mark of \$1.90 per day) to 88million, overtaking India. In June (2020), the world poverty estimated that 95,816,700 are currently living in poverty, a number that accounts for about 49% of its total population of 201million. If the issue of insecurity continue to linger in Nigeria, poverty and income inequality are likely to get worse as the gap between the rich and the poor has continued to widen. Moreover, the issue of growing rate of unemployment in Nigeria increased to 27.30 percent in the third quarter of 2019 from 23.10 percent in second quarter.

According to Crupta (2004), a country that is experiencing insecurity will be characterized with low investment which is the fundamental factor for low export in any economy. Nigeria is reputed to be buoyantly blessed with enormous minerals and human resources. Nevertheless, the country has been known to be high risk market for insecurity, thus affecting investment, export and economic growth.

It is against this background that this study therefore prepares to critically provide a comprehensive analysis of national insecurity and its resultant effects on export in Nigeria. While other studies on insecurity such as Otto and Ukpere (2012), Kumain and Mathera (2014) have looked into numbers of death rolls in the country due to national insecurity, this study shall examine government expenditure on

emergency case, government expenditure on ammunitions and government expenditure on amnesty in relationship to exports in Nigeria. The study is structured into five sections, the next is empirical review followed by methodology, while the remaining take a look at the results and discussion of findings and the last section is conclusion and policy recommendations.

## **2. Empirical Review**

The literature on the government expenditure on insecurity–macro-economy relationship has largely been motivated by the seminal paper by Blomberg (2004), who conducted an empirical investigation of the macroeconomic consequences of international terrorism and its interactions with alternative forms of collective violence. Their findings indicate that, on average, the occurrence of terrorism may have a significant negative impact on economic growth. They also discover that terrorism is associated with a shift in economic activity away from investment spending and toward government spending, with varying degrees of occurrence across different groups of countries.

Similarly, Gassebner and Luechinger (2011) used extreme bounds testing to evaluate more than seventy previous terrorism studies and discovered that economic activity had a robust and negative relationship with insecurity. In the case of Pakistan, Mehmood (2014) calculates the cumulative cost of terrorism to the Pakistani economy between 1973 and 2008 to be 33.02%.

Otto and Ukpere (2012) carried out a study on national security and development in Nigeria. They observed that there is a positive relationship between security and development in Nigeria. They found a positive relationship between security and development, while insecurity is debilitating to the economic development of many less developed economies.

Crupta (2004) studied the impact of armed conflict and terrorism on macroeconomic variables using a sample size of 68 low and middle income countries. It was observed that conflict indirectly reduces economic growth by increasing defense spending share of government expenditure.

Kumari and Malhotra (2014) who conducted a research on trade led growth in India and China between 1980-2012 using Toda-Yamamoto (TY) approach and Cobb-Douglas production function on macroeconomic variables such as GDP per capita, export, import, gross capital formation and labour. The result found a unidirectional

causality running from GDP per capita to export in India and bi-directional causality between GDP per capita and export in China.

### 3. Methodology

#### 3.1 Theoretical Framework

This study is based on the Keynesian analysis that paved way out of depression after the second world war. In the early 1930s there was a great depression caused by war and insecurity. During this period, Keynes suggested that contrary to the ideas of the classical economists that the free market forces of demand and supply could stabilize the economy, the government should intervene through increase in the economic activities by way of increase in investment spending which guarantee the economy out of depression, by this macroeconomic model of the national income accounting is found relevant stated as follow:

$$Y = C + I + G + (X - M) \dots\dots\dots(1)$$

Where

Y = national income

I = investment

C = consumption

G = government expenditure

X = export and

M i= import

#### 3.2 Model Specification

Based on the theoretical framework of this study the model for this work is specified as follows

$$EXP = \lambda_0 + \lambda_1 GSE + \lambda_2 GSA + \lambda_3 GSM + \mu_i \dots\dots\dots (2)$$

Where

EXP = Export

GSE = Government Spending on Emergency Case

GSA = Government Spending on Ammunitions

GSM = Government Spending on Amnesty

$\lambda_1 \lambda_2 \lambda_3$  = Coefficient of Insecurity Variables for the Model

$\mu_i$  - Stochastic Variable or Error Term.

The hypothesis that the coefficients of the lag level variables are zero and are to be tested. The null hypothesis of non-existence of the long-run relationship is defined by:

$$H_0: \lambda_1 = \lambda_2 = \lambda_3 = 0$$

$H_0: \lambda_1 \neq \lambda_2 \neq \lambda_3 \neq 0$

Reject  $H_0$  of no long-run relationship if  $\lambda_1 \neq \lambda_2 \neq \lambda_3 \neq 0$

If  $\lambda_1 \neq \lambda_2 \neq \lambda_3 \neq 0$ , therefore reject the hypothesis of no co-integration, if otherwise accept

### 3.3 Estimation Techniques

This study employed Vector Autoregressive approach to analyze the relationship between investment, government expenditure on emergency care, government expenditure on ammunitions and government expenditure on amnesty. The vector Auto-regression (VAR) model is one of the most successful, flexible, and easy to use models for the analysis of multivariate time series (James & Mark, 2015). It is a natural extension of the univariate autoregressive model to dynamic multi-variate time series. The VAR model has proven to be especially useful for describing the dynamic behavior of economic and financial time series and for forecasting. It often provides superior forecasts to those from univariate time series models and elaborate theory-based simultaneous equations models. Forecasts from VAR models are quite flexible, because they can be made conditional on the potential future paths of specified variables in the model. In addition to data description and forecasting, the VAR model is also used for structural inference and policy analysis. In structural analysis, certain assumptions about the causal structure of the data under investigation are imposed, and the resulting causal impacts of unexpected shocks or innovations to specified variables on the variables in the model are summarized. These causal impacts are usually summarized with impulse response functions and forecast error variance decompositions

## 4. Results and Discussion of Findings

**Table 4: Results of Vector Autoregression Model**

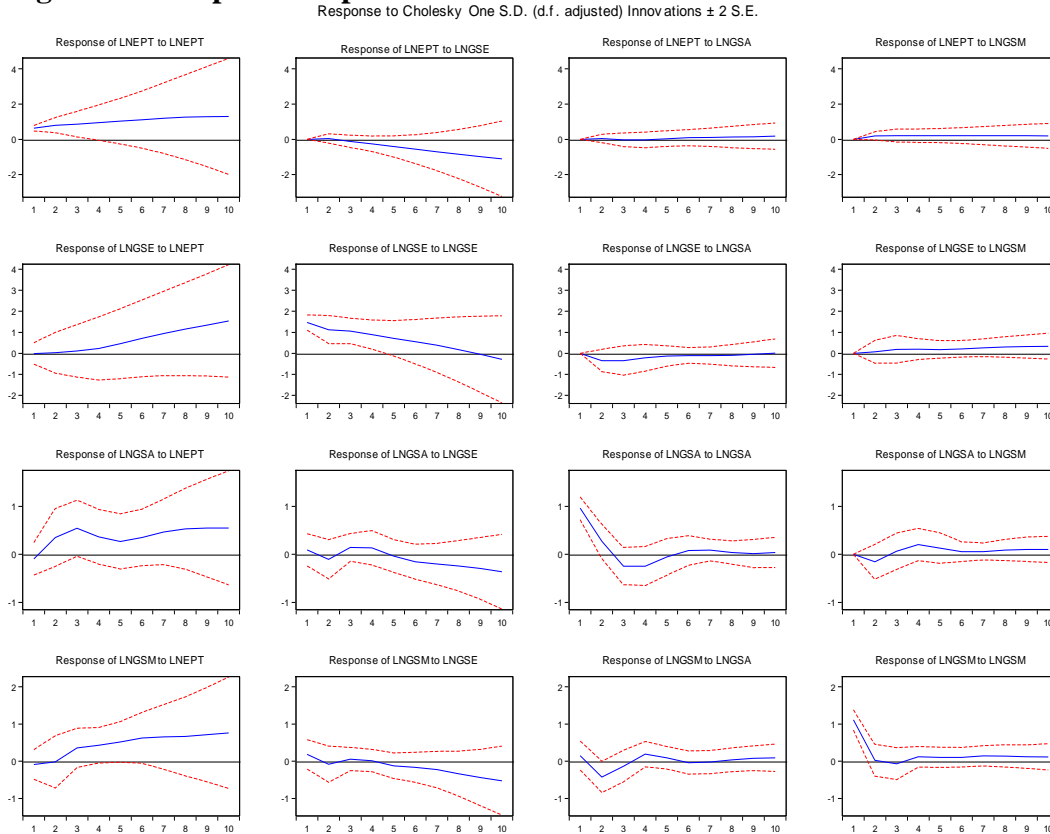
Variable	Coefficients	Standard Error	P-value
<i>C</i>	1.275155	0.81240	0.0117
<i>LN EPT (-1)</i>	1.289654	0.29939	0.0045
<i>LN EPT (-2)</i>	-0.283794	0.28185	0.0029
<i>LN GSE (-1)</i>	0.005542	0.08885	0.4002
<i>LN GSE (-2)</i>	-0.104402	0.08886	0.2109
<i>LN GSA (-1)</i>	0.017659	0.11732	0.5006
<i>LN GSA (-2)</i>	-0.009875	0.12093	0.1405
<i>LN GSM (-1)</i>	0.172857	0.10590	0.0012
<i>LN GSM (-2)</i>	-0.033801	0.11663	0.0430

R-Squared – 0.927320, Adjusted R-squared- 0.903093. F-Statistics – 38.27657

**Source: Computed by the Authors**

The results of the Regression estimates from Table 4 indicates that export for one lagged period and two lagged period have coefficient values of 1.289654 and -0.285794 respectively. The findings showed that one lagged period of export ( $\ln(EPT(-1))$ ) had a direct and significant effect on export performance using p-value. In economic term, this implies that increase in sales and profits earn from the goods or service produced or manufactured in Nigeria and sold out to other developed and developing countries was due to immediate past performance in export. The one lagged and two lagged periods coefficient of government expenditure on emergency care in Nigeria were 0.005542 and -0.104402 respectively. The result established that two lagged period of government expenditure on emergency care ( $\ln(GSE(-1))$ ) had no significant but positive effect on export performance using probability value. The one lagged and two lagged periods coefficient of government expenditure on Amnesty in Nigeria were 0.017659 and -0.009875 respectively. The result established that one lagged period of government expenditure on Amnesty ( $\ln(GSA(-1))$ ) has no significant but positive effect on export performance using p-value. The one lagged and two lagged periods coefficient of government expenditure on Ammunitions in Nigeria were 0.017659 and -0.009875 respectively. The result established that one lagged period of government expenditure on Ammunitions ( $\ln(GSM(-1))$ ) has a significant and positive effect on export performance using probability value. In economic term, this implies that increase in sales and profits earn from the goods or service produced or manufactured in Nigeria and sold out to other developed and developing countries was due to immediate past performance in export.

**Figure 4.1: Impulse Response Function of the Model**



From the first row of the figure above the response of export to itself is positive and increase gradually during the 1<sup>st</sup> to 10<sup>th</sup> period. The response of export to Government expenditure on Emergency case is negative and reduced drastically from the 3<sup>rd</sup> to 10<sup>th</sup> period. The response of export to Government spending on amnesty takes zero value from 3<sup>rd</sup> to 10<sup>th</sup> period. The response of export to Government spending on ammunition is positive, but does not increase appreciably from the 3<sup>rd</sup> to 10<sup>th</sup> period.

From the second row, the response of Government expenditure on Emergency case to export is positive and has increased considerably from the 2<sup>nd</sup> to 10<sup>th</sup> period. The response of GSE to itself though positive between the 1<sup>st</sup> and 9<sup>th</sup> period has reduced drastically from the 1<sup>st</sup> to 10<sup>th</sup> period, maintaining a negative value in the 10<sup>th</sup> period. The response of GSE to Government spending was negative and reducing between the 1<sup>st</sup> and 4<sup>th</sup> period and maintained a zero value from the 5<sup>th</sup> to 10<sup>th</sup>

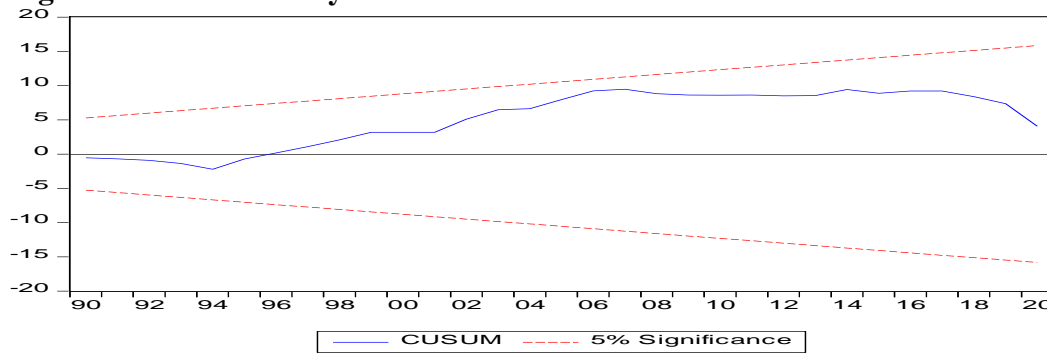


period. The response of GSE to Government spending on Ammunitions is positive with increasing value from the 1<sup>st</sup> to 10<sup>th</sup> period.

From the 3<sup>rd</sup> row, the response of Government expenditure on Amnesty to export is positive and increase appreciably from the 1<sup>st</sup> to 10<sup>th</sup> period. The response of GSA to GSE reduced to negative from 1<sup>st</sup> to 2nd period and increase up to positive value between the 3<sup>rd</sup> to 5<sup>th</sup> period and fell drastically to negative value from 5<sup>th</sup> to 10<sup>th</sup> period, the response of GSA to itself maintained a high and positive value in the first period and fall drastically from positive to negative value within the 6<sup>th</sup> and 8<sup>th</sup> period to maintain zero value from 8<sup>th</sup> to 10<sup>th</sup> period, the response of GSA to GSM started reducing and maintained a negative value from the 1<sup>st</sup> to 2nd period. It increases to positive from between the 2nd and 6<sup>th</sup> period and started to fall back to a positive value from 7<sup>th</sup> to 10<sup>th</sup> period.

From the fourth row, the response of GSM to Export started increasing from negative value from the 1<sup>st</sup> period and increased drastically from the 2nd to 10<sup>th</sup> period. The response of GSM to GSE decreased from positive to negative value within the 3<sup>rd</sup> and 4<sup>th</sup> period and later declined drastically to the negative value from the 4<sup>th</sup> to 10<sup>th</sup> periods. The response of GSM to GSA drops from positive to negative value in the first period but rose back to positive in the 4<sup>th</sup> period and maintain a zero value from the 6<sup>th</sup> to 10<sup>th</sup> period. The response of GSM to itself fell sharply from a high value to zero between the 1<sup>st</sup> and 2nd periods and further reduced to negative between the 2nd and 3<sup>rd</sup> periods and later maintained a positive value from the 4<sup>th</sup> to the 10<sup>th</sup> periods.

**Figure 4.2: The Stability Tests**



The result of CUSUM test above obtained from the model showed that there is evidence of stability in the coefficient at 5% level of significance, since the cumulative sum is located inside the area between the two critical lines.

### Discussion of Finding

The results of the Regression estimates from Table 4 indicates that export for one lagged period and two lagged period had coefficient values of 1.289654 and -0.285794 respectively. The findings showed that one lagged period of export ( $\ln(EPT(-1))$ ) has a direct and significant effect on export performance. This is in line with the work of Ma'ale (2019) on the same topic. The one lagged and two lagged periods coefficient of government expenditure on emergency care in Nigeria were 0.005542 and -0.104402 respectively. The result established that two lagged period of government expenditure on emergency ( $\ln(GSE(-1))$ ) has no significant but positive effect on export performance. This is in line with the work of Collier (2018) on the same topic.. The one lagged and two lagged periods coefficient of government expenditure on Amnesty in Nigeria were 0.017659 and -0.009875 respectively. The result established that one lagged period of government expenditure on Amnesty ( $\ln(GSA(-1))$ ) has no significant but positive effect on export performance. This is in line with the work of Nwolise (2019). The one lagged and two lagged periods coefficient of government expenditure on Ammunitions in Nigeria were 0.017659 and -0.009875 respectively. The result established that one lagged period of government expenditure on Ammunitions ( $\ln(GSM(-1))$ ) has a significant and positive effect on export performance, this is in line with the work of Nwogu (2017).

## **5. Conclusion and Policy Recommendations**

The major conclusion of this study is that the primary role of any government is to provide adequate security for life and properties of its citizens, and Nigeria is not an exception. In an economy like Nigeria where there is National insecurity, killings, and kidnapping of people and destruction of farmland plantations by Fulani herdsmen is a re-occurrence issue. Urgent and emergence care must be taken to curb the situation speedily. On this note, this study recommends the followings:

- (i.) The government should increase its spending on emergency case of insecurity, procure ammunitions to the Military troops and be ready to spend on Amnesty in Nigeria.
- (ii) The governments should introduce policies that will promote exports through effective spending on security of its citizens
- (iii) Nigerian government should continue spending on its fixed capital formation especially in areas like infrastructural development; while firms should be encouraged to spend more on fixed capital that include properties, plant, and equipment. This is capable of facilitating movement of goods and expands investments which have a greater influence on export performance.
- (iv). Export facilitating scheme like export bonus, export financing and export credit guarantee scheme be promptly announced to encourage exportations in Nigeria. There is also the need for more friendly environment in the economy by reducing tariff and putting exchange rate policies to promote rapid exportations.

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