Growth Impact of Insecurity on the Nigerian Economy

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Abstract
This research work investigated restructuring national security for economic growth in Nigeria for the period 1981 to 2017. In a bid to actualize the main objective of this study, a good number of literature materials were reviewed and data were collected from secondary sources such as the various editions of CBN Statistical Bulletin. The data were analyzed using Augmented Dickey-Fuller (ADF) Unit Root test, Johansen co-integration test, Error Correction Model. The selected variables (i.e. Gross Domestic product, Life expectancy at birth, terrorism risk index, discomfort index, adult literacy rate, corruption perception index and unemployment rate) had a co-integrating relationship indicating long-run relationship among the variables. The result of the Error Correction Mechanism (ECM) had the expected negative sign and statistically significant at the 0.05 level, an indication that any disequilibrium in the system will be adjusted. Based on the conclusion made, it is recommended that government should restructure and decentralize security architecture, increase capital expenditure on security and provide the enabling environment for people to work especially in the area of security of lives and property. This is against the back-drop that no meaningful economic activity can thrive in the face of insecurity.

1.1 Introduction
In any nation with security challenges, governance and economic growth are threatened. The current insecurity situation of Nigeria is deplorable as lives are lost on daily basis, businesses are in comatose settlements are displaced, investments are constrained, while people
live in fear amid abject poverty due to low productivity and rising unemployment. Bombings especially in the Northern part of Nigeria have posed serious challenges and threat to the peace and stability of Nigeria macroeconomic environment (Ajufo, 2013).

United Nations Reports (2010) defined security as a condition that prevents unauthorized persons from having access to official information that is safeguarded in the interest of national security or it can be a measure taken by military unit, activity or installation to protect itself against all acts designed to impair its effectiveness. Nigeria today is faced with security challenges which call for restructuring.

Restructuring literally means a structural change in the economy. The term has been used to explain the relatively weak pace of economic growth and job creation. Since independence, Nigeria has witnessed crisis caused mainly by political, social and religious factors. In recent times, incessant killings by Fulani herdsmen in Plateau, Taraba, Benue, Nassarawa and terrorists’ attacks in Gombe, Borno, Kaduna, and the Niger Delta resource crisis have left us with image problem (Gurama, 2013).

A country cannot achieve development unless it first seeks to achieve human security (Ito, 2013). This is because, human resources are essential to any country’s growth and development, but if the people are living in fear, they cannot be productive. Therefore, the first responsibility of any nation and its respective point of entry is human security. Certain factors that militates against the security of a nation are; poverty, unemployment, weak political institution, corruption e.t.c. One of the major problems of developing countries is poverty. Nigeria as a developing country is faced with the same challenge. Most Nigerians find it difficult to meet their basic needs – food, clothing and shelter (Ito, 2013).

According to Pulse Nigeria Newspaper of October 31st 2018, over 1.1 million Nigerians have slipped into extreme poverty in just
four months, which brings the total number of Nigerians living below the poverty mark of $1.90 per day to 88 million - overtaking India. In June 2018, the World Poverty Clock estimated that 86,977,400 are currently living in Nigeria, a number that accounts for 44.2% of its current estimated 196 million populations. Poverty is 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 is another problem facing the country. Trading Economics, 2019 reported that unemployment Rate in Nigeria increased to 23.10 percent in the third quarter of 2018 from 22.70 percent in the second quarter of 2018. Unemployment Rate in Nigeria averaged 12.31 percent from 2006 until 2018, reaching an all-time high of 23.10 percent in the third quarter of 2018 and a record low of 5.10 percent in the fourth quarter of 2010.

The problem of unemployment is adding to the strength of poverty in the country and both are growing stronger (Daniel, 2013). Ajufo (2013) stated that unemployment and poverty has been a major problem giving rise to criminal tendency in the youths and threatens the social economic peace and stability of the country. In Nigeria, despite the impressive economic growth over the last 10 years, unemployment and the incidence of poverty has worsened (Bulgarian, 2014).

This rate of economic growth for past 37 years till date has not been able to cut poverty nor created necessary jobs which eventually pose a big problem in the country as every youth tries to look for the fastest way to survive thereby causing insecurity in the nation.

The first duty of a government is to keep its citizens (or subjects) safe. The current situation of poverty and unemployment has created anxieties in the heart of many Nigerians as they feel fearful about their future economic conditions and well-being. The rise in poverty and unemployment rate (which limits economic growth) has
created a sense of economic insecurity for many Nigerians and this is likely to continue if the situation remains unchanged (Ito, 2013).

Besides, Nigerian economy grows slower than population growth rate. These and other factors reduce the standard of living of the people and pose a great problem to the nation (Bisiriyu, 2014). The alarming unemployment rate, high level of poverty, growing number of internally displaced persons (IDP), incessant killings, kidnappings, extent of income/wealth inequality occurring simultaneously in an emerging economy which has abundant resources, have compelled researchers and international organizations to focus attention to Nigerian security situation.

The objective of this study is to examine the effect of economic growth on the state of insecurity to specifically explore how the level of terrorism, adult literacy and discomfort have impacted on the growth and development of Nigerian economy, covering the period from 1981 to 2017, the study hypothesizes that there is no significant relationship between insecurity factors and growth of Nigerian economy.

It is quite unfortunate that not much attention has been given to study the extent to which Nigeria insecurity situation has affected growth and development of the economy. This paper therefore, focuses on the impact of insecurity on economic growth in Nigeria. This study is organized as follows: section one is introduction; section two and three focus on the review of relevant literature and data and methodology. Section four provides data analysis and some recommendations for ameliorating insecurity for inclusive growth in the economy.

2.0 Literature Review

2.1 Conceptual Issues

Achumba (2013) defines insecurity from two perspectives. Firstly, insecurity is the state of being open or subject to danger or threat of
danger, where danger is the condition of being susceptible to harm or injury. Secondly insecurity is the state of being exposed to risk or anxiety, where anxiety is a vague unpleasant emotion that is experienced in anticipation of some misfortune. These definitions of insecurity underscore a major point that those affected by the situation are not only uncertain or unaware of what would happen but they are also vulnerable to the threats and dangers when they occur (Ajufo, 2013). Rejda and Haley (2014) see economic insecurity as a chronic state or condition during which an individual or family has insufficient financial resources to satisfy basic needs and wants, including food, housing, medical care, transportation and similar needs.

In the context of this paper insecurity is defined as a breach of peace and security, whether historical, religious, ethno-regional, civil, social, economic, and political that contributes to recurring conflicts, and leads to wanton destruction of lives and property. Unemployment has been the singular view some economists have for economic insecurity; economic insecurity has been measured with community level indicators such as unemployment rate. Job insecurity and the risk of unemployment, is central to a conception of economic insecurity, indeed so central that they are assumed to be identical (Osberg, 1998).

Scheve and Slaughter (2017) argued that economic insecurity among workers may be related to deteriorating employment and wage interaction with employers. However, today’s widespread insecurity requires economists and policy makers to look beyond a few aggregate statistics.

The concept of growth is used in all fields of human endeavour. In economics the concept refers to economic growth (Osinubi, 2005). According to him, growth is often interpreted by many economists to mean increase in the volume of goods and services (output) produced by a country for a given period of time
usually one year. Some other economists also viewed economic growth quantitatively by measuring output. Kinderberger and Jhingan (2008) defined it simply as more output. Economic growth is measured by the amount of increase in goods and services produced in a country.

2.3 Theoretical Literature
There are three perspectives of economic growth models that have been developed over the past years. The first growth perspective was developed by the pioneering work of Harold (1939) and Domar (1946) which emphasizes on the importance of savings and capital accumulation. They emphasized that growth rate should be in line with population growth and growth in equipment to allow for full employment.

The second growth perspective began with the neoclassical work of Solow (1957), which argues that growth depends on the rate of technological growth, the growth in capital and in labour force. It could also be called the Solow-Swan Model.

The third perspective is the new growth theories that have emerged which incorporate endogenous models. The new growth explains why some countries, are poor and why others are rich. Introduced in the early 1980’s (Akanbi & DuToit, 2011), it says that economic growth and development depend primarily on endogenous factors; such as human capital innovations, knowledge, and positive externalities (Romer, 1994).

Thus, the new growth model includes endogenous technological process through “learning by doing” or innovation process (Essien, 2012). On the other hand, not much work has been done on the theory of insecurity. But we can see insecurity in the aspect of violence. From a human perspective, there are two fundamental forms of violence (direct and indirect), which includes killing swiftly by war, killings slowly and invisibly through poverty,
hunger, disease, repression and genocide. Using the United Nations Development Programme (UNDP) established in 1994, it is clear that the first three components – economic security, food security, and health security – are all directly interconnected.

2.2 Empirical Literature

Bandyopadhyay, Sandler and Younas (2014) investigating the impact of terrorism on Foreign Direct Investment and Gross Domestic Production of 78 developing countries for 1980-2013 and applying a system-GMM estimator to a dynamic panel, consisting of eight three-year averages of all variables. They conclude that domestic terrorism has a negative and significant impact on FDI as a share of GDP. In an empirical analysis on the state of insecurity on Nigerian economy, Coupland (2013) shows that insecurity has a far-reaching impact on people’s lives and well-being.

Achumba et al (2013) in their work on insecurity and the Nigerian economy observed that the porous frontiers of the country, where inflows of persons and arms are largely untracked have aided militancy and criminality in Nigeria.

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 central to development, and the national transformation agenda of the current administration may not be achieved if there is no solution to the menace of insecurity ravaging the country (Ajufo, 2013).

According to the World Bank’s report released (2013) on Conflict, Security and Development – some 1.5 billion people live in countries affected by political and criminal violence – causing human misery and disrupting development. The new report findings are
particularly poignant for Africa, home to 23 out of the world’s most conflict-affected and fragile economies. And conflict impacts negatively on development; Preliminary estimates suggest that Coted’Ivoires conflict wasted over 1,000 lives of men, women and children; displaced another 1 million; reduced Gross Domestic Products (GDP) by between 3 to 7 percent; pushed up poverty between 2.5 – 4 percentage point; and created additional fiscal needs of between 4 and 5 percent GDP. (Guardian, 2014:25).

Osinubi (2005) and Islam (2009) noted that economic growth is crucial in poverty reduction and added that unemployment is always expected to be highly and positively correlated with poverty. It is generally agreed that economic insecurity has increased over the last few decades despite the attendant rise in the average income (Islam, 2009).

The various constitutions that Nigeria has operated including the 1999 constitutions make provisions for the rights of citizens to include; right to life, right to social security, right to work, right to livelihood, just and favourable remuneration, right to a standard of living adequate for the health and wellbeing of individual and his family including food, clothing, housing, and right to education.

Bello (2013) investigates the phenomenon of unemployment as a rationale for insecurity with special reference to the Nigerian experience. The study unfolds a number of factors that account for this phenomenon and of course the great threat it poses to the economy. Simbowale (2013) has evaluated empirically macro-economic policies vis-a-vis poor economy growth in Nigeria using secondary data covering the period of 1960-2000. The study found among others that growth was actually weakly pro-poor. Also, those that are far below the poverty line have not been enjoying the benefit of economic growth.

Mori (2014) posited that unemployment caused by the movement of labour force from agriculture production to secondary
production in Nigeria amongst the unskilled labour constitutes disaster to the economic development. Adebayo (2013) who studied unemployment rate as a cause of insecurity in Nigeria from 1986 – 1996 using secondary data observed that unemployment arises whenever the supply of labour exceeds the demand for it at a prevailing wage rate.

Babatunde (2013) showed that national insecurity may mean organized crime or trade union activities of essential workers capable of destabilizing or endangering life and property. Nfor and Maimusa (2012) wrote that in the present circumstance, the major threats to national security in Nigeria are essentially internal, rather than external and they are essentially self-induced, accompanying strategies and machinations by greedy elites in the struggle and competition for power and scarce resources. Edem (2010) argues that the paradox of Nigeria’s security is that instead of the state being the framework of lawful order and highest source of governing authority, it constitutes the greatest threat to herself.

Ani (2014) showed in his study that religious violence unleashed on human capital by fanatics is caused by illiteracy, poverty, lack of piety, quest for power, sensational communication and foreign influence. The fact the Boko Haram sect members tore their secondary and degree certificates, remain a pointer to their perceived illiteracy and total brainwashing due to the sensational communication of their late leader. The effect of such broad-day antagonistic behaviour by the so-called educated members of the sect could create immeasurable psychological and developmental confusion to young Nigerians, within the geo-political vicinities where such tearing of certificates and open rejection of the investment on their human capital development was made.
3.0 Data and Methodology
3.1 Theoretical Framework
The theoretical framework of this work is rooted on the Endogenous growth theory. Endogenous growth theory developed in the 1980s, as a response to criticism of the neo classical growth model. According to Lucas (1988) Romer (1990) and Rebelo (1991) the theory holds that policy measures can have an impact on the long-run growth rate of an economy.

3.2 Model Specification
Following the theoretical propositions explored in the theoretical literature, the current study thus employs the pro-poor growth model adopted by Mahbub (1997). His model is specified thus:

\[ GDP = f(DCI, TRI) \] \hspace{1cm} (1)

\[ GDP = \alpha_0 + \alpha_1 DCI + \alpha_2 TRI + \varepsilon_i \] \hspace{1cm} (2)

Where:
GDP = Gross Domestic Product
DCI = Discomfort Index
TRI = Terrorism Risk Index
\( \alpha_0 \) = intercept
\( \beta_1 \) = co-efficient of foreign reserves

The Model was slightly modified by adding Adult Literacy Rate and Corruption Perception Index. This gave birth to model one below

**Model One**

\[ GDP = F(TRI, DCI, ADLIT, CUPI) \] \hspace{1cm} (3)

Linearizing the function gives multiple regression equation below as:

\[ GDP = a_0 + a_1 TRI_t + a_2 DCI_t + a_3 ADLIT_t + a_4 CUPI_t + U_t \] \hspace{1cm} (4)

Apriori Expectation \( a_0, a_1, a_2, a_3, a_4 > 0 \)

Where,
GDP = Gross Domestic Product
TRI = Terrorism Risk Index
DCI = Discomfort Index (addition of unemployment and inflation rates)
ADLIT = Adult Literacy Rate
CUPI = Corruption perception Index
\( a_0 \) = Constant
\( a_1-a_4 \) = Parameters
\( t \) = is the time trend
\( U_t \) = Error Term

**Model Two**

\[ \text{LEX} = F(\text{TRI, CUPI, ADLIT, UMR}) \] ………(5)
\[ \text{LEX} = b_0 + b_1 \text{TRI}_t + b_2 \text{CUPI}_t + b_3 \text{ADLIT}_t + b_4 \text{UMR}_t + U_t \] ………(6)

Apriori Expectation \( a_0, a_1, a_2, a_3, a_4 > 0 \)

Where LEX = Life Expectancy (proxy of insecurity in Nigeria) and TRI, CUPI, ADLIT are as defined above

UMR = Unemployment Rate
\( b_0 \) = Constant and \( b_1-b_4 \) are parameters
\( t \) = is the time trend and \( U_t \) is the error term

**3.3 Sources of Data**

Data were collected from secondary sources. These include relevant textbooks, journals, internet, National Bureau of Statistics (2017), Central Bank of Nigeria Statistical bulletin (2017) and World Bank publications (2017) for the period under study.

**3.4 Method of Data Analysis**

The methods of data analysis or estimation techniques include; ordinary least squares (OLS) method, Augmented Dickey-Fuller (ADF) unit Root Test, Johansen Co-integration test and Error Correction Model (ECM). These were designed in a way that it employed both exploratory and descriptive tools. The qualitative and quantitative tools were adopted in order to obtain viable data as
regards the extent to which insecurity has impacted on the growth of Nigerian economy.

Augmented Dickey-Fuller Statistics was used to test for the stationery status of all the variables to determine their order of integration. The Johansen co-integration technique was used to test for the long-run relationship among the selected variables in the models. Also, the Error Correction Mechanism was employed to determine the speed of adjustment from the short-run disequilibrium to the long-run equilibrium.

4.0 Empirical Results and Interpretation
4.1 Analysis of Data and Discussion of Results
In this section, we undertake empirical investigation regarding the restructuring national security for economic growth in Nigeria economy which spanned between 1981 to 2017 using unit root test, co-integration and error correction technique to determine the relationship between the dependent and independent variables.

Stationarity, Lag length and Bounds Test
In order to determine the order of integration, of the variables and to be sure that the series are integrated of order I(0) and I(1), a unit root test was carried out using the Dickey-Fuller test (ADF) on these variables. The results showed that all the variables were integrated at first difference except GDP, ADLIT and DCI which were integrated at level. The result of ADF testing is presented in table 4.2 below:
Table 4.2: Augmented Dickey Fuller (ADF) Test

<table>
<thead>
<tr>
<th>Variables</th>
<th>Lag</th>
<th>@ Level</th>
<th>First Difference</th>
<th>Order of integration</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP</td>
<td>0</td>
<td>4.296800(0.0110)</td>
<td>-4.858479(0.3468)</td>
<td>I(0)</td>
</tr>
<tr>
<td>ADLIT</td>
<td>0</td>
<td>-4.672836(0.0006)</td>
<td>-4.470335(0.0012)</td>
<td>I(0)</td>
</tr>
<tr>
<td>DCI</td>
<td>1</td>
<td>-4.195742(0.0024)</td>
<td>-4.898629(0.0004)</td>
<td>I(0)</td>
</tr>
<tr>
<td>LEX</td>
<td>0</td>
<td>0.355691 (0.9778)</td>
<td>-3.984043 (0.0043)</td>
<td>I(1)</td>
</tr>
<tr>
<td>TRI</td>
<td>0</td>
<td>2.517051(.09120)</td>
<td>-7.098790(0.0000)</td>
<td>I(1)</td>
</tr>
<tr>
<td>CUPI</td>
<td>0</td>
<td>-0.290174(0.9162)</td>
<td>-6.312348(0.0000)</td>
<td>I(1)</td>
</tr>
<tr>
<td>UMR</td>
<td>0</td>
<td>0.889958(0.9941)</td>
<td>-6.054732(0.0000)</td>
<td>I(1)</td>
</tr>
<tr>
<td>5% C.V</td>
<td></td>
<td>5% = -2.951125</td>
<td>5% = -2.954021</td>
<td></td>
</tr>
</tbody>
</table>

Sources: Extract from E-view 9.0

Note:

i. Pro-value are represented in parenthesis

ii. The ADF Statistics are compared to 5 percent critical value (C.V.)

4.2.2 Co-Integration Result
Cointegration is a long-run relationship that exists among two or more variables. To establish cointegration, we employ the Johansen cointegration test as shown in table 4.3a and 4.3b below.
Table 4.3a: Johansen Cointegration Test

<table>
<thead>
<tr>
<th>Hypothesized No. of CE(s)</th>
<th>Eigen Value</th>
<th>Trace Statistics</th>
<th>0.05 Critical Value</th>
<th>Prob.**</th>
</tr>
</thead>
<tbody>
<tr>
<td>None *</td>
<td>0.9067</td>
<td>142.256</td>
<td>69.818</td>
<td>0.000</td>
</tr>
<tr>
<td>At most 1 *</td>
<td>0.5687</td>
<td>63.968</td>
<td>47.856</td>
<td>0.000</td>
</tr>
<tr>
<td>At most 2 *</td>
<td>0.4036</td>
<td>36.209</td>
<td>29.797</td>
<td>0.008</td>
</tr>
<tr>
<td>At most 3 *</td>
<td>0.3891</td>
<td>19.152</td>
<td>15.494</td>
<td>0.013</td>
</tr>
<tr>
<td>At most 4</td>
<td>0.0838</td>
<td>2.8889</td>
<td>3.841</td>
<td>0.089</td>
</tr>
</tbody>
</table>

Trace test indicates 4 cointegrating eqn(s) at the 0.05 level
Source: Extracted from E-views Computer prints out

The Trace test shows that there are four cointegrating equations among the series. It is concluded that there is a long run relationship among the series.

Table 4.3b: Johansen Cointegration Test

<table>
<thead>
<tr>
<th>Hypothesized No. of CE(s)</th>
<th>Eigen Value</th>
<th>Trace Statistic</th>
<th>0.05 Critical Value</th>
<th>Prob.**</th>
</tr>
</thead>
<tbody>
<tr>
<td>None *</td>
<td>0.6197</td>
<td>73.479</td>
<td>69.818</td>
<td>0.024</td>
</tr>
<tr>
<td>At most 1</td>
<td>0.4219</td>
<td>41.574</td>
<td>47.856</td>
<td>0.171</td>
</tr>
<tr>
<td>At most 2</td>
<td>0.3379</td>
<td>23.486</td>
<td>29.797</td>
<td>0.223</td>
</tr>
<tr>
<td>At most 3</td>
<td>0.2120</td>
<td>9.877</td>
<td>15.494</td>
<td>0.290</td>
</tr>
<tr>
<td>At most 4</td>
<td>0.0591</td>
<td>2.0136</td>
<td>3.841</td>
<td>0.151</td>
</tr>
</tbody>
</table>

Trace test indicates 1 cointegrating eqn(s) at the 0.05 level
Source: Extracted from E-views Computer prints out
The Trace test shows that there is one cointegrating equation among the series. It is concluded that there is a long relationship among the variables of interest.

4.2.3 Error Correction Representation (Short-run)

This section deals with error correction estimation of the relationship among the series, since we have evidence of cointegration among the series through Johansen Cointegration Test. The ECM results are depicted as follows:

Dependent variable: GDP
Method: Least Squares
Sample (adjusted): 1982-2017
Included observations: 34 after adjustment

Table 4.4a: Error Correction Representation for Model I

<table>
<thead>
<tr>
<th>Regressor</th>
<th>Coefficient</th>
<th>Std- Error</th>
<th>T-Stat.</th>
<th>Prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>6615381.00</td>
<td>1883579.00</td>
<td>3.512136</td>
<td>0.0015</td>
</tr>
<tr>
<td>TRI</td>
<td>1097610.00</td>
<td>152765.50</td>
<td>7.184929</td>
<td>0.0000</td>
</tr>
<tr>
<td>DCI</td>
<td>-4.185522</td>
<td>50692.60</td>
<td>-0.825667</td>
<td>0.4160</td>
</tr>
<tr>
<td>D(ADLIT)</td>
<td>-1261494.00</td>
<td>618075.40</td>
<td>-2.041004</td>
<td>0.0508</td>
</tr>
<tr>
<td>CUPI</td>
<td>404868.00</td>
<td>173620.70</td>
<td>2.331911</td>
<td>0.0271</td>
</tr>
<tr>
<td>N+ECM(-1)</td>
<td>-0.408289</td>
<td>0.205383</td>
<td>-1.987938</td>
<td>0.0567</td>
</tr>
</tbody>
</table>

Source: Extracted from E-views 9 Computer prints out

Table 4.4a presents the error correction model (ECM) result. The coefficients of Terrorism Risk Index (TRI), Adult Literacy Rate D(ADLIT) and Corruption Perception Index (CUPI) were significant at 5% level. The result indicates that a one percent increase in TRI and CUPI will cause GDP to rise by 1097610.00 and 1261494.00 respectively, because they have direct and positive relationship with the GDP. While D(ADLIT) with coefficient of -1261494.00 has inverse relationship with the GDP. Discomfort Index coefficient is -
41855.22 and this implies that there is an inverse relationship between DCI and GDP. This relationship was found to be statistically insignificant at the 0.05 level and it does not conform to theoretical expectation.

The error correction coefficient estimated at -0.4082 is highly significant and negative as expected. This implies that the speed of adjustment to the equilibrium is high and this further confirms a stable long run relationship among variables of interest.

**Diagnostic Test**

To confirm the robustness of the model, the diagnostics test was performed as show in table 4.4b below:

<table>
<thead>
<tr>
<th></th>
<th>R-squared</th>
<th>Mean dependent var</th>
<th>Adjusted R-squared</th>
<th>S.D. dependent var</th>
<th>S.E. of regression</th>
<th>Akaike info criterion</th>
<th>Schwarz criterion</th>
<th>Log likelihood</th>
<th>Hannan-Quinn criter.</th>
<th>F-statistic</th>
<th>Durbin-Watson stat</th>
<th>Prob(F-statistic)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.918614</td>
<td></td>
<td>0.904080</td>
<td></td>
<td>4796653.</td>
<td></td>
<td>15487602</td>
<td>33.76352</td>
<td></td>
<td>34.03288</td>
<td>33.85538</td>
<td>0.000000</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Extracted from E-views 9 Computer prints out

The estimation results reveal that the explanatory variables jointly account for 0.90.4% systematic changes in gross domestic product as adjudged by the adjusted $R^2$. This implies that approximately about
90% of the systematic and dynamic variation in gross domestic product was explained by the explanatory variables in the model. The Durbin Watson statistic (1.897) and F-Statistic (63.20749) illustrates the absence of auto correlation and statistical significance of the model.

Dependent variable: LEX
Method: Least Squares
Sample (adjusted): 1982 -2017
Included observations: 34 after adjustment

<table>
<thead>
<tr>
<th>Regressor</th>
<th>Coefficient</th>
<th>Std-Error</th>
<th>T-Stat.</th>
<th>Prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>46.75498</td>
<td>0.342924</td>
<td>136.3423</td>
<td>0.0000</td>
</tr>
<tr>
<td>TRI</td>
<td>0.181895</td>
<td>0.044419</td>
<td>4.094955</td>
<td>0.0003</td>
</tr>
<tr>
<td>CUPI</td>
<td>0.125141</td>
<td>0.049710</td>
<td>2.517413</td>
<td>0.0178</td>
</tr>
<tr>
<td>D(ADLIT)</td>
<td>-0.689872</td>
<td>0.174752</td>
<td>-3.947713</td>
<td>0.0005</td>
</tr>
<tr>
<td>D(UMR)</td>
<td>-0.022263</td>
<td>0.079711</td>
<td>-0.279294</td>
<td>0.7821</td>
</tr>
<tr>
<td>ECM(-1)</td>
<td>-0.714391</td>
<td>0.230240</td>
<td>-3.102814</td>
<td>0.0043</td>
</tr>
</tbody>
</table>

Source: Extracted from E-views 9 Computer prints out

The estimated result of the constant is 46.75498 and this indicates that if all the explanatory variables are zero, Life Expectancy at Birth (LEX) will be 46.75 approximately.

The coefficient of Terrorism Risk Index (TRI) is 0.181895 and statistically significant and less than 0.05. This implies that there is a direct relationship between Terrorism Risk Index and Life Expectancy at birth. This indicates that a unit increase in Terrorism Risk Index will cause LEX to rise by 0.18 percent approximately with the theoretical assertion.

The coefficient for the corruption perception Index (CUPI) is 0.125141 indicating a direct relationship between the corruption perception Index and LEX in the Nigerian economy. A unit increase
in the corruption perception Index causes LEX to increase by 0.13 percent approximately.

The coefficient of the lag of Adult Literacy Rate D(ADLIT) is -0.689872 and insignificant at 5% level. This shows that a unit increase in D (ADLIT) leads to 0.68 percent decrease approximately in life expectancy at birth. The coefficient of the lag of Unemployment Rate D (UMR) is -0.022263 and insignificant at 5% level. This shows that a unit increase in D (UMR) leads to 0.02 percent decrease approximately in life expectancy at birth.

Finally, the error correction term ECM(-1) which is 0.714391 is statistically significant and has the appropriate sign (negative). It suggests however that there is a high speed of adjustment of Life expectancy in Nigeria since the speed of adjustment to long-run equilibrium is 71 percent approximately. It is also a confirmation that indeed LEX, TRI, CUPI, ADLIT and UMR are co-integrated.

Table 4.4d: Key Regression and Diagnostic Statistics for Model II

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-squared</td>
<td>0.871735</td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.848831</td>
</tr>
<tr>
<td>S.E. of regression</td>
<td>1.347684</td>
</tr>
<tr>
<td>Sum squared resid</td>
<td>50.85507</td>
</tr>
<tr>
<td>Log likelihood</td>
<td>-55.08844</td>
</tr>
<tr>
<td>F-statistic</td>
<td>38.05972</td>
</tr>
<tr>
<td>Prob(F-statistic)</td>
<td>0.000000</td>
</tr>
<tr>
<td>Mean dependent var</td>
<td>47.70059</td>
</tr>
<tr>
<td>S.D. dependent var</td>
<td>3.466224</td>
</tr>
<tr>
<td>Akaike info criterion</td>
<td>3.593438</td>
</tr>
<tr>
<td>Schwarz criterion</td>
<td>3.862795</td>
</tr>
<tr>
<td>Hannan-Quinn criter.</td>
<td>3.685296</td>
</tr>
<tr>
<td>Durbin-Watson stat</td>
<td>1.896167</td>
</tr>
</tbody>
</table>

Source: Extracted from E-views 9 Computer prints out

The F-statistic which measures the joint statistical influence of the explanatory variables in explaining the dependent variable was found to be statistically significant at 0.05 percent level. The F-statistic figure of 38.059 shows that the explanatory variables are important determinant of Life Expectancy at Birth in Nigeria. However, the
Durbin Watson statistic of 1.896167 indicates that there is no problem of autocorrelation.

The adjusted coefficient of determination ($R^2$) is 0.871735. This means that the independent variables are able to explain about 87 percent approximately of the systematic variation in the dependent variable.

**Stability Test**

The stability test is conducted to confirm the stability of the coefficients of the independent variables. The CUSUM Test was used to test the stability of the coefficients.

**Figure 4.3: CUSUM Test for Model I**
The result obtained above from model I showed that there is evidence of stability of the coefficient at 5% level of significance in CUSUM test since the cumulative sum is inside the area between the two critical lines.

**Figure 4.4: CUSUM Test for Model II**

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

**5.1 Conclusion and Policy Recommendations**

The data for this study were analyzed using Augmented Dickey-Fuller (ADF) Unit Root test, Johansen co-integration test, Error Correction Model. The unit root test showed that GDP, ADLIT and DCI series were significantly stationary at level and the series of LEX, TRI, CUPI and UMR were significantly stationary at first
difference. The selected variables (i.e. Gross Domestic product, Life expectancy at birth, terrorism risk index, discomfort index, adult literacy rate, corruption perception index and unemployment rate) had a co-integrating relationship indicating the fact that there is a long-run relationship among the variables. Result indicated that Discomfort Index (DCI) had an inverse relationship with GDP in the long run, while Terrorism Risk Index (TRI), Adult Literacy rate (ADLIT) and Corruption Perception Index (CUPI) have a direct relationship with GDP in the long run. The empirical results also revealed that TRI, DCI, ADLIT and CUPI had a direct relationship with Life Expectancy at Birth (LEX). The result of the Error Correction Mechanism (ECM) in models one and two had the correct negative signs and statistically significant at the 0.05 level, an indication that any disequilibrium in the system will be adjusted.

5.2 Conclusion
The presence of insecurity in any environment constitutes threat to lives and properties, hinders business activities, and discourages local and foreign investors, all of which stifle and retard socio-economic development of a country.

5.3 Recommendations
On the basis of the above summary, the following recommendations are made:

i. The panacea for solving insecurity challenge in Nigeria is for government to accelerate the pace of development. Development in this context consists of creating an economy with relevant social, economic and physical infrastructure for business operations and industrial growth, to provide gainful employment, high level of educational facilities, and medical care for the people.
ii. Capacity building should be embarked upon by the government in order to ensure the availability of efficient labour in the country and this can be achieved by improving the educational standard in the country as well as investing in research, science and technology.

iii. Finally, federal government should provide the enabling environment for people to work especially in the area of security of lives and property. This is against the back-drop that no meaningful economic activity can thrive in the face of insecurity.

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