

## **Economic Growth and Development in Nigeria: Which Institutions Infrastructure Matter**

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### **Abstract**

*There is a close link between institutions and economic performance. However, a particular institutions infrastructure blueprint that equally fit all countries doesn't exist. Identifying the most pressing infrastructures required to stimulate economic performance then becomes a problem. This study is undertaken to determine which institutions infrastructure enhances economic performance in Nigeria. Time series data from 1986 to 2016 were sourced from the Central Bank of Nigeria, World Bank, etc. Multiple regression model was employed for data analysis and ECM was adopted. The regression model was based on modern economic growth theory. The ADF tests showed that the variables were stationary; uni-directional causal relationship exists between governance institutions and economic growth/development in Nigeria. The ECM coefficient was significant. The findings indicate that while economic and regulatory institutions significantly impact economic growth, norms and social institutions insignificantly impact economic growth. Further, the study reveals that governance, legal/security as well as political institutions all negatively impact economic growth/development. The study concludes that in Nigeria, economic and regulatory institutions drive economic growth, while governance, legal/security and political institutions hamper economic growth. Thus, only economic and regulatory institutions matter in Nigeria. To sustain economic growth therefore, policies should be directed at strengthening economic, financial and regulatory institutions; equipping and enhancing public and civil services, and severing them from political interference; enhancing civil liberties and rule of law with an effective security system. Enhance effective, efficient and independent judiciary. Effectively and adequately control crimes, terrorism and violence; and restructuring the political system.*

**Keywords:** institutions infrastructure, economic growth, development

### **1.0 Introduction**

Nigeria, the heartbeat of Africa and the most populous black nation has been economically bedridden for a while now. Even before the official declaration that the economy is in recession from the second quarter of 2016, many things had gone wrong with the economy. Structurally, the economy is mostly primary product oriented, highly import dependent, consumption driven and undiversified. Agriculture accounts for 40% of GDP and employs about 70% of labour force, crude oil accounts for more than 90% of exports and foreign exchange earner, while manufacturing accounts for less than 1% of total exports. Although the country is well endowed with varied natural resources including oil and gas, 68% of her population of over 170 million people are living below international poverty line of US\$ 1.25 a day. Also, majority of the populace are under the burden of inequality and unemployment (African Development Bank, 2014; Ministry of Budget and National Planning, 2017; The World Bank, 2010).

The economic recovery and growth plan of 2017-2020 document highlights that general economic performance of the country is seriously undermined by deplorable infrastructure, corruption, insecurity and poor governance or generally, poor and ineffective institutions infrastructures (Ministry of Budget and National Planning, 2017).

Essentially, Hodgson (2001) define institutions as durable systems of established and embedded social rules and conventions that structure social interactions, and it is the kind of structures that matter most in the social realm (Hodgson, 2006). For King (1976) it is the repetitive pattern of interaction through which society undertakes certain functions. Aron (2000) notes that since conventional factors of growth cannot fully explain Africa's experience, focus is now on institutional explanation. Whereas institutions are the deep and fundamental determinants of economic growth and development, the conventional factors of human capital, physical capital, technology, etc. are proximate causes (Bloch & Tang, 2004; Acemoglu & Robinson, 2008).

Studies revealing the existence of relationship between institutions and economic performance agree that there is a close link between the two and that such relationship may be direct or indirect (Aron, 2000; Zouhaier & Kefi, 2006). Some institutions infrastructures are qualified as good and others as weak. While good institutions infrastructures promote economic performance, weak institutions infrastructures retard same (Zouhaier & Kefi, 2006; Mijiyawa, 2008; Easterly, Ritzan & Woolcock, 2006; Aron, 2000). Generally, institutions infrastructures are of varied nature, and each country has a distinctive historical, religious, social and cultural background, as such, a blueprint of institutions infrastructure development that equally fit all countries doesn't exist. As shown in Bloch and Tang, (2004) and Rodrik (2002), a comprehensive set of institutional changes is not required for initiating growth, rather, small but key changes in some institutions infrastructures can have positively significant effect on economic performance. However, the problem lies in identifying the most pressing institutions infrastructures that are required to stimulate economic performance and thus enhance growth and development.

In Nigeria, institutions infrastructures have been among the most ignored economic growth infrastructures over the years. Worldwide, attention is being paid to this infrastructure and the present Nigerian government's development policy seems to recognise its importance in driving or mitigating development. However, focus is only on very few of these infrastructures to the neglect of many others. Also, concern is not much given to which of these infrastructures is actually driving economic performance or otherwise. Country specific studies have been undertaken for other countries on the categories of institutional indicators that actually drive economic performance. However, for Nigeria, such studies are not very common to warrant general conclusion. This study is therefore undertaken to examine the relationship between institutions infrastructure indicators and economic performance in Nigeria. More specifically, the study will determine the major category of institutions infrastructure, among others, that actually enhance economic performance in Nigeria.

### **1.1 Institutions infrastructures in Nigeria**

According to Hodgson (2006), institutions are the kinds of structures that matter most in the social realm and may be define as systems of established and prevalent social rules that structure social and economic interactions. It encompasses a wide range of indicators. Economists often rely on such indicators to capture the features of institutions, although each has potentially different channel of impact on growth (Aron, 2000). According to The Global Economy.com (2017) and Transparency International (2016), institutions infrastructures in Nigeria include:

- a) Governance Institutions: the indicators here include:
  - i) Government effectiveness index – this represents: the quality and independence of public and civil services, the quality of policy formulation and implementation and the level of government commitment to their policies. Between 1996 and 2016, the average value of government effectiveness for Nigeria was -1.02 points from maximum points of 2.5. This signifies weak governance in the country.
  - ii) Regulatory quality index – measures the ability of government to formulate and implement sound policies and regulations that drive private sector development. Between 1996 and 2016, Nigeria had an average value of regulatory quality of -0.87 points from a maximum of 2.5 points. An indication of weak governance.
- b) Legal and security institutions: the indicators here include:
  - i) Rule of law index – measures the extent to which agents abide by rules governing society, quality of contract enforcement, property rights, the police, the courts, likelihood of crime and violence. Between 1996 and 2016, an average of -1.21 points was recorded for Nigeria from a maximum of 2.5 points, indicating weak legal and security system.

- ii) Political stability index – measures absence of violence, terrorism, and destabilization or overthrow of government. From a maximum of 2.5 points between 1996 and 2016, Nigeria scored an average value of -1.79 points. This indicates weak security system in the country.
- iii) Property rights index – measures the protective ability of a country's laws on private property rights and the extent of government's enforcement of such laws. From a maximum point of 100, between 1995 and 2016 Nigeria scored an average of 34.55 points, indicating weak legal system.
- c) Political institutions: the indicators here include:
  - i) Voice and accountability index – this measures the extent of citizens' participation in selecting their government, freedom of association and expression, and free media. Between 1996 and 2016, Nigeria scored an average value of -0.8 points from a maximum point of 2.5, an indication of weak political system.
  - ii) Political rights index – a measure rating electoral processes, political pluralism and participation, and how government functions. From a strong right of 1 to a weak right of 7, between 1972 and 2016 the average value for Nigeria is 4.82 points, an indication of weak political system.
  - iii) Civil liberty index – measures freedom of expression and belief; associational, organizational, personal and individual rights. Between 1972 and 2016, Nigeria scored an average of 4.4 points from a maximum rating of 1 point and a minimum of 7 points. This also indicates weak political system.
- d) Economic and regulatory institutions: the indicators here include:
  - i) Fiscal freedom index – measures tax burden on individuals and businesses as well as tax revenue's share of GDP. Nigeria scored an average value of 83.44 points from a maximum of 100 points between 1995 and 2016. This indicates strong economic institutions.
  - ii) Business freedom index – measures the ease of starting, operating and closing a business. It reflects the efficiency of Nigeria's regulatory processes. On the average, Nigeria scored 53.76 points out of a maximum of 100 points for the period 1995 to 2016.
  - iii) Labour freedom index – a measure of legal and regulatory framework of the labour market relating to wages, hiring, layoffs, severance, etc. Nigeria scored an average of 78.35 points between 2005 and 2016 from a maximum of 100 points.
  - iv) Monetary freedom index – measures price stability and use of price controls by the government. Average score between 1995 and 2016 for Nigeria is 67.51 out of a maximum of 100 points.
  - v) Trade freedom index – measures absence of tariffs and barriers on international trade. From a maximum of 100 points, Nigeria scored an average of 53.91 points between 1995 and 2016.
  - vi) Investment freedom index – a measure of investment restriction activities within and outside the country. An average point for Nigeria from 1995 to 2016 is 46.82 points out of a maximum of 100 points
  - vii) Financial freedom index – measures banking system efficiency, government regulation of the financial system, financial and capital market development, and openness to foreign competition. Nigeria has an average value of 35.91 points between 1995 and 2016 from a maximum of 100 points.
- e) Norms and social institutions: the indicators here include:
  - i) Corruption perception index – measures social conducts and behaviours that deviate from acceptably good rules of conduct, distort legitimate allocation of resources and pervert integrity. On the average, Nigeria ranks very low among other countries of the world and scores 22 points out of 100 points.

## 2.0 Literature review

The institutional school is of the opinion that institutions such as political system, governance system, economic freedom, etc. are key determinants of long term economic growth, especially for developing economies. As noted by Ebben and de Vaal (2009), the relationship between institutions and economic growth has gone beyond subject of mere descriptive argumentations. Available literatures show that such relationship has been formalized and empirically tested. Some of these literatures will be examined in this section.

Vijayaraghavan and Ward (2000) evaluate the relationship between institutional infrastructure and economic growth rates across 43 countries between 1975 and 1990. Of these countries, 9 were developed while 34 were developing economies based on the World Bank classification of 1990. The study adopted the neoclassical growth model and integrated a broad set of institutional variables as proxy for overall institutional infrastructure for an economy. The following institution indicators were used: security of property rights; governance; political freedom and size of government. The analysis results showed that security of property rights and size of government are the most significant institutions that explain variations in economic growth rates.

This result implies that although institutions are generally presumed to impact economic growth, not all categories of institutional infrastructure actually impact growth in some economies. In a study of the role of institutions and economic growth in Asian countries, Sarwa, Siddiqi and Butt (2013) sought to determine the relationship between institutions and economic growth. They applied fixed effect model and the time period covered by the study was from 1995 to 2010. The results indicate that financial and legal institutions *inter alia* are more effective in increasing economic growth compared to other formal and informal institutions. Equally, Zouhaier and Kefi (2006) adopted a static panel data model in a study of 37 developed and developing countries for six successive periods of five years from 1975 until 2000. Their findings from empirical tests stipulate a dominant effect exerted by economic institutions on economic growth of the total sample of countries and developed countries. For developing countries however, political and economic institutions did not relate to economic growth. They adduced this to the vulnerability of these institutions in those countries. Bad political institutions according to them generate weak economic institutions that are incapable of stimulating economic activity thus dampening economic performance.

Mijiyawa (2005) studied impact of institutions on economic growth in a sample of 123 countries made up of 85 developing and 38 developed countries using panel data for the period 1960 to 2003. They found that generally, improvement of the value of an index of politico-economic institutions positively and significantly affect the probability of growth sustainability. However, on a test of simultaneous effect of: democratic; economic activities regulation; and property rights institutions, it was found that only the regulation institutions positively and significantly affect and therefore most important for growth sustainability. On the other hand, Fatas and Mihov (2010) presented evidence from their study that policy volatility exerts a strong and direct negative impact on growth. Their study used data from 93 countries and employed both instrumental variables and panel estimation to address concerns of omitted variables and endogeneity. They submitted that undisciplined governments that implement frequent and large changes in government spending unrelated to the state business cycle generate lower economic growth.

For country specific studies, generally, Ifere, Okoi and Bassey (2015) examined the relationship between institutional quality, macroeconomic policy and economic development in Nigeria. The study used data obtained from Central Bank of Nigeria for the period from 1995 to 2013. Their model was estimated using the OLS technique. Their results indicated an insignificant impact of domestic institutions on Nigeria development indices. Also, Olagunla, Kareem and Raheem (2014) studied the relationship between institutions (represented by economic freedom) and resource curse (represented by GDP and oil export). They used data from 1986 to 2012 and adopted regression analysis. They found that there is a negative relationship between institutions and resource curse in Nigeria.

Also for Nigeria, Ibrahim (2013) took a study concerning issues in security, good governance and its challenges to economic growth and development. He found that the security sector is neglected and this is responsible for the non performance of democratic governance and its attendant violent crimes. Further, they show that the relationship between democratic governance and security is automatic in Nigeria. In the same vein, Ejuvbeokpo (2012) investigated the impact of cost of governance on economic development in Nigeria using data from 1970 to 2010 and OLS technique of analysis. The study revealed that cost of governance hampers economic development in the country. Also, in evaluating the performance of the Nigerian economy under democratic rule from 2000 to 2009, Attah (2012) found that the Nigerian economy has not fared well after 12 years of democratic rule. Ubi and Udah (2014) descriptively and quantitatively examined how corruption and institutional quality in Nigeria have impacted on economic performance. The study revealed that corruption and institutional quality (measured by contract intensive money) have statistically significant effect on economic performance in Nigeria. In another development, Agba (2012) studied the roles of culture on development in Nigeria by focusing essentially on non material cultural traits, which pertains to values, norms, beliefs, etc. in various societal systems. Structural Functionalism was adopted as the theoretical instruments for the analysis. The study revealed that culture is the spring board from which virtually all development policies in almost all social systems emerge. Generally, it is argued that institutions impacts on economic growth of a country, however, from the array of literatures reviewed above, it is yet to be proven that all institutions infrastructure matter for growth of any particular economy at a particular time. While for some economies, some institutions infrastructure matter, in others different institutions infrastructures prevail.

Previous studies on Nigeria are yet to proof particular institutions infrastructure that is propelling economic growth and development of the country, this study is therefore undertaken to fill this gap by determining the major category (ies) of institutions that impact economic growth of the country and the nature of such impact.

### **3.0 Theoretical background**

Economists have sought over the years to identify what causes economic growth and then provide suitable models for such growth. Among the most prominent contemporary of such models are: the Solow-Swan neoclassical or exogenous growth model; and the endogenous growth theories. However, there is a recent growing concern about the roles institutions play in economic growth processes and this has led to improvements on existing economic growth model.

While the neoclassical models hypothesize that the “fundamentals” for equilibrium outputs, growth and differences in income across countries are: resources, technology, and preferences, the neoclassical theory suggests that institutions do not matter. The neo-classicists focus on the market and on government, arguing that government impediments to markets do prevent smooth working of the market economy (Hoff & Stiglitz, 1999). However, by ignoring institutions, the neo-classicists tend to ignore an important determinant of economic outcomes. As noted by Rispens (2009), a major criticism against the neoclassical growth theory is that exogenous models do not give sufficient insight on the sources of economic growth, because it does not account for how technological progress originates and how it interacts in the model. For them, the level (and growth rate) of technology is seen as an exogenous variable.

In a bid to improve the neoclassical theory a “new” growth theory known as endogenous growth theory was developed by Romer (1986, 1990) and Lucas (1988). With this theory is described how technological change originates. They recognized human capital, research and development, ideas and innovation as the driving force of technology. However, an institutional approach to explaining long term sustained economic growth in the form of social infrastructure has been proposed (Rispens, 2009), and this is the bedrock of modern economic theory.

A major element of modern economic theory is institutions, which is described as not just fundamental but as deep determinant of economic outcome. The theory emphasizes that institutions do matter for economic outcomes and that institutions are endogenous. Among the factors that affect the set of institutions that exist in any period is the initial distribution of wealth (Hoff & Stiglitz, 1999). The market in this theory is conceptualized as a social institution that shapes preferences; and may foster characteristics of openness, competitiveness, and self-interestedness. A major insight of modern equilibrium theory being that what happens in one market has ramifications for others.

For this theory, the most important determinant of actions is one’s environment, including the particular institutions in that environment. However, these institutions cannot be derived from the “fundamentals” of the neoclassical model (Hoff & Stiglitz, 1999). Institutional changes drive development by promoting technological innovations and more efficient resources allocation. The quality of a state’s legal, political, social and economic institutions can prove to be a significant cause of a country’s development (or lack thereof). Also, a stable rule of law and a healthy investing climate in which property rights are strongly enforced can contribute greatly to economic performance (Acemoglu, Johnson & Robinson, 2001; Glaeser, La Porta, Lopez-de-Silanes & Schleifer, 2004).

The modern economic theory is therefore a blend of the neoclassical economic theory and the endogenous growth theory with the institutional approach to growth. While the Solow model offers possible explanation on why some countries are more prosperous than others. The neoclassical theories argue that technological progress is the only source of long-run economic growth as it offsets inevitable diminishing returns on capital. Endogenous growth models on the other hand explain why such technological progress takes place. Then, institutional approach expresses the relevance of institutions infrastructures as major determining factors of sustained long term economic growth and development. This study therefore adopts the modern economic growth theory because of its emphasis on institutions as determinant of economic growth without neglecting the relevance of the prescriptions of other contemporary economic theories.

### **4.0 Research methodology**

This research is designed to permit an econometric study of the relationship between institutions infrastructures and economic growth and development of Nigeria.

Time series data employed cover the period from 1986 to 2016, they were sourced from the Central Bank of Nigeria, World Bank, Transparency International, Heritage Foundation, etc. Statistical technique of multiple regression model was employed for time series data analysis and the regression model was estimated using econometric technique of error correction model (ECM). The regression model was based on modern economic growth theory and the theoretical background and literature reviewed highlighted the determinants of economic growth.

The neoclassical model reveals that output primarily results from capital and labour inputs with any residual growth indicating improvements in total factor productivity. Endogenous growth studies cite human capital as one of the major forces that propel long run economic growth. Institutional approach on the other hand emphasizes the importance of institutions infrastructures as major determinants of sustained economic growth and development in addition to the factors prescribed by other theories. Thus, to determine which factor has significant impact in explaining economic growth and development in Nigeria, we formulate the following function:

$$GDP = f(CAP, HUM, INST) \quad (1)$$

Where: GDP = gross domestic product measuring economic growth and development; CAP = physical capital; HUM = human capital; INST = institutions.

However, institutions include: legal and security institutions; governance institutions; political institutions; norms and social institutions; and economic and regulatory institutions. Thus, equation (1) can be elaborated and expressed in an estimation form to include the stochastic error term as:

$$GDP = \beta_0 + \beta_1CAP + \beta_2HUM + \beta_3GEF + \beta_4RLA + \beta_5POL + \beta_6ECF + \beta_7COR + \varepsilon \quad (2)$$

Where:  $\beta_1$  to  $\beta_7$  are the parameter estimates measuring the impact of explanatory variables;  
 GDP = economic growth/development measured in gross domestic product (million Naira)  
 CAP = physical capital measured in gross fixed capital formation (million Naira);  
 HUM = human capital measured in government expenditure in education (million Naira);  
 GEF = governance institutions measured in government effectiveness index (points);  
 RLA = legal and security institutions measured in rule of law index (points);  
 POL = political institutions measured in political rights index (points);  
 ECF = economic and regulatory institutions measured in economic freedom overall index;  
 COR = norms and social institutions measured in corruption perception index (points);  
 The apriori expected parameter values are:  $0 < \beta_1$  to  $\beta_7$

**5.0 Data Presentation and Analysis**

This section presents the results of data analysed for the study. Analytical tests carried out for the study included: the pair-wise correlation analysis to determine the level of relationship between the variables in the model; the augmented Dickey-Fuller (ADF) test as well as the Phillips-Peron (PP) tests for individual unit root process to determine the stationarity or nonstationarity of the series. Other tests were: Granger causality test; and Johansen cointegration test. The parsimonious error correction mechanism (ECM) process was used to determine the speed of adjustments between short-run and long-run equilibrium.

**Pair-wise correlation statistics**

**Table 1: Correlation matrix**

	GDP	CAP	GEF	RLA	HUM	POL	ECF	COR
GDP	1.00000							
CAP	0.69253	1.00000						
GEF	-0.62683	-0.49216	1.00000					
RLA	-0.40998	-0.09772	0.57928	1.00000				
HUM	0.89142	0.51984	-0.66059	-0.43016	1.00000			
POL	-0.33523	-0.04716	0.32063	0.31516	-0.43655	1.00000		
ECF	0.76596	0.59831	-0.87119	-0.59418	0.76678	-0.30535	1.00000	
COR	0.41691	0.35162	-0.47230	-0.37526	0.35191	0.07374	0.46606	1.00000

Source: computed by the Author (2017)

Table 1 shows the level of correlation of growth equation variables. The results indicate that physical capital (CAP), human capital (HUM), economic and regulatory institutions (ECF) and norms and social institutions

(COR) were positively related to economic growth while institutional infrastructures of governance (GEF), legal rights and security (RLA) and political systems (POL) were found to be inversely related to growth. From these results, the variables are not very strongly correlated and so the problem of multicollinearity is avoided

#### Unit root test

**Table 2: Augmented Dickey-Fuller unit root test results**

Variable	ADF level	ADF 1 diff	1% level	5% level	10% level	Integration order
COR	-3.300394	-9.069249	-3.646342	-2.954021	-2.615817	I(1)
CAP	0.273715	-4.710741	-3.646342	-2.954021	-2.615817	I(1)
RLA	-1.936818	-4.613981	-3.646342	-2.954021	-2.615817	I(1)
GEF	-2.353250	-6.560155	-3.646342	-2.954021	-2.615817	I(1)
HUM	-1.290810	-8.745279	-3.646342	-2.954021	-2.615817	I(1)
POL	-3.475547	-4.179783	-3.646342	-2.954021	-2.615817	I(1)
ECF	-1.075144	-5.735768	-3.646342	-2.954021	-2.615817	I(1)
GDP	-1.075144	-5.735768	-3.646342	-2.954021	-2.615817	I(1)

Source: Computed by the Author (2017)

Note: \* stationary at 5% level, \*\* stationary at 10% level

**Table 3: Phillips-Perron unit root test results**

Variable	PP level	PP 1diff	1% level	5% level	10% level	Integration order
COR	-2.306668	-20.01086	-3.592462	-2.931404	-2.603944	I(1)
CAP	0.361240	-4.693001	-3.592462	-2.931404	-2.603944	I(1)
RLA	-2.001895	-4.706751	-3.592462	-2.931404	-2.603944	I(1)
GEF	-2.292807	-6.939876	-3.592462	-2.931404	-2.603944	I(1)
HUM	-1.391157	-7.367577	-3.592462	-2.931404	-2.603944	I(1)
POL	-2.130348	-5.907348	-3.592462	-2.931404	-2.603944	I(1)
ECF	-1.040382	-5.733193	-3.592462	-2.931404	-2.603944	I(1)
GDP	-1.040382	-5.167774	-3.592462	-2.931404	-2.603944	I(1)

Source: Computed by the Author (2017)

To test if the economic time series exhibit nonstationary character and trend capable of distorting econometric results, a unit root test was undertaken using the ADF and PP tests and the results are as shown in tables 2 and 3. From table 2, the ADF test results showed that all the variables in the equation were stationary. From the results, norms, social institutions, political institutions, physical capital, legal and security institutions, governance institutions, human capital, economic and regulatory institutions and economic growth were all stationary at first difference and integrated of order one (I(1)). Equally, table 3 with PP tests results indicates that all the variables are stationary at first difference and integrated of order one I(1). These imply that the model is fit for economic generalisation and forecasting.

#### Granger causality tests

**Table 4: Pair-wise Granger causality tests results**

Null Hypothesis:	Obs	F-Statistic	Prob.
GEF does not Granger Cause GDP	28	4.58941	0.0210
GDP does not Granger Cause GEF		1.04723	0.3670
RLA does not Granger Cause GDP	28	1.57559	0.2284
GDP does not Granger Cause RLA		0.01740	0.9828
POL does not Granger Cause GDP	28	0.13450	0.8748
GDP does not Granger Cause POL		0.97209	0.3933
ECF does not Granger Cause GDP	28	0.37594	0.6908
GDP does not Granger Cause ECF		0.82291	0.4517
COR does not Granger Cause GDP	28	0.12889	0.8797
GDP does not Granger Cause COR		1.37256	0.2735

Source: Computed by the Author (2017)

Granger causality test was undertaken to determine the causal relationship between the variables in the model. Table 3 indicates that there is a uni-directional causal relationship between governance institutions and economic growth and development in Nigeria. The direction of causality runs from governance to economic growth and development. However, the results also indicate that there is no causal relationship between economic growth and: legal and security institutions; political institutions; economic and regulatory institutions; as well as norms and social institutions.

### **Error Correction Mechanism**

**Table 5: Parsimonious ECM results**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	579761.0	85941.13	6.746025	0.0000
D(CAP)(-2)	2861.966	1294.964	2.210073	0.0473
D(GEF)(-1)	-281049.8	86627.5	-2.449344	0.0261
D(RLA)	-130421.3	41096.84	-3.173511	0.0080
D(HUM)(-1)	1.616167	0.396614	4.074908	0.0015
D(POL)	-22961.87	8153.683	-2.816135	0.0156
D(ECF)	10586.17	3549.235	2.982661	0.0114
D(COR)	121.2111	600.0413	0.202005	0.8433
ECM(-2)	-0.246554	0.119581	-2.118967	0.0484
R-squared	0.787622	Mean dependent var	456910.5	
Adjusted R-squared	0.774213	S.D. dependent var	164974.0	
S.E. of regression	26492.06	Akaike info criterion	23.51081	
Sum squared resid	8.42E+09	Schwarz criterion	24.18825	
Log likelihood	-291.6405	Hannan-Quinn criter.	23.70589	
F-statistic	73.65240	Durbin-Watson stat	2.169412	
Prob(F-statistic)	0.000000			

Source: Computed by the Author (2017)

ECM was adopted for this study to reconcile the short term behaviours of the variables with their long term behaviours. The ECM here followed the general to specific method. Employing the information criterion, the overparametrized model was further scaled down. The leading sequence being to generate strings of ECM terms that used long term coefficients, subsequently, ordinary least squares regression was estimated in first difference of the regress and against its regressors. Table 5 reveals that error correction coefficient was negative and significant with t-statistics of -2.1 suggesting existence of a long run relationship between economic growth and development and variables that influences its short run equilibrium captured in the model. The speed of adjustment between the short term and long term behaviours of economic growth and development with its regressors was 24.65%.  $R^2$  of 0.774 shows a good fit for the equation. F-statistics result indicate an overall significance of the independent variables in the equation and Durbin Watson statistics of 2.16 indicates absence of serial correlation in the equation, implying that the equation is good for policy analysis. The results of analysis show that physical capital, human capital and economic and regulatory institutions positively and significantly impact economic growth and development. On the other hand, the results also indicate that governance institutions, legal and security institutions and political institutions negatively but significantly impact Nigeria's economic growth and development while norms and social institutions do not significantly influence economic growth and development.

### **6.0 Discussion of results**

From the correlation analysis above, it is indicated that while such infrastructures as economic and regulatory institutions and norms and social institutions relate positively with economic growth, others do relate negatively. Those that relate negatively are governance institutions, legal and security institutions as well as political institutions. As noted by Attah (2012), democratic governance in Nigeria is expected to change the economy for better, but the reverse seems to be the case as confirmed from this results. Results of the Granger causality tests showed that there exists a unidirectional causal relationship between governance institutions and economic growth, the direction of causality running from governance institutions.



This result seems to be consistent with economic expectations because effective governance should enhance economic performance. However, as shown by the Ministry of Budget and National Planning (2017), economic growth in Nigeria is largely non-inclusive, and general economic performance is seriously undermined by deplorable infrastructure, corruption and mismanagement of public finances which eventually led to a recession in 2016. This result confirms the findings of Olagunla, Kareem and Raheem (2014) that institutions in Nigeria leads to resource curse and Ejubekpokpo (2012) that cost of governance hampers economic development of the country. However, other institutions infrastructures are shown not to Granger cause economic growth and development in the country.

The analysis showed that economic and regulatory institutions positively and significantly impact economic growth and development. While this agrees with the general results in Zouhaier and Kefi (2006), it runs contrary to their arguments that economic institutions in developing countries do not relate to economic growth. However, as noted in Sarwa, Siddiqi and Butt (2013) enforcement of sound economic system will increase economic development even in developing economies such as Nigeria. On the other hand, norms and social institutions do positively but insignificantly impact economic growth and development in Nigeria. As noted in Ubi and Udah, the scourge of corruption hampers economic growth in Nigeria.

The results of the study further indicate that: governance institutions; legal and security institutions; and political institutions, significantly but negatively impact economic growth in Nigeria. This result agrees with Olagunla, Kareem and Raheem (2014), Ibrahim (2013), Ejubekpokpo (2012), Attah (2012). It is also confirms the assertion in Zouhaier and Kefi (2006) that in developing economies like Nigeria, political (and from this study, governance and legal/security) institutions do not relate to economic growth.

From the foregoing results we can then argue that though economic and regulatory institutions encourages economic growth in Nigeria, the stronger negative forces of governance, legal, security, and political institutions helps to drag the economy to recession. According to Zouhaier and Kefi (2006), the vulnerability of those institutions renders them incapable of stimulating the needed economic activity and this dampens economic performance in the country.

### **7.0 Conclusion**

The findings of this study indicate that in Nigeria, economic and regulatory institutions positively and significantly impact economic growth. It was also found that norms and social institutions do not impact economic growth significantly. Further, the study reveals that governance, legal/security as well as political institutions were all found to negatively impact economic growth and development. On the basis of these findings it is concluded that in Nigeria, while very few institutions drive economic growth and development many others do not. The institutions that drive economic growth in Nigeria are economic and regulatory institutions, while governance, legal/security and political institutions hamper economic growth in the country. So, in Nigeria, only economic and regulatory institutions matter. However, the country cannot achieve the desired level of economic growth and development as envisaged in the recent economic recovery and growth plan 2017-2020 with ineffective and weak governance, legal/security and political infrastructures. As such there is the urgent need to address the weak and ineffectiveness of these institutions if we must grow out of recession to sustained growth. Efforts should not only be laid on human capital, physical capital, and technology as relating to economic growth, these, as noted by Acemoglu and Robinson (2008) are only the proximate causes of development. The deep and fundamental causes of economic growth and development which underlie these proximate causes are institutions.

### **8.0 Recommendations**

The study indicates that economic and regulatory institutions impact economic growth positively, to sustain economic growth therefore, policies should be directed at strengthening the country's economic, financial as well as the regulatory institutions. Inclusive economic policies should be formulated and implemented such as those that can enhance property rights, fiscal freedom, business freedom, freedom from corruption, labour freedom, monetary freedom, trade freedom, investment freedom, and financial freedom. Also, public and private regulatory agencies should be equipped and backed up with adequate laws, powers and policies to educate, regulate, control, promote and discipline every economic and financial institutions in the country. The study found that governance institutions do not positively enhance economic growth in Nigeria.

To promote economic growth therefore, policies should be directed at equipping and enhancing the public and civil services, as well as severing the public and civil service from political interference. Policies formulated should be inclusive, growth oriented, investment enhancing, private sector development oriented and suitable to our economic and social terrain. The government should also be very concerned about implementing its policies to the fullest. It should be noted here that government is a continuum, incoming administration should not therefore abandon out gone administration's good policies, projects and programmes, rather, such should be reviewed and fully implemented for the general wellbeing of the economy.

The findings from this study also indicate that legal and security institutions do not drive economic growth and development in Nigeria. It is therefore recommended that civil liberties should be enhanced, rule of law should be allowed to prevail genuinely and proactively, the security agents should be more effective, efficient and empowered, contracts enforcements should be enhanced. The judiciary should be independent, made to effectively and efficiently dispense justices. Crimes, terrorism and violence should be controlled and prevented effectively and adequately.

Political institutions were also found to negatively impact economic growth in Nigeria. To promote sustained growth therefore the following recommendations are made: restructuring of the political system to enhance full democratic principles; promoting freedom of association and expression; and enthronement of transparent electoral processes.

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