Institutional Quality and Economic Growth: Evidence from Nigeria

Sule Abubakar*

Abstract

This study ascertained the directional effect of institutional quality through contract intensive money and effective governance index to economic growth in Nigeria using annual time series data covering the period 1979 to 2018. The study hinges on both the Solow-Swan neoclassical growth model and Washington Consensus to provide insight on the policy necessity for institutional quality. To achieve this, the study employs both the Johansen Cointegration and Ordinary Least Square (OLS) approach. The estimated cointegration test reveals joint relationship among the variables. OLS model shows that economic growth responds positively to institutional quality (contract intensive money) and is statistically significant while effective governance index exert positive and insignificant influence on the economy. The empirical results further reveal that economic growth respond positively and negative to the effect from the variables of domestic investment and foreign direct investment but significant. Furthermore, it takes 34% for the model to adjust to equilibrium in the long-term. The findings lend support to calls for quality institutions that can ensure that both private and public enterprise functions efficiently for sustainable growth and development in Nigeria.

Key words: Economic Growth, Institutional Quality, Domestic Investment, Foreign Direct Investment, Government Expenditure, Contract Intensive Money

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1. Introduction

Solow-Swan neoclassical growth model presents three factors driving the output of an economy - technological change, labour, and capital (Solow, 1956; and Swan, 1956); however, there are differences in country specific growth with different effective framework such as institutions that guide policy and programmes implementations. Many modifications has being done to this growth theory such as accumulation of human capital (Mankiw, Romer, and Weil, 1992) and others. Importantly, these scholars failed to explicitly states other propelling forces that drive economic growth. Institutions as one of the determinants of the economic growth was first discuss by North (1990) and since then there are several supporting literature to its effectiveness. Kormendi and Meguira (1985), Tullock (1987) reveal that nations with high level of civil liberties "strong institutions" experience economic performance. Organisation of Economic Cooperation and Development (2001) reveal that governance performances influences country's economic performance. In an attempt to address this issue, Stiglitz (2001) in revised Washington Consensus became prominent in supporting augments for good governance "quality institution" for growth and development. However, no clear consensus on the effect of institutions and government policies on the economic growth have being reach simply due to lack of credible empirical evidence on the account that it is notoriously hard to measure institutions and establish causality (Radzeviča & Bulderberga, 2018).

This is on the premise that the quality of institution is essential in providing an enabling environment for economic prosperity to the poorer proportion of populations in Nigeria. Studies such as Thorbecke, (2013), Iheonu, Ihedimma and Onwuanaku, (2017), Parks, Buntaine, and Buch (2017) have emphasized on the need for strong institutional quality to guarantee sustainable growth and development. The basic impediments to Africa and Latin America economic progress is in the uncertainty and manipulation whitespaces in the judicial system, corruption, bribery, tax evasion, ill-defined property rights and the existence of inefficient institutions as ill-conceived arrangements cause those countries to be risky and unattractive (Luiz, 2009: 65-70; Fosu, Bates & Hoeffler, 2006:2; Baliamoune, 2005; Birdsall, 2007:578- 589; Charnock, 2009:77). For instance, Asian economies, witnessed significant progress in their economies due to quality institutions but this is contrary to African economies including Nigeria characterised with high level of unemployment and poverty. In reaction to this, governments and multilateral agencies shifted focus on getting institutions right in developing countries by emulating the institutions of developed countries (Rodrik, 2008), despite the institutional harmonization institutional harmonization globally, there is little consensus on the effectiveness of these reforms (Andrews, 2013).

Institutions in developing countries are mainly of a nature developing redistribution activities instead of production activities, creating monopolies instead of competitive conditions, restricting opportunities instead of developing them, these institutions rarely lead to investments that will increase productivity (Yildirim & Gokalp, 2016). In addition, accumulation in Africa is likely to be affected by institutional characteristics such as the distribution of political and civil rights, the quality of the legal system and government effectiveness (Epaphra & Kombe, 2018). Owasanoye (2019) alluded that African countries lose $90billion annually through illicit financial flow to overseas with bulk of it coming from Nigeria and institutional weakness is one of the major reasons for this setback.

Sachs and Warner (1997) as well as Hoeffler (2002) argued that Africa's poor economic performance could be explain by the same variables that account for the growth performance in other developing countries. There is no consensus on what is actually responsible Africa's poor economic performance (Kilishi, Mobolaji, Yaru & Yakubu (2013). In 1979, Nigeria establishes Code of Conduct Bureau, Corrupt Practices Investigation Bureau, and Public Complaints Commission. As a continuation, in 1999 when Nigeria witnessed the fourth democratic era, it swift into action by instituting institutions that can ensure prudence and accountability in resource utilization in both public and private sector towards sustainable economic growth. Examples of such include Independent Corrupt Practices Commission (ICPC) in 2000, Economic and Financial Crimes Commission (EFCC) in 2004, Nigerian Financial Intelligence Unit (NFIU) in 2004, Fiscal Responsibility Commission (FRC) in 2007 amongst other. Thirty-nine years down the lain (1979-2018), institutional deficiencies especially those charge with the responsibilities of ensuring efficient management of resource still functioning on lower ebb either due to lack of political will or weak legal backing thus it remains an impediment to the actualization sustainable economic growth in Nigeria. This is evident, as weak institutions have cost Nigeria fortunes to the tune of US$157billion as illicit financial flow outside the country between 2003 and 2012 (Global Financial Integrity Report cited in ACCA, 2017), however in 2014 alone it stood at $2.2billion (GFI, 2018).

Nigeria continues to depend on oil for 96% of its export and more than 75% of government revenue with high tendency for to shocks with little resilience (Fasan, 2018 culled from Ngozi Okonjo-Iweala's Book). The collaborative roles of executive, legislative and judiciary arms of government is paramount to the functioning of these institutions especially in area of efficient tax system to raise revenue, contract enforcement, investment in basic infrastructure and inclusive governance. Given this ugly trend, this study set out to investigate the effect of institutional quality on economic growth in Nigeria in other to lay policy suggestions that can guarantee sustainable economic growth in Nigeria, based on the institutional quality outcome. The study used an ex-post facto research method, employing secondary data from Central Bank of Nigeria and World Bank Publications for the period from 1979 to 2018. This study employs Johansen Cointegration and Ordinary Least Square approach.

The remainder of this study is organized as follows. Section two provides a literature review. Section three presents the methodology. The result and discussion presented in section four. Section five concludes with recommendations.

2. Literature Review

This study conceptualized institutional quality as those basic tenets that guide the operations of public and other private institutions in other to maximise wealth. The enforcement of these tenets is base on the act that establishes the institution, which most times conforms to global best practice. The pioneer of the theory in institutional economics North (1981) describes institutions as a set of rules compliance procedures, and moral and ethical behavioral norms designed to constrain the behavior of individuals in the interests of maximizing the wealth or utility of principals. Yildirim, (2015) define institutions as habits that bring limitations to our actions through rules and organizations settled in social life, direct us on how we should behave, and

lead social life. The trust factor that makes up the informal aspect of corporate structure of society forms the basis of social order, individual life and economic and political development through resulting effects in the form of growing business scales, industrial structure flexibility and increased social strength to external shocks (Gokalp, 2003). Trust increases the effectiveness of the economic and social system and makes it possible to produce more goods (Yildirim & Gokalp, 2016). To North (1990) institutions should promote and incentivize productive and wealth increasing actions such as innovation, capital and education acquisition, ensure property rights and prevent predatory, wealth-destructive behaviour (e.g. corruption, theft and rent seeking). Rodrik (2000) further emphasizes that institutions not only exert direct influence on economic growth but also affect other determinants of growth such as the physical and human capital, investment, technical changes, which in turn lead to an increase in the growth of an economy. Economic growth is the growth in both social and economic activities. Nigerian economy has being growing at average of 6.7% since 2000 to 2015 although, the fall in the price of crude in 2015, led to contraction of the growth of the economy by -1.6% in 2016 on the account that the economy is predicated on crude oil sales. In 2017, it started appreciating leading to a growth rate of 0.7% and this has remained on a positive trajectory at 2.0% in 2018. One of the major bottlenecks to actualizing its growth potentials is due to challenging business environment owing to the slow pace of reforms, and the lack of a market driven exchange rate policy puts a lid on investment (PWC, 2017).

Solow-Swan neoclassical growth model emphasis centres on technological change, labour, and capital (Solow, 1956; and Swan, 1956) in boosting economy output. Mankiw, Romer, and Weil, (1992), later modified this with the inclusion of accumulation of human capital. However, this no longer prevail as there several driving forces to sustainable development and one of which is institutional quality and has taken centre stage in the midst of other determinants. The 'institutions' quality hypothesis' contends that the institutional framework within which economic agents interact with each other in an economy affects economic development (Alexiou, Tsaliki & Osman (2014). According to this view, what matters most are the 'rules of the game' in a society, which are defined by the prevailing explicit and implicit behavioural norms and their ability to create appropriate incentives for desirable economic behaviour (Rodrik and Subramanian, 2003).

The earlier studies attention was on the relationship between economic development and political institutions (Wittman, 1995; Clague et al. 1999; Wu and Davis, 1999), however as time evolve, the development of new measures has led to a number of different institutional issues being discussion (Butkiewicz and Yanikkaya, 2006; Kostevc et al. 2007). For instance, studies by Dawson (2003), Adkins and Savvides (2002) showed that institutions that promote economic freedom have a positive effect on economic performance. In a similar vein, studies by Bourguignon and Verdier (2000), Sylwester (2002), and Easterly and Levine (2003), report that countries with high level of civil liberty experience equality in per capita income. In addition, Stiglitz (2001) in revised Washington Consensus is one of the leading in supporter for good governance for countries to experience rapid development. Currently, the bulk of the research on the determinants of economic performance concentrates on the role of institutions in the discussion and its focus has shifted from macroeconomic variables to the quality of institutions (Alexiou, Tsaliki & Osman, 2014), hence it is in the light of this arguments that this study is embark upon.

Radzeviča and Bulderberga (2018) the study examine the role of institutional quality in economic growth: implications for the Baltic States. The study use Generalized Method of Moments on a panel of 113 countries during 2006 -2016. Government effectiveness, regulatory quality, tax burden, monetary freedom, financial freedom, trade freedom, strength of auditing and reporting standards, efficacy of corporate boards, and strength of investor protection has positive effect on economic growth.

Carraro and Karfakis (2018) the study looks at institutions, economic freedom and structural transformation in 11 sub-Saharan African countries. The study use Panel Tool. Result reveals a positive and statistically significant effect of quality of institutions and economic freedom measures on structural transformation between sectors.

Epaphra and Kombe, (2018) the study the investigate the effect of institutions on economic growth in Africa. The study use Generalized Methods of Moment (GMM), Fixed Effects (FE) and Random Effects (RE) models. 1996-2016. Institutional quality indicators political stability appears to be the most significant factor in explaining real GDP per capita growth in Africa

Nguyen, Su, and Nguyen (2018) the study analyse institutional quality and economic growth: the case of emerging economies. The study use System Generalized Method of Moments (SGMM) 2002-2015. Finding shows significant positive impacts of institutional quality on economic growth. The institutional quality has negative effects on foreign direct investments (FDIs) and trade openness on economic growth.

Iheonu, Ihedimma and Onwuanaku, (2017) the study examine the effect of institutional quality on economic performance in West Africa. The study uses a Panel data set of 1996 to 2015. Findings reveal that control of corruption, government effectiveness, regulatory quality and rule of law have positive and significant impact on economic performance in West Africa.

Izilein and Mohammed (2017) the study examine democratic institutions and foreign direct investment affect economic growth? evidence from Nigeria. The study Generalized Method of Moments (GMM) covering the period of 1981 to 2015. Finding shows that democratic institution exert negative impact growth while FDI exert positive relationship with economic growth.

Yildirim and Gokalp (2016) an analysis of Turkey institutions and economic performance: a review on the developing countries. The study use Panel Data Analysis' method 2000-2011. Finding shows that institutional indicators such as the integrity of the law system, regulations on trade barriers, restriction of foreign investments, the share of the private sector in the banking system have a positive effect on the macro-economic performance. Judiciary independence, government expenditures, transfers and subsidies, civil freedoms, the black market exchange rate, collective bargaining and political stability have negative impact on the macro-economic performances.

Nabila, Shazia and Muhammad (2015) study examine the impact of institutional quality on economic growth in developing economies of Asia. The study use Panel ARDL for the period

1990-2013. Finding shows that institutional quality exerts positive influence on economic growth in addition to causality running between institutional quality to economic growth.

Yusuf and Malarvizhi, (2014) the study assess institutional qualities and Nigeria's economic growth performance. The study use RDL model approach to co integration and Causality. Findings reveal that sustainable improvement in good institutions is associated with rising growth and per capita income. Findings of this study indicate that there is a reverse causality.

Udah and Ayara, (2014) the study investigate institutions, governance structure and economic performance nexus in Nigeria. The study use Ordinal Least Squares. Findings shows that government effectiveness, voice and accountability exert positive and significant relationship with economic performance.

Alexiou, Tsaliki and Osman (2014) the study analyse institutional quality and economic growth: empirical evidence from the Sudanese economy. The study use ARDL bounds testing approach to cointegration proposed by Pesaran et al. (2001), 1972-2008. Result indicates that the institutional quality environment proxy by political freedom index exist negative effect on the economy's economic prosperity.

Devangi, Perera, and Lee (2013) the study investigate whether economic growth and institutional quality contributed to poverty and inequality reduction in South Asia (China, Indonesia, Malaysia, Philippines, and Thailand (East Asia), and Bangladesh, India, Pakistan, and Sri Lanka). The study use System Generalized Method of Moments (GMM) estimation 1985-2009. Results show that corruption, democratic accountability, and bureaucratic quality are associated with a worsening of the income distribution.

Kilishi, Mobolaji, Yaru and Yakubu (2013) the study examine institutions and economic performance in sub-Saharan Africa: A Dynamic Panel Data Analysis. The study use Blundell-Bond System Generalized Method of Moment (GMM) estimators. Findings show that institutions in sub-Saharan African have significant effect on economic performance particularly regulatory framework and government effectiveness.

Dandume, (2013) the study investigate institution and economic growth performance in Nigeria. The study use ARDL approach to cointegration and Causality. Findings show that corruption has positive effect on economic growth while Accountable executive, Rule of law, competitive politics is not significant to economic. In addition, findings from Granger Causality test reveal that institution and economic growth granger cause each other.

Valeriani, and Peluso, (2011) the study analyse the impact of institutional quality on economic growth and development: an empirical study of Sub-Saharan Africa, East Asia and Pacific, Europe and Central Asia, Latin America and Caribbean, Middle East and North Africa, South Asia, North America. The study use pooled regression model and a fixed effects model 1950 to 2009. Results show that institutional quality do influence positively on economic growth. The impact (size or magnitude) of the institutional quality differs across regions.

Butkiewicz and Yanikkaya, (2006) the study analyse institutional quality and economic growth: Maintenance of the rule of law or democratic institutions, or both? The study use Panel of one hundred developing and developed countries. Empirical results show that while some measures of institutional quality have a strong relationship with growth, democracy measures have no apparent relationship with growth, even though there is a very high correlation between these institutional measures that supposedly measure similar factors.

There exist a good number of literatures with respect to cross-country investigations on the effect of governance or institutions on investment or economic growth while few available on country specific. Thus the need for this study in Nigeria with inclusion of variables of contract intensive money and effective governance index, proxied for institutional quality while other control variables includes; domestic investment, foreign direct investment and government expenditure.

The kinds of data required in achieving these objectives are as follows: economic growth proxy by real gross domestic product (rGDP) serving as dependent variable while the explanatory variables are domestic investment (DOI), foreign direct investment (FDI) and (CIM) contract intensive money. Unlike the previous study, the justification for uses variables in this study is stated as follows. Foreign direct investment raises productivity through technology transfers. Domestic investment measured as a share of gross fixed capital formation to GDP, since in the growth literature it is considered an important factor engendering growth performance. Government expenditure comprises of consumption, investment, salaries and transfer payments, the inclusion of this variable in the model is to ascertain the adequacy within the period of the study. Institutional quality proxy by Contract intensive money is broad money supply minus currency in circulation divide by broad money supply and positively related to income, growth and investment. CIM is use as an indicator of institutional quality (Clague & Keefer, 1999; Ubi & Udah, 2014; Oburota & Ifere, 2017). In addition to the use of CIM, the most popular and widely used today is the Effective Governance Index under the Worldwide Governance Indicators (WGIs) produced by the World Bank—stemming from the works of Kaufmann, Kraay and Zoido-Lobatón (1999) and Kaufmann, Kraay and Mastruzzi (2003). The lack of consensus among researchers on the most acceptable measure makes the conclusion a challenging. Government effectiveness measures quality and availability of public service, the bureaucracy, the competence of civil servants, the independence of the administration of political pressure and the credibility and transparency of the government's reform commitments and policies.

3. Methodology

The data for the study are annual time series data covering the period 1979-2018 and were source from Central Bank of Nigeria Statistical Bulletin and World Bank World Development Indicators. The methodology for this study took cue from that of Izilein and Mohammed (2017) who studied how democratic institutions and foreign direct investment affect economic growth in Nigeria for the period of 1981 to 2015. This study employs the Johansen Cointegration and Ordinary Least Square approach in the estimation of the model. This study also obtains the residual and incorporates into the model to ascertain the speed of adjustment it will take to equilibrate in the long-run. For uniformity, all the source data in this study are in logged to assume the same unit of measurement.

The model of this study is an off short of Solow (1956) model of economic growth used in the works of Udah and Ayara (2014) who examined institutions, governance structure and economic performance nexus in Nigeria. According to Solow model, output is a function labour (L) and capital (K), with constant returns to scale. The rate of capital accumulation in the long-run is higher than that of short-run, the marginal efficiency of capital approaches zero and the growth rate is subsequently determined by technical progress and growth in labour force.

$$GDP = AK_i^{\alpha} L_i^{1-\alpha} \quad (1)$$

Where
GDP = real GDP A = total factor productivity K = Capital Stock L = Labour α = elasticity of capital with respect to output. The model assumes that each productive unit will use the same level of capital and labour with the following aggregate production function as:

$$GDP = AK^{\alpha} L^{\beta} \quad (2)$$

In the study of Udah and Ayara (2014), the incorporate governance structure and institutions into equation two through their effects on total factor productivity (TFP) or technical efficiency on the premise of the role of institutions in increasing technical efficiency (David (1997), which in turn affects the efficiency of investment. Thus, their study assumes that TFP is a function of quality of institutions and governance structure (corruption, government effectiveness and rule of law). Thus

$$A = Y_t = \alpha_o + \alpha_1 X_t + \alpha_2 CIM + \epsilon_t \quad (3)$$

Combining equations 2 and 3, we get

$$GDP = C_t K_t^{\alpha}, L^{\beta}, X_t^{d}, CIM^{\varphi} \quad (4)$$

Where α, β, d, and φ are elasticity coefficients. From equation 4 an explicit estimation function is specified, ignoring labour and capital and taking the natural logs of both sides as follows

$$LogGDP_t = \alpha_o + \alpha_1 X_t + \alpha_2 CIM + \epsilon_t \quad (5)$$

Where, X_t = is a vector of explanatory variables including; voice and accountability (VACCOUNTR), Political stability and absence of violence (PSVIOLENCTR), governance effectiveness (GEFFECTR), regulatory quality (REGULATR), control of corruption (CORRUPTR), CIM = contract intensive money (CONTRINTR), E_t = stochastic error term with the usual normality assumptions.

In other to achieve the objective of this study, which is to investigate the effect of institutional quality on economic growth in Nigeria for the period of 1979 to 2018, the model by Udah and Ayara (2014) in equation (5), will be adopted and modified. Thus, the implicit functional model of this study is stated below:

$$RGDP = f\ (CIM, DOINV, FDI, GOEXP, EGI) \quad (6)$$

The mathematical form of the model is as follows:

$$RGDP = \gamma_o + \gamma_1 CIM + \gamma_2 DOINV + \gamma_3 FDI + \gamma_4 GOEXP + \gamma_5 EGI + \mu \quad (7)$$

Where: RGDP = real gross domestic product, CIM = Contract Intensive Money proxy for institutional quality, DOINV = domestic investment proxy by gross fixed capital formation, FDI = foreign direct investment, GOEXP = government expenditure and EGI = effective governance index proxy for good governance.

4. Results and Discussion

Table 1: Descriptive Statistics

	LnRGDP	LnCIM	LnEGI	LnFDI	LnGOEXP	LnDOINV
Mean	10.23485	0.751815	0.866076	4.034161	5.857500	12.40080
Median	10.01642	0.738434	0.931510	4.708170	6.370539	12.39908
Maximum	11.15353	0.918300	1.214644	7.215534	8.963639	15.43864
Minimum	9.530920	0.582416	0.000000	0.180000	2.002830	9.082448
Std. Dev.	0.566961	0.098092	0.231986	2.537113	2.347220	2.254298
Skewness	0.409122	0.281511	-1.271685	-0.366378	-0.306801	-0.090814
Kurtosis	1.670184	1.855960	5.944455	1.585334	1.609959	1.561532
Jarque-Bera	4.063223	2.709699	25.23091	4.230353	3.847869	3.503632
Probability	0.131124	0.257986	0.000003	0.120612	0.146031	0.173459
Sum	409.3940	30.07259	34.64305	161.3664	234.3000	496.0322
Sum Sq. Dev.	12.53635	0.375259	2.098885	251.0408	214.8682	198.1926
Observations	40	40	40	40	40	40

Source: *Extract from results*

Table 1 houses statistical characteristics of the logged variables used in this study. The results reveal an average growth of 10.23%, 0.75% and 0.87% for the log of *RGDP*, log of *CIM* and log of EGI respectively. Similarly, it is evident from the results that the log of *FDI*, log of *GOEXP* and log of DOINV had an average growth of 4.03%, 5.86% and 12.40% over the period of the study. The values of the standard deviations indicate low volatility for variables of RGDP, CIM and EGI while FDI, GOEXP and DOINV depict moderate volatility. As for the distribution of the skewness, the series is roughly equal given the closeness to zero for all the series. Importantly the variables of RGDP, CIM, FDI, GOEXP and DOINV exhibits platykurtic distribution given their kurtosis values of less than three. However, EGI exhibit leptokurtic distribution. Finally, the Jarque-Bera statistic implying that the series are not normally distributed given the validity of the significant values.

Table 2: Unit Root Test

Table 1: Philip Perron (1988) Test

Variables	At Level	First Difference	Order of Cointegration
LnReal Gross Domestic Product	0.745655	-3.265176**	I(1)
LnContract Intensive Money	-0.557315	-5.704039***	I(1)
LnEffective Governance Index	-3.833528	-22.13522***	I(0)
LnForeign Direct Investment	-1.324494	-8.377772***	I(1)
LnGovernment Expenditure	-1.178419	-7.9354.1***	I(1)
LnDomestic Investment	-0.569799	-4.707117***	I(1)

*Notes: ***, ** and * denote 1%, 5% and 10% significance levels at which the null hypothesis of non-stationarity is rejected for all tests.* The intercept and trend and intercept are included in the levels and the first difference equations. The optimal lag order are selected based on Schwarz information Criterion (SIC).
Source: *Extract from results*

The standard procedure on the data analysis was using a unit root test to check for stationarity. The Phillips and Perron (PP) test was employ and the table 2 above shows the results of the test becoming stationary at level (that is I(0) and first difference (that is I(1). Hence, the next stage is to proceed to the cointegration testing amongst the variables. Engle and Granger (1987) pointed out that a linear combination of two or more non-stationary time series may be stationary. If such a stationary linear combination exists, the non-stationary time series is said to be cointegrated. The stationary linear combination may be interpreted as a long run equilibrium relationship between the variables. The Johansen system framework is employ to test for the presence of cointegrating relationships among the non-stationary variables. The result is presented below:

Table 3: Co integration Test

Null Hypothesis	Trace Statistic	0.05 Critical Value	Null Hypothesis	Max-Eigen	0.05 Critical Value
r=0*	148.7266	95.75366	r=0*	61.40642	40.07757
r≤1*	87.32017	69.81889	r≤1*	45.77436	33.87687
r≤2	41.54581	47.85613	r≤2	21.50809	27.58434
r≤3	20.03772	29.79707	r≤3	10.72654	21.13162
r≤4	9.311177	15.49471	r≤4	7.799519	14.26460
r≤5	1.511658	3.841466	r≤5	1.511658	3.841466

Source: *Extract from results*
Note: *r represents number of co integrating vectors. Both Trace statistic and Max-Eigen statistic indicates 2 co integrating equation each. * denotes rejection of the hypothesis at the 0.05 level*

The Trace and Max-Eigen value test in Table 2 reveal a long run relationship among the variables since their statistical value is greater than their respective critical values for the co integrating equations at 5% significance level. This implies a stationary linear combination, as such the non-stationary time series are co integrated. The application of the OLS approach will therefore yield informative, non-spurious and dependable results. Based on the stationary linear combination, the effect of institutional quality on economic growth is examine via the Ordinary Least Square method. The result is presented below:

Table 4: Regression result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	6.036164	0.229576	26.29272	0.0000
LnCIM	1.396652	0.170987	8.168191	0.0000
LnEGI	0.031730	0.060130	0.527690	0.6015
LnDOINV	0.271874	0.039011	6.969096	0.0000
LnFDI	-0.060810	0.022923	-2.652778	0.0125
LnGOEXP	-0.001867	0.040390	-0.046234	0.9634
ECM	-0.038453	0.052017	-0.739250	0.4653
Adjtd. R-squared = 0.987443 F-stat =485.9425 Prob(F-stat) =0.000000				

Source: *Extract from results*

In table 4, the estimated linear OLS model reveals that institutional quality is positive and significant in accelerates economic growth through contract intensive money. CIM implies enforcement of contract rules protecting agreements between shareholders and management, or between minority and majority shareholders (sees La Porta et al, 1996 cited in Clague & Keefer, 1999). Given the proportionality of the CIM value, any little change in government policy would increase economic growth. This finding is also in line with empirical findings of Carraro and Karfakis (2018), Epaphra and Kombe, (2018) but contrary to results of Izilein and Mohammed (2017). Similarly, the other variable of effective governance index proxy for institutional quality exerts positive and insignificant relationship with economic growth. This is against expectation and in line with the findings of Nguyen, Su, and Nguyen (2018), Alexiou, Tsaliki and Osman (2014), Dandume, (2013), Valeriani, and Peluso, (2011). Domestic investment and foreign direct investment is positive and significant with capacity to engender the growth of economic growth, however, has moderating effect. Surprisingly, government expenditure reveals negative and insignificant effect on economic growth, which goes to say that government budgeted expenditure might not be adequate to stimulate growth or it is not properly utilize, which can be attribute to weak institution set up.

The speed of adjustment (ECM) to equilibrium is negatively sign as required – estimated at 34% and statistically significant. The adjusted R^2 implies that 98% of the variations in economic growth are account for by institutional quality variables (contract intensive money and effective governance index), domestic investment, government expenditure and foreign direct investment. The F-statistics reveals the combine goodness of fit of the model. The F calculated (485.94) is greater than the F tabulated (2.62) – therefore, we deduce that the explanatory variables (CIM, EGI, DOINV, GOEXP and FDI) have joint influence on economic growth. Thus, the overall predictive power of the econometric model is statistically significant.

To ascertain the stability of the coefficients of all variables in the models, the cumulative sum (CUSUM) and cumulative sum of square (CUSUMSQ) were carried out using Brown et al (1975) model stability tests and the graphs are presented in Figure A and B. The movement of the recursive residuals revolves within and outside the ridgeline. Importantly, trends of the CUSUM suggest that the regression equation were stable considering that the CUSUM test statistic does not go beyond the bounds of the 5% and 2% level of significance while the behaviors of the coefficients of CUSUMSQ have the capacity to adjust in the long-run horizon.

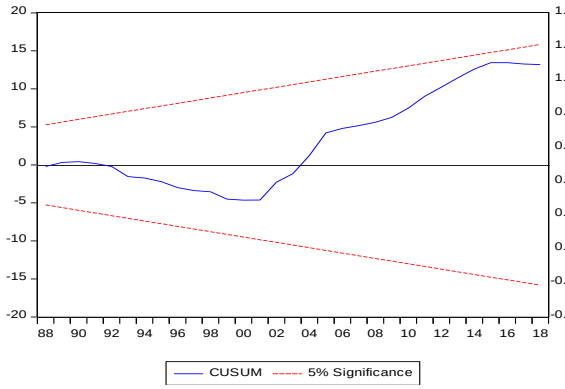

Figure 1a: CUSUM for OLS
Source: *Extract from Results*

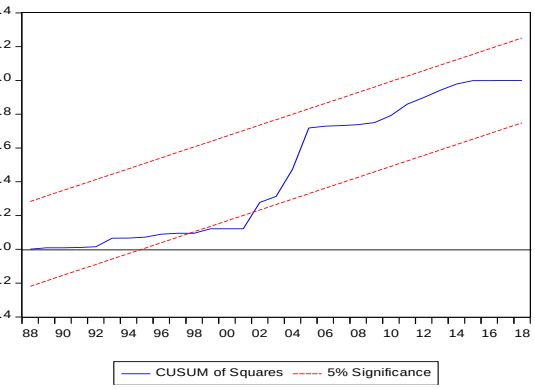

Figure 1b: CUSUM Square for OLS
Source: *Extract from Results*

5. Conclusion and Policy Recommendations

This study on institutional quality and economic growth is enforce by theoretical and empirical views that institutional quality engenders economic growth. The choice of country specific analysis of Nigeria is on the account of high corrupt cases, not adherence to rules and regulations, littered uncompleted projects and the demand for provision of basic social and economic goods. In order to ascertain the direction of this dynamics, the study investigates the potential of institutional quality through contract intensive money and effective governance index to economic growth in Nigeria from 1979 to 2018, using both the Johansen Cointegration and Ordinary Least Square approach.

The estimated cointegration test reveals joint relationship among the variables. The findings of the estimated linear OLS model shows that economic growth responds positively to institutional quality (contract intensive money) and is statistically significant at 1%, thus, suggesting that, economic growth is susceptive to changes in institutional quality while effective governance index exert positive and insignificant effect on economic growth. In addition, the results reveal that economic growth is engendered by the variables of domestic investment and foreign direct investment. The study found that it takes about 34% for institutional quality changes to equilibrate its effects on economic growth in the long-run horizon.

Going by statistics, Nigeria's economy is still developing economy operating below its potential output, this agrees with Thorbecke, (2013), Iheonu, Ihedimma and Onwuanaku, (2017) Parks, Buntaine, and Buch (2017) who emphasized on the need for strong institutional quality to guarantee sustainable growth and development. However, quality institutional can only work with strong synergy among the three arms of government and its operations guided base on the country's peculiarity to maximise it benefits.

REFERENCES

ACCA (2017). Can Nigeria get its economic fortune back on track. www.accaglobal.com/ie/en/member/member/accounting-business/2017/09/insights/nigeria-economy.html

Adkins, M., Savvides, A., 2002. Institutions, freedom and technical efficiency. *Southern Economic Journal*. 69 (1), 92-108.

Alexiou, C., Tsaliki, P., Osman, H.R., 2014. Institutional quality and economic growth: empirical evidence from the Sudanese economy. *Economic Annals*. LIX (203).

Andrews, M., 2013. *The limits of institutional reform in development: changing rules for realistic solutions*: Cambridge University Press.

Baliamoune, L.M., 2005. Institutions, social capital, and economic development in Africa: an empirical study. International Centre for Economic Research Working Paper No. 18.

Birdsall, N., 2007. Do no harm: aid, weak institutions and the missing middle in Africa. *Development Policy Review*. 25 (5), 575-598.

Bourguignon, F., Verdier T., 2000. Oligarchy, democracy, inequality and growth. *Journal of Development Economics*. 62 (2), 285-313.

Breusch, T.S., Pagan, A.R., 1980. The lagrange multiplier test and its application to model specifications in econometrics. *Review of Economic Studies*. 47, 239-253.

Brown, R. L., Durbin, J., Evans, J. M., 1975. Techniques for testing the constancy of regression relationships over time. *Journal of the Royal Statistical Society*: Series B (Methodological). 37 (2), 149-163.

Butkiewicz, J.L., Yanikkaya, H., 2006. Institutional quality and economic growth: maintenance of the rule of law or democratic institutions, or both? *Economic Modelling*. 23, (4), 648–661.

Carraro, A., Karfakis, P., 2018. Institutions, economic freedom and structural transformation in 11 sub-Saharan African countries. FAO Agricultural Development Economics Working Paper No. 18-01.

Charnock, G., 2009. Why do Institutions matter? global competitiveness and the politics of policies in Latin Amerika. *Capital ve Class*. 33 (2), 67-99.

Clague, C., Keefer, P., Knack, S., Olson, M., 1999. Contract-intensive money: contract enforcement, property rights, and economic performance. *Journal of Economic Growth*. 4 (2), 185-211.

Dandume, M.Y., 2013. Institution and economic growth performance in Nigeria. Munich Personal RePEc Archive. Paper No. 52356.

Dawson, J., 2003. Causality in the freedom-growth relationship. *European Journal of Political Economy*. 19 (3), 479-495.

Devangi, L., Perera, H., Lee, G.H.Y., 2013. Have economic growth and institutional quality contributed to poverty and inequality reduction in Asia? Monash University, Business and Economics Paper (ISSN 1441-5429 Discussion Paper No. 37).

Easterly, W., Levine, R., 2003. Tropics, germs, and crops: how endowments influence economic development. *Journal of Monetary Economics*. 50 (1), 3-39.

Engle, R.F., Granger, C.W.J., 1987. Cointegration and error correction: representation, estimation, and testing. *Econometrica*. 55, 251–276.

Epaphra, M., Kombe, A.H., 2018. Institutions and economic growth in Africa: evidence from panel estimation. Institute of Accountancy Arusha, Tanzania, February, 2018

Fasan, O., 2018. Nigeria is a fragile state, international studies prove it. https://blogs.lse.ac.uk/africaatlse/2018/06/13/

Fosu, A., Bates, R., Hoeffler, A., 2006. Institutions, governance and economic development in Africa: an overview. *Journal of African Economies*. 15 (1), 1–9.

Fraser Institute, 2018. Economic freedom rankings. https://www.fraserinstitute.org/economicfreedom/dataset?

Global Financial Integrity, 2018. Nigeria: potential revenue losses associated with trade mis-invoicing. https://gfintegrity.org/report/nigeria-potential-revenue-losses-associated-with-trade-misinvoicing/

Gökalp, N., 2003. Ekonomide güven faktörü. *Journal of Management and Economics*. 10 (2).

Hoefller, A.E., 2002. The augmented Solow model and the African growth debate. *Oxford Bulletin of Economics and Statistics*. 64 (2), 135–158.

Iheonu, C., Ihedimma, G., Onwuanaku, C., 2017. Institutional quality and economic performance in West Africa. Munich Personal RePEc Archive. Paper No. 82212.

Izilein, E.I., Mohammed, N., 2017. Do democratic institutions and foreign direct investment affect economic growth? evidence from Nigeria. *International Journal of Development and Management Review.* 12 (1).

Kaufmann, D., Kraay, A., Mastruzzi, M., 2003. Governance matters III: governance indicators for 1996–2002. World Bank Policy Research Working Paper No. 3106.

Kaufmann, D., Kraay, A., Zoido-Lobatón, P., 1999. Aggregating governance indicators. World Bank Policy Research Working Paper No. 2195.

Kilishi, A.A., Mobolaji, H.I., Yaru, M.A., Yakubu, A.T. 2013. Institutions and economic performance in sub-Saharan Africa: a dynamic panel data analysis. *Journal of African Development* Fall. 15 (2).

Kormendi, R., Meguire, P., 1985. Macroeconomic determinants of growth: cross–country evidence. *Journal of Monetary Economics*. 16, 141–163.

Kostevc, C., Redek, T., Susjan, A., 2007. Foreign direct investment and institutional environment in transition economies. *Transition Studies Review.* 14 (1). 40–54.

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., Vishny, RW., 1996. Cited in Clague, C., Keefer, P., 1999. Contract intensive money: contract enforcement, property rights, and economic performance. *Journal of Economic Growth*. 4, 185-211.

Luiz, J.M., 2009. Institutions and economic performance: implications for African development. *Journal of International Development*. 21.

Mankiw, N.G., Romer, D., Weil, D.N., 1992. A contribution to the empirics of economic growth. *The Quarterly Journal of Economics*, 107 (2), 407-437.

Merkina, N., 2009. Technological catch-up or resource rents? *International Economics and Economic Policy*. 6 (1), 59-82.

Nabila A., Shazia Q., Muhammad, N., 2015. Institutional quality and economic growth: panel ARDL analysis for selected developing economies of Asia. *South Asian Studies*. 30 (2), 381-403

Nguyen, C.P., Su, T.D., Nguyen, T.V.H., 2018. Institutional quality and economic growth: the case of emerging economies. *Theoretical Economics Letters*. 8.

North, D.C., 1990. *Institutions, institutional change and economic performance*, New York: Cambridge University Press

Oburota, C.S., Ifere, E.O., 2017. Manufacturing subsector and economic growth in Nigeria. *British Journal of Economics, Management and Trade*. 17 (3), 1-9.

Organisation of Economic Cooperation and Development, 2001. The well-being of nations: the role of human and social capital, Paris.

Owasanoye, B., 2019. Nigeria major contributor to Africa's $90 billion illicit financial outflow. 2019 Africa Union (AU) anti-corruption day in Lagos. https://allafrica.com/stories/201907120008.html?

Parks, B., Buntaine, M., Buch, B., 2017. Why developing countries get stuck with weak institutions and how foreign actors can help. www.google.com/amp/s/www.brookings.edu

Pesaran, H., Shin, Y., Smith, R., 2001. Bound testing approaches to the analysis of level relationships. *Journal of Applied Econometrics*. 16, 289-326.

Phillips, P.C., Perron, P., 1988. Testing for a unit root in time series regression. *Biometrika*. 75 (2), 335-346.

PWC, 2017. Nigeria's economic recovery defining the path for economic growth. www.pwc.com/ng

Radzeviča, A.M., Bulderberga, K., 2018. The role of institutional quality in economic growth: implications for the Baltic States. Unpublished Thesis in Stockholm School of Economics, SSE RIGA.

Rodrik, D., 2008. Second-best institutions. *American Economic Review*. 98 (2), 100-104.

Rodrik, D., Subramanian, A., 2003. The primacy of institutions. *Finance and Development*. 40 (2), 31-34.

Sachs J., Warner, A., 1997. Sources of slow growth in African economies. *Journal of African Economics*. 6, 335 – 376.

Solow, R.M., 1956. A contribution to the theory of economic growth. *The Quarterly Journal of Economics*. 70 (1), 65-94.

Stiglitz, J., 2001. Redefining the role of the state: Post-Washington consensus. *World Economics.* 2 (3).

Swan, T.W., 1956. Economic growth and capital accumulation. *Economic Record*. 32 (2), 334-361.

Sylvester, K., 2002. democracy and changes in income inequality. *International Journal of Business and Economics*. 1 (2), 167-178.

Thorbecke, E., 2013. Institutions for inclusive growth and development in sub-Saharan Africa. A paper presented at the JICA Conference, University of London.

Tullock, G., 1987. Autocracy, Dordrecht: kluwer.

Ubi, P.S., Udah, E.B., 2014. Corruption, institutional quality and economic performance in an emerging economy: lessons from Nigeria. *British Journal of Economics, Management and Trade.* 4 (11), 1708-1722.

Udah, E.B., Ayara, N., 2014. Institutions, governance structure and economic performance nexus in Nigeria. *Journal of Economics and Sustainable Development*. 5 (3).

Valeriani, E., Peluso, S., 2011. The impact of institutional quality on economic growth and development: an empirical study. *Journal of Knowledge Management, Economics and Information Technology*. 6.

Wittman, D., 1995. *The myth of democratic failure: why political institutions are efficient*. University of Chicago Press.

Wu, W., Davis, O., 1999. The two freedoms, economic growth and development: an empirical study. *Public Choice*. 100 (1-2), 39-64.

Yıldırım, A., 2015. Institutional structure and international competitiveness: a review on Turkey. Unpublished Ph.D Thesis, Mugla: Muğla Sıtkı Koçman University, Institute of Social Sciences.

Yildirim, A., Gokalp, M.F., 2016. Turkey institutions and economic performance: a review on the developing countries. *Procedia Economics and Finance*. 38, 347 – 359.

Yusuf, M., Malarvizhi, C.A., 2014. Institutional qualities and Nigeria's economic growth Performance. *Middle-East Journal of Scientific Research*. 20 (3), 308-316.