

INSTITUTIONS AND GOVERNANCE: IMPLICATIONS FOR GROWTH OF ECOWAS NATIONS

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ABSTRACT

This study evaluates the role of institution and governance on economic growth in ECOWAS nations. The rationale for the study is that modern endogenous growth economic thinkers hold the view that economic growth proceeds from quality institution and good governance more than exogenous growth theorists. The system Generalized Method Moments (GMM) analysis was implemented using e-view statistical packages in addition to other panel estimation methods. Data were obtained on ten ECOWAS countries from 2000 to 2020. The result indicated that there is a significant positive connection between quality institution and good governance on economic growth in ECOWAS region. Government effectiveness, political stability, voice and accountability, and government effectiveness had negative effect on growth of ECOWAS nations. The study implements a system GMM model in unraveling economic growth effects of institutions and governments and explained 14.19% total variation in economic growth of ECOWAS nations, by institution and governance variables basing analysis on random effect model. The research is a contribution to the realization that economic growth in developing countries does not depend only on trade and technology transfer from the developed economies alone but also on good governance devoid of corruption together with quality of institutions owned by developing nations. Advanced econometric techniques would be needed to test validity of our estimates as such techniques would have capacity to control for endogeneity. Accordingly, our results seem preliminary at moment.

Keywords: GMM, growth of ECOWAS, institutions, governance

JEL Classification Number: E62, E63, O43

1. Introduction

Scholars are unanimous in recent literatures that to concisely estimate economic growth hereafter referred to as EG, economic analysis has to focus on the nature and type of institutions and governance of such economies (Alence 2004). Economic institutions and governance can be taken as a major contributor to economic growth because quality economic institutions and good governance impact EG through the efficient allocation of physical and human capital. According to Acemoglu et al. (2005) and Weil (2008), several reasons account for the preferred measure of quality economic institutions and good governance in stimulating economic growth. For example, economic institutions and governance determines the nature and type of incentives to be given to the main drivers of the economy and through those investments in variables such as physical and human capital, research and development, etc are highly influenced by economic institutions and governance.

In similar vein, it has been noticed that EG also results to effective economic institutions (EI) and good governance (GG), as such Valeriani and Peluso (2011) recognised a unidirectional connection between institutions, governance and EG. The

justification for such bi-causality is hinged on the premise that EG means a high living standard and greater cognizance. In turn, higher levels of awareness translate into higher sense of discipline and the mandate for civility from the populace, this in turn results into higher quality institutions and governance such as the rule of law, property right, good judicial practices, etc. According to Ferrini (2012), institutions comprises of instances of contractual and contract administration, protection of property rights, enforcement of law, reduction of unnecessary government bureaucracies.

The realization that economic growth in developing countries does not depend only on trade and technology transfer from the developed economies have led economists and scholars of related discipline to look inward and to understand that the quality of institution and good governance also contribute significantly to economic growth. Some economist has argued that quality institution and good governance impact more on economic growth that any other economic variable of growth (Abubakar 2020). A hand full of research have been carried out by researchers along this line. However, while some studies conducted in Asia and Latin American countries have shown mixed outcome (Alesina et al. 2003). Similar studies in Africa have however shown that institution taken separately have impacted negatively on economic growth (Abubakar 2020) while governance have impacted positively on economic growth. Hence, the problem to be considered in this work is the joint effect of institutions and governance on EG in ECOWAS countries. As well, other research work did not

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utilize the system S-GMM econometric package, whereas this work utilizes the system generalized method of moment (S-GMM).

The research questions that are formulated for this study includes the following;

- Is the state of institution in ECOWAS capable of driving economic growth within the region?
- Is the state of governance in ECOWAS capable of driving economic growth within the region?

The objectives for undertaking this study are stated as follows; To determine the impact of institutions on EG in ECOWAS nations within the period under study. To determine the impact of governance on EG in ECOWAS nations within the period under study. The hypotheses to be verified in this work are specified as follows; H_0 . Institutions exert no positive effect on EG within ECOWAS nations.

Hypothesis two. H_0 . Governance exerts no positive effect on EG within ECOWAS nations

Adequate knowledge of the impact of quality institutions and good governance of countries within the region will inspire both political and economic leaders within the region to place more emphasis on the provision of quality institution and good governance for the good of the people. Equally, this study is significant for researchers and people inhabiting the sub-region because first, it augments the depth of prevailing works on the association between growth and institution and secondly it brings to the knowledge of the people living within the region on the level and impact of institution and governance structure of their countries, this will give them a voice in political and economic decisions in their respective nations. This work is structured into five segments; section one takes care of the background to the work, the problem statement, research questions, objectives of the study, statement of hypothesis and significance of the work. Section two has the conceptual review, theoretical review, empirical review and the gap analysis. Section three involves, the theoretical framework, model specification, the estimation techniques and the data source. Section four takes care of data presentation and analysis while finally, section five is made up of conclusion.

2. Literature review

2.1. Previous studies

The literature as regards the role of economic institution on growth and development is vast. Przeworski and Curvale (2007) concluded in their work that institutions that encourage EG are institutions that engross, and peacefully takes care of probable conflict of interest and values under any circumstances and they must be self-sustaining. According to Easterly (2008), there are many

arguments in favour of institutions promoting EG because they impact the motivation for key drivers of the economy.

The interface of institutions to inspire EG was studied by Farrini (2012), and he noted that achievement of economic growth comes in four different aspects through quality economic institutions which are; decrease of the cost of economic contract, regulation of the rate of appropriation of earnings to ventures, regulation of the expropriation of state properties by the governing select, governing of the rate to which the investment situations is favourable to supportive conduct and this augmented social capital.

According to Acemoglu and Johnson (2010), the role of economic institutions in a democratic country is dissimilar from the economic establishment in a dictatorship state hence, the role of economic establishments differs from nation to nation. He noted that the role of economic institutions includes the following; protecting property right; managing the entry barrier; and accessibility of contracts for private sector.

Quite a number of development economist consider good governance to have a positive influence on EG, (Kauffman et al. 1999 & 2005) and Knack and Keefer (1999). However, Khan (2004) recreated the view of governance in a wider intellect, taking into reflection the capability of states to drive structural transformation, institutional, political, economic and social arena in order to guarantee long-term EG. Stressing further, he noted that the reforms of economic structures and government competences are the primary step to expand economic accomplishment of developing nations and in next step to permit EG to boost good governance.

Mira (2017), noted that essentially, we have two types of governances that directly and indirectly impact on economic growth and they are *Market enhancing governance* and the *Growth Enhancing governance*. Alesina, et al. (1996) concluded that the connection between democracy and Growth is unsettled, this was also the result of Rodrick (2000). As well, Knack (2006) revealed corruption, judiciary and political stability contributes positively to growth of nations. Specifically, reported that safety of individual property and enforcement of agreements are extremely interrelated to growth.

One may also highlight that, most of the nation in ECOWAS bear a shared set of features such as high level of corruption, low degree of democracy or at worst dictatorships, property right issues and bias in law administration, which have all bring about its poor socioeconomic performance. The ECOWAS block which comprise of fifteen countries is situated in the West African region, share a common or not

too diverse culture, economic and geographical ties. However, despite the above listed laudable institutions which aims to promote good governance that will result into rapid economic growth for the region, almost all member nations have suffered a prolonged history of military rule. Added to the issue of military interventions in its polity, the region also suffered and it is still suffering from poor leadership (ECOWAS 2019).

2.2. Gap in literature

Previous researches carried out along this line have not been determinate with respect to the specific effect of Institutions and governance on EG, while some studies conducted in Asia and Latin American countries have shown mixed outcome (Alesina et al. 2003). Similar studies in Africa have however shown that institution taken separately have impacted negatively on economic growth (Abubakar 2020) while governance have impacted positively on economic growth. Hence, the gap to fill in this literature the joint impact of institutions and governance on growth in ECOWAS countries. As well, other research work did not utilize the system S-GMM econometric package, whereas this work utilizes the S-GMM.

Finally, it is assumed that panel studies and data are most likely to fail to take care of the probable prejudices encouraged by the presence of heterogeneity across the region which could result to unpredictable and confusing results (Olaoye et al. 2019). However, the ECOWAS specific study, with emphasis on nations with very close features it is believed that this will control for the heterogeneity bias.

3. Theoretical issues

The theoretical framework of this work is hinged on the endogenous growth theories that emphasized New Institutions Economics (NIE) by stressing the role of institutions as the ultimate determinants of economic advancement. In line with the results of Acemoglu (2008) who argued that EG does not depend only on exogenous technology improvement but also on the level of governance and institutions. As well, consistent with the objective of this work and following the studies of Islam & Montenegro (2002) and Slessman, Ahmed & Wahabuddin (2015), the framework used in the study is as follows;

GDP and control of corruption (CCP) In line with studies by Higbee & Schmid (2004), which shows that countries with less corruption tends to have higher levels of GDP per capital this is because corruption depress economic activities, hence our analysis therefor suggests a positive relationship between GDP and control of corruption. Therefor $CCP > 0$.

GDP and political steadiness (PSAV) Although it has been noted that high GDP leads to political stability while a low GDP encourages PSAV (Cervantes, Villasrrior-Becra 2015), our study is of the position that the political instability among most ECOWAS states represents a breeding ground for violence, hence it is expected that PSAV will impact negatively on GDP within the period under study. Therefor $PSAV < 0$.

GDP and the rule of Law (ROL) Studies have shown that ROL is of prime significance as a value in its own right and as a contributor to other variables such as human liberty hence, ROL may either impact positively or negatively on GDP depending on how it is viewed. However, in line with the conclusions of Haggard and Macintyre (2008), we specify a positive relationship between ROL and GDP, that is, $ROL > 0$.

GDP and voice and accountability (VOA) Policies that improve voice and accountability can help to reduce incentives to take economic activities underground since accountability promote effectiveness through its impact on government behaviour (Torgler, Macintyre and Schneider, 2011). On the above premise, we expect that this variable will exhibit an adverse effect on EG of ECOWAS because voice and accountability is heavily suppressed in ECOWAS countries, therefor, $VOA < 0$.

GDP and government effectiveness (GE) According to Alam, Kiterage and Bizuayeh (2017), government effectiveness has a significant positive association with EG. They conducted a study using system GMM and noted further that government effectiveness does not work in isolation but internden with other governance variable such as the rule of law. Owing to the fact that most governance structures in ECOWAS countries are not very effective, the study postulate a negative connection between government effectiveness and EG therefor, $GE < 0$.

3.1. Models

Model for examining the dynamics of institution and governance of countries in Africa was developed with GDP growth rate being a function of institution and governance in selected fifteen West African countries. So,

$$GDP = f(\text{Institution and governance}) \quad (1)$$

$$GDP = f(GE, PSAV, VOG, ROL, CCP)$$

Explicitly, equation 1 is:

$$GDP_t = \alpha_0 + \alpha_1 GE + \alpha_2 PSAV + \alpha_3 VOG + \alpha_4 ROL + \alpha_5 CCP + \varepsilon_t \quad (2)$$

The working SYS-GMM model in logarithmic transform to take care of dimensionless of variables unit of measurement and to linearize the variable functions.

$$\begin{aligned} & \text{DYN(LNGE(-1),-2) LNGE(-1) LNGE(-2)} \\ & \text{LNPSAV(-1) LNVOG(-1) LNROL(-1)} \\ & \text{LNCCP(-1)}. \end{aligned} \quad (3)$$

where: government effectiveness-LnGE, political stability LnPSAV, voice of governance-LnVOG, rule of law-LnROL, control of corruption-LnCCP) and Gross Domestic Product-GDP in selected fifteen West African countries at period t. This study employs Miyajima, Omi & Saito (2010) modified version of econometric model in conducting a panel or cross-sectional study. Miyajima, Omi & Saito (2010) econometric model is given as follows:

$$Y_{it} = \alpha_0 + \alpha_1 G_{it} + \varepsilon_t \quad (4)$$

where: Y_{it} = represents predicted variable which is the gross domestic product of the sampled firms; α_0 = panel egression constant or intercept term; α_i is coefficient of the regressor variables; G_{it} is vector of GDP and includes: institution and governance; ε_t is error or disturbance term. This model is therefore expanded to provide the panel regression model equations that models the research hypotheses earlier stated. These are stated as follows:

Model 1: Pooled Model

$$Y_{it} = b_0 + b_{it} Z_{it} + C_i + \varepsilon_t \quad (5)$$

Model 2: Fixed Effect Model

$$Y_{it} = b_{it} Z_{it} + b_i + U_{it} \quad (6)$$

For $Cov(b_{i-1}, Z_{it}) \neq 0$

Model 3: Random Effect Model

$$Y_{it} - Y_i^* = b_i (Z_{it} - Z_{it}^*) + (U_{it} - U_{it}^*) \quad (7)$$

For $Cov(b_{i-1}, Z_{it}) = 0$

where, Y_{it} is dependent variable

Z_{it} are independent variables

b_0 is the intercept value

b_{it} is panel regression model parameters.

ε_t and U_{it} are error terms

$Y_{it} - Y_i^*$ is the difference in Y

$Z_{it} - Z_{it}^*$ is the difference in Z

$U_{it} - U$ is the difference in error terms

Model 4: Model

The system GMM is the model to be estimated in this work as follows;

$$\begin{aligned} & \text{DYN(LNGE(-1),-2) LNGE(-1) LNGE(-2)} \\ & \text{LNPSAV(-1) LNVOG(-1) LNROL(-1)} \\ & \text{LNCCP(-1)}. \end{aligned} \quad (7)$$

where: government effectiveness-LnGE, political stability and absence of violence-LnPSAV, voice of governance-LnVOG, rule of law-LnROL, control of corruption-LnCCP) and Gross Domestic Product-GDP in selected fifteen West African countries at period t (i.e $\alpha_i > 0$ and $i = 1,2,3,4,5$).

3.2. Methodology and Data

In estimating our model, we utilized the S-GMM estimation technique to deal with simultaneity biases and endogeneity problems which are a well-known problem in growth regressions. This study utilized E-views 10.0 package for the estimation process and results presented in tables. Several estimation techniques were used in the data analysis which include, unit root test for stationarity of variables, co integration test for long run equilibrium of variables, trend analysis, panel model for model estimation and test of better model effect using Hausmann test statistic. Data used in the study were sourced from World Bank Database covering the period of 2000 to 2021. The data are pooled data for all fifteen (15) Benin, Burkina Faso, Côte d'Ivoire, Cape Verde, Ghana, Guinea, Gambia, Guinea-Bissau, Liberia, Togo, Mali, Niger, Nigeria, Senegal, Sierra Leone (ECOWAS) countries.

4. Results

4.1. Descriptive statistics

The descriptive estimates for the study are in table 1 below

4.2. Test of stationarity of variables

To test for the incidence of unit root in the variables of the model (LnGE, LnPSAV, LnVOG, LnROL and Ln(CCP) impact on LnGDP in the fifteen West African countries from 2002 to 2019. The data collected and analysed was further investigated using Fisher-PP test statistic of the variables stationarity and the results presented in Table 1.

Institutional variables of LnPSAV, LnVOG and LnCCP were stationary at order 1, 1(1). In addition, LnGDP and LnROL were stationary at level, I(0) as the Fisher PP test statistic exceeds 5% critical values and their probabilities are lesser than 0.05 (Table 2). The finding suggested co-integration of variables.

Table 1: Summary statistics

Size	LNGDP	LNGE	LNPSAV	LNROL	LNVOG	LNCCP
Mean	1.941562	3.041170	3.242237	3.199943	3.468109	3.272772
Median	1.928539	3.194532	3.558114	3.361977	3.601675	3.362070
Maximum	6.303856	4.175134	4.392289	4.291513	4.391831	4.382627
Minimum	-0.874669	1.347074	0.776529	1.168705	2.158004	1.464857
Std. Dev.	1.528245	0.671224	0.851669	0.705390	0.566651	0.637004
Skewness	0.749054	-0.383669	-1.000676	-0.673996	-0.510362	-0.501137
Kurtosis	3.566024	2.321950	3.087410	2.686523	2.439513	2.904183
Jarque-Bera	28.85300	11.79629	45.14685	21.54771	15.25528	11.40450
Probability	0.000001	0.002745	0.000000	0.000021	0.000487	0.003338
Sum	524.2217	821.1158	875.4041	863.9846	936.3895	883.6485
Sum Sq. Dev.	628.2584	121.1955	195.1163	133.8475	86.37405	109.1533
Observations	270	270	270	270	270	270

Source: E-views 10.0 as utilized by authors

Table 2 Unit root results

Variables	Order	Fisher- PP Test	Critical value	P-value
lngdp	-	-1.2572	-3.456	0.0000
lnge	-	-0.5834	-3.456	0.0008
lnpsav	-	-1.7685	-3.456	0.0005
lnvog	-	-1.2465	-3.456	0.0000
lnrol	-	-1.5324	-3.456	0.0038
lnccp	-	-0.4518	-3.456	0.0000
lngdp	I(1)	-5.3356	-5.1580	0.0000
lnge	I(1)	-4.6156	-5.1580	0.0008
lnpsav	I(1)	-3.2128	-5.1580	0.0005
lnvog	I(1)	-5.3356	-5.1580	0.0000
lnrol	I(1)	-4.6156	-5.1580	0.0038
lnccp	I(1)	-5.3356	-5.1580	0.0000

Source: E-views 10.0 as utilized by authors

4.3. Test of co-integration of variables

In table 3, the trace weighted statistic, of Pedroni Residual Co integration test, reveal that there is no co integration among the variables of institutional index- LnGE, LnPSAV, LnVOG, LnROL LnCCP on GDP performance in Africa, hence H_0 was not rejected. This implies that there is no LR equilibrium connexion between institutional indexes and GDP performance (table 3).

of (LnPSAV) and (LNCCP) have negative impact on growth in West African countries. (LnGE), LnROL) and (LnVOG) have positive effect on economic growth of member states (LnGDP). A unit increase in (LnPSAV) accounted for 1.52 and 0.84 decrease in growth of ECOWAS member states (LnGDP). An increase by a unit in (LnGE), (LnROL), and (LnVOG) result in 0.79, 1.05 and 0.60 increase in economic growth of ECOWAS member states

Table 3: Co-integration results

Test	Statistic	Prob.	W. Statistic	Prob.
v-Statistic	-2.333810	0.9902	-2.202286	0.9862
rho-Statistic	2.740212	0.9969	2.724771	0.9968
PP-Statistic	-0.633873	0.2631	-0.721303	0.2354
ADF-Statistic	0.891573	0.8137	1.398334	0.9190

Source: E-views 10.0 as utilized by authors

4.4. Analysis of estimated panel results

Table 4 shows results for pooled, fixed and random effects models. In the pooled model of the of our analysis on institution governance and EG of ECOWAS member states which does not allow the heterogeneity of variables, show that the coefficients

(LnGDP) respectively. Non increase in the institutions and governance variables in West African countries account for 1.75 economic growth.

All the variables of institution and governance serve as determinant of economic growth of ECOWAS

member states (LnGDP) because they were significant as the associated probability values of the t-statistic are less than 0.05 at 5% level. The fixed effect model of panel data analysis of institution and governance in West African countries on growth tends to investigate difference in the model intercept by allowing heterogeneity in time variant, indicated that political stability (LnPSAV) and Government efficacy (LnGE) have negative impact on economic growth-GDP in West African countries.

Control of corruption (LNCCP), rule of law (LnROL) and voice of governance (LnVOG) have positive effect on economic growth of ECOWAS member states (LnGDP). An increase in political stability (LnPSAV) and government success (LnGE) accounted for 0.29 and 0.25 decrease in economic growth of ECOWAS member states (LnGDP). An increase by a unit in corruption control (LNCCP), rule of law (LnROL), and voice of governance (LnVOG) result into 0.25, 0.48 and 0.30 increase in economic growth of ECOWAS member states (LnGDP) respectively. Non increase in the institutions and governance variables in West African countries account for 0.24 economic growth. All the variables of institution and governance-political stability (LnPSAV), rule of law (LnROL),

and voice of governance (LnVOG) indicate significant relationship with economic growth of ECOWAS member states (LnGDP) at 5% level.

The random effect model of panel data analysis investigates the institution and governance measures of economic growth that, the sampled West Africa countries for the study if they have a common mean value for intercept. Political stability and absence of violence (LnPSAV) and Government efficacy (LnGE) have negative impact on economic growth-GDP in West African countries. Corruption control (LNCCP), rule of law (LnROL) and voice of governance (LnVOG) have positive effect on growth of ECOWAS member states (LnGDP). An increase in political stability (LnPSAV) and government success (LnGE) accounted for 0.34 and 0.18 decrease in growth of ECOWAS member states (LnGDP). An increase by a unit in corruption control (LNCCP), rule of law (LnROL), and voice of governance (LnVOG) result into 0.18, 0.51 and 0.31 increase in growth of ECOWAS member states (LnGDP) respectively. Non increase in the institutions and governance variables in West African countries account for 0.24 economic growth. All the variables of institution and governance-political stability (LnPSAV), rule of law (LnROL), and voice of

Table 4: Model estimate results

	Pooled Effect Model					
	Variable	Coefficient	Std. Error	t-Statistic	Prob.	Remark
Model 1	Inge	0.79	0.17	4.69	0.00	Sig.
	lngdp(-1)	1.23	0.46	2.67	0.00	Sig.
	lnpsav	-1.52	0.10	-14.78	0.00	Sig.
	lnrol	1.05	0.23	4.58	0.00	Sig.
	lnvog	0.60	0.14	4.38	0.00	Sig.
	lnccp	-0.84	0.23	-3.57	0.00	Sig.
	c	1.75	0.46	3.81	0.00	Sig.
	Model 2	Fixed Effect Model				
Variable		Coefficient	Std. Error	t-Statistic	Prob.	Remark
Inge		-0.25	0.13	-1.91	0.06	Not Sig.
lngdp(-1)		0.19	0.02	95	0.00	Sig.
lnpsav		-0.29	0.07	-4.27	0.00	Sig.
lnrol		0.48	0.14	3.49	0.00	Sig.
lnvog		0.30	0.11	2.61	0.01	Sig.
lnccp		0.25	0.14	1.75	0.08	Not Sig.
c	0.24	0.48	0.50	0.62	Not Sig.	
Model 3	Random Effect Model					
	Variable	Coefficient	Std. Error	t-Statistic	Prob.	Remark
	Inge	-0.18	0.13	-1.43	0.16	Not Sig.
	lngdp(-1)	0.49	0.10	4.90	0.00	Sig.
	lnpsav	-0.34	0.07	-5.08	0.00	Sig.
	lnrol	0.51	0.14	3.72	0.00	Sig.
	lnvog	0.31	0.11	2.78	0.01	Sig.
	lnccp	0.18	0.14	1.27	0.20	Not Sig.
c	0.30	0.51	0.58	0.57	Not Sig.	

*Significant at 5%

Source: E-views 10.0 as utilized by authors

governance (LnVOG) indicate significant relationship with economic growth of ECOWAS member states (LnGDP) at 5% level.

Table 5: Global statistic of institutional index on gdp in West African countries

Parameter	Pooled	Fixed effect	Random effect
R-squared	0.522815	0.925380	0.157845
Adj. R-squared	0.513777	0.919709	0.141895
F-statistic	-397.2451	-146.7532	

Source: E-views 10.0 as utilized by authors

In comparing the three panel models used in the evaluation of institution and governance on EG of ECOWAS nations, the outcomes of pooled, fixed and random effect models have different coefficient values and test of significance of individual variables. This justifies the essence of analysing panel data of cross section and time series components. From the R² values, pooled model has 0.5228 (52.3%); fixed effect has 0.9253 (92.5%) and random effect model has R-square (R²) value of 0.157 (15.7%) implying that the models are well fitted. Total variation in the EG of ECOWAS nations, by institution and governance variables is explained by 0.5138 (51.38%) in the pooled model; 91.97% by fixed effect model and 14.19% by random effect model.

Table 6: Hausman test results

Hypothesis	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Ho vs. H1	27.548910	5	0.0000

Source: E-views 10.0 as utilized by authors

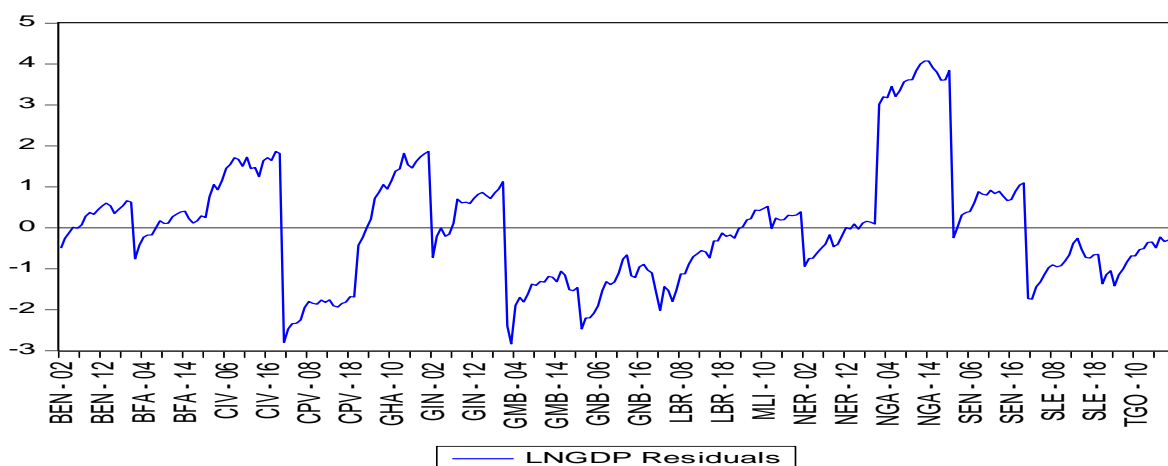


Figure 1: Trend Analysis of Economic Growth in the Presence of Institution and Governance in West African Countries

Source: E-views 10.0 as utilized by authors

In selecting the best model for estimation, panel data estimate procedure, the Hausman test is used. The test follows the assumptions that, Ho: random effect model

is appropriate against alternative hypothesis (H₁) that fixed effect model is appropriate. The test follows decision rule; if the associated probability of Chi-square statistic is less than 0.05 at 5%, Ho is accepted otherwise do not reject H₁ that is p>0.05 at 5%. From table 6, the result of Hausman test for institution and governance on economic growth of ECOWAS member states are shown. The Hausman test suggested that the best model for estimating the impact of institution and governance on economy growth of West African countries is random effect model as the associated probability value is less than 0.05 at 5% level of significant. This portray that there is homogeneity in the model.

The trend analysis of EG of RECOVAS nations is explained by the stochastic nature of institution and governance experience in West African countries. LnGDP) follows unstable pattern. The significant spikes of economic growth is present in EG of ECOWAS from 2004 and 2014 in Nigeria and 2004 through to 2016 in BFA, CIV and CPV countries. Negative spikes of economic growth was seen within the periods of 2017, 2008, 2018 in CIV and CPV countries and 2004, 2014, 2006, 2016, 2008, 2010 2002 and 2012 in countries like Gambia, Guinea Bissau, Liberia Mali, Niger and Nigeria in relation to institution and governance variables respectively. The findings suggest unstable pattern of EG of ECOWAS nations with prolong periods of negative EG within the period under study.

Engle Kao Granger causality effect of institution and governance effect on economic growth of ECOWAS member states. All the institution and governance measures- except LnPSAV that has causal effect on EG as the probability value is 0.0095<0.05 at 5%. However, EG have a causal effect on LnPSAV as it has probability value of 0.6600>0.05 at 5% significance

level. The findings confirmed that the LnGE, LnVOG, LnROL and LnCCP and LnGDP have no directional causal effects. However, there is strong evidence of uni

Table 7: Engle Kao Granger Causality Result (2002 – 2019)

Null Hypothesis:	Obs	F-Statistic	Prob.
lnge does not granger cause lngdp	240	0.54191	0.5824
lngdp does not granger cause lnge		0.35949	0.6984
lnpsav does not granger cause ngdp	240	0.41625	0.6600
lngdp does not granger cause lnpsav		4.75226	0.0095
lnrol does not granger cause lngdp	240	1.15486	0.3169
lngdp does not granger cause lnrol		0.53583	0.5859
lnvog does not granger cause lngdp	240	0.40833	0.6652
lngdp does not granger cause lnvog		2.30072	0.1024
lnccp does not granger cause lngdp	240	0.51516	0.5981
lngdp does not granger cause lnccp		0.52301	0.5934

Source: E-views 10.0 as utilized by authors

directional causal effect of political stability and absence of violence-LnPSAV on economic growth of ECOWAS member states. This implies that in the short-run LnPSAV has influence on the EG of ECOWAS nations.

noted that corruption, bureaucracy, red-tape legal arrangement, judicial and political stability are all connected to EG. This is also in support of the recent findings by Higbee and Schmid (2004) who noted that countries with less corruption tends to have

Table 8: The system GMM Estimation Output

Variable	Coefficient	Std. Error	t-Statistic	Prob.
lngdp(-1)	0.874622	0.000551	1587.416	0.0000
lnge(-1)	-0.029104	0.013190	-2.206613	0.0283
lnpsav(-1)	-0.038374	0.007690	-4.989898	0.0000
lnvog(-1)	-0.088799	0.006854	-12.95656	0.0000
lnrol(-1)	0.032229	0.007097	4.541051	0.0000
lnccp(-1)	0.079465	0.018784	4.230468	0.0000
Mean dep var	-8.455914	S.D. dep var	33.54463	
S.E. of regression	11.22547	SS resid	29486.60	
J-statistic	10.14686	Instrument rank	15	
Prob(J-statistic)	0.338728			

Source: E-views 10.0 as utilized by authors

The SYS-GMM estimates for our analysis is presented in table 4.8 above. From the table one observes that all the variables used in our model are all significant at less than 5%, indicating that all the variables are important to our analysis. Specifically, government effectiveness (GE) is significant at less than 5% and it is appropriately signed indicating a negative relationship between economic growth within the period under study. In line with earlier study by Alam, Kiterage and Bizuayeh (2017) and ECOWAS report (2019) which noted that as a result of frequent military intervention in the polity of ECCWAS countries, the sub-region has suffered and is still suffering from poor leadership which has made it impossible for them to have effective governance. A one (1) % increase in increase in government effectiveness leads to a -0.02 % decrease in EG the period under investigation. However, one may note that the estimates for our model is only for the shot-run. On the lung-run, the variable is significant and positive if the government of various nations in ECOWAS is stable and effective.

The variable, control of corruption is also observed to be significant at less than 5% and positive, this is in line with similar studies by Knack (2006) who

higher levels of GDP per capital. Specifically, a one (1) % rise in the control of corruption results into a 0.08 % rise in economic growth within the period under investigation. As well, voice and accountability is also observed to be significant at less than 5% level appropriately signed in consonance with the results of Torgler, et al (2011) who noted that, voice and accountability can help to reduce corruption and other corrupt tendencies, since accountability encourages efficiency through its influence on government behaviour. The negative sign of the variable indicates that the level of accountability within the sub-region is very poor hence it is having a negative impact on economic growth. We should however note that, this negative impact is only on the short-run.

Political steadiness impacted negatively on economic growth within the period under study, this is because the level of political stability in the sub- region is not enough to drive EG. As well, the low level of political stability has led to pockets of violence within the sub-region, hence our outcome is in consonance with the conclusions of Cervantes and Villasrior-Becerra (2015), who noted that higher

levels of political stability leads to higher level of economic growth while lower levels of political stability leads to lower rate of EG. Specifically, One 1% increase in PSAV leads to -0.04% decrease in economic growth within the period under study. Our last independent variable which is the rule of law (ROL) impacted positively on EG in line with similar findings by Haggard, MacIntyre and Tiede (2008) who noted that the rule of law is of high significance as a value in its own right and as a contributor to other values such as human freedom. Our analysis showed that this variable is appropriately signed further indicating that a 1% increase in the level of the rule of law results into a 0.03 % rise in EG within the period under review. We must however note that, our interpretation is for the short-run while utilizing the *ceteris Parabo's* postulation. The J-statistics which is a test for the validity (joint significance) of our instrument clearly indicates that the instrument used in this study is valid since the J-stat value of approximately 10.23 with a p-value of 0.33 is greater than 0.25 which is the threshold for instrument validity.

5. Conclusion and policy recommendations

The analysis obviously shows that the current condition of institution and governance structure in the ECOWAS sub-region impacts both positively and negatively on EG within the period under consideration and hence promotes EG with due consideration to variables such as the rule of law and control of corruption while with respect to other variables such as government effectiveness, political stability, and voice and accountability a negative relationship with economic growth suffices all things being equal. This is in line with earlier mixed outcome of institutions and governance by Alesina et al. 1996.

The work equally confirm that the state of the institution and governance structure within the sub-region is capable of driving economic growth both on the short-run for some variable such as ROL and CCP and on the long-run if the institutions and governance structure is properly taken care of, which is in agreement with similar works by Haggard et al. 2008, Torgler et al. 2011 and Alam et al. 2017. Finally, the method of analysis adopted in the study, which is the system generalized method of moment (S-GMM) is adequate for capturing economic growth using data from the sub-region which has laid to rest the question of the capability of S-GMM in adequately capturing the impact of institutions and governance on EG within the ECOWAS sub-region.

The rationale for this research undertaking is to empirically determine the effect of institution and governance on EG in ECOWAS member states from 2002 to 2019, the findings revealed that political steadiness (LnPSAV), rule of law (LnROL), and voice of governance (LnVOG) are significant to

economic growth-(LnGDP) of ECOWAS member states. A strong evidence exists of a bi-directional causal effect between political stability -LnPSAV and economic growth among ECOWAS member states. Political stability and absence of violence-LnPSAV influence economic growth of West African countries. All the variables used in capturing the combined effect of quality institution and good governance on economic growth in West Africa countries were statistically significant at less than 5%, they were all stationary at the first difference. They were however not co-integrated. The analysis discovered a positive connection between ROL, CCP and GDP but a negative relationship between GE, PSAV, VOG and GDP. This clearly shows that the level of government effectiveness, the level of political stability and absence of violence as well as the level of voice and accountability are not high enough to drive growth within the sub-region within the period under review for now.

In line with the findings of this work, we recommend that effort should be made by the political and economic leaders of ECOWAS member states to stamp-out the scourge of corruptions, encourage the strict application of the rule of law and chant the drum of political stability, be effective in their governance, and be accountable to their respected people in their individual nations in order to have a robust EG. Each member state should entrench good governance within their respected countries and also encourage other member states to do same in order to enhance economic outlook of region in the committee of global economic. Strong and sustainable institution must be developed and imbibed by all ECOWAS member states to facilitate meaningful EG and development in the West Africa region.

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