**1. Introduction**

Capital formation has been identified in Development theories as a determining factor for economic transformation of developing countries, just as aid has been identified as a major source of capital formation for economic growth and development [1]. Historically, aid or what is called Official Development Assistance (ODA) could be traced back to the United Nations Charter of the conference of San Francisco on June 26th 1945. The motive behind ODA (foreign aid) has been to remove poverty on
the face of the earth, raise savings and investment, raise growth, and raise living standard in developing countries. Aid comes to developing countries through two ways: multilateral and bilateral aid.

Bilateral aid can be explained as ODA undertaken directly with a developing country by a donor country. It includes transactions with Non-governmental organizations (NGOs) which are active in developmental programmes as well as other transactions related to internal development like administrative costs, debt relief and spending on development awareness. It has been accepted by experts that bilateral ODA is given on the basis of political motives of the donor country rather than on the reforms for institutional quality in the aid-receiving country for its own sake.

Multilateral aid, on the other hand, involves an international agency lending helping hands in any or some developmental projects in recipient countries. Multilateral aid is usually given by multilateral agencies or organizations. A multilateral organization is an international organization made up of member nations/governments, with collective goal to govern the organization and primarily supply its funds.

From Figure 1, the net official development assistance has been somewhat plummeting over the years until about 2005 when Nigeria was the second largest recipients of ODA, and ranked among the tenth highest recipients in Africa, between the periods of 2009 to 2011. Total net bilateral development aid in these same periods stood at US$1657 million, US$2062 million, and US$1813 million respectively. The level of the ODA was very high but declined at about 2008 following the global financial crisis. After this high level, it grew again but gently and continues to grow even as in 2020.

However, the annual growth rate of the economy (shown in Figure 2) has much fluctuations and never showed a steady-state growth. It could be asserted that the aid had not shown much significant impact on growth rate of Nigerian economy, as it did not show any significant positive result on the chart.

There is an argument 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 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 white spaces 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.

In most developing countries, institutions 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. In addition, wealth 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. Alluded that African countries lose $90 billion 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.
Several studies have shown that revenues from the exploitation of natural resources could hamper growth mainly by weakening institutions\cite{16}. This phenomenon, which is better known as the “curse of natural resources” partly relies on the arguments explaining that these additional and unexpected resources provide disincentives for governments to undertake institutional reforms, and are a source of rent-seeking behaviors. Some studies have concluded that foreign aid may also represent a resource curse. Foreign aid transfers have been considered as windfalls in several other studies, and thus as a source of rent-seeking.\cite{17} Interestingly point out that aid and natural resources share a common feature inasmuch as they can both be captured by rent-seeking leaders. Similarly, researchers\cite{18} also stress that aid and resource rents share the general character of “windfall gains” that disrupt political and economic incentives although some important differences can be noted between them.\cite{19} Also explain that aid transfers and natural resources both have the character of windfalls since poor countries can benefit from them without much effort and both have the ability to generate rent-seeking.

We should note that government accountability is about the obligations of a government to insure good-quality institutions in return for taxation resources obtained from citizens. The rationale of the arguments explaining the impacts of aid on institutions related on this accountability is based upon the relationship at the equilibrium between the supply of tax revenues and the demand for quality institutions by taxpayers. The expectation is that as long as citizens remain subject to taxes, they are entitled to claim back the effective use of these funds, which are guaranteed by quality institutions. The interesting point to consider here is that aid potentially breaks this equilibrium since it provides the government with funds from outside the country, the consequence being that governments become less accountable to citizens as regards institutional strengthening. Therefore, taxes stemming from citizens are no longer accompanied by the same demand for quality institutions, insofar as the state’s financing demand is reduced by the greater availability of external resources (aid).

Evidence from available literature indicates that although a few studies have assessed the influence of quality institutions in underdeveloped countries, even fewer researches have been undertaken on country-specific study of impact of quality of institutions on multilateral aid. The goal of this study is to investigate the impact of institutional quality on multilateral aid in Nigeria.

2. Review of Relevant Literature

The second-best theory of institutional quality states that in the face of limiting factors that inhibit the achievement of the optimal, attaining a greater level of optimization circumstances is not assured to be superior to a situation in which fewer requirements are satisfied.\cite{20} are the ones that initially formalized the theory leading to its adoption in many works. According to them, should a variable which impedes the accomplishment of one of the Paretian conditions enters into a general equilibrium system the varying Paretian conditions, although still attainable (second best optimum situation), are no longer desirable. However, the optimal state if eventually achieved may be labeled a second-best optimum given that it is accomplished subject to a limitation which, by description, inhibits the fulfillment of a Paretian optimal.

Another theory is the big push theory which advocates a comprehensive lump-sum of investment package which will push a nation to economic development, on the condition that a given minimum amount of resources must be devoted for developmental programs, and on a condition that the program must be successful.\cite{21} was the first to propose the theory while\cite{22} later contributed to its development. Rosenstein stressed that less developed countries need large amounts of investments to attain economic development from their current condition of backwardness.\cite{23} argued that foreign aid has likened to the big push policy used in the post-World War reconstruction of Europe as it supplied international capital, while\cite{24} argued that unless there are reformed institutions and policies, the big push would not be achieved using foreign aid.

Multilateral agencies, in order to prevent political capture, are presumed to possess some degrees of freedom from states’ control\cite{25}. Extant literature shows evidently bilateral channels as, clearly, more amenable to political capture when compared to multilateral channels, with adverse consequences for development. Experts have supported the claim of bilateral donors’ interests directly skewed such that allocation of aid favors strategic behavior and political motives, as compared to country’s need or potential for development impact\cite{26,27}. Another economist\cite{28} asserts that political motive of the donors usually slows chances for growth of economy in comparison with aid through multilateral channels.

Africa has presented a peculiar scenario in terms of aid and political patronage of aid donors. Researchers like\cite{28-32} have argued that political patronage has become a regular feature of political trend in Africa. The concept of patronage politics is used to describe a system where rulers buy their position and remain in power by supplying
steady streams of ‘rental’ returns to maintain respect and supports and be able to influence their anticipated opponents. Many countries in Africa have been affected by and mismanagement of this ‘patronage’ system has led to untold and unpleasant results: in most countries in Africa, more than half of the incumbent heads of state from their political autonomy to 1991 were imprisoned, executed, assassinated, or forced into exile.

A large number of studies have argued that aid feeds directly into this patronage system [33-36]. This is obvious since donor agencies or countries do not and are often unwilling to completely monitor aid [37-40], hence autocrats usually capitalize on this and bolster their regime through it [41-44]. The size of amount of ODA used to sponsor patronage systems usually leads autocrats to change some foreign policies in favour of the specific goal to meet [45].

Applying panel data of developing countries, retrieved from [47], revealed a direct linkage between institutional performance and foreign aid in developing economies (also supported by [48-51]). [52] used simultaneous equation model and Generalized Method Moments (GMM) in their study of the effect of foreign direct investment (FDI), foreign aid and government on sustainable development. The study showed that aid supports human capital and sustainable development, while FDI plays more or less negative role due to resource outflow. [53] studied several determinants of bureaucratic quality and their effects were estimated applying the International Country Risk Guide (ICRG) data. Their finding shows that the bureaucratic services quality is inversely related when the proportion of a country’s foreign aid rises relative to Gross National Product (GNP). The differential effect of aid can be dependent upon the destination country’s characteristics or institutional quality such as the composition of public expenditure, corruption, and inequality among others. Furthermore, the argument has been that development aid to less developed nations does not often reach the actual people due to poor institutional quality of developing nations [54].

However, some other researchers assert that foreign aid has played catalytic roles in democratic reforms. The demise of the Cold War made multilateral and bilateral donors become more emphatic on applying stringent conditions for aid, and donor interests became more explicitly political. There are two factors that helped donors to increasingly enforce political conditions on aid in the 1990s [55]. The first case is that donors observed that only changes in macroeconomic policies cannot remove structural barriers to economic growth and development, as could exemplified in economically inefficient regulations and opaque implementation of the rule of law. Using the new concept of “good governance”, donor agencies designed aid clauses that demanded institutional changes (reforms) from governments in return for funds [56-58,42].

Second, when the Soviet Union collapsed, recipient countries had less ability to maneuver the conditions; it was difficult for them to evade donor conditions, and had to lose great power to bargain with respect to donors [29,45,58-60]. Many researchers have observed that resources from aid are not uniform and vary across countries, regions and continents. Aids have numerous objectives and modalities; some fit into the theories posited in the literature [61-63]. As noted by [64,65], donors’ amounts given to non-governmental organizations (NGOs) and/or to a project director directly, as example, are most likely to achieve intended targets as opposed to assistance made through budget directly to a government ministry because the latter may be spent like every other item in the budget.

Using GMM techniques for 78 countries using panel data econometrics for the period of 1984-2004 [66], analyzed the link between aid volatility and per capita economic growth with particular emphasis on institutional performance. They found that performance of ODA and per capita economic growth was dependent on quality of institutions and a negative linkage between volatility of aid and economic growth of a country. They concluded that aid effectiveness is better in a country with strong institutions. Similar views by [67,68], stated that effectiveness of aid is better achieved in an environment where the quality of institution is high. Despite the enormous funds dispatched to developing countries by international agencies, results have not been achieved in recipient countries, and this creates doubts whether foreign aid is effective for transforming African economies [50].

[69] examined whether grants sway growth as countries implement good economic policies. The study revealed that good policies help nation to achieve the targets of aid. The finding is in accordance with [51] assertion that good policies and proper management of economy are as important if not of greater importance as foreign aid for developing countries. Some studies have laid credence to the theoretical underpinning that many nations have been fungible in their usage of funds through swapping funds from the aid sectors where they are meant to non-earmarked sectors [70-72]. [73] investigated the best approach to introduce in making financial aid effective for Ghana and suggested that there should be good planning between the government and donor partners to ensure the multi-donor budgetary support (MDBS) is successful.

The problem of aid effectiveness, according to [74], is that donor funds flow to economies whose policies hamper
growth and impoverish the citizens.\cite{73}, also asserted that leaders of these governments create incentives to make institutions of low quality which create avenues for crises to engender more inflows of aid.\cite{70} asserted that economies with feeble institutional framework have poor economic growth which leads to difficulties in dealing with political and economic shocks and crisis. In the past decades, funding nations and multinational agencies (e.g. the World Bank), have donated whopping sum of over $1 trillion USD yearly as ODA to enhance economic development in Africa alone\cite{77}; in spite of this monetary assistance, many of these countries have not improved their economic conditions. According to\cite{78}, enhancement of institutions is very important to reduce disparity for the reason that better, more democratic institutions assist governments to ensure the basic necessities of life of the poor. This is to say that quality institutions and governance effectively reduce poverty and inequality by redistributing income via progressive tax system and by reducing the sway of the political office holders through clampdowns on corruptive tendencies. When these strong institutions are absent, aid efforts have to be devoted to raising institutional quality and good governance prior to effectively dedicating them to plans for economic development. As good macroeconomic policies, including GDP per capita and income inequality, are considered important for aid allocations, aid would have the ability to reduce poverty\cite{79}.

\cite{80} revealed that aid to African economies reduces poverty in addition to raising economic growth. Their study empirically evaluated time series data between 1968 and 1999, and concluded that the policy regimes concerning trade and inflation could influence the size of aid received. Institutional political factors including the state of democracy, or regime type have frequently been investigated as they relate with foreign aid effectiveness. According to\cite{81}, foreign aid is not effective under elitist regimes, but is effective under totalitarian regimes. Researchers have itemized three varieties of regimes, namely, egalitarian, elitist, and laissez-faire were investigated on how they would utilize foreign aid\cite{82}. The outcome showed that elitist regime would ensure only the welfare of the ruling coalition by transferring these funds to few high-income political elites. An egalitarian regime tries to maximize the welfare of a fixed group of citizens with relatively low endowments and tends to ameliorate poverty indicators, while the laissez-faire regime usually maximizes the welfare of a minimum and substantial proportion of the population and utilizes aid to lower distortionary taxes.

Adding to the measurement issues, the mixed findings (on the link between aids and democracy) may have to do with the condition that some autocrats face riskier elections than others. For example, as there is a higher probability that an autocrat will surrender power, or coerced into better redistribution of government resources more equitably through elections, there is a little chance that donors will be able to promote liberalization. It has been asserted explicitly by\cite{83} that aid can only affect democratic regime when the risk of an incumbent losing office is low. He further explains that when this risk is low—using measures of a winning coalition size and economic growth—foreign aid has a direct effect upon democratic governance. Specifically, recent theories suggest that citizens of aid origin are moved by some moral thinking and clearly assume that altruistic motives are behind people’s support for aid to poor countries and disapprove of giving aid to unsavory regimes.

Aid inflows increase government spending, in many cases, a phenomenon which economists describe with the concept of flypaper effect, meaning that funds from grants and aids induce public expenditures, while revenues coming from taxes lead to less public expenditures\cite{84}.\cite{85} found out that aid raises the government size and government outlays and hampers the urge to drive taxes for more revenues. This result contravenes market-oriented plans which many donor nations would like the poor countries to adopt. He further concluded that aid induces corruption, because it thwarts incentive drives of politicians to follow good policies.\cite{86} asserted that the aid recipient countries receive the funds as ‘transfers’ they do not spend it well and these governments do not work hard to alleviate suffering or poverty because they believe that more aid will flow in. When aids are handed over to corrupt governments and also kleptocratic elites, “corruption-poverty spirals” become common, deterring economic growth\cite{87}. According to\cite{88}, recipients of large funds from aid strategically reduce quality of institutions and administrative capacity, and thus create an environment for rent-seeking behavior and creating what he called “Zairean disease”. When countries depend more on aid than any other source of funds, infighting and struggles to control resources among political class over huge flow of resources from aid is intensified and corruption levels heightened.

Given all these facts, literature on the influence of corruption and other institutional quality on aid effectiveness have been rife with mixed results. Therefore, we do not have clear consensus on the linkage between institutional quality indicators and aid. Most researches reviewed focused on cross-country assessment and little or no country-specific study has been undertaken. Therefore,
it becomes imperative to investigate the influence of foreign aid on institutional quality in Nigeria, especially as she has accumulated so much from aid and yet has been branded the “headquarter of poverty” in the world.

3. Methodology and Data

Theoretical Framework

The RN-DI (recipient-need and donor-interest) model by [89] is the framework for this study. The RN-DI model suggests that agencies which give aid have underlying factors which affect their aid allocation decisions. Donor nations’ interest focused either on donors’ interests or recipients’ needs. While donor-interest model is assumed to fit bilateral aid, while the latter model explains multilateral aid flow [90]. The combination of the DI and RN perspectives is used to study varying factors influencing foreign aid, including humanitarian concerns, foreign relations (political interest), and economic interests. It is inadequate as another dimension (namely, policy performance variable) has been added to the study of the determinants of multilateral aid flow. Hence, while donor-interest illustrates the economic, strategic, and political interests of the donor; recipient-need explains the social, economic, and human development needs of the aid-receiving countries, and policy performance explains the economic fundamentals of the recipient nation [91].

Therefore, in the current study, we will pay greater attention to policy performance variables. The model is estimated using longitudinal data for Nigeria between 1980 and 2016. The variables used were gotten from the Quality of Governance database and World Development Indicators of the World Bank. The methodology applied was Auto-Regressive Distributed Lag (ARDL) bound cointegrated model propounded by [92-94]. This econometric method is free from imposition of the restrictive assumption that the variables in the model must have the same order of integration, unlike other approaches, and is robust in small samples. The ARDL model yields consistent long-run coefficients which are asymptotically normally distributed irrespective of whether the independent variables are I(1) or I(0) [94]. [95] shows that this model produces long-run unbiased estimates and reliable t-statistics even if some variables are endogenous. Further, bound test approach appears more appealing than rival tests in the small sample size cases with many parameters.

Model Specifications

Based on the theoretical explanations above, we specify the model as for the study as follows:

\[
\begin{align*}
\text{LOG}_{\text{ODA}} &= F (\text{LOG}_{\text{GDPPC}}, \text{LOG}_{\text{POP}}, \\
& \quad \text{Ind}_{\text{judi}}, \text{free}_{\text{speech}}, \text{free}_{\text{express}}) \\
\text{Econometrically, it becomes}
\end{align*}
\]

\[
\begin{align*}
\text{ODA} &= \beta_0 + \beta_1 \text{GDPPc} + \beta_2 \text{POP} + \beta_3 \text{Ind}_{\text{judi}} + \\
& \quad \beta_4 \text{free}_{\text{speech}} + \beta_5 \text{free}_{\text{express}} + \epsilon_i \\
\text{The variables are defined as: ODA = multilateral aid as sourced from Development Indicators published by the World Bank’s}
\end{align*}
\]

\[
\text{GDPPC = per-capita GDP}
\]

\[
\text{POP = population}
\]

\[
\text{Ind}_{\text{judi}} = \text{independence of the judiciary, a binary variable indicating if the judiciary is independence or not.}
\]

\[
\text{This variable is obtained from the quality of governance database.}
\]

\[
\text{Free}_{\text{speech}} = \text{index of freedom of speech obtained from the quality of government database}
\]

\[
\text{Free}_{\text{assoc}} = \text{index of freedom of expression also extracted from the quality of governance}
\]

\[
\text{Where the coefficients } \beta_0 \text{ and } \beta_1, \beta_2, \beta_3, \beta_4, \beta_5 \text{ are the parameters that characterize the equation and their specification is the objective of the regression exercise.}
\]

\[
\text{The model will be estimated using the ARDL form as presented in Equation 3.}
\]

\[
\begin{align*}
\Delta \text{ODA}_t &= \alpha_0 + \sum_{i=1}^{p} \beta_i \Delta \text{GDPPc}_{t-i} + \sum_{i=1}^{q} \delta_i \Delta \text{POP}_{t-i} + \\
& \quad \sum_{i=1}^{p} \eta_i \Delta \text{Ind}_{\text{judi}}_{t-i} + \sum_{i=1}^{q} \theta_i \Delta \text{free}_{\text{speech}}_{t-i} + \\
& \quad \sum_{i=1}^{p} \psi_i \Delta \text{free}_{\text{assoc}}_{t-i} + \lambda_1 \text{GDPPc}_{t-1} + \lambda_2 \text{POP}_{t-1} + \lambda_3 \text{Ind}_{\text{judi}}_{t-1} + \lambda_4 \text{free}_{\text{speech}}_{t-1} + \lambda_5 \text{free}_{\text{assoc}}_{t-1} + \mu_t
\end{align*}
\]

4. Results and Discussion

Unit Root Tests

<table>
<thead>
<tr>
<th>Variables</th>
<th>test critical value (5% level)</th>
<th>Philip-Peron test</th>
<th>Order of Integration</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOG_ODA</td>
<td>-1.943012</td>
<td>-2.525195</td>
<td>I(0)</td>
</tr>
<tr>
<td>LOG_GDPPc</td>
<td>-3.447072</td>
<td>-4.948135</td>
<td>I(1)</td>
</tr>
<tr>
<td>LOG_POP</td>
<td>-1.943364</td>
<td>-20.8175</td>
<td>I(0)</td>
</tr>
<tr>
<td>Ind_judi</td>
<td>-1.943449</td>
<td>-2.298222</td>
<td>I(0)</td>
</tr>
<tr>
<td>Free_speech</td>
<td>-2.885249</td>
<td>-7.011193</td>
<td>I(1)</td>
</tr>
<tr>
<td>Free_assoc</td>
<td>-1.943449</td>
<td>-2.167206</td>
<td>I(0)</td>
</tr>
</tbody>
</table>

Source: Authors computation with Eviews 9

The results of the stationarity test for the series used at
both levels and in first difference are presented in Table 1. The Philip-Peron stationarity test was also applied and the result indicates that all the variables were stationary at level except GDPPC and freedom of association as their absolute value of Philip Peron test statistic for GDPPC and Freedom of association exceeded the critical value only with one difference. No variable is I(2), hence, we adopted the ARDL bound test approach to check for long run relationship in the model.

**ARDL Bound Test Results**

The ARDL Bound test’s critical value is dependent on selected lag length. In this case, the optimal lag (p) was determined empirically based on Hannan Quinn Criterion (HQC). [96]’s critical values are adopted.

Table 2. the ARDL bound test for the model

<table>
<thead>
<tr>
<th>Test Statistic</th>
<th>Value</th>
<th>K</th>
</tr>
</thead>
<tbody>
<tr>
<td>F-statistic</td>
<td>3.642357</td>
<td>5</td>
</tr>
</tbody>
</table>

Critical Value Bounds

<table>
<thead>
<tr>
<th>Significance</th>
<th>I0 Bound</th>
<th>I1 Bound</th>
</tr>
</thead>
<tbody>
<tr>
<td>10%</td>
<td>2.08</td>
<td>3</td>
</tr>
<tr>
<td>5%</td>
<td>2.39</td>
<td>3.38</td>
</tr>
<tr>
<td>2.5%</td>
<td>2.7</td>
<td>3.73</td>
</tr>
<tr>
<td>1%</td>
<td>3.06</td>
<td>4.15</td>
</tr>
</tbody>
</table>

Source: Authors computation using Eviews 9.0

Table 2 shows the bound test’s F-statistics of 14.48909 is greater than the critical upper bound value (3.79) at 5% significant level. This clearly shows a long-run relationship among the variables.

**Empirical Results**

Based on the ARDL results as presented in Table 3, long-run linkage between multilateral aid and institutional performance variables in Nigeria are not statistically significant. This means that major institutional quality variables in Nigeria do not significantly affect the level of multilateral aid coming into Nigeria except independence of the judiciary which negatively and significantly affects multilateral aid in Nigeria against a priori expectations. The results show that, apart from independence of the judiciary, that is statistically significant at 5 percent level of significance, other institutional quality variables do not influence multilateral aid in Nigeria significantly. Hence, unit improvement in the independence of judiciary index in Nigeria, decreases multilateral aid by about 15%, holding all other factors constant, implying that judiciary is not free to act on its own and enforce law of contracts.

From expectations, institutional quality variables are major determinants of multilateral aid as can be seen by the policy performance variables argument in the RN-DI model applied by [91]. These institutional variables which serve as watch-dogs to donor agencies ought to be the major factors in the determination of aids to economies.

The study objective is to investigate the impact of institutional quality on multilateral aid in Nigeria and from the results obtained, it can be affirmed that most institutional quality variables apart from independence of the judiciary do not significantly affect multilateral aid in Nigeria. This result is quite contrary to economic expectation and even contrary to the empirical arguments of the RN-DI model as exemplified by the findings of [90].

**Table 3. Estimated Long-run Coefficients Based on ARDL (3, 2, 0, 1, 0, 2)**

<table>
<thead>
<tr>
<th>Dependent variable (ODA)</th>
<th>Coefficient</th>
<th>Standard Error</th>
<th>t-statistic</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDPPC</td>
<td>1616856.67876</td>
<td>32345474.411033</td>
<td>0.689352</td>
<td>0.4921</td>
</tr>
<tr>
<td>POP</td>
<td>6838373.73174</td>
<td>4226513.202294</td>
<td>1.618139</td>
<td>0.1087</td>
</tr>
<tr>
<td>Ind_judi</td>
<td>429716717.491084</td>
<td>557644526.209210</td>
<td>0.770593</td>
<td>0.4427</td>
</tr>
<tr>
<td>Free_speech</td>
<td>914891612.172300</td>
<td>505703705.82906</td>
<td>1.809146</td>
<td>0.0733</td>
</tr>
<tr>
<td>Free_assoc</td>
<td>-647040599.800278</td>
<td>434085031.927801</td>
<td>-1.490585</td>
<td>0.1391</td>
</tr>
<tr>
<td>C</td>
<td>-871261822.654552</td>
<td>334704769.857476</td>
<td>-2.603076</td>
<td>0.0106</td>
</tr>
</tbody>
</table>

R² = 0.540220  Adjusted R² = 0.482747

S.E of regression = 5.60E+08  F-statistics = 9.399617
Prob (F-statistics) = 0.0000  Durbin Watson (DW) = 2.084650

(*) denotes Heteroscedasticity and Autocorrelation (HAC) consistent standard errors
** Denote significant at 5% level;
Source: Authors computation using Eviews 9.0
However, the result is a further proof that multilateral aids to Nigeria are based on other factors that are non-economic in nature. These factors could be more political than rational, and may explain why Nigeria still received huge sums of foreign aid even during the ruthless military regimes.

The coefficient of multiple determination ($R^2$) measures the goodness of fit of the fitted regression line to a set of data. From the model result, the $R^2$ value of 0.56720 shows that about 57 percent of the variations in the dependent variable (ODA) are explained by variations in the model independent variables. This is reasonably adequate as it is above 50 percent. In similar manner, the F statistics of 9.399617 and its probability of 0.000000 shows that the independent variables are jointly statistically significant and therefore reliable even though they are individually insignificant; the Durbin Watson’s value of 2.084650 shows the regression is not spurious.

The next step is to analyze the short-run dynamic impact of institutional quality on multilateral aid. Short-run dynamics of the equilibrium relationship were obtained through the error correction model and the results are presented in Table 4. The error correction term measures the speed at which the dependent (endogenous) variable adjusts to change in the explanatory variables before converging to its equilibrium level.

### Table 4. Short run Results and Diagnostics Tests results for the model

<table>
<thead>
<tr>
<th>Dependent Variable (ODA)</th>
<th>Coefficient</th>
<th>Standard Error</th>
<th>t-statistic</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>D(ODA(-1))</td>
<td>0.536188</td>
<td>0.073156</td>
<td>7.329394</td>
<td>0.0000</td>
</tr>
<tr>
<td>D(ODA(-2))</td>
<td>0.118721</td>
<td>0.044010</td>
<td>2.697556</td>
<td>0.0082</td>
</tr>
<tr>
<td>D(GDPPC)</td>
<td>0.000071</td>
<td>0.000026</td>
<td>2.710830</td>
<td>0.0079</td>
</tr>
<tr>
<td>D(GDPPC(-1))</td>
<td>-0.000043</td>
<td>0.000024</td>
<td>-1.793504</td>
<td>0.0758</td>
</tr>
<tr>
<td>D(POP)</td>
<td>-0.752351</td>
<td>0.490258</td>
<td>-1.534603</td>
<td>0.1279</td>
</tr>
<tr>
<td>D(Ind_judi)</td>
<td>0.827361</td>
<td>0.451685</td>
<td>1.831720</td>
<td>0.0699</td>
</tr>
<tr>
<td>D(free_speech)</td>
<td>0.053496</td>
<td>0.020035</td>
<td>2.670070</td>
<td>0.0088</td>
</tr>
<tr>
<td>D(free_speech(-1))</td>
<td>3.806772</td>
<td>1.441800</td>
<td>2.640291</td>
<td>0.0096</td>
</tr>
<tr>
<td>D(free_assoc)</td>
<td>0.012270</td>
<td>0.006407</td>
<td>1.915039</td>
<td>0.0583</td>
</tr>
<tr>
<td>CointEq(-1)</td>
<td>-2.534299</td>
<td>1.052750</td>
<td>-2.407314</td>
<td>0.0178</td>
</tr>
</tbody>
</table>

Source: Authors computation using Evies 9.0

Table 4 reports the results of short dynamics of institutional quality and multilateral aid relationship. The negative and statistically significant estimate of CointEq(-1) validates the established long-run relationship among the variables. The findings also indicate that the estimate of CointEq(-1) is -0.820480 and is statistically significant at 5 percent level. This implies that about 25 percent of the deviations from long run equilibrium are corrected in the next quarter period.

The results of the short-run analysis also indicate that most of the variables are statistically significant even though they were insignificant in the long-run. This indicates that institutional quality significantly affects multilateral aid in Nigeria only for the short-run period even though they do not have long-run statistically significant effect on multilateral aid.

### Table 5. Diagnostic Tests

<table>
<thead>
<tr>
<th>Test</th>
<th>F-statistic</th>
<th>Prob. Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>χ²Serial</td>
<td>0.700571</td>
<td>0.4987</td>
</tr>
<tr>
<td>Arch</td>
<td>3.324792</td>
<td>0.0003</td>
</tr>
<tr>
<td>Ramsey</td>
<td>3.154448</td>
<td>0.0021</td>
</tr>
</tbody>
</table>

Source: Authors computation using Evies 9.0

The post estimation (diagnostic) tests on the Table 5 also indicate that no problem of serial correlations was identified, as the null hypothesis of serial correlation is rejected. There is also no misspecification error. However, there is a problem of heteroskedasticity in the model which was corrected by presenting Heteroscedasticity and Autocorrelation (HAC) consistent standard errors. Also, the CUSUM figure presented on Figure 1 below explains that the model is stable at 5 percent level of significance.

### Figure 3. CUSUM test result

#### 5. Conclusions

From the results presented above, it has been observed that there exists a long-run relationship between multilateral aid and institutional variables in Nigeria. It could also be observed that the institutional variables do not statistically influence the multilateral aid for the long-run period as the variables are not statistically significant at 5% level of significance. However, only independence of judiciary has a significant influence at
5% level of significance. Also, from the results presented, the short-run results show that the institutional variables significantly influence multilateral aid in Nigeria. The results also indicated no evidence of serial correlation, misspecification error; but showed that the problem of heteroskedasticity exists in the model, but were corrected with Newey-West’s Heteroscedasticity and Autocorrelation (HAC) consistent standard errors. The implication of the findings is that the institutional quality variables do not affect multilateral aid in Nigeria, as assumed a priori. This means that the RN-DI model applied by [89] does not hold for Nigeria implying that there could be other factors affecting multilateral aid. It is therefore recommended donor agencies should consider other factors that may be at work against official development assistance (ODA) such as politics, location and colonial history.

Author Contributions

Ogochukwu and Uchenna had the responsibility of reviewing literature. Ezebuilo did the data analysis, discussions and edited the work.

Conflict of Interest

This study has no conflicting interest of any sort.

References


ies, 24(1), 11-32.


