

# **BILATERAL TRADE VERSUS INSTITUTIONAL QUALITY: ECOWAS STATES ANALYSIS**

*Professor Benedict Akanegbu, Ahmed Suleiman and Yusuf Isa\**

## **Abstract**

*This study investigates the impact of institutional quality on bilateral trade between ECOWAS countries and their trading partners. Using a gravity model of trade within an infinitely dynamic trade framework, we analyze the enforceability of agreements among the 55 ECOWAS states and their trading counterparts. The results reveal that trade freedom positively affects exporters and importers, while institutional quality in financial freedom has a detrimental impact on ECOWAS bilateral trade. We emphasize the importance of international development policies aimed at removing such obstacles to achieve optimal ECOWAS bilateral trade, which represents the first-best solution for maximizing ECOWAS states' potential.*

**Keywords:** ECOWAS Countries, Trade, Institutional Quality

**JEL Classification:** F16, F21

**ORCID:** <https://orcid.org/0000-0002-9328-6225>

## **1 Introduction**

International trade plays a crucial role in today's interconnected global economy in fostering economic development, reducing poverty, and enhancing overall prosperity (Zongo & Oyelami, 2021). According to the World Bank, all nations and principalities in the globe have participated in at least one Regional Trade Agreement (RTA), with an average of five per country or region, this suggests that there is a new economic integration scenario.

The emergence of neo-institutional economics has spawned an abundance of research focusing on the crucial role of institutional quality in driving sustainable and robust economic development, recognizing institutions as a set of rules that profoundly shape economic behaviors and exert significant influence on the path to sustainable development (Chen &

Jiang, 2021). Not only does the presence of robust institutional quality serve as a catalyst for economic growth, but it also plays a pivotal role in fostering an open global economy by attracting capital inflows, promoting balanced economic structures, and ensuring sustainable long-term growth, thereby highlighting its indispensability. High institutional quality serves as a cornerstone for sustainable development, particularly in an open economy, allowing countries to foster long-term growth, attract investments, and navigate the complexities of globalization more effectively, thereby solidifying its pivotal role in fostering sustainable and inclusive development.

Variations in institutional quality across ECOWAS countries have emerged as a key factor influencing bilateral trade dynamics and sustainable development, particularly due to their impact on investment risks and macroeconomic stability, highlighting the significance of these factors in shaping the economic landscape of the region (Rahmati et al., 2021). The 15-member West African economic community ECOWAS was founded in 1975. These countries trade extensively with regional and international partners, making it a good case study for bilateral trade factors. Amidst the limited research on the relationship between institutional quality and bilateral trade in ECOWAS member countries.

This study aims to fill the literature gap by employing a superior econometrics method, specifically the Poisson Pseudo Maximum Likelihood (PPML) estimation technique, to analyze the impact of FDI and institutional quality on bilateral trade development, providing valuable insights into the dynamics of trade within ECOWAS member countries. The study seeks to investigate the effect of institutional quality that is trade freedom and financial freedom on the trade patterns between the Economic Community of West African States (ECOWAS) and its trading partners.

The structure of the subsequent sections of this paper is as follows: Section 2 provides a comprehensive literature review; Section 3 presents the proposed hypotheses, model specifications, variable definitions, and statistical description of the sample data; Section 4 empirically analyzes the impact of institutional quality on trade; and Section 5 provides valuable insights and policy implications on the effects of institutional quality on trade in the ECOWAS region. This study undertakes two key analyses: first, it investigates whether the impact of Institutional Quality (IQ) on trade is amplified within economic integration

frameworks, shedding light on the complex relationship between FDI, IQ, and trade dynamics. Section 6 offers key insights and policy implications based on the study's findings, emphasizing the important role of FDI, institutional quality, and economic integration in shaping bilateral trade dynamics in the ECOWAS region, thereby providing valuable guidance for policymakers in fostering sustainable and inclusive economic growth through targeted policy interventions.

## **2 Literature Review**

### *2.1 Literature on Institutional Quality*

Prior studies on institutional quality have shed light on three key perspectives: the interplay between institutional quality and economic growth, the impact of institutional quality on income disparities, and the role of institutional quality in shaping mergers and acquisitions, highlighting the crucial role that institutional quality plays in promoting economic growth, reducing income disparities, and influencing corporate activities.

First, the emergence and evolution of institutional economics have provided substantial evidence linking institutional quality to economic growth, with numerous studies consistently confirming that countries with more advanced institutions tend to experience superior economic development. Strong institutional quality is widely recognized as a catalyst for fostering higher GDP growth rates, as it increases resource productivity, ensures the rule of law, and creates a thriving environment for economic activities (Gammadigbe, 2021). Nevertheless, The impact of institutional quality on economic growth is multifaceted and dependent on a number of contextual factors, including income levels, highlighting the nuanced nature of these effects and highlighting the need to consider a variety of contextual factors when examining the relationship between institutional quality and economic growth (Kunčič, 2014). Moreover, the relationship between economic development and institutional quality is characterized by bidirectional causation, as economic growth not only drives improvements in institutional quality, but is also influenced by it (Kühl Teles, 2007). Additionally, threshold models suggest that the factors influencing economic growth only become effective once a certain threshold level of institutional quality has been reached,

highlighting the critical role of institutional development in releasing the maximum potential for economic growth (Chen & Jiang, 2021).

Second, extensive research demonstrates that a link exists between higher institutional quality and a decline in income inequality (Masron & Nor, 2013). Empirical studies consistently show that improvements in various dimensions of institutional quality, such as combating illegal behavior, strengthening democratic accountability, and improving administrative quality, are associated with lower income inequality, with the presence of a threshold effect highlighting the critical importance of achieving a certain level of institutional quality to effectively address income disparities and promote a more equitable society (Kotschy & Sunde, 2017). Consistently, the findings indicate that the factors influencing income inequality have a significant effect only when a minimum threshold of institutional integrity is met (Aizenman & Noy, 2006).

Third, as to the impact of Institutional Quality Mergers and Acquisitions, Strong evidence from prior research confirms that weaker institutional quality in either the target country or the home country has a negative impact on the likelihood of successful mergers and acquisitions (Gammadigbe, 2021). While institutional quality is acknowledged as a significant factor in mergers and acquisitions, certain studies employing the gravity model suggest that the impact of institutional quality may be diminished when transactions occur between countries at similar stages of economic development, indicating that other factors may influence the success of M&A activities in such contexts (Aizenman & Noy, 2006).

## *2.2 Literature on ECOWAS*

The Economic Community of West African States (ECOWAS), founded in 1975, is a vital regional economic integration organisation committed to fostering cooperation, integration, and economic progress among its fifteen West African member states (Olaoye et al., 2020). Throughout its existence, ECOWAS has consistently advocated initiatives and policies aimed at enhancing regional trade and investment in West Africa, as seen by the development of a common market, the introduction of a common external tariff, and the active promotion

of intra-regional trade. The population of the ECOWAS region is expanding at a rate that is the fastest of any region on the planet (Bisong, 2019). According to the opinions of several experts, regional integration results in an expansion of markets and trade, an improvement in cooperation, a reduction in risk, and the promotion of sociocultural cooperation and regional stability. It has also been demonstrated that regional integration can maximize the benefits of globalization while mitigating its negative effects. Furthermore, regional integration can stimulate development in the nations that are the least developed by increasing their productive capacity and encouraging investments in infrastructure that has the greatest economic potential (Banik & Yoonus, 2012).

According to the West African Development Outlook (2021), the ECOWAS region's economic activity decreased by 0.7% in 2020, compared to a growth of 3.6% in 2019. This was a decrease from the previous year's growth of 3.6%. A testament to the fact that the overall sub-regional performance is largely driven by the Nigerian economy, which accounted for approximately 63 percent of regional GDP at end-2020 (Figure 6), compared to 65 percent in 2019: the ECOWAS economy expanded by 0.4 percent in 2020, compared to 2.0 percent in 2019. However, Due to persistent insecurity and terrorism, the ECOWAS nations have encountered significant difficulties in attracting Foreign Direct Investment (FDI) and attaining high Institutional Quality (IQ), impeding the region's economic development and integration efforts (Li et al., 2020a).

Previous studies have consistently highlighted the critical significance of a robust regional trade agreement within ECOWAS, recognising it as a necessary step to overcome economic challenges, promote regional integration, and unlock the region's unrealized trade and economic growth potential. Extensive research provides compelling evidence of the

relationship between Foreign Direct Investment (FDI), Institutional Quality (IQ), and bilateral trade, highlighting the significance of the links and the role that FDI and IQ play in facilitating and shaping the dynamics of international trade (Ajide & Raheem, 2016). The combination of positive Foreign Direct Investment (FDI) inflows and robust Institutional Quality (IQ) not only serves as a catalyst for increased trade, but also has the potential to drive the growth and advancement of the ECOWAS regional union, thereby fostering economic integration, stability, and prosperity among member nations (Sane, 2016). Additionally, extensive research provides compelling evidence that a decline in institutional quality and trade in either the target country or the host country has a negative impact on the ECOWAS regional union (De Groot et al., 2004).

### *2.3 Literature on the Relationship between Institutional Quality and trade*

First, on the relationship between Institutional quality and bilateral trade, a comprehensive study has demonstrated that bilateral trade is positively influenced by institutional quality (Chen & Jiang, 2021). Several studies have found a positive correlation between institutional quality and trade, including Berisha-Krasniqi and Mustafa (2021), who found that better institutions lead to increased trade flows in the Western Balkans. Camarero et al. (2019) also found that institutional quality is a crucial factor in the success of trade agreements between countries. Generally, economic institutions have the most significant impact on a society's economic performance. Therefore, it is crucial to understand how institutions are determined and the factors that affect their quality. Research conducted by La Porta et al. (1999) revealed that poor countries are located near the equator and have weak institutions. Similarly, Acemoglu et al. (2001) asserted that the diversity in institutional quality between nations is due to their colonial past. Furthermore, researchers have examined the specific channels

through which institutional quality affects international trade. For example, Beck and Laeven (2006) argue that better institutions, such as stronger property rights, reduce transaction costs and increase the efficiency of the legal system, which can increase international trade. On the other hand, weak institutions can lead to corruption, uncertainty, and increased risk, which can discourage international trade (Wei, 2000).

From the perspective of regional trade agreement, regional unions are an integral aspect of international trade development, especially in the contemporary global economic landscape. The European Union's regional integration has been found to promote trade and economic growth in member states, as demonstrated by the research of Ojah and Abereijo (2016) and Hossain et al. (2020). Several studies have shown that regional unions can have a significant positive impact on trade development.

For instance, the European Union, the largest regional union in the world, has contributed to significant trade development among its member countries. This union has led to the free movement of goods and services, capital, and people, enhancing trade relations among member countries (Sapir et al., 2004). According to Baldwin and Jaimovich (2012), regional unions can lead to trade diversion, where non-member countries are excluded from trade agreements among member countries. In such cases, non-member countries may be forced to look for alternative markets, reducing trade flows between non-member countries and regional unions. Similarly, a study by Kim and Lee (2021) investigated the effect of regional trade agreements on economic growth and found that these agreements have a positive impact on growth, particularly for small and medium-sized enterprises.

However, the success of these agreements depends on a range of factors, including institutional quality, political stability, and the level of economic development in the participating countries.

#### *2.4 Literature Gap*

Despite the growing number of studies on the influence of institutional quality on economic growth in ECOWAS member nations, little is known about the relationship between bilateral trade and institutional quality in this region. The diverse viewpoints on the link between the variables using a different econometrics model indicate a literature gap, allowing us to pique interest in learning more about the impact of institutional quality on bilateral trade where there have been few studies. This research aims to fill that hole. This study employs a typical gravity model approach and consider FDI as a trade deciding factor. In this work, the Poisson Pseudo Maximum Likelihood (PPML) estimation technique is applied. This method is thought to be reliable, repeatable, and capable of detecting zero deals (Silva & Tenreyro, 2011). As a result, the research adds to the existing literature by examining the fifteen (15) Economic Community of West African States and its trading partners while utilizing recent data and the influence of significant influencing variables in multivariate form (ECOWAS).

### **3 Methodology and Data**

#### *3.1 Hypothesis*

Extensive research supports the notion that favourable levels of institutional quality are essential for promoting trade, as an efficient administrative infrastructure and high productivity are crucial for attracting sustainable foreign investment. Inadequate levels of institutional quality, characterised by weak administrative institutions, result in additional



costs when investing in foreign countries due to political risks and corruption, thereby impeding trade (Li et al., 2020b). Thus, this study puts forward the following hypothesis;

**Hypothesis 01 (H01).** There is no significant effect of Institutional quality on ECOWAS bilateral trade.

RTAs are intended to create a more integrated and efficient regional economy by fostering greater trade, investment, and economic cooperation between member states. As such, Institutional quality is a crucial component for developed countries and those that are still in the process of economic development. Institutional quality might exacerbate balance of payments issues and allow for market exploitation, which would reduce the host nation's ability to manage its economy (Jawaid, Raza, Mustafa, & Karim, 2016). Thus, this study proposes the following hypothesis.

**Hypothesis 02 (H02).** The effect of Institutional quality on ECOWAS bilateral trade is more relevant as an importer.

### 3.2 *Model Specifications and Variables*

To realise the intent of this research, it becomes imperative to augment the traditional gravity model by providing a theoretical model which will accommodate amongst other trade costs, the role of alliances in bilateral trade.

In augmenting the trade model, variables of interest will therefore be integrated as trade cost. These will be categorised into three different components; the geographical variables (G) and Institutional Quality (Q). Trade cost estimated in average bilateral trade barriers' function is represented by equation 2.17 below;

$$\tau_{ijt} = dist_{ij}e^{\beta_1 G_{ij} + \beta_2 H_{ijt} + \beta_3 Q_{ijt} + \mu_{ijt}} \quad (3.1)$$

Where  $dist_{ij}$  represent distance between pair of trading partners,  $G_{ij}$  is a vector that includes geographical variables which have often been efficaciously used in most, if not all gravity analyses which includes contiguity, common language, colony, common colony. While  $Q_{ijt}$  stands for a vector of Institutional Quality which will be captured as dummy and  $\mu_{ijt}$  is the white error term assumed to be normally distribution.

$$\ln M_{ijt} = \alpha_0 + \varphi_1 \cdot Y_{it} + \varphi_2 \cdot Y_{jt} + \varphi_3 \cdot Y_t^W + \beta_1 \cdot \ln dist_{ij} + \beta_2 \cdot G_{ij} + \beta_3 \cdot Q_{ijt} + \beta_4 \cdot \ln(\pi_{it}) + \beta_5 \cdot \ln(P_{jt}) + \mu_{ijt} \quad (3.2)$$

This research will adopt the exporter, importer and year fixed effect in its estimation rather than using the full information to estimate the multilateral resistance to trade (Anderson and van Wincoop, 2003). According to Mu (2013), Palmer (2016) and Azu (2017) these fixed effects will engross the outward and inward multilateral resistance effects, exporter's national income, importer's national income and the world's income for the same year (Mu, 2013). Including these fixed effects into equation, the general equation to be estimated are as follows:

$$\ln M_{ijt} = \alpha + \gamma_t + \lambda_{ij} + \phi_{ji} + \beta_1 \ln Y_{it} + \beta_2 Y_{jt} + \beta_3 \ln Dist_{ij} + \beta_4 Contig_{ij} + \beta_5 Comcol_{ij} + \beta_6 Colony_{ij} + \beta_7 Comlang - off_{ij} + \beta_8 SIM_{ijt} + \beta_9 REF_{ijt} + \beta_{10} \ln TF_{it} + \beta_{11} \ln TF_{jt} + \beta_{12} \ln FF_{it} + \beta_{13} \ln FF_{jt} + \mu_{ijt} + \eta_{ijt} \quad (3.3)$$

Where:

$M_{ijt}$  Stands for the nominal value of import from country (i) to country (j),

$Y_{it}$  Represent nominal GDP of the exporting country (i),

$Y_{jt}$  Represent the importing countries' (j) nominal GDP,

$Dist_{ijt}$  Stands for distance between importing country (j) and exporting country (i),

$Contig_{ij}$  Is a dummy variable which takes the value of 1 if country i and j shares a common border and 0 otherwise

$Comlang\_off_{ij}$  Is a dummy which takes the value of 1 if both importing and exporting countries speak the same official language and 0 otherwise,

$Comcol_{ij}$  Is a dummy which takes the value of 1 if exporting country was a colony of the importing countries or vice versa, and 0 otherwise,

$Colony_{ij}$  Is a dummy which takes the value of 1 if both exporting and importing countries were colonised by the same country and 0 otherwise,

$SIM_{ijt}$  is the similarity index which was obtained using the following formula;

$$SIM_{ijt} = \ln \left\{ 1 - \left[ \frac{\ln(Y_i)}{\ln(Y_i+Y_j)} \right]^2 - \left[ \frac{\ln(Y_j)}{\ln(Y_i+Y_j)} \right]^2 \right\} \quad (3.4)$$

$TF_{jt}$  Refers to trade freedom and will take the value of 1 if a country becomes a member and 0 otherwise.

$FF_{jt}$  Stands for Financial freedom and will take the value of 1 if a country becomes a member and 0 otherwise.

$\alpha$  Constant variable

$\gamma_t$  Year Fixed Effects

$\lambda_{ji}$  Importer Fixed Effects

$\phi_{ij}$  Exporter Fixed Effects

$\mu_{ijt}$  White noise error term of the general equation

$\eta_{ijt}$  White noise error term of the selected equation

### 3.3 Data Description and Sources

In order to achieve the purpose of this research, this thesis make use of secondary data covering a period of 27 years (1995-2021). The researcher considers forty (55) countries, to analyse the effect of institutional quality on bilateral trade.

In sourcing for data, the International Monetary Fund, Direction of Trade Statistics (IMF-DoTS) is mostly be utilised to access trade data as deemed necessary. The UNCTAD database is relied on to access country data on economic size (GDP) and data relating to geographical distance between trading partners and other geographic and institutional variables relating to trade costs were sourced from the CEPII database and Heritage organisation.

**Table 1: Variable descriptions and sources**

<b>Variables</b>	<b>Description</b>	<b>Sources</b>
(BT) $i-j$	Bilateral trade flows (imports + exports) from host country- $i$ to home country- $j$ .	(IMF-DoTS)
(DST)	The distance between the host ( $i$ ) and home ( $j$ ) countries capitals	CEPII
(COL)	Countries have been belonged to the same administrative colonial area	CEPII

(TF) Stands for trade freedom and will take the Heritage organization value of 1 if a country becomes a member and 0 otherwise.

(FF) Stands for Financial freedom and will take Heritage organization the value of 1 if a country becomes a member and 0 otherwise.

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Source: Author Compilation

**Table 2.** the 55 Countries used in the Sample.

<b>ECOWAS</b>	<b>AFRICA (Country Name)</b>	<b>EUROPE (Country Name)</b>	<b>AMERICANS (Both South &amp; North)</b>	<b>ASIAN (Country Name)</b>
Nigeria	Chad	United Kingdom	Argentina	India
Niger	Egypt	France	United States of American	Malaysia
Benin	Cameroon	Germany	Uruguay	Thailand
Ghana	Kenya	Netherlands	Mexico	United Arab Emirate
Mali	South Africa	Turkey	Brazil	Singapore
Senegal	Mauritania	Spain	Venezuela	Philippines
Sierra Leone	Botswana	Portugal	Canada	Saudi Arabia
Guinea Bissau	DR Congo	Belgium	Chile	Indonesia
Guinea	Rwanda	Sweden	Colombia	China
Gambia	Libya	Cyprus	Paraguay	Japan
Liberia				
Burkina Faso				
Cote'd'Ivoire				
Cape Verde				
Togo				

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Source: Author Compilation

Table 3. reports the summary statistics and. Table 3 displays the Summary Statistic (in Panel A). First, the descriptive statistics are reported in panel A of Table 3 for trade both for exporting and importing countries ( $Trade_{ijt}$ ), Gross domestic product for exporting countries ( $lnY_i$ ), Gross domestic product for importing countries ( $lnY_j$ ), Distance between both exporting and importing countries ( $lnDist_{ij}$ ), Contiguity between both exporting and importing countries ( $Contig_{ij}$ ), Common official language between both exporting and importing countries ( $Comlang\_Off_{ij}$ ), Common colony between both exporting and importing countries ( $Comcol_{ij}$ ), Colony between both exporting and importing countries ( $Colony_{ij}$ ), Trade freedom of the exporting countries ( $TF_{it}$ ), Financial freedom of the exporting countries ( $FF_{it}$ ), Trade freedom of the importing countries ( $TF_{jt}$ ), Financial freedom of the importing countries ( $FF_{jt}$ ), Regional trade agreement between both exporting and importing countries ( $RTA_{ijt}$ ), and Similarities between both exporting and importing countries ( $SIM_{ijt}$ ), between ECOWAS and its trading partners for the period of 1995-2021. The summary statistics revealed that the data set in the panel is balanced. The total is expected to be 80,191 data points.

**Table 3. Summary Statistics**

Variable	Obs	Mean	Std. Dev.	Min	Max
$Trade_{ijt}$	69,181	0.0024723	0.0143132	1.00E-12	0.5395035
$lnY_i$	78,597	25.13787	2.52219	19.14561	30.76635
$lnY_j$	79,488	25.10632	2.52444	19.14561	30.76635
$lnDist_{ij}$	121,981	8.687688	0.8097382	-0.004875	9.892497

<i>Contig<sub>ij</sub></i>	124,206	0.0283561	0.1659888	0	1
<i>Comlang_Off<sub>ij</sub></i>	124,206	0.1849347	0.3882462	0	1
<i>Comcol<sub>ij</sub></i>	124,206	0.0943272	0.2922845	0	1
<i>Colony<sub>ij</sub></i>	124,206	0.0244433	0.1544214	0	1
<i>TF<sub>it</sub></i>	76,333	69.31933	14.28709	0	95
<i>FF<sub>it</sub></i>	76,225	51.18439	18.11591	10	90
<i>TF<sub>jt</sub></i>	77,220	69.1793	14.32971	0	95
<i>FF<sub>jt</sub></i>	77,112	51.18347	18.05892	10	90
<i>RTA<sub>ijt</sub></i>	127,987	0.2856384	0.4517197	0	1
<i>SIM<sub>ijt</sub></i>	77,910	-0.9271488	1.974527	-9.996964	0.6931244

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Source: Author's Computation using stata 14, 2022

## 4 Results and Discussion

### 4.1.1 An Analysis of the Effect of Institutional Quality on Trade

Institutional quality is the costs captured in the analysis. The essence is to establish the hypotheses of this research. To achieve this, institutional quality was captured in two standpoints: financial freedom and trade freedom. From table 4.1, the outcome revealed that the effect of trade freedom as an exporter is positive and statistically significant at one per cent. The estimated coefficient is reportedly 0.0121 which implies that as trade freedom improves by one per cent, bilateral trade improves by 1.21 per cent, all things being equal. This result is an estimation of PPML, which is also consistent with the Pooled OLS estimation which a robust check. The pooled OLS estimation revealed a coefficient of 0.0111

which is statistically significant at one per cent. However, the magnitude of coefficient is lesser than that of PPML estimate. But the outcome remains consistent and robust which what matters most. In this regard, the hypothesis  $H_{01}$ : There is no significant effect of Institutional quality on bilateral trade is hereby rejected. There is positive effect of institutional quality in the form of trade freedom as an exporter.

Recent literature has also supported the positive impact of institutional quality on bilateral trade. For example, a study by Lee and Park (2021) found indicates that the region's output growth is positively and significantly improved by an improvement in institutional quality. Similarly, Tarek and Abdouli (2021) showed that institutional quality, measured by political stability, government effectiveness, and rule of law, has a positive and significant effect on bilateral trade in the MENA region. These findings are consistent with those of Acemoglu et al. (2014), Afolabi, Abu Bakar, and Azman (2015; 2016), and Rodrik (2000), who argue that institutional quality is a crucial factor in facilitating bilateral trade.

In another dimension, institutional quality in the area of financial freedom is said to have a detrimental impact on bilateral trade in West Africa, however the effect is not statistically significant. Specifically, the results showed that the estimated coefficient for the exporter is -0.000328, which was not statistically significant, while the estimated coefficient for the importer is -0.00320, which was statistically significant. The outcome for the exporter revealed an estimated coefficient of -0.000328, which was not statistically significant, whereas the outcome for the importer revealed an estimated coefficient of -0.00320, which was statistically significant.

Recent literature has shown similar findings, where institutional quality does not significantly impact bilateral trade. For instance, Afolabi, Abu Bakar, and Azman (2015;2016) found that



institutional quality has no significant impact on bilateral trade. Additionally, Aziz (2018), Lei and Kim (2021), Layla et al. (2020), and Adegboye (2020) also support the idea that institutional quality does not matter in bilateral trade. This finding is consistent with the findings of (Afolabi, Abu Bakar and Azman, 2015;2016), Aziz (2018), Lei and Kim (2021), Layla et al (2020), and Adegboye (2020), who all believe that institutional quality does not matter in bilateral trade.

**Table 4.1 Impact of Institutional Quality on Bilateral Trade in ECOWAS**

VARIABLES	PPML	POOLED OLS
$\ln Y_i$	0.553*** (0.0327)	0.859*** (0.0343)
$\ln Y_j$	0.401*** (0.0391)	0.435*** (0.0342)
$\ln Dist_{ij}$	-0.726*** (0.0112)	-1.125*** (0.0164)
$Cont_{ij}$	0.420*** (0.0284)	0.750*** (0.0481)
$Comlang\_Off_{ij}$	0.240*** (0.0210)	0.500*** (0.0264)
$Comcol_{ij}$	0.374*** (0.0650)	0.915*** (0.0368)
$Colony_{ij}$	-0.255*** (0.0257)	0.964*** (0.0460)
$TF_{it}$	0.0121*** (0.00149)	0.0111*** (0.00120)
$FF_{it}$	-0.000328 (0.000908)	0.000336 (0.000904)

$FDI_{it}$	0.405*** (0.0708)	0.514*** (0.0907)
$TF_{jt}$	0.0132*** (0.00173)	0.00752*** (0.00120)
$RTA_{ijt}$	-1.105*** -0.091	-1.504*** (0.0497)
$SIM_{ijt}$	0.0138 (0.0213)	-0.0838*** (0.0132)
Constant	-28.20*** (1.088)	-20.74*** (1.246)
Observations	58,752	58,752
R-squared	0.916	0.796
Country FE	YES	YES
Year FE	YES	YES

Robust standard errors in parentheses; \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

Having initially explained the main components of the paper as captured in the model, it will be pertinent to reflect on the result now briefly as pertaining to related gravity variables used. Estimation revealed that all gravity equation related variables were consistent with the development of literature. Though technological advancement have attempted to reduce transportation cost with the introduction of mega-liner container ships capable of carrying over twenty thousand of twenty feet container per voyage, coupled with various efforts to ease loading and offloading time at the port of origin and that of destination respectively and the general impact of globalisation, it still does not seem to have much impact on distance given that the coefficients were consistently negative, not only in this research but also in many other researches which adopted gravity model.

## 5 Conclusion

This paper investigated the impact of institutional quality on ECOWAS trading bloc in general. The research work has proved that despite the fact that a number of different plans and reforms have been put into place, there is still potential for improvement. The reduction in number of qualities of institution in ECOWAS country could deter the progress of international trade. In this research, the gravity model was augmented to accommodate the variables in contention and some interesting revelation was paramount. With PPML technique, we controlled for multilateral resistances and unobserved endogeneity by applying relevant fixed effects.

The positive impact of institutional quality on bilateral trade, particularly in terms of trade freedom, is also statistically significant. This suggests that institutional reforms aimed at improving trade freedom could go a long way in boosting bilateral trade in the region. However, the research also revealed that institutional quality, specifically in the aspect of financial freedom, has a negative effect on bilateral trade in West Africa, although not statistically significant. This highlights the need for policymakers to address the challenges facing the financial sector in the region, as it could potentially hinder trade development.

It is vital to ensure that institutions are transparent, efficient, and accountable, thereby reducing corruption and promoting a favorable business environment. By improving the quality of institutions, ECOWAS can promote investment and trade growth in the region, leading to increased economic development and prosperity. As such, future trade deals must be pro-development and pro-industrialization, with a greater emphasis on the creation of value-added products and the promotion of domestic industries. ECOWAS must strengthen its partnership with other regional bodies, such as the African Union and the European Union, in order to achieve greater regional integration and promote intra-regional trade. The African

Continental Free Trade Area (AfCFTA) is a critical opportunity for ECOWAS to reinvent its mandate and protocols. The bloc must take advantage of this opportunity by addressing chokepoints that impede the free movement of persons, goods, and human capital across the region. Considering ECOWAS trade patterns that is to estimate bilateral trade patterns of ECOWAS States in a CES framework and identify the elasticity of substitution across goods, remains as a future research topic.

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