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INSTITUTIONAL QUALITY AND ECONOMIC RESILIENCE: PANACEA FOR POTENTIAL LONG-TERM ECONOMIC GROWTH IN WEST AFRICA.

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ABSTRACT

High and sustained economic growth can be achieved through strong institutions and the development of resilient economies. This exploratory study used data from World Development and Governance Indicators to attempt the construction of a macroeconomic stability index and economic resilience index for West African countries following the work of Briguglio et al (2009). It further used the indices constructed to examine the effect of resilience on growth and the modifying effect of institutional quality in this relationship. It found that from the index developed, there was a low level of resilience among West African countries with the highest at 46.4%. Institutional quality was found to positively and significantly influence the effect of resilience on economic growth in countries within the region and thus recommends strengthening the institutional framework for countries in the region through the ECOWAS community strategy. Also being armed with the knowledge of each member states' economic resilience level will help set the agenda for investment decisions that will engender economic prosperity.

Keywords: Resilience, Institutional quality, Economic Growth
JEL Classification: Q20, Q56, C6

1.0 Introduction

Significant advantages of globalization and economic integration include increased variety and accessibility of goods and services, lower trade costs, higher levels of productivity, the dissemination of new technologies, and a decline in global poverty. Nevertheless, in such globally integrated economies, shocks—whether exogenous or endogenous can be quickly converted into downturns by a web of institutions, systems, and industries. These downturns expose the economy to dangers that put its resilience to the test. These risk factors include, among others, the COVID-19 epidemic, internal conflicts, and the global financial crisis for the economies of West African

nations. With anticipated growth of 4.1 percent in 2023 and 4.3 percent in 2024, the West Africa sub-economic region's growth decreased from 4.4 percent in 2021 to 3.6 percent in 2022. (AfDB, 2023). All of the other nations in the region saw a slowdown in 2022, with the exception of Niger, Gambia, Guinea, and Togo. Severe macroeconomic issues facing the sub-region were exposed by the economic outlook in the region's more diversified and leading economies. For instance, macroeconomic imbalances in Ghana led to a decline in growth to 3.6% in 2022 from 5.4% the year before as a result of rising inflation, a weakening local currency, and excessive public debt, estimated at 91% of GDP. In Nigeria, hefty gasoline subsidies, inflation that is close to 20-year highs, and shortages of foreign currency caused the national currency to depreciate quickly, further reducing the purchasing power of the populace. The uncertainty surrounding the continuation of current policy in the wake of the general elections in 2023, coupled with an increase in insecurity, has lowered investor confidence, which in turn has limited investment and harmed the country's growth potential. The increased uncertainties among these nations, which is the outcome of global events, is the pre-occupation of development agencies and governments, taking the centre stage in the economic discourse.

Uncertainties manifests in economic, environmental, security, climate, financial, food and fuel prices, and has become a serious challenge to achieving global economic growth. The challenge has been most excruciating with developing countries exhibiting high levels of vulnerability and instability especially as an aftermath of the COVID-19 pandemic with its attendant disruptions in economic activities, fluctuating commodity prices and waning support for multilateralism which have exacerbated the long-term risks posed by climate change and unequal participation in global production networks. Developing countries have also experienced vulnerabilities which are compounded by new and emerging challenges.

Resilience emanated from the confines of the ecological sciences and has attracted the attention of economists focusing on how economies respond to shocks (UNCTAD 2018) Briguglio, Cordina, Farrugia and Vella (2009)

noted that the term resilience had been used in at least three senses: the ability to recover from a shock quickly; the ability to avoid the shock algorithm and the ability to withstand the effect of the shock. Accordingly, resilience is the capacity of an economy to, at the very least, sustain its pre-existing level of growth following an external shock, return to it, or entirely alter its structure to achieve its pre-existing level of growth (Dropniak, 2012).

Developing nations, particularly those in the SSA sub-region, are more susceptible to shocks because of their less diverse export markets, heavy reliance on primary goods, elevated rates of poverty, shoddy institutions, inequality, and unemployment. UNCTAD, 2018). A high level of growth can be achieved through strong institutions and the development of resilient economies. According to UNCTAD (2018), many SSA countries considered fragile in the 1990s. are gearing up for development through a concerted effort at strengthening the ability of institutions to deliver on their mandate. Acemoglu and Robinson (2008) believe that disparities in economic institutions are the main causes of disparities in economic performance across the globe. Therefore, keeping higher-quality institutions allows for increased efficiency, which drives economic growth. But while the institutional frameworks of developed nations allow for increased employment prospects, improved productivity, and a positive balance of payments—all of which lead to a higher standard of living—developing nations continue to struggle to establish high-quality institutions. (Iyoboyi et al., 2016). The performance of the economies of West African countries has been impeded by bad governance, institutionalized corruption which hinders services delivery by public office holders, and low production with dependence on importation. While quality institutions reduce the influence of external shocks on economic performance, the reverse occurs when institutions are weak and barely functional.

Attempts have been made by the West African countries to revamp their economies. By lowering regional trade obstacles such as restrictions on commodities crossing borders, ineffective transportation routes, and limited access to power, the Economic

Community of West African States (ECOWAS) promotes economic progress and the eradication of poverty. Moreover, it attempts to harmonize the border and trade policies of all members. Also, the ECOWAS Community Strategy Framework was approved by member nations to accelerate regional integration and bolster peace, security, and stability in our area. These efforts have yielded abysmal results despite the plentiful human and natural resources This is not unconnected with the poor institutional quality and exposure to external shocks by sub-regional countries. The effort of the governments to transform their economies will not materialize unless the issues of institutional quality and building resilience are addressed. Therefore, this study examined the relationship among institutional quality, resilience and economic growth in 15 West African countries. It attempted to develop a macroeconomic stability as well as economic resilience indices using the macroeconomic and social development variables following Briguglio, Cordina, Farrugia and Vella (2009). Thereafter, the effect of resilience on economic growth and the modifying effect of institutional quality was investigated for West Africa. The rest of the paper is divided into four sections including literature review and methodology in sections two and three, and results and conclusion in parts four and five.

2.0 Literature review

2.1 Economic resilience and institutional quality nexus

When an exogenous component changes unexpectedly and impacts endogenous economic variables, external shocks happen. Because of this, economies that depend more heavily than others on foreign markets and resources are more vulnerable to external shocks. Policymakers frequently blame external shocks for the unpredictability of economic performance in developing nations. It is true that some common structural characteristics make the importance of external shocks understandable, but this does not mean that external shocks are the only cause of West African countries' weakness and sluggish growth.

Internal shocks emanating from corruption, political irresponsibility, and other forms of social vices are potential

sources of slow and unstable growth in West Africa. Hence, there is need for the development of healthy and good institutions that can fight against corruption and help the countries in West Africa develop resilient economies to absorb shocks. The capacity to deal with, control, and adjust to stress or trauma is a key component of resilience. An individual's wealth and assets, their lifestyle, and their surroundings all influence their capacity for adaptation and overcome adversity. A person's experience of resilience might change throughout their life. The ability to tolerate stress and avoid developing psychopathological problems is referred to as resilience. Resilience is the capacity to withstand stress and continue operating in the face of hardships, or the capacity to recover or move past negative experiences.

Wial and Wolman (2008) defined resilience as a region's ability to recover economically from shocks that either derail or have the potential to derail an economy's growth path. Angeon and Bates (2015) defined resilience as an economy's ability to minimise welfare losses and reinforce its development potential.

According to a developmental perspective, resilience did not just appear in reaction to certain setbacks or shocks; rather, it evolved over time because of persistently managing risks, strains, pressures, and other unfavourable situations. Voigt, 2003).

There are two schools of thought about the definition of organisational resilience. According to the first perspective, which is like the concept of resilience in the physical sciences, organisational resilience is only the capacity to bounce back from adversity, stress, and unforeseen circumstances (Cameron et al., 2006; Sutcliffe et al., 2003). The acquisition of new skills and a greater capacity to generate and seize opportunities are included in the second perspective on resilience (Freeman et al., 2004; Layne, 2001).

The second viewpoint involves developing new skills that are essential for creating a prosperous future, rather than just bouncing back (Layne, 2001; Lengnick-Hall et al., 2011). Resilience in economics has traditionally been seen from a regional viewpoint (Martin and Sunley, 2015).

In this kind of situation, the negative shock can take the form of, say, the

closure of a significant regional employer or the reallocation of an entire industry, and the resilience of the system can be assessed in terms of how it affects employment and income levels. Since it is impossible to completely prevent external shocks, an economy's resilience has been recognised as a critical capability in a world that is changing quickly, making enhanced resilience a primary goal of policy. According to Briguglio et al. (2009), macroeconomic resilience is a country's capacity to tolerate shocks and bounce back swiftly towards potential growth.

It is described in terms of output dynamics. Nations will be less likely to deviate significantly from their true path of convergence if they increase the resilience of their economies. To enhance resilience, three steps need to be taken: lowering the economies' vulnerability to shocks, increasing their capacity to absorb shocks, and improving their ability to reallocate resources and recover from shocks.

Most sub-Saharan African countries have shown relatively low levels of economic growth, significant vulnerability to exogenous shocks, and a noticeable lack of economic, social, and environmental resilience in the face of these shocks, largely because of weak institutions. Some developing countries, particularly in the Asian region, have achieved substantial and sustained growth, shown resilience to exogenous shocks, and the capacity to resume trend levels of economic growth relatively soon after these shocks.

Iyoboyi and Pedro (2014) corroborate this opinion. blamed the existence of weak institutions for the poor policy implementation in African nations. While weak institutions can exacerbate the threat of external shocks to an economy's performance, a well-functioning institutional structure can mitigate their negative effects. In contemporary global economies, institutional quality has emerged as a key means of achieving and maintaining economic growth and development. First, we examine the various definitions of institutions to determine the impact of high-quality institutions on economic growth. North (1990) and Rodrik (1997) define institutions as integrated social systems or rules that support frameworks for social, political, and economic interaction while lowering economic

uncertainty and minimising economic risk.

2.2 Institutional quality, resilience, and Economic growth

Economic growth, productivity, sustainability, and overall macroeconomic stability are all dependent on institutional quality components like the ability to control corruption, the effectiveness of the government, law and order, political stability, voice and accountability, and regulatory quality (Hall and Jones 1999; Mo 2001; Abed and Gupta 2002; Lambsdorff 2003; Aidt 2011). According to Asghar, Qureshi, and Nadeem (2015), weak institutions may have a detrimental impact on effective policymaking, inefficient resource allocation, and subpar law enforcement. This could damage the economy and harm the prospects for economic development.

The development of an effective institutional and legal framework for promoting growth and easing economic transitions and social changes has increasingly come to be unanimously acknowledged in the economic literature. This new orientation pinpointing the causal nexus between institutional framework and economic growth is highlighted in the World Development Report 2002 "Building Institutions for Markets" which focused on which institutions are essential to increase market development. For example, Acemoglu and Robinson (2010) discovered that the quality of institutions may be the reason for the difference in economic growth patterns of SSA countries. Using Nigeria and Botswana for instance, they believe that the growth trajectories of these countries are apart due to the quality of institutions in these countries (Fosu *et al.,* 2019). According to Ndulu et al (2008), research evidence has shown that whereas weak institutions caused the SSA countries' economic growth to stagnate in the 1980s, improved institutional performance led to robust economic performance in the 1990s.

Improved institutional quality is crucial in fostering an atmosphere that supports African economic growth, claims Thorbecke (2013). For instance, Botswana has prospered economically as a result of its successful adoption of sound economic policies. This contrasts with nations like Sierra Leone, the Democratic Republic of Congo, and

Central Africa Republic, where civil wars have a detrimental effect on their ability to prosper economically (Acemoglu et al., 2002).

Political systems that encourage broad-based participation and are not command in nature according to Rodrik (2000), allow for inclusive growth because they are more shock-resistant, allow for greater predictability and stability, and produce better distributional outcomes. Growth is negatively impacted by political instability. Also, upheavals due to politics are linked to capital losses because they can decrease the availability of production factors, and then raises the risk of investments. Political instability also carries risks and uncertainties, discouraging foreign direct investment and instead encouraging capital flight (Fosu,1992),

Chong and Calderon (2000) conducted an empirical study covering 55 nations and examining the relationship between output and institutional quality. Infrastructure quality, nationalization potential, contract enforceability, and bureaucratic slowness were stand-ins for institutional quality. The results demonstrated the existence of reverse causation between institutional quality and economic growth. While there is evidence from several empirical studies that institutional quality affects macroeconomic stability and potential growth, it is not always easy to establish causality in these situations. According to reports, for instance, there is a reverse causation, which implies that institutional improvement results from expansion and the accumulation of human capital rather than the other way round. (Glaeser et al., 2005; Acemoglu, 2005).

According to the OECD (2013), although there is a clear association between perceived corruption and output level, it is challenging to evaluate this relationship since corruption might make up for regulatory system flaws that impede economic growth. A parallel study that used panel data for the years 1990–2013 to examine the relationship between institutional quality and economic growth in developing Asian economies found that institutional quality had a favourable effect on growth. In this study, institutional quality was the cause of economic growth. Numerous other studies have also demonstrated that one of the main contributors to economic growth in

developing nations is the standard of the institutional environment. (Constantos, Persefoni, and Hashim, 2014; Nabila, Shazia, and Muhammad, 2015)

Klomp and Haan (2009) used a variety of political administration measures, such as political stability, regime types, and policy uncertainty, to investigate the relationship between institutions and economic growth volatility for 116 nations from 1960 to 2005. Le (2008) examined the relationship between institutions, remittances, trade, and economic growth from 1970 to 2005 for 67 developing economies. The study used a specific to general approach and discovered that uncertainty and instability, democratic regimes, and economic growth volatility are negatively related to each other. The study concludes, using a variety of estimation approaches, that higher institutional quality raises economic growth over the long and short terms.

Ulubasoglu and Doucouliagos (2004) used a simultaneous model for econometric analysis for two proxies of institutional quality, one for political freedom and the other for economic freedom, to investigate the relationship between institutions and economic performance for a sample of 119 nations. They discover that political independence positively affects physical capital, total factor productivity (TFP), human capital, and all three.

A study by Aidt et al. (2008) looked at the relationship between a country's income growth and its governance system using a sample of 71 countries. Every nation included in the sample came from one of the five continents. The study computed parameter estimations using GMM. The results demonstrated that corruption has a regime-specific effect on output. Evidence also shown that in nations with high-quality political institutions, corruption slows the rise of output. Comeau (2003) investigated the possibility of a substantial link between democracy and economic growth. 82 nations were included in the author's sample between 1970 and 1980. The estimations were obtained by the study using the OLS estimation approach. According to the study, democracy has a major and favourable influence on economic growth. The outcome confirmed the nonlinear relationship between democracy and economic expansion.

In a 2003 study, Dollar and Kraay looked at how institutions and commerce affected the income development of 168 nations between 1970 and 1980, employing the OLS method of estimation. The outcome demonstrated that commerce and institutions had a major influence on income growth. This paper's use of OLS for panel data estimation is one of its main weaknesses. If there is a correlation between the explanatory factors and the unobserved traits, OLS is considered inconsistent.

Glaeser et al. (2004) studied how institutions affected output in 77 studied nations. To estimate the parameters for the years 1960–2000, the author used OLS. The findings indicated that human capital has a major influence on economic expansion. The study did discover, however, that institutional quality has no appreciable impact on economic growth. Bräutigam and Knack (2004) examined thirty-two SSA nations to determine whether foreign aid and institutions affect economic growth. Subjective indicators were used to gauge the level of governance, and the author used OLS and 2SL. The findings showed that while political unrest causes governance to decline, improvements in GDP per capita improve governance.

Gwartney et al. (2004) conducted an empirical investigation on the relationship between income and institutional quality and economic freedom. From 1980 to 2000, 100 countries were included in the study's sample. By using the Economic Freedom of the World (EFW) indicator, institutional quality was evaluated. There is evidence that nations with stable and effective institutions have higher income levels and better economic outcomes.

The study by Méon and Sekkat (2005) examined income variation across 63 and 71 nations for the period 1970-1998 while controlling for corruption and the quality of governance. The OLS estimation approach was used in the study. The results demonstrated that corruption hinders investment and income level. For the years 1993–2002, 135 nations were sampled by Djankov et al. (2006). The purpose of the study was to investigate if regulation affects income growth. Index of regulation served as a stand-in for institutional quality. Using OLS, the study examined the impact of the business regulatory

index on growth. The outcome demonstrated that commercial regulation by the government greatly raises a nation's standard of living.

In a study using two large samples of developed and least developed economies, Butkiewicz and Yanikkaya (2006) examined the relationship between institutional quality and output growth with six composite indices of the rule of law and five discrete indicators of democracy. Using the apparently unrelated regression (SUR) technique, the model was estimated. According to the findings, democratic institutions promote growth, but the rule of law has little bearing on an individual's income.

OLS, 2SLS, and GMM were utilised by Aixalá et al. (2008) to investigate production growth and institutional quality. A sample of wealthy and impoverished economies from 1996 to 2000 was employed in the study. The outcome demonstrated that variations in corruption control account for economic growth. Rich countries' economic prosperity can be largely attributed to the rule of law.

In their 2013 study, Fayissa and Nsiah examined the significance of governance in Africa between 1995 and 2004. The GMM technique was used in the study for a sample of 39 SSA nations. The World Bank's governance indicators were used to create the governance indicators. According to the study, effective governance greatly boosted economic growth.

The relationship between institutional quality and income growth was examined by Nawaz et al. (2014). Asia provided samples of the nations the study looked at. The study ran from 1996 until 2012. The dynamic GMM approach was used in the estimation process. Results indicated that institutions had a major impact on Asian economies' economic progress. The influence of institutional quality on output varies according to a nation's income level. The outcome, for instance, demonstrated that intuitional quality has a greater influence on income level in developed Asian economies than it does in LSD counterparts.

In 2017, Iheonu et al. looked into the relationship between output variance and institutional quality for 12 West African countries between 1996 and 2015. FE, RE, and the panel 2SLS approach were used in the study. The government's effectiveness, the rule of law, regulatory

quality, and corruption control made up the institutional quality index that was employed. The outcome demonstrated that institutional quality has a substantial and favourable impact on economic growth. Daniel et al. in 2018 took a sample of thirty-five African nations. The period covered by the study was 2006–2015. The study examined the possibility that income level is influenced by institutional quality. For the estimating process, a multi-level modeling technique was employed. The study's findings demonstrated that institutional quality considerably improves African nations' firms' performance.

Abubakar (2020), using annual time series data covering the period 1979 to 2018, investigated the effect of institutional quality on economic growth in Nigeria. The study adopted the Johansen Cointegration test in the econometric analysis of the relationship between the variables. The empirical findings showed that institutional quality significantly influences economic growth in Nigeria.

Most of the studies reviewed point to a beneficial relationship between institutional quality and, ability to weather the storms of internal and external shocks with a positive effect on economic growth in developing countries generally and in specific African nations (Abubakar, 2020; Daniel et al, 2018; Fayissa and Nsiah, 2013). There is no known attempt however to interact institutional quality with a resilience variable and to test its joint effect on growth. To fill this gap, the study set out to develop a resilience index for West Africa and then used that index to test the joint impact of institutional quality on resilience on economic growth.

3.0 Methodology

3.1 Macroeconomic stability and resilience indices

The construction of both the macroeconomic index and resilience index followed the procedure of Briguglio et al (2009), applying the variables used for West African countries while taking into consideration the weaknesses of the indices including their subjectiveness, inadequate and inconsistent data, and making choices on which variables should be included in constructing the indices. The variables

for indices of resilience which focused on the economy's ability to absorb shocks and counteract shocks were those of macroeconomic stability and social development as espoused by Briguglio et al (2009). The relationship of an economy's aggregate supply and demand is related to macroeconomic stability and the economy is said to have internal balance if aggregate expenditure and aggregate supply move in lockstep. The study used variables such as share of external debt in output, inflation and unemployment, fiscal stability as the inputs for macroeconomic index since these variables can easily respond to policy measures and serve as useful gauges of an economy's resistance to negative shocks. Also, social development variables such as primary school enrolment rate and life expectancy at birth were added to these three variables to construct the resilience index. The inclusion of these social variables is due to the importance of social relations and cohesion in enhancing economic development. A cohesive society is built around collective will and functioning mechanisms to resolve conflicts and acrimony creating a peaceful and investment friendly climate with the potential for growth and development.

Research on growth, technological development, productivity, and institutional quality is heavily dependent on estimating the parameters of aggregate production functions. The framework with the broadest application for examining productivity and growth is the Cobb-Douglas production function. Changes in output are correlated with changes in the proportion of labor, capital, and other inputs required in a production process, according to the conventional neo-classical growth model. With the addition of adjustments and expansions to better fit to observable empirical phenomena of technological advances while accounting for returns to scale, the unrestricted neoclassical framework had been used in studies.

The theoretical linkage between institutional quality, resilience and economic growth is analyzed using the Cobb Douglas Production Function specified thus;

$Y_t = A_t K_t L_t$ 1

Where Y, K and L represent output, capital and labor, respectively. The equation demonstrates how output is dependent on two production parameters,

K and L. Technology progress, which falls under category A, accounts for the portion of output that K and L are unable to explain. The inclusion of institutional quality IQ_t and resilience index $RINDX_t$ into the model is made possible by the inclusion of A in equation 1. These factors have a direct impact on technical advancement and improve economic growth.

$$A_t = A(RINDX_t\ IQ_t) \quad 2$$

Therefore

$$Y_t = K_t L_t\ RINDX_t\ IQ_t$$

The empirical model used in this study draws on the neo-classical growth framework and follows the study by Briguglio et al (2009) with modifications thus:

$$GDPPC = f(IQ, RINDX, TO) \quad 3$$

The panel representation of equation (3) is as follows

$$GDPPC_{it} = \beta X_{it} + \acute{\varepsilon}_{it} \quad 4$$

Where X_{it} represents the variables being incorporated in the model.

The error component in equation (4) is specified as

$$\varepsilon_{it} = \phi_i + \lambda_t + \eta_{it} \quad 5$$

Where ϕ_i captures the unobserved country-specific effects, λ_t is the unobserved time-specific effects, and η_{it} indicates the mutual panel effects. Therefore, equation (3) is reformulated as

$$GDPPC_{it} = \beta_0 + \beta_1 IQ_{it} + \beta_2 RINDX_{it} + \beta_3 TO_{it} + \acute{\varepsilon}_{it} \quad 6$$

Where gdppc connotes economic proxy by gdp per capita , iq indicates the composite index for institutional quality, rindx is the resilience index which is a composite index of five variables namely: external debt to gdp ratio, misery index (inflation and unemployment), fiscal stability, primary school enrolment rate and life expectancy TO is trade openness measured by the ratio of sum of import and export to GDP, and ε_{it} is the error term. β_0 is the intercept; β_1, β_2, β_3 are the coefficients of the model to be estimated; i=1, 2,…,15 are countries for the West African sub-region and t=1, 2…….12 are the number of years ranging between 2010 and 2021.

The World Bank, World Development Indicators/World Governance Indicators, and African Development Bank were the sources of the data. The

15 West African countries that comprise these variables were given annual data: Benin, Burkina Faso, Cabo Verde, Cote d'Ivoire, Ghana, Mali, Niger, Nigeria, Senegal, Sierra Leone, Guinea, Guinea-Bissau, Liberia, The Gambia, and Togo.

4. Results and Discussions

TABLE 1
Macroeconomic stability and Resilience indices

Country	Macroeconomic Stability Index	Economic Resilience Index
Benin	0.033	0.412
Burkina Faso	0.054	0.432
Cabo Verde	0.132	0.417
Cote dÏvoire	0.055	0.464
Gambia The	0.129	0.395
Ghana	0.157	0.389
Guinea	0.168	0.42
Guinnea Bussau	0.047	0.363
Liberia	0.104	0.298
Mali	0.023	0.315
Niger	0.021	0.307
Nigeria	0.168	0.309
Senegal	0.073	0.436
Sierra Leone	0.141	0.422
Togo	0.042	0.422

Source: Authors' computation, 2024

It can be deduced that the country with the lowest macroeconomic stability index is Niger Republic (0.021), while Nigeria and Guinea jointly have the highest macroeconomic stability index of 0.168. With regards to the economic resilience index, Liberia has the lowest (0.298), and Cote d'Ivoire has the highest (0.464) (See Table 1)

TABLE 2
Correlation matrix

Variable	GDPPC	TO	RSIDX	IQ	MAIDX
GDPPC	1.0000				
TO	0.1018	1.0000			
RSIDX	0.1404	0.0293	1.0000		
IQ	0.1518	0.9958	0.0587	1.0000	
MAIDX	-0.0252	0.0172	0.6139	0.0226	1.0000

Source: Authors' calculation using Stata, 2024

The estimated correlation coefficients, as shown in Table 2, demonstrate that the correlation between the dependent variable and the independent variables is neither perfect nor zero. Institutional quality and trade openness show the highest level of correlation while the lowest correlation is between growth and macroeconomic resilience and the relationship between these two variables is negative.

TABLE 3
Macroeconomic stability and growth

```
REG GDPPC MAIDX TO
------------------------------------------------------------------------------
       GDPPC |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       MAIDX |  -2.901071   8.122349    -0.36   0.721    -18.93208    13.12994
          TO |   3.074586   2.266081     1.36   0.177    -1.397959    7.547131
       _cons |   1061.156   198.1708     5.35   0.000     670.0281    1452.284
------------------------------------------------------------------------------
```

Source: Authors' calculation using Stata, 2024

The outcome here shows that growth is resilient and disruptive in the macroeconomic sense. Thus, as West African economies experience growth, their resilience is eroded, thus, growth weakens the ability of these economies to absorb shocks and bounce back to the path of recovery. This may be because external factors are inducers of growth, and these factors weaken the ability of these economies to absorb economic shocks.

TABLE 4

Macroeconomic stability, institutions, and growth

```
REG GDPPC MAIDXIQ TO
------------------------------------------------------------------------------
       GDPPC |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
     MAIDXIQ |   .5776571   .9283663     0.62   0.535    -1.254651    2.409966
          TO |   2.045399   2.790782     0.73   0.465    -3.462744    7.553542
       _cons |   1011.474    161.438     6.27   0.000     692.8455    1330.103
------------------------------------------------------------------------------
```

Source: Authors' calculation using Stata, 2024

The result in Table 3 reveals the interaction between macroeconomic index and institutional quality and its effect on economic growth in West Africa. This interaction variable showed a positive relationship with growth showing that macroeconomic resilience in the presence of qualitative institutions will bring about growth in these economies. This means that the quality of institutions matters for the resilience and growth of West African economies.

TABLE 5

Economic resilience and growth

```
reg gdppc rsindx to
------------------------------------------------------------------------------
       gdppc |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
      rsindx |   1449.013   787.2883     1.84   0.067    -104.8511    3002.877
          to |   2.939415   2.245799     1.31   0.192      -1.4931    7.371929
       _cons |   468.1533   339.5639     1.38   0.170     -202.041    1138.348
------------------------------------------------------------------------------
```

Source: Author's calculation using Stata, 2024

The measure of economic resilience has a positive and significant effect on economic growth among West African countries examined. Improved ability to absorb and recover from shocks leads to improved growth in these economies. The presence of quality institutions has also shown to re-enforce this effect with improved statistical significance in the relationship.

TABLE 6
Resilience, institutional quality, and growth

```
reg gdppc rsdxiq to
------------------------------------------------------------------------------
       GDPPC |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
      RSDXIQ |   847.5058   95.66919     8.86   0.000     658.6843    1036.327
          TO |   .6708791   1.900872     0.35   0.725    -3.080856    4.422614
       _cons |   1390.347   140.0859     9.92   0.000      1113.86    1666.833
------------------------------------------------------------------------------
```

Source: Authors' calculation using Stata, 2024

Conclusion and Recommendations

This paper examined the relationship among institutional quality, resilience, and economic growth in 15 West African countries. It attempted to develop macroeconomic stability and economic resilience indices for countries in West Africa. It found that from the indices developed, there was a low level of resilience among West African countries with the highest at 46.4%. Institutional quality was found to positively and significantly influence the effect of resilience on economic growth in countries within the region and thus recommends strengthening of institutional framework for countries in the region through the ECOWAS community strategy. Also being armed with the knowledge of the economic resilience level of each member state will help in setting economic and investment decisions. It should be noted that an elaboration of this research to include other variables in the computation of economic resilience

indices will be more beneficial to countries within the region.

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