Company Income Tax and Economic Growth in Africa: The Role of Institutional Quality

Michael Samuel Agility[1], Victor Kyari Gimba[2], Ahmed Balarabe Musa[3] & Galadima Hafsat[4]
[1,4]Air Force Institute of Technology, Kaduna - Nigeria
[2,3] Kaduna State University, Kaduna - Nigeria
Corresponding Phone/Email: 08162357432
Samuelagilitymichael@gmail.com

Abstracts
The study seeks to examine moderating role of institutional quality on the relationship between company income tax (CIT), and Economic Growth of 15 (Nigeria, Niger, Gambia, Ghana, Sierra Leone, Senegal, Burkina Faso, Guinea Bissau, Guinea, Cote d'Ivoire, Cameroon, Cabo Verde, Togo, Mali, and Benin) selected West African countries. The study used a panel data from 2000 – 2022, sourced from world development indicators (WDI) and the world bank. A dynamic panel auto regressive distributed lag (ARDL) model was employed to analyze the data collected for the study. The data covers a range of key economic variables, including gross domestic product (GDP), corporate income tax (LNCIT), institutional quality (LNITQ), trade openness (LNTOP), inflation rate (LNINF), interest rate (LNINT) and exchange rate (LNEXR). The pooled mean group (PMG) estimator was deemed fit and appropriate over the mean group (MG) estimator in estimating the data. The findings show that LNCIT, LNITQ, LNTOP, LNINF, has a positive relationship with GDP while the interaction term (LNCITITQ) and LNEXR has a negative relationship with GDP. The study recommends that policymakers should consider these insights while formulating tax policies, improving institutional quality, and attracting foreign investment to promote sustainable economic growth in the selected west African Countries.

Keywords: Institutional Quality; Company Income Tax; Economic Growth & West Africa

1.Introduction

In the context of selected West African countries, the links between corporate income tax, institutional quality, and economic growth are of particular interest. These countries' fiscal policies and tax structures are critical in fostering economic growth and attracting investment. However, in order to make appropriate policy suggestions, the influence of corporate income tax, institutional quality, trade openness and tax effort ratio on economic growth must be investigated further. The corporate income tax is a critical component of fiscal policy and government revenue collection. It has a direct impact on firm profitability and investment decisions, as well as economic activity and capital formation. Understanding the relationship between corporate income tax and economic growth is critical for policymakers seeking to find a balance between revenue generation and

encouraging private sector growth. With a certain level of institutional quality, a well-designed and balanced corporate income tax policy can promote investment, foster entrepreneurship, and contribute to long-term economic growth.

Economic activity and governance grow on the foundation of institutional quality (Agility et al., 2023). Strong institutions, which include the rule of law, the protection of property rights, and efficient governance systems, create an enabling environment in which businesses may function and investors can have faith in the economy. The quality of institutions has an impact on investor perceptions, FDI inflows, and economic stability. Understanding how institutional quality influences economic growth in West African countries might help policymakers understand the necessity of institutional reforms and good governance practices in supporting long-term growth.

Economic growth is the ultimate goal of growth, encompassing rising living standards, job creation, and poverty reduction. It reflects the success of economic policies and the overall health of an economy. Understanding company income tax, institutional quality, and tax effort ratio, is paramount for formulating effective policies that drive long-term and sustainable growth in West African countries. Insights into the interplay between these variables can guide policymakers in crafting strategies to foster inclusive growth, reduce income inequality, and enhance the overall welfare of citizens

There is high incidence of tax evasion and avoidance by tax payers. This may affect the amount of revenue collectible by the government for the running of administration. Furthermore, it is hoped that people were wrongly assessed and the assessment sometimes result to regressive taxation which in turn hampers on economic growth.

Despite the works on institutions as rule of the game for economic growth, most economies particularly in developing counties face low economic growth and deterioration of institutional qualities. Low-income growth and higher income gap are some the main challenge in the world. The quality of institutions in low-income countries (like in SSA) is very weak while a political aspect is given more priority in these countries.

However, the economic performance between higher income and low-income countries are far apart. In addition to low economic growth, the structure of institutions in developing countries does not encourage entrepreneurship, innovation, and investment. They are manipulated by officials and higher income individuals for their own interest. Significant numbers of young people migrate to developed countries due to economic and political reasons for better life. More severely

low-income growth and poor intuitional quality cause instability and failure of sovereign state. Therefore, the primary objective of this is to investigate the interactive effect of institutional quality on the relationship between company income tax and economic growth in the selected West African countries.

2. Literature Review

2.1Conceptual Review

2.1.1 Company Income Tax

Company income tax is defined by Richardson and Sawyer (2023) as a tax levied on the profits or earnings of incorporated firms, calculated by applying a statutory tax rate to the taxable income, and intended to pay government operations, public services, and infrastructure investments. According to Saez (2023), company income tax is a levy on profits produced by corporations or enterprises, with the goal of ensuring a fair contribution from corporate entities to public finances, with the goal of funding government programmes and promoting economic stability. Company income tax, according to Pomeranz and Naritomi (2022), is the imposition of taxes on profits earned by corporate entities, often determined by applying a tax rate to net income after accounting for deductions and exemptions, and serves as a major source of government revenue.

According to Raassens and Sansing (2022), a firm income tax is a direct tax levied on the net earnings of corporations or businesses that is collected by governments in order to support public expenditures and achieve economic goals while incorporating concepts of fairness, efficiency, and simplicity.

2.1.2 Institutional Quality

The concept of institutional quality pertains to the characteristics and attributes of formal and informal institutions within a society that shape economic, political, and social outcomes. It encompasses a range of factors, including the effectiveness, stability, fairness, and adaptability of institutions. These institutions can include formal entities such as the legal system, government agencies, and regulatory frameworks, as well as informal norms, customs, and social structures.

Institutional quality is crucial for sustainable growth, economic growth, and social cohesion. High institutional quality is associated with positive outcomes, such as greater investment and innovation, improved governance, and increased social trust. Conversely, low institutional quality can result in corruption, weak rule of law, bureaucratic inefficiencies, and limited economic and social opportunities.

2.1.3 Economic Growth

Economic growth is defined as the process whereby the real per capita income of a country increases over a long period (Jhingan, 2004). Also, it can be simply defined as the increase over time of an economy's capacity to produce those goods and services needed to improve the wellbeing of the citizen in increasing numbers and diversity. It is the steady process by which the productive capacity of the economy is increased over time to bring about a rising level of national income (Anyanwu, 1997). Economic growth is one of the four macroeconomic goals of any society. It is the increase of per capita gross domestic product (GDP) or another measure of aggregate income, typically reported as the annual rate of change in real GDP.

2.2 Theoretical Framework

The study adopts the endogenous growth model to analyze the variables under study. The endogenous growth theory is the concept that economic growth is due to factors that are internal to the economy and not because of external ones. The theory is built on the idea that improvements in innovation, knowledge, and human capital lead to increased productivity, positively affecting the economic outlook. Endogenous growth model like the Romer model considers changes to technology to be endogenous. Therefore, technological advancements lead to economic improvements. Additionally, the model also assumes that innovative ideas are a very important part of economic growth. Institutional quality is an internal factor that when improved internally it enhances economic growth in developing countries especially countries in Africa.

The interaction term (institutional quality which is proxied by corruption control) introduced in the model is an internal factor meant to strengthen the relationship between company income tax (CIT) and economic growth (EG). The institutional quality represents a bridge (checks and balances in tax collection activities) that strengthen the link between company's profit tax and growth in an economy. The institutional quality helps to bring the desired growth in the economy.

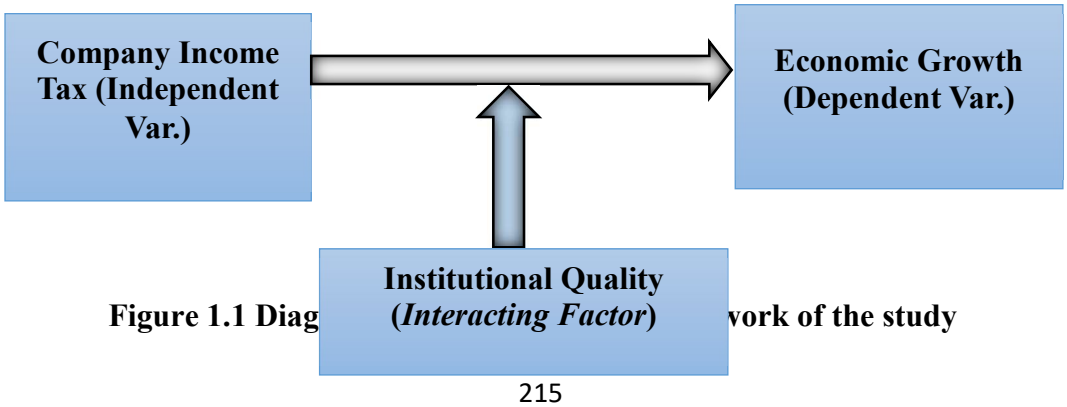


Figure 1.1 Diag vork of the study

2.3 Empirical Review

2.3.1 Company Income Tax and Economic

The few recent related study on the link between company income tax and economic growth in Nigeria are like the study done by Eneche & Stephen (2023) investigates the link between corporate income, tax revenue, and Nigerian economic growth. Data was acquired through secondary sources to reach this goal. The study found that Petroleum Profit Tax (oil tax revenue) has a positive but non-significant link with Nigerian economic growth, but Value Added Tax and Companies Income Tax (non-oil tax income) had a substantial relationship. The study recommends that companies pay income tax in the short run, but that they closely monitor the operations of companies engaged in petroleum operations to minimize tax evasion, and that they also support the development of entrepreneurial activities in order to significantly increase Tax Revenue in order to sustain the significant relationship of VAT and CIT (non-oil tax) revenue with Nigerian economic growth.

According to a cross-country analysis by Devereux and Griffith (2021), greater company taxes are linked to lower levels of business investment, which may impede overall economic development. Wijeweera and Mounter (2007) demonstrate how changes in the corporation tax rate in Australia affect business income tax, real GDP, and commerce through the use of vector autoregression analysis. With a focus on Nigeria, Osho et al. (2018) discover a positive and significant effect of corporate income tax collection on the GDP of the nation. Wijeweera and Mounter (2007) demonstrate how changes in the corporation tax rate in Australia affect business income tax, real GDP, and commerce through the use of vector autoregression analysis. With a focus on Nigeria, Osho et al. (2018) discover a positive and significant effect of corporate income tax collection on the GDP of the nation.

2.3.2 Institutional Quality and Economic Growth

The link between institutional quality and economic results is examined in recent works by Martorano and Wagle (2023) study focuses on the relationship between institutional quality and poverty reduction in sub-Saharan Africa. The findings contribute to our understanding of the importance of institutions in achieving sustainable growth and poverty alleviation. Also, Narayan et al. (2023) empirically investigated the relationship between institutional quality and economic growth in a panel of Asian countries. Using robust panel data econometric techniques, the study provides empirical evidence on how institutional factors, such as governance, corruption, and political stability, influence economic growth dynamics in the Asian context. Chao and Nicholson

(2023) empirically conducted a study focusing on the relationship between institutional quality and economic growth in emerging market economies. The study provides new evidence on how variations in institutional quality affect the economic performance and growth prospects of emerging markets. Dincer and Orhan (2023) study examines the impact of institutional quality on economic growth using a large sample of countries. The study provided an insight into the effectiveness of different institutional factors in shaping economic outcomes across countries. Li and Qian (2023) study explore the impact of institutional quality on innovation and economic growth in European countries. The study offers new empirical evidence on how institutional factors affect innovation activity and subsequent economic growth in European economies.

2.3.3 Company Income tax, Institutional Quality and Economic Growth

The recent related researches conducted between Company Income tax, Institutional Quality and Economic Growth are like that Jomoh (2023) research, which focuses on South West Nigeria, highlights the influence of public perception on tax compliance by finding a substantial negative connection between institutional characteristics such rule of law and control of corruption and tax fraud management. According to Aden and Dirir (2023) study on Djibouti, institutional reforms and tax laws have little immediate impact on economic growth, but over time, they can have a significant impact thanks to things like corporate taxes and robust institutions. The analysis of Nigeria by Olatunbode et al. (2023) highlights the nuanced relationship between public debt and institutional quality and economic growth, exposing different consequences of public debt that originates domestically and abroad. The Ghanaian study by Amoh et al. (2023) demonstrates the complex interplay between tax compliance, evasion, and economic development. The dynamics of tax-related behaviours are further complicated by the moderating effect of institutional quality. When taken as a whole, these studies provide insightful information on the complex relationships that exist between taxation, institutional issues, and economic outcomes in many settings.

3. Methodology

3.1 Introduction

The main aim of this study is to present a detailed discussion of the estimation techniques that was used in this study as well as the theoretical and empirical model specification. The study adopted dynamic panel ARDL (Application of Mean Group (MG) and Pooled Mean Group (PMG) Model)) due to the nature of the data. This includes, sources of data and scope of the data, model specification (Economic theory, mathematical model and Econometrics model), test for

Stationarity, descriptive statistics, matrix correlation, pooled mean group, mean group and Hausman test normality test and method of data analysis. This is because the data available for the selected county negates the regression of N>30, which shows the data not up to 30 years.

3.2 Sources and Nature of Data

This study used panel data of 15 West African countries (Nigeria, Niger, Gambia, Ghana, Sierra Leon, Senegal, Burkina Faso, Guinea Bissau, Guinea, Cote d'Ivoire, Cameroon, Cabo Verde, Togo, Mali and Benin). The countries base year was selected based on their availability of data between 2000 and 2022 for the selected macroeconomic indicators. The study has employed secondary data, which are collected from Worl development indicators and the World Bank. The data covers from 2000-2022.

3.3 Model Specification

$$GDP_{it} = f(GDP_{-1}, CIT, ITQ, (CIT \times ITQ), TOP, INF, INT\ EXR) \quad \ldots\ldots\ldots\

Dependent	Measurement	Sign	Source
Gross Domestic Product	Gross domestic product per capita	Positive	WDI
Independent			
Lag of GDP	Lag of **GDP** (GDP_{-1})	positive	STATA
Company Income Tax	It is measure as the percentage of profit tax	Positive	WDI
Institutional Quality	A proxy for corruption control	Positive	WDI
($CIT \times ITQ$)	Moderating variable (company income tax multiplied by institutional Quality	positive	WDI
Trade Openness	Export plus import divide by GDP	Positive	WDI
Inflation	It is a measure of changes in price (%)	Positive	WDI
Interest Rate	the cost of debt for the borrower and the rate of return for the lender (%)	Positive	WDI
Exchange Rate	A relative price of one currency expressed in terms of another currency	Positive	WDI

Source: Researchers Compilation

4. Results and Discussion

This study present and interpret results on the relationship between Company Income Tax, Institutional Quality and Tax Effort Ratio and on Economic Growth of 15 selected West African states. The study examines the long-run and short-run dynamics of the relationship between economic growth and company income tax revenue, while accounting for endogeneity, heterogeneity, and cross-sectional dependence.

4.1 Unit Root Estimation (at Levels)

The presence of stationarity is determined by unit root tests, which frequently call for data to be tested at levels or at difference to establish stationarity for accurate analysis and modelling.

Table 4.1 Unit Root at Level

	GDP		CIT		ITQ		INF		INT		EXR	
	Statistic	Prob	Statistc	Prob	Statistc	Prob	Statistc	Prob	Statistc	Prob	Statistc	Prob
Levin, Lin & Chu test	-0.88589	0.188	-1.2569	0.105	-7.4479	0.000	-7.6427	0.000	-4.6595	0.000	0.6542	0.745
Im, Pesaran and Shin W-stat	-0.90829	0.189	-2.7454	0.003	-4.4276	0.000	-8.0943	0.000	-.5.0665	0.000	-0.3629	0.358
ADF - Fisher Chi-square	42.8786	0.060	56.615	0.002	70.514	0.000	124.82	0.000	79.417	0.000	57.204	0.002
PP - Fisher Chi-square	53.8542	0.004	94.596	0.000	115.59	0.000	417.86	0.000	124.73	0.000	28.356	0.551

Source: Researchers Computation STATA 15 Output 2023

Table 4.2 Unit root Estimation (at First Difference)

	GDP		CIT		ITQ		INF		INT		EXR		
	Statistic	Prob	Statistic	Prob	Statistic	Prob	Statistic	Prob	Statistic	Prob	Statistic	Prob	prob
Levin, Lin & Chu	-10.4798	0.0000	-5.41695	0.0000	-2.87271	0.0020	-8.69483	0.0000	-13.0840	0.0000	-5.24713	0.0000	0.0000

test													
Im, Pesaran and Shin W-stat	-10.6976	0.0000	-9.05997	0.0000	-3.78357	0.0001	-14.1158	0.0000	-13.8611	0.0000	-4.48938	0.0000	0.0000
ADF - Fisher Chi-square	161.446	0.0000	137.337	0.0000	63.6487	0.0003	215.063	0.0000	210.872	0.0000	76.2740	0.0000	0.0000
PP - Fisher Chi-square	533.282	0.0000	402.163	0.0000	166.798	0.0000	1505.28	0.0000	1036.61	0.0000	96.2796	0.0000	0.0000

Source: Researchers Computation STATA 15 Output 2023

Table 4.3 Summary of Unit Root Estimation

Variables	GDP	CIT	ITQ	INF	INT	EXR
Levin, Lin & Chu test	I(I)	I(I)	I(0)	I(0)	I(I)	I(I)
Im, Pesaran and Shin W-stat	I(I)	I(I)	I(0)	I(0)	I(I)	I(I)
ADF - Fisher Chi-square	I(I)	I(I)	I(0)	I(0)	I(I)	I(0)
PP - Fisher Chi-square	I(I)	I(I)	I(0)	I(0)	I(I)	I(I)

Source: Authors constructed table

The unit root test results at the level suggest that some of the variables are not stationary at level as shown in the summary table above. The null hypothesis in all the tests is that the variable has a unit root, which indicates a non-stationary time series. The alternative hypothesis is that the variable is stationary.

For the Levin, Lin & Chu t-test, the test statistic is greater than the critical values at the 1% and 5% significance levels for GDP, indicating that we cannot reject the null hypothesis of non-stationarity. For CIT, ITQ, INF, INT and EXR the test statistics are less than the critical values at the 5% significance level, indicating that we can reject the null hypothesis of non-stationarity.

For the Im, Pesaran and Shin W-stat test, the test statistics for GDP, CIT, ITQ, INF, INT and EXR are greater than the critical values at the 5% significance level, indicating that we cannot reject the null hypothesis of non-stationarity. For FDI, the test statistic is less than the critical value at the 5% significance level, indicating that we can reject the null hypothesis of non-stationarity.

For the ADF and PP tests, the test statistics for all variables are greater than the critical values at the 5% significance level, indicating that we cannot reject the null hypothesis of non-stationarity.

The unit root test results for the variables in first differences show that all variables have become

stationary at the first difference. This suggests that the variables have a common stochastic trend and can be co-integrated. The statistical significance of the test results indicates that we can reject the null hypothesis of a unit root, which means that the variables are non-stationary at level but become stationary after taking the first difference. Thus, we can use the first difference of the variables in the analysis. Non the variable exhibited 2nd difference I (2).

4.4 Descriptive Statistics Result

Variable	Obs	Mean	Std. Dev.	Min	Max
GDP	345	21.391	8.62	1.097	52.67
CIT	345	16.164	11.735	6.149	58.266
ITQ	345	.189	.062	.125	.473
CITITQ	345	3.118	2.74	.857	17.179
TOP	345	59.11	20.726	16.352	132.382
INF	345	6.527	11.899	-7.901	100.608
INT	345	20176820	21699801	-8579117	99638199
EXR	345	728.253	1474.837	.545	9565.082

Source: Researchers Computation STATA 15 Output 2023;
Note: CIT= Company Income Tax, ITQ=Institutional Quality, CITITQ= Moderation Variable, TOP=Trade Openness, INF=Inflation, **INT**=Interest Rate, EXR=Exchange Rate.

Table 4.4 presents descriptive statistics for several variables with 345 observations. The variables examined include Gross Domestic Product (GDP), Company Income Tax (CIT), Institutional Quality (ITQ), CIT*ITQ, Trade Openness (TOP), Inflation Rate (INF), Interest Rate (INT), and Exchange Rate (EXR). The table provides the average values, standard deviations, minimum, and maximum values for each variable. For instance, GDP has an average value of approximately 21.391, with a standard deviation of around 8.62, ranging from 1.097 to 52.67. Similarly, CIT has an average value of approximately 16.164, with a standard deviation of about 11.735, and its values vary from 6.149 to 58.266. ITQ exhibits an average value of approximately 0.189, with a standard deviation of roughly 0.062, ranging between 0.125 and 0.473. The CITITQ variable has an average value of approximately 3.118, with a standard deviation of about 2.74, spanning from 0.857 to 17.179. Moreover, TOP has an average value of approximately 59.11, with a standard deviation of around 20.726, varying from 16.352 to 132.382. INF has an average value of approximately 6.527, with a standard deviation of about 11.899, and it includes negative values, with a minimum of approximately -7.901 and a maximum of approximately 100.608. INT2, with an average value of approximately 20,176,820 and a substantial standard deviation of around 21,699,801, covers

both positive and negative values, ranging from approximately -8,579,117 to approximately 99,638,199. Lastly, EXR displays an average value of approximately 728.253, with a standard deviation of around 1474.837, and its values range from 0.545 to 9565.082. These descriptive statistics offer valuable insights into the central tendency, variability, and range of each variable, enabling a comprehensive understanding and comparison of their characteristics in the dataset.

4.2 Correlation Estimation

Table 4.5 Matrix of correlations estimation

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
GDP	1.000							
CIT	-0.251	1.000						
ITQ	-0.132	0.087	1.000					
CITITQ	-0.292	0.892	0.453	1.000				
TOP	0.449	-0.160	0.007	-0.163	1.000			
INF	-0.046	0.052	0.047	0.098	0.054	1.000		
INT	-0.042	-0.029	-0.260	-0.124	-0.219	0.025	1.000	
EXR	0.087	-0.135	-0.036	-0.126	0.324	0.061	-0.134	1.000

Source: Researcher's Computation STATA 15 Output 2023; Note: CIT= Company Income Tax, ITQ=Institutional Quality, CITITQ= Moderation Variable, TOP=Trade Openness, INF=Inflation, **INT**=Interest Rate, EXR=Exchange Rate.

Table 4. The correlation matrix reveals the relationships between various economic variables based on their correlation coefficients. It indicates that GDP and Company Income Tax (CIT) have a negative correlation of -0.251, suggesting that as GDP increases, Company Income Tax tends to decrease, and vice versa. Similarly, GDP and Institutional Quality (ITQ) show a negative correlation of -0.132, implying that as GDP increases, Institutional Quality tends to decrease, and vice versa. Moreover, GDP has a negative correlation of -0.292 with the combination of Company Income Tax and Institutional Quality (CITITQ), indicating that as GDP increases, the CITITQ combination tends to decrease, and vice versa. On the other hand, GDP positively correlates with Trade Openness (TOP) with a correlation coefficient of 0.449, implying that as GDP increases, Trade Openness also tends to increase, and vice versa. The weak negative correlations between GDP and Inflation (INF) (-0.046) and between GDP and Interest Rate (INT) (-0.042) suggest an inverse relationship with these variables.

The negative correlations between GDP and Inflation (INF) (-0.046) and between GDP and Interest Rate (INT2) (-0.042) suggest minor inverse relationships with these variables. However, there is a slight positive correlation between GDP and Exchange Rate (EXR) of 0.087, signifying a slight positive relationship between the two. The correlation matrix also reveals various relationships between the other variables. For instance, Company Income Tax (CIT) and Institutional Quality (ITQ) positively correlate with a coefficient of 0.087, as do CIT and the combination of CITITQ with a strong positive correlation coefficient of 0.892. Additionally, Trade Openness (TOP) negatively correlates with CIT (-0.160), INF (0.007), and EXR (-0.163). Meanwhile, Inflation (INF) and Interest Rate (INT2) have a weak positive correlation of 0.098, and Interest Rate (INT2) and Exchange Rate (EXR) negatively correlate with a coefficient of -0.134. These correlation coefficients offer valuable insights into the associations between economic indicators, helping analysts understand potential patterns and dependencies in the dataset. The information from the correlation matrix can be beneficial for making informed decisions and further analyzing the relationships between the variables.

4.3 Panel ARDL Estimation (MG and PMG)

Table 4.6 Panel ARDL Estimation (MG and PMG)

Variables	Mean Group		Pooled Mean Group (PMG)	
D.GDP	**Coeff**	**Std**	**Coeff**	**Std**
LNCIT	3.159	10.530	-0.126	0.067
LNITQ	346.741	744.897	-96.938	9.137
LNCITITQ	-29.023	56.693	0.458	0.407
LNTOP	0.414	0.340	0.583	0.025
LNINF	0.001	0.423	-0.157	0.050
LNEXR	-0.405	0.545	0.030	0.004
EC	-0.732	0.152	-0.240	0.090

LNCIT=company Income Tax, LNITQ= Institutional Quality, LNCITITQ= Moderating Variable, LNTOP= Trade Openness, LNINF=Inflation and LNEXR= Exchange Rate

Table 4.6 shows the mean Group (MG) and Pooled Mean Group (PMG) Estimations. Based on the Hausman test shown in table 4.14, the pooled mean group best explains the model. The p-value of the Hausman test is greater than 0.05, confirming the PMG is the best model to estimate the relationship between institutional quality and economic growth. Therefore, the interpretation is based on the PMG. LNCIT, LNITQ, LNTOP, LNINF, has a positive relationship with GDP while LNCITITQ and LNEXR has a negative relationship with GDP. A unit change in LNCIT, LNITQ,

LNTOP, LNINF, GDP increases by 3.159 (10.530), 346.741 (744.897), 0.414 (0.340) and 0.001 (0.423) respectively. A unit change in LNCITITQ and LNEXR, GDP decreases by -29.023(56.963) and -0.405(0.545). Any movement from disequilibrium, the speed adjustment is corrected by -0.240.

Table 4.7 Hausman specification test

	Coef.
Chi-square test value	.813
P-value	.992

Table 4.7 shows the Hausman test to compare the mean group and pooled mean group. From the table above the p-value is 0.9 greater than 0.05 which indicates that the PMG is the best estimator of the relationship between institutional quality and economic growth in the selected west African countries.

4.3 Individual Country pooled Mean Group

To analyze the individual country's effect on the relationship between institutional quality and economic growth, the 15 countries are divided into group A, B and C.

Table 4.8 Group A

Country	Nigeria	Niger	Gambia	Ghana	Sierra Leone
Error correction (EC)	-0.021	-1.0069	-0.117	-0.227	-0.003
Standard Error	0.07	0.105	0.111	0.082	0.165

Group A above consist of Nigeria, Niger, Gambia, Ghana and sierra Leone respectively. The table shows the speed of adjustment from short run to long run. The error correction values represent how much the dependent variable adjusts or corrects in response to deviations from the equilibrium relationship between the variables in the short run. For instance, a negative error correction coefficient suggests that the dependent variable tends to decrease (or increase at a slower pace) when there is a deviation from the equilibrium relationship, bringing it back to the long-run equilibrium in subsequent periods. For Nigeria, Niger, Gambia, Ghana and sierra Leone, any deviation from equilibrium will be corrected by -0.021, -1.0069, -0.117, -0.227 and -0.003 respectively.

Table 4.8 Group B

Country	Senegal	Burkina Faso	Guinea Bissau	Guinea	Cote d' Ivoire
Error correction (EC)	-0.244	-0.024	-0.238	-0.642	-0.368
Standard Error	0.105	0.055	0.093	0.200	0.094

Group B above consist of Senegal, Burkina Faso, Guinea Bisau, Guinea, and Cote d'Ivoire respectively. The table shows the speed of adjustment from short run to long run. For Senegal, Burkina Faso, Guinea Bisau, Guinea, and Cote Devoir, any deviation from equilibrium will be corrected by -0.244, -0.024, -0.238, -0.642, and -0.368 respectively.

Table 4.8 Group C

Country	Cameroon	Cape Verde	Togo	Mali	Benin
Error correction (EC)	-0.107	-0.444	-0.248	-0.255	-0.167
Standard Error	0.087	0.137	0.097	0.115	0.045

Same analogy goes for country C. Group C above consist of Cameroon, Cape Verde, Togo, Mali, and Benin respectively. The table shows the speed of adjustment from short run to long run. For Cameroon, Cape Verde, Togo, Mali, and Benin, any deviation from equilibrium will be corrected by -0.107, -0.444, -0.248, -0.255 and -0.167, respectively.

5. Conclusion and Recommendations

5.1 Conclusion

In conclusion, the study explores the relationships between Company Income Tax, Institutional Quality and Economic Growth in selected West African countries. The correlation matrices and Error Correction Estimations provide insights into these relationships. The findings suggest that various economic indicators influence economic growth differently in different countries. Policymakers should consider these insights while formulating tax policies, improving institutional quality, and attracting foreign investment to promote sustainable economic growth in the selected west African Countries.

5.2 Recommendations

Tax Policies: Based on the findings of Objective, policymakers should consider optimizing Company Income Tax rates to strike a balance between revenue generation and incentivizing economic growth. Lower tax rates might attract more investments and stimulate economic activity. Additionally, measures should be taken to improve tax compliance to enhance tax revenues without burdening businesses excessively.

Institutional Quality: Highlights the importance of institutional quality in fostering economic growth. Governments should focus on enhancing transparency, reducing corruption, and improving the rule of law. Strengthening institutions can attract more investments, support economic stability, and create a favorable business environment.

Trade Openness: The positive correlation between Trade Openness and Economic Growth (Objectives 1 and 2) suggests that countries should continue to promote trade liberalization and engage in international trade agreements to enhance economic growth through increased market access and competitiveness.

Foreign Direct Investment (FDI): Indicates a positive relationship between FDI and Economic Growth. Policymakers should actively encourage FDI by providing incentives, streamlining regulatory processes, and creating an attractive investment climate to boost economic growth.

Monitoring and Evaluation: Continuous monitoring and evaluation of economic indicators are essential to track progress, identify areas for improvement, and adapt policies accordingly. Governments should invest in data collection and analysis to make informed decisions and ensure effective policy implementation.

By incorporating these recommendations, West African countries can create a conducive environment for economic growth, attracting investments, and fostering long-term prosperity in the region.

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