Drivers of Stock Market Development in Nigeria: Does Openness Matter?

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ABSTRACT: The stock market represents a major source of long-term funds. However, the Nigerian stock market lacks depth due to the weak regulatory system and legal framework. Extant studies have shown that both institutional quality and openness are enablers of the stock market. An analysis of the effects of institutional quality and openness on the development of the Nigerian stock market from 1996 to 2021 is therefore crucial. The Auto Regressive Distributive Lag (ARDL) method is used to analyze data from World Bank databases and the Lane-Milesi Ferreti index, with results showing that institutional quality has a positive and significant impact on stock market development in Nigeria. Meanwhile, development of the stock market, institutional quality, and openness are related over the long term based on the ARDL bounds test. A further finding revealed that the development of Nigeria's banking sector and the exchange rate had positive (negative) effects on the development of the stock market, respectively. Additionally, stock market liquidity contributed to development of the market. This study came to the conclusion that an enabling stock market in Nigeria could be strengthened by the interaction of institutional quality and openness. The study concludes that strengthening Nigeria's governance institutions through the creation of an appropriate legal framework is necessary to ensure political stability and the absence of violence in the country's political system. Besides, the government really needs to grant autonomy to agencies in charge of tackling corruption to enable them to enjoy simultaneous openness. Monetary authorities should also ensure exchange rate stability and improved credit for domestic investment activities.

KEYWORDS: Capital formation, governance, openness, Stock market.

INTRODUCTION

Capital formation is essential for any economy to expand and prosper, and stock markets have long been acknowledged for the role they play in facilitating the accumulation of long-term capital. Opportunities for investment are made possible by the stock market, which facilitates the collection and distribution of capital (Azeez & Obalade, 2019). Empirical studies have sought to determine the elements that are responsible for stock market development in several nations. For individual savers, a well-functioning stock market makes it easier to accumulate capital through the purchase of shares and bonds. Sustainable economic growth is often tied to the attractiveness of stock markets to investors both at home and abroad, whose capital contributes to economic progress (Qamruzzaman & Wei, 2018). Investments in productive technologies that might boost economic growth are made possible, in part, because of the stock market's encouragement of capital accumulation and the savings propensity in the economy (Fagbemi & Ajibike, 2018). As a result, industrialized and emerging economies alike face an imperative to expand their capital market infrastructures to reap the many benefits that capital markets provide. The development of stock markets requires an influx of capital that can fuel their growth and ensure ongoing liquidity. Besides, financial intermediaries are crucial to the establishment and development of markets (Canh, Thai & Schinkus, 2018).

A legislative framework that safeguards investors' rights and fosters their confidence is necessary for financial intermediation. The stock market receives funding from local investors, trade, and foreign capital inflows. Markets can only function well if the macroeconomic environment is stabilized by proper political, economic, and institutional governance. It helps to make the system more open and responsible, good enough to lure both domestic and international investment (Ahmed, Khan, & Öztürk, 2020). Countries need adequate economic governance, defined by a well-established regulatory framework and the ability to offer policies that are likely to gain the confidence of investors (Arif & Ramat, 2018; Eze & Johnny, 2020, Guru & Yadav, 2018, Qamruzzaman et al., 2018). On the flip side, political governance is essential to the growth of the stock market since investors care about the political stability of countries before deciding to put money into their economies. Politico-administrative leadership is expected to also establish a trustworthy system of policy and law enforcement through accountability and openness. This tends to reduce uncertainties as well as agency and transactions costs. Sound institutional framework allows for the free exchange of goods and capital with other countries. The maintenance of the nation's rule of law is related with strong institutional governance, which also safeguards investors' rights

and prevents regulatory bodies from abusing their authority. As a root cause of many other problems, corruption is one that sound institutional governance attempts to fix, hence, the elimination of corrupt practices is crucial to a flourishing economy because it increases consumer and investor trust.

It is crucial for any society to have high-quality institutions to regulate its economic and political activities. There is evidence that suggest relationship between good governance and stock market development (Ahmed et al., 2020; Ajide, 2019; Matadeen, 2019), and that countries with a poor legal system and poor governance standards do not attract many investors due to concerns about the security of their property rights. African countries are included in the category of those with weak governance and a poor legal system. Nigeria has seen an uptick in a variety of economic indicators in recent years, including foreign direct investments, foreign capital investment, and trade flows. The growth of stock markets is associated with the degree of financial openness in a country. Based on the requirement to conform to global regulatory best practices, financially open economies typically establish a framework for efficient allocation of resources and risk diversification. Foreign investment, export insurance, and other forms of international financing benefit from freer trade. Therefore, it is possible that opening the economy to the free movement of trade and capital at the same time might have benefits beyond those merely associated with the development of deeper and more expansive financial markets. Existing literature suggests that increased trade openness is crucial in boosting stock market development in emerging markets (Conteh, Yijun, Sesay, 2021; Ibrahim & Sare, 2018). Consequently, it is assumed that the benefits of financial (trade) openness on the development of stock markets may depend on the quality of the underlying institutions.

The Nigerian stock market lacks depth and breadth when compared with its developing markets competitors, despite overwhelming evidence that the Nigerian economy receives massive influx of the capital and conducts a huge volume of trade flows (Manasseh, et al., 2017). The development of the stock market in Nigeria is hampered by poor macroeconomic infrastructure, regulatory problems, low levels of market participation, and unstable government (Olaniyan & Ekundayo, 2019). As a result of the insufficient institutional structure, financial markets and institutions function in an environment with inadequate financial reporting and weak governance (Fagbemi et al., 2016). The diversion of funds for improper use in Nigeria is a direct result of the country's weak institutions, which have exacerbated corruption and political intervention in the financial system (Olaniyi et al., 2020). The political climate in Nigeria is unstable because of the lack of commitment by successive governments to enact measures that would improve the country's ability to save money, encourage business creation, and keep its financial markets open and functional.

Existing studies on how institutional quality affects stock market development in sub-Saharan Africa have produced conflicting results due to differences in time frame, methodology, and study population (See, Aluko & Kolapo, 2019; Aluko et al., 2019; Fagbemi et al., 2017; Manasseh et al., 2017). Empirical evidence from the Nigerian stock market focused on a facet of institutional quality, which is regulatory quality. However, this measure has limited influence on stock market development in Nigeria (Ajide, 2019; Manasseh et al., 2017). Nigeria's legal system is opaque and lacks the strength to safeguard investors' rights. This is mostly attributable to the country's corruption problems. There is an inadequate regulatory structure for the Nigerian stock market. Investors shy away from the Nigerian stock market due to the country's underdeveloped markets, weak economic policies, and inadequate institutional framework. When markets and financial markets are simultaneously opened, it means that money can leave and enter the economy. Nigeria is an import-dependent economy with relatively low levels of foreign capital inflow, and this dependence, combined with the cyclical nature of its trade volume, has resulted in a steady depreciation of the Nigerian naira. This explains why the Nigerian currency is so unstable. As a result, Baltagi et al. (2009) contended that pursuing simultaneous openness as a standalone policy to enhance the stock market could be devastating to market development. In the light of the foregoing, this research looks at how openness and sound institutions affected the development of Nigeria's stock market between 1996 and 2021.

The remainder of this study is presented thus: For section 2, the relevant literature is reviewed. The methodology is presented in Section 3. The empirical findings are discussed in Section 4, and the conclusion and suggested recommendations are highlighted in Section 5.

LITERATURE REVIEW

A developed stock market is the evidence of a stable financial system where investment is attractive due to strong market performance. Stock markets that have developed through time are indicative of a prosperous economy, a high volume of business activities, and a stable government (Kahn *et al.,* 2018). Therefore, developed financial markets affect economic growth through the

effective allocation of capital into productive use, the reduction of liquidity and productivity shocks, and the subsequent influence on investment decisions (Kolapo et al., 2012).

Institutional quality is a measure of the extent to which the existing legal system in a nation promotes the development of norms and procedures that effectively control the economic activities needed for country's growth (Ojeka *et al.,* 2019). Institutions of political governance, as observed by Olanrewaju *et al.* (2019), execute the concrete tasks of formulating and enforcing socio-economic policies designed to address economic and social problems.

The ability of financial systems to allocate capital to successful and productive economic endeavours seems to be enhanced by openness (Atiq-ur-Rehman *et al.,* 2020). Trade openness enables the benefits of comparative advantage to be realized. The degree of financial intermediation increases as specialization increases. A country's production pattern is altered by comparative advantage, which increases its requirement for foreign financing. As a result, economies that specialize in financially reliant products will need external financing to develop financial intermediation on a domestic level. The expansion of the banking system is thought to benefit from increased trade and financial openness.

Theoretical Review
Law and Finance Hypothesis
The Law and Finance theory was first proposed by La Porta, Lopez-de-Silanes, Shleider, and Vishny (1998). The Law and Finance Hypothesis proposes that the legal system of a country has a direct bearing on its level of economic development (Law & Azman-Saini, 2012). The usage of common law or civil law is seen to promote or inhibit a country's economic growth. Thus, regulatory frameworks have an impact on a country's equity and debt markets as well as the stock market as a whole. The Law and Finance theory examines the relationship between the law and the financial sector, specifically with regards to the enforcement of contracts and the treatment of debtors. In countries with strong legal systems, investors' rights are protected from expropriation. This theory proposes the significance of legal environments and regulatory frameworks in upholding investor rights, accounting disclosure, and contracts enforcement to strengthen financial intermediation for stock market development, providing theoretical grounding for the relationship between institutional quality and stock market development (Ahmed et al., 2020).

Simultaneous Openness Hypothesis
The simultaneous openness hypothesis was first proposed by Rajan and Zingales (2003) as a contribution to the Interest Group for Financial Development Theory. The hypothesis states that international trade, commercial interest groups, and incoming capital all have the potential to advance a country's economic situation. Openness in trade and finance seems to be essential for fostering the expansion of the financial sector. In economies that are more open to trade and investment, the financial sector's expansion will be restricted. The simultaneous hypothesis lends credence to this research since it elucidates key characteristics of simultaneous openness that affect economic growth.

Empirical Review
Institutional Quality and Stock Market Development
Using linear and non-linear autoregressive distributed lag models, Islam, Bilal, and Zaidi (2022) analyzed the symmetric and asymmetric link between economic freedom and Pakistani stock market development from 1993 to 2020. The findings revealed that government size and market accessibility have significantly higher impacts on stock market development than rule of law and regulatory effectiveness. Long-term growth in the stock market requires efficient regulation, efficient market operations, and the lack of corruption in the financial industry, as shown by the ARDL framework. Ahmed et al. (2021) used the auto-regressive distributive lag with the pooled mean group estimator to evaluate the relationship between development of the stock market and disaggregated governance traits in a panel of selected South Asian countries from 1996 to 2014. Rule of law, public participation, and anti-corruption measures were all found to have substantial effects on stock market growth in South Asian nations. The calculations demonstrate that governance disaggregates have a long-term impact on the growth of stock markets, even after accounting for the effects of discounting future occurrences. The findings showed that governance issues had different impacts on stock market growth in different countries. When studying the evolution of the stock market from 1989 to 2016, Matadeen et al. (2019) utilized the dynamic vector error correction model to dissect the role played by institutional and macroeconomic factors. Rule of law, government efficiency, political stability, public participation, and corruption control were all found to have an effect

on the growth of Mauritius' stock market. The trajectory of the stock market is affected by macro factors including banking sector growth, economic expansion, and net capital formation.

Shi et al. (2019) used the fully modified ordinary least square approach and the heterogeneous causality test to examine the effect of institutional quality measurements on stock market volatility and growth in Southeast Asian nations from 1991 to 2014. According to the results, there is a connection between stable institutions, rising stock markets, and progress. The results also indicated a positive relationship between monetary security, trade openness, government size, and regulatory quality. The rule of law, on the other hand, is strongly correlated with lower market volatility. In the short run, the macroeconomic indicators were strongly connected with the growth and volatility of the stock market. Meanwhile, the research discovered that increased regional institutional autonomy not only helps the stock market expand, but also significantly reduces volatility.

The dynamic influence of democracy on the growth of the Nigerian stock market from 1984 to 2015 was investigated by Ajide (2019) using a non-linear auto regressive distributive lag model. Stock market growth and democratic accountability, a measure of democracy, were found to have unbalanced correlations. Both short-term and long-term stock market gains are negatively correlated with democratic leadership. Using market capitalization as a proxy for economic growth, Dima et al. (2018) analyzed the impact of rule of law on stock market growth in 45 countries between 2009 and 2014. Having the rule of law in place was found to have a good impact on the growth of the financial markets. Agyemang et al. (2018) used stock market variables as a proxy for financial development to examine the growth of financial institutions and markets across Africa. The dynamic panel generalized method of moments estimate results demonstrated a correlation between well-established institutional frameworks and the growth of stock markets in African nations. To analyze the impact of regulatory quality on stock market growth across several African countries, Umar et al. (2018) employed a pooled mean group model estimate. In the sample of countries, the ones with the effective rule of law also had the most advanced stock markets.

Openness and Stock Market Development

Bandura (2022) used the system generalized method of moments to analyze the impact of financial and trade openness on financial development in twenty-six sub-Saharan African countries between 1982 and 2016. While Rajan and Zingales (2003) hypothesized that greater financial and trade liberalization would stimulate economic expansion, these results disproved that theory.

Akinwale et al. investigated the effects of globalization on the growth of the Nigerian stock market (2019). The study analyzed the impact of Nigeria's enhanced trade and financial openness on FDI and other capital inflows from 1986 to 2017 using the auto-regressive distributed lag estimator. Positive and statistically significant correlations between trade liberalization and FDI were found. However, whereas domestic investment greatly aided the growth of the stock market, foreign direct investment (FDI) actually hampered its progress. Therefore, globalization also has an effect on the financial sector. From 2000 to 2015, Aluko et al. (2019) used the feasible generalized least square estimator to analyze the impact of a variety of macroeconomic factors on stock market growth in a dozen countries across sub-Saharan Africa. The findings demonstrated that stock market growth is affected by financial and trade openness. Effects on the growth of stock markets in Sub-Saharan Africa can be seen from factors such as macroeconomic stability, financial intermediation, income, savings, and investment.

Ajayi et al. (2019) used data on Nigeria collected between 1990 and 2015 and an Instrumental variable estimator to test the simultaneous openness hypothesis. Findings suggest that increasing financial and trade openness hinders the growth of Nigeria's stock market while benefiting the banking industry. The expansion of stock markets and the degree to which trade and financial markets were open in 19 Eurozone countries between 2000 and 2015 were examined by Ayaydin et al. (2018) using a dynamic panel generalized technique of moments. The findings suggested that the degree of trade and financial openness may be used as a reliable predictor of stock market development in the Eurozone. Closed economies would benefit the most from opening up to the rest of the world at the same time, if there is a negative association between financial and trade openness and stock markets.

Research Gap

The survey of literature revealed a link between strong institutions and a developed stock market (Agyemang et al., 2018; Ajide, 2019; Boadi et al., 2018; Dima et al., 2018; Khan et al., 2018; Umar et al., 2018). Ajayi (2018) studied the connection between openness and the expansion of the stock market. There is a significant gap based on the understanding of the factors that have contributed to the development of the Nigerian stock market, including the impact of institutional quality and level of openness. There has been some speculation that greater openness would be good for the country's stock market, no previous study has proposed

a strategy for fostering this kind of relationship through institutional means. In light of this, the study provides novel evidence concerning the connection between institutional quality, openness, and the development of the Nigerian stock market.

METHODOLOGY

Assessing the role that openness and strong institutions played in the development of the stock market in Nigeria from 1996 to 2021, the ex post facto research design is utilised for data collection.

Model Specification

This research extends the model of Manasseh *et al.* (2017) by accounting for exchange rate
effect on stock market development and considering how institutional quality interacts with openness (trade and capital) to stimulate market development. In its operational form, the model is presented as follows:

SMD = f (INSQ, BSD, LIQ, INSQ*OPEN, EXG) ………………………………………. (1)

It is stated in its econometric form as:

SMD = $\beta_0 + \beta_1$INSQ + β_2BSD + β_3LIQ + β_4INSQ*OPEN + β_5EXG ……………………… (2)

The variables are stock market development (SMD), institutional quality (INSQ), stock market liquidity (LIQ), exchange rate (EXG), and interaction term (OPEN) (trade and capital openness). Interaction between institutional quality and openness indicator, is abbreviated as INSQ*(OPEN). Parameters 1–5 are to be estimated, while μ stands for the unobserved factors that influence the stock market development. The intercept of the model is β_0. This study expects that independent variables positively influence stock market development when $\gamma > 0$, or a negatively relationship between independent variables and stock market development when $\gamma < 0$. However, the expected signs for the variables are in accordance with extant empirical studies and theories.

Estimation Technique

For the data analysis, this study employs the error correction model (ECM) and the co-integration framework. Within the framework of an auto-regressive distributed lag model, a bounds test is conducted. There is a higher chance of getting spurious regression findings because the time series data are scarcely in a stationary level form. Therefore, stationarity of series is determined using the augmented Dickey- Fuller unit root test. The long and short-term effects of the explanatory variables of stock market development can be determined by the Auto-Regressive Distributive Lag Model (ARDL) bounds testing approach. In addition to testing for serial correlation and heteroscedasticity, signs of model instability, and structural stability, the model diagnostic technique used to evaluate the accuracy of the findings also examined the normality of the series and checked for model misspecification errors. The composite index used to evaluate institutions is calculated using Principal Component Analysis (PCA). During this procedure, a large number of correlated sets of variables are reduced to a manageable number of independent variables. With this technique, it is possible to reduce the number of observed variables in a data collection while still keeping most of the information contained within it. Institutional quality can be broken down into its three basic parts: political stability; citizen participation; regulatory quality; corruption control; governmental efficiency; and bureaucratic quality. The first principal component, designated as the "aggregate" index, was then used to derive the composite index. Using linear interpolation, the annual data is transformed into quarterly frequency for 1996Q1 through 2021Q4 in this investigation. It is essential to ensure the required number of periods is gathered for long-term estimation.

RESULTS & DISCUSSION

Summary Statistics

Table 1 provides descriptive data for the variables in the study. The minimum and maximum values, as well as the mean and standard deviation, of the sample are provided.

Table 1. The Summary Statistics

VARIABLE	MEAN	STD. DEV	MIN.	MAX.
SMD	0.4353	1.7394	0.8352	2.4212
INSQ	1.0562	23.281	1.034	1.963
BSD	0.1729	1.9162	1.7251	3.8110

OPEN	0.8356	1.2202	0.3536	0.8119
LIQ	0.1662	11.327	-65.857	18.18
EXG	21.89	32.91	186.02	792.33

Source: Author's computation, (2022).

Results of Stationarity Test

Unit Root Test

It is crucial to verify the stationary status of time series data prior to generating a regression model. Stationarity is assumed based on constant observation of mean and variance. A unit root test determines if the model's variables are stationary at a single value (stationarity properties). Non-stationary data raises the likelihood of a spurious positive result in a regression (Wang & Hafner, 2018). The test verifies the integration Order-I(d) for each variable, in addition to deciding the regression model to use for estimate. Consequently, the variables are stationary, as shown by the augmented Dickey-Fuller Test of Unit Root. Unit root test results are presented in Table 2.

Table 2. Augmented Dickey-Fuller Unit Root Test (ADF-URT) Results

Variables	Lags	Drift, trend	ADF statistic value	Conclusion
SMD	1	Drift	-2.196**	I1)
INSQ	1	Drift, trend	-1.2163**	I(1)
BSD	2	Drift, trend	-1.0672**	I(1)
OPEN	1	Drift, trend	-1.0329**	I(1)
LIQ	1	Drift	-2.101**	I(0)
EXG	1	Drift	-3.076**	I(1)

Source: Author's Computation, (2022).

Note: ** denote the null hypothesis being rejected at the 5% significance level.

The ADF unit-root test demonstrates that variables are stationary at I(0) or I(1), respectively; nevertheless, stock market liquidity is level-stationary. This data challenges the competing explanation that the variables are not stable. This finding provides an estimation method for the ARDL framework, which guarantees the establishment of long-run associations between variables. Since it is assumed that all variables are I(0) and I(1) in the bound testing approach to cointegration, this also means that they are mutually integrated.

ARDL Bounds Testing Approach for Co-integrating Relationship

This research uses the ARDL framework proposed by Pesaran and Shin (1999) and subsequently backed by Pesaran et al. (2001) to ascertain if the variables are linked in a long-run equilibrium. Lower and upper bound critical values of the ARDL bounds test are used to examine the potential for a long-term link between the variables. When the calculated F-statistic is greater than the upper bound critical values, the null hypothesis of no cointegration is rejected and vice versa.

Table 3. Results of the ARDL Bounds Test Cointegration Approach

F-statistics	Asymptotic critical values							
	10%		5%		2.5%		1%	
F-stat. value	I(0)	I(1)	I(0)	I(0)	I(0)	I(1)	I(0)	I(1)
= 2.899***								
	1.43	2.11	2.06	2.24	2.13	2.37	2.26	2.74

Source: Author's Computation, (2022).

Notes: *** denotes null hypothesis is rejected at a 1% significance level. I(0) and I(1) signify lower bound and upper bound, respectively.

The ARDL bounds test results are shown in Table 3, revealing an F-test value of 2.899. Value is larger than the upper bound of the I(1) asymptotic critical values at all significance levels. Thus, the results of this analysis provide strong evidence against H0, the hypothesis that there is no cointegration. A dynamic model that takes into account both long- and short-term trends can be informed by the study's confirmation of a cointegrating link between the variables.

Results of the ARDL Regressions

The study produces both long- and short-run model coefficients. The estimation yields result that can be used to test the study's hypotheses. The results are summarized in Table 4.

Table 4. Results of ARDL Model

	Variables	Coefficients
ADJ	SMD_{t-1}	-0.07556**
		(0.00014)
Long-Run		
	INSQ	(2.61521)
		0.00002**
		(1.06186)
	BSD	0.00011**
		(0.75172)
	LIQ	0.00004**
	OPEN*INSQ	(0.01671)
		0.00013**
	EXG	
		(-3.10725)
		(0.10178)***
Short-Run		
	SMD_{t-1}	-1.7329
		(2.2315)
		-3.72511
	$INSQ_{t-1}$	(2.01622)
		1.82629
	BSD_{t-1}	-1.725201
		-3.55513
	LIQ_{t-1}	(-1.52326)
		-0.08422
	$INSQ*OPEN_{t-1}$	(0.0107)***
	EXG_{t-1}	-0.91751

	(0.77151)
	(4.72511)
Constant	-0.07152**

F-statistics	*5.09***
R-squared	*0.7291*
Breusch Godfrey LM Serial Correlation test	*Chi² = 0.315 [0.6407]*
Ramsey Reset test for Misspecification Error	*F (3, 2) =0.93 [0.3202]*
White Heteroscedasticity test	*Chi² = 28.00 [0.3605]*
CUSUM and CUMSUMSQ Model Stability test	*Lies within the 5% significance level*

Source: Author's Computation, (2022).

Notes: ***, **, and * imply the null hypothesis is rejected at 1%, 5%, and 10% levels of significance, respectively. The standard errors are denoted by (), while the p-values are denoted by [].

ARDL Regression Estimates

For the long run model, this study reports the ARDL regression estimates in Table 4. The findings highlight the importance of trade and capital openings in the development of the Nigerian stock market. The study's findings showed that institutional quality and stock market development are positively related. The enhancement of institutional quality and the growth of the banking sector were both positively correlated with the development of the stock market; this association was statistically significant at the 5% level. However, there is an inverse association between exchange rate and stock market development at the 1% level of statistical significance. Statistics showed that there was a negative correlation between market growth and stock market liquidity (p 0.05). The interaction between institutional quality and openness has a positive and statistically significant coefficient. The ARDL model also shows the adjustment (ADJ) coefficient, and the result is negative and statistically significant at the 5% level, which demonstrates that short-term fluctuations can be easily brought back to a long-term equilibrium condition. The ARDL short-run regression estimates are also shown in Table 4, where the only significant variable is the interactive term of institutional quality and openness, and where the regression parameters from the one-period lagged explanatory factors showed a negative relationship with stock market development.

Results of Model Diagnostics Tests

The regression results of the study are verified by the model diagnostic and stability tests. Assumptions of homoscedasticity and serial correlation are investigated. Based on the results shown in Table 4, the Breusch Godfrey LM Serial Correlation test did not find any evidence of higher-order serial correlation in the error term. Homoskedastic errors were found by the White Heteroscedasticity test (p-value= 0.36>0.1). Using the Ramsey Reset test, one can see that the model is specified correctly; the p-value is 0.3202, which is not statistically significant at the 10% level. In these diagnostic tests, the null hypothesis is rejected or accepted based on the value of the test statistic and the p-value at a 10% significance level. Brown, Durbin, and Evans (1975) developed the CUSUMSQ and CUSUM tests to evaluate the structural stability of the long-run estimations. The plots of the CUSUMSQ and CUSUM statistics are outside the critical value limit at a significance level of 5%. The null hypothesis that the regression coefficients are unstable is thus rejected. The stability and diagnostic tests demonstrate that the regression's findings are reliable.

DISCUSSION OF FINDINGS

The long-run results are important for discussion of findings since the study revealed a long-run association between stock market development and its determining factors. The development of the stock market is positively correlated with institutional quality, according to the results. This is in line with the research of Khan *et al.* (2018), who discovered that the development of the stock market is supported by sound institutional quality. Stock market development was found to be positively correlated with banking sector development and institutional quality. This supports the findings of Agyemang et al. (2018) and Omar, Ali, Mouneer, Kouser, and Al-Faryan (2022), which showed that these institutional characteristics enhance stock market development. These findings highlight the significance of a stable institutional framework and financial system in promoting Nigeria's stock market development.

This research also confirmed that the exchange rate has a negative impact on stock market development. Tsaurai (2018) discovered a positive association between the exchange rate and the development of the stock market; the findings in this study contradicts their findings. Consistent with Tsaurai's (2018) research, the liquidity of the stock market was found to have a positive effect on the development of the stock market. A positive interactive term between openness and institutional quality was discovered. The study is the first to provide evidence of their combined impact on stock market development in Nigeria, despite earlier research by Awiagah and Choi (2018) having shown the potential positive benefits of openness and institutional quality on stock market development as stand-alone measures.

CONCLUSION & RECOMMENDATIONS

This study looked at how factors like market openness and institutional quality affected the stock market development in Nigeria. The study found that the development of stock markets is influenced by factors like institutional quality, banking sector development, stock market liquidity, and openness to capital and trade. Institutional quality and openness both promote stock market growth, the study finds. Yet the growth of the stock market is hindered by the exchange rate. Based on policy measures, the study recommends that governance institutions in Nigeria needs to be strengthened via enabling legal framework to ensure the political stability and the avoidance of violence in its political system. Besides, government really needs to grant autonomy to agencies in charge of tackling the corruption to enable them to enjoy simultaneous openness. Monetary authorities should also ensure exchange rate stability and improved credit for domestic investment activities.

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