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ECONOMIC GLOBALIZATION, INFLATION AND BANKING SECTOR PERFORMANCE IN NIGERIA: A LONG-RUN ANALYSIS

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ABSTRACT

The paper examined the impact of economic globalization on banking sector performance in Nigeria from 1990 to 2024. Using an ex post facto research design and annual time-series data from the Central Bank of Nigeria, the World Bank, and the Chinn-Ito database, the study employed the ARDL bounds testing approach to test for cointegration. The study measured banking sector performance using Return on Assets (ROA), with trade openness, foreign direct investment, and financial openness as globalization indicators, and inflation as a control variable. The empirical findings revealed that trade openness ($\beta = 0.0284$, $p < 0.01$), foreign direct investment ($\beta = 0.1567$, $p < 0.01$), and financial openness ($\beta = 0.4123$, $p < 0.01$) all have positive and statistically significant effects on banking sector performance (ROA) in the long run. Inflation ($\beta = -0.0187$, $p < 0.01$) has a negative and significant effect. The error correction term (-0.4567, $p < 0.01$) confirmed cointegration, indicating that 45.67% of disequilibrium is corrected annually. Based on these findings, the paper concluded that economic globalization significantly enhances banking sector performance in Nigeria. The study recommended that policymakers sustain trade integration, attract FDI into financial services, and that bank management treat globalization as an operational capability rather than an external condition.

Keywords: *Economic globalization, bank performance, return on assets, ARDL*

JEL Classification: *F60, E31, G21, C32.*

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1. INTRODUCTION

Globalization, broadly defined as the process of increasing interconnectedness and integration of economies, markets, and financial systems across national borders, has fundamentally altered the operating environment of banking institutions globally (Udofia, 2025). For developing economies like Nigeria, this phenomenon presents both significant opportunities and formidable challenges for the banking sector, which serves as the cornerstone of financial intermediation and economic development. The Nigerian banking sector has undergone remarkable transformation over the past four decades, evolving from a predominantly state-controlled system to a more market-driven and internationally integrated financial services industry, driven largely by globalization forces, including financial liberalization policies, technological innovation, and increased integration with international financial markets (Ogundele, Akindutire, and Ilegbusi, 2021).

The financial liberalization hypothesis of McKinnon (1973) and Shaw (1973) posits that eliminating government-imposed restrictions on financial markets can stimulate economic progress by enhancing savings, investment, and financial efficiency. This theoretical framework suggests that globalization, through financial openness and deregulation, can improve banking sector performance by increasing competition, attracting foreign investment, facilitating technology transfer, and enhancing operational efficiency. Critics, however, argue that financial globalization may introduce systemic risks, increase vulnerability to external shocks, and exacerbate inequality, particularly in environments with weak institutional frameworks (Udofia, 2025). This dual nature underscores the importance of understanding its specific impact on banking sector performance in the Nigerian context.

Despite significant globalization-driven reforms, including the 2005 banking consolidation, adoption of international financial reporting standards, and increased foreign bank participation, banking sector performance indicators have not shown consistent improvement. Fluctuating profitability margins, vulnerability to macroeconomic shocks, high non-performing loan ratios, and concerns about systemic stability persist. Akinlo, Akinsokeji, and Dairo (2026) found that globalization actually hinders Nigeria's economic growth, a counterintuitive result that suggests the relationship between globalization and financial sector outcomes may be more complex than theoretical frameworks suggest.

Notwithstanding the extensive theoretical and empirical literature on globalization and financial sector development, significant gaps remain in understanding the specific mechanisms through which globalization affects banking sector performance in Nigeria. The complexity of the relationship, the evolving nature of globalization processes, and the unique characteristics of the Nigerian banking system necessitate continued investigation. In addition, the temporal dimension of globalization effects, including potential short-run costs and long-run benefits, requires careful empirical analysis using appropriate econometric techniques that can capture both immediate and lagged effects.

Furthermore, several empirical studies have produced conflicting findings: some report positive effects of financial globalization on sectoral development (Udofia, 2025), while others find negative or statistically insignificant effects (Akinlo et al., 2026), reflecting methodological differences, varying measurement approaches, and different time periods examined. Additionally, few studies examine the relationship within a comprehensive framework that incorporates relevant control variables and econometric techniques capable of distinguishing short-run from long-run effects. This gap constrains effective policy formulation and strategic management in the Nigerian banking sector, potentially

undermining its capacity to contribute to sustainable economic development. Hence, the need for this study

Research questions

Based on the specific objectives above, this study addresses the following research questions:

a) What is the effect of trade openness on banking sector performance in Nigeria?
b) What is the impact of foreign direct investment on banking sector performance in Nigeria?
c) What is the effect of financial openness on banking sector performance in Nigeria?

Research Objectives

The broad objective of the study was to examine the impact of economic globalization on banking sector performance in Nigeria. Specifically, the study seeks to:

a) Examine the effect of trade openness on banking sector performance in Nigeria.
b) Assess the impact of foreign direct investment (FDI) inflows on banking sector performance in Nigeria.
c) Evaluate the effect of financial openness on banking sector performance in Nigeria.

2. LITERATURE REVIEW

2.1 Conceptual Literature

Economic Globalization and Banking Sector Performance: The Nexus

The relationship between economic globalization and banking sector performance operates through four interconnected channels. The competition channel: increased foreign bank entry and cross-border capital flows intensify competition, potentially improving efficiency and reducing costs, though heightened competition can also compress profit margins and incentivize excessive risk-taking (Okoduwa, 2024). The technology transfer channel: foreign banks and international financial integration facilitate the transfer of advanced banking technologies, management practices, and risk management techniques (Balcilar, Gungor, & Olasehinde-Williams, 2019). The capital access channel: financial integration provides banks with access to international capital markets, reducing funding costs and expanding lending capacity, though it also exposes them to capital flow volatility and sudden stops. The regulatory channel: integration with international financial markets often necessitates adoption of international financial standards, potentially strengthening regulatory frameworks and stability (Asongu & De Moor, 2015). The net effect of these channels depends on domestic conditions, regulatory quality, financial development, and the macroeconomic environment.

Dimensions of Economic Globalization and Banking Performance

Recent literature conceptualizes economic globalization as a multidimensional construct rather than a single indicator (Dreher, 2006). Following the KOF and Chinn-Ito frameworks, this study disaggregates economic globalization into three interrelated but distinct dimensions: trade openness, foreign direct

investment, and financial openness. This disaggregation matters because each dimension affects banking sector performance in different ways.

Trade openness, measured as total trade to GDP, influences banking performance by expanding demand for trade finance, letters of credit, and foreign exchange services; intensifying competition; and transmitting international trade shocks. Empirical evidence in Nigeria is mixed. Ogundele, Akindutire, and Ilegbusi (2021) found trade openness significantly improves banking performance, consistent with Balcilar et al. (2019), who report positive globalization effects across countries. Afolabi (2015), however, found foreign trade had a positive but insignificant effect on bank total assets, suggesting the trade channel may be weaker than the FDI and exchange rate channels in Nigeria, plausibly reflecting the oil-concentrated, undiversified structure of Nigerian trade.

Foreign direct investment brings capital, technology, management practices, and competitive pressure. Raji, Afolabi, and Osinuga (2021), examining 1985–2019, found that FDI and the exchange rate have positive, significant effects on bank total assets, while foreign trade has a positive but insignificant effect; they concluded that globalization determines bank total assets. Afolabi (2015) and Okoduwa (2024) report consistent findings, supporting the financial liberalization hypothesis that foreign capital inflows promote financial sector development.

Financial openness, measured by the Chinn-Ito index, captures capital account openness. Okoduwa (2024), using ARDL on 1981–2021 data, found financial globalization significantly enhanced banking sector and stock market development in Nigeria, supporting the financial liberalization hypothesis. Sümerli Sarıgül and Avcı (2024), using 11 OECD countries and 1990–2018 data with Driscoll-Kraay standard errors, found that banking performance and financial globalization had a significant positive effect on economic development, with two-way causality between development and banking performance. Akinlo, Akinsokeji, and Dairo (2026), however, found that globalization hinders Nigeria's economic growth using ARDL, FMOLS, and Canonical Cointegration Regression on 1980–2023 data, suggesting that the benefits are conditional on institutional quality, macroeconomic stability, and financial development.

Conceptual framework

Based on the theoretical and empirical review, the conceptual framework integrates the two theories. Economic globalization, operationalized as trade openness (TRD), foreign direct investment (FDI), and financial openness (FIN), is posited to influence banking sector performance, measured by Return on Assets (ROA), with inflation (INF) as a control variable reflecting macroeconomic stability.

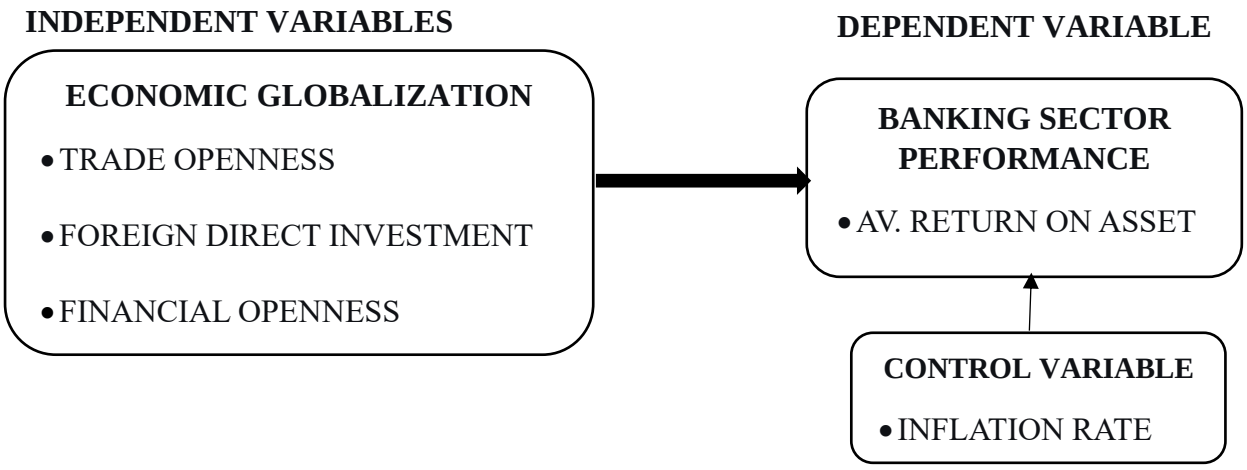


Figure 1: The Relationship between the Dependent and Independent Variables
Source: Authors' Compilation, 2026

2.2 Theoretical framework

Financial liberalization hypothesis

The financial liberalization hypothesis, articulated by McKinnon (1973) and Shaw (1973), posits that government-imposed restrictions on financial markets, interest rate controls, credit allocation policies, and barriers to entry distort financial intermediation and impede economic development. Liberalization is argued to enhance financial sector efficiency, increase savings and investment, and promote growth (Shaw, 1973). Applied to this study, the hypothesis predicts that Nigeria's integration into global financial markets through trade openness, FDI, and capital account openness should improve banking sector performance. This prediction tests whether each globalization dimension has a significant positive effect on ROA.

Institutional theory

Institutional theory complements the liberalization hypothesis by emphasizing that the effects of globalization are mediated by the quality of domestic institutions, regulatory frameworks, legal systems, property rights, and governance mechanisms (North, 1990; Udofia, 2025). Where institutions are weak, globalization's benefits may be limited or negative; where they are strong, it can powerfully drive financial development (Akinyemi, 2025). This perspective is particularly relevant to Nigeria, where regulatory capacity and macroeconomic stability have historically been uneven (Afolabi, 2015). The same globalization forces may produce different outcomes depending on institutional context. Together, the two theories justify controlling for inflation as a proxy for macroeconomic stability.

2.3 Empirical Literature Review

The relationship between globalization and banking sector performance has been examined in various country contexts, with findings that vary depending on the measures of globalization and performance employed, the time periods examined, and the methodological approaches used. Balcilar et al. (2019) conducted a multi-country panel study on the impact of globalization on financial development, finding that globalization has a positive effect on financial development across countries. The effect was found to be heterogeneous, varying with country income levels and institutional quality. The study emphasized that the benefits of globalization are not automatic and depend on domestic factors, including institutional quality and financial sector development.

Fuinhas, Marques, and Lopes (2019) examined the impact of financial development and globalization on economic growth in a macro panel of ten countries, finding a positive relationship between globalization and financial development. The study employed panel cointegration techniques to establish both short-run and long-run relationships, contributing to the empirical literature on the time dimension of globalization effects. Lu et al. (2021) examined the nexus between financial development, FDI, globalization, and environmental outcomes in Belt and Road Initiative (BRI) countries, finding a positive relationship between globalization and financial development. The study highlighted the importance of considering multiple dimensions of globalization in empirical analysis. Sümerli Sarıgül and Avcı (2024) examined the relationship between banking sector performance, financial globalization, and economic development in 11 OECD countries over the period 1990-2018. Using Driscoll-Kraay standard errors, forecasts, and panel causality tests, they found that banking sector performance, financial globalization, and investments have a statistically significant positive effect on economic development. They also found a two-way causality between economic development and banking sector performance, and a one-way causality from trade openness to economic development.

Okoduwa (2024) examined the impact of financial globalization on financial development in Nigeria over the period 1981-2021 using the Autoregressive Distributed Lag (ARDL) technique. The study found that financial globalization significantly enhanced banking sector development and stock market development. The findings supported the financial liberalization hypothesis and recommended more active financial globalization reforms to enhance banking sector growth. Akinola (2012) examined the effect of globalization on performance in the Nigerian banking industry, finding that globalization has a positive and significant effect on bank performance. The study employed regression analysis and recommended that Nigerian banks should continue to integrate with the global financial system to enhance their performance. Afolabi (2015) investigated the effect of globalization on the performance of Nigerian banks, measuring globalization by foreign direct investment, foreign trade, and exchange rate. The study found that foreign direct investment and exchange rate have a positive and significant effect on the total assets of banks in Nigeria, but foreign trade had a positive but insignificant effect on bank total assets. The study concluded that globalization is a determinant of bank total assets and recommended policies to attract foreign investment and stabilize the exchange rate.

Akowe, Acho, and Audu (2015) examined the effect of globalization on banking operations in Nigeria, finding that globalization has a positive effect on banking operations and performance. The study recommended that Nigerian banks should continue to embrace globalization to improve their competitiveness and performance. Ogundele, Akindutire, and Ilegbusi (2021) examined the relationship between globalization and banking sector performance in Nigeria from 1981 to 2019. The study found that globalization variables, including trade openness, foreign direct investment, and financial openness, have significant effects on banking sector performance measured by return on assets and return on

equity. The findings supported the view that globalization is an important driver of banking sector outcomes in Nigeria.

The Nigerian evidence also extends beyond aggregate measures of globalization. Eyo and Ugah (2023), examining time series data from 1986 to 2021 using VARX and ARDL techniques, found that financial development has a positive and significant short-run effect on globalization. In contrast, financial crisis indicators exert a long-run negative effect, with exchange rate volatility showing negative implications in both the short and long run. Their findings suggest that the relationship between financial sector conditions and globalization is bidirectional and time-varying, reinforcing the need for a framework that captures both short-run and long-run dynamics.

However, other studies have found more nuanced or negative effects. Akinlo, Akinsokeji, and Dairo (2026) investigated the individual impacts of financial development and globalization on economic growth in Nigeria using ARDL, FMOLS, and Canonical Cointegration Regression for the period 1980-2023. The study found that globalization actually hinders Nigeria's economic growth, suggesting that the benefits of globalization may not have materialized due to structural impediments or inappropriate policy responses. Aski and Abubakar (2025) examined the determinants of financial performance in Nigerian deposit money banks, finding that leverage and exchange rate have a negative but significant effect on financial performance, while asset quality, interest rate, and economic growth tend to have significant positive effects on performance measured by net interest margin. The study highlighted the importance of considering both bank-specific and macroeconomic factors in understanding banking performance. Odom, Thom-Otuya, and Oboh (2026) examined the profitability margins of Nigerian banks from 2020 to 2024, establishing that return on assets and return on equity have significant trends, implying that profitability in the Nigerian banking industry is dynamic and not static. The study provided insights into the recent performance trends in the banking sector.

Synthesis and Research Gap

The reviewed literature reveals three main patterns. First, most Nigerian studies report a positive relationship between globalization and banking sector performance (Akinola, 2012; Akowe, Acho, & Audu, 2015; Afolabi, 2015; Ogundele et al., 2021; Raji et al., 2021; Okoduwa, 2024). However, Akinlo et al. (2026) report negative effects on growth. Although these outcomes are not directly comparable, the contrasting findings suggest that the benefits of globalization may depend on the outcome examined. Second, differences in performance measures, globalization indicators, and study periods make comparisons difficult. Studies variously measure performance using total assets, return on assets (ROA), or return on equity (ROE), while globalization is captured through trade openness, foreign direct investment, or the Chinn–Ito financial openness index. Third, many studies omit relevant control variables or do not distinguish between short-run adjustments and long-run relationships.

This study addresses these gaps by using ROA to measure bank profitability and incorporating trade openness, foreign direct investment, and financial openness within the same model. It also controls for inflation to account for its influence on banking sector performance. The ARDL bounds testing approach allows the study to examine both short-run dynamics and long-run relationships within a single framework. Although Okoduwa (2024) adopted this approach, its application remains limited among the earlier Nigerian studies reviewed here.

3.1 Research methodology

The research design adopted for this study is the ex post facto research design, also known as causal-comparative research. This design is appropriate for studies that examine relationships between variables where the researcher has no control over the independent variables because they have already occurred or cannot be manipulated (Kerlinger & Lee, 2000). The study employs secondary data, which refers to data that have been collected and published by other organizations or researchers for purposes other than the current study. The data are quantitative in nature and consist of annual time series observations. The data for this study are obtained from authoritative and reputable sources such as the Central Bank of Nigeria (CBN) Statistical Bulletin, the World Bank World Development Indicators (WDI), and the Chinn-Ito Financial Openness Index (KAOPEN)**.**

Model specification

The model specification for this study is guided by the theoretical frameworks, particularly the financial liberalization hypothesis (McKinnon, 1973; Shaw, 1973). These theories suggest that globalization indicators, including trade openness, foreign direct investment, and financial openness, influence banking sector performance, with the effects conditional on macroeconomic stability as reflected in the inflation rate.

The general functional relationship between economic globalization and banking sector performance can be expressed as:

$$BSP = f(TRD, FDI, FIN, INF) \ldots\ldots\ldots\ldots\ldots\ldots i$$

Where:

- **BSP** = Banking Sector Performance (measured by Return on Assets)
- **TRD** = Trade Openness
- **FDI** = Foreign Direct Investment
- **FIN** = Financial Openness
- **INF** = Inflation Rate (control variable)

Based on the functional relationship, the study specifies one econometric model using Return on Assets (ROA) as the dependent variable. ROA is selected as the measure of banking sector performance because it is the most comprehensive indicator of overall bank profitability and efficiency, reflecting management's ability to generate profits from available assets. The model is specified in log-linear form to facilitate the interpretation of coefficients as elasticities and to address potential heteroscedasticity issues. The econometric model is presented as:

$$ROA_t = \beta_0 + \beta_1 TRD_t + \beta_2 FDI_t + \beta_3 FIN_t + \beta_4 INF_t + \varepsilon_t \ldots\ldots\ldots\ldots\ldots\ldots ii$$

Where:

- $\mathbf{ROA_t}$ = Return on Assets at time t
- $\boldsymbol{\beta_0}$ = Intercept term
- $\boldsymbol{\beta_1}$ **to** $\boldsymbol{\beta_4}$ = Coefficients to be estimated
- $\mathbf{TRD_t}$ = Trade Openness at time t
- $\mathbf{FDI_t}$ = Foreign Direct Investment at time t
- $\mathbf{FIN_t}$ = Financial Openness at time t
- $\mathbf{INF_t}$ = Inflation Rate at time t (control variable)
- $\boldsymbol{\varepsilon_t}$ = Error term

The expected signs of the coefficients are as follows. Trade openness (TRD) is expected to have a positive effect on banking performance, consistent with the financial liberalization hypothesis and the findings of Okoduwa (2024) and Ogundele, Akindutire, and Ilegbusi (2021). Foreign direct investment

(FDI) is expected to have a positive effect, as FDI brings capital, technology, and management expertise to the banking sector (Raji, Afolabi, & Osinuga, 2021). Financial openness (FIN) is expected to have a positive effect, as capital account openness facilitates access to international capital and enhances financial integration (Okoduwa, 2024). Inflation is expected to have a negative effect on banking performance, as higher inflation erodes the real value of assets, creates uncertainty, and increases operational costs (Aski & Abubakar, 2025).

Techniques of data analysis

Before estimating the ARDL model, it is essential to test for the stationarity of the variables to determine their order of integration. Although the ARDL approach does not require all variables to be integrated of the same order, it is necessary to ensure that none of the variables is integrated of order two, I(2), as the ARDL bounds test is not applicable in the presence of I(2) variables. The study employs the ADF test to test for the presence of a unit root in each variable. The test is based on the following regression:

$$\Delta y_t = \propto + \delta y_{t-1} + \sum_{i=1}^{p} \gamma_i \Delta y_{t-1} + \varepsilon_t \dots\dots\dots\dots\dots\dots\dots\dots iii$$

Where Y_t is the variable being tested, Δ is the first difference operator, t is the time trend, k is the lag length, and ε_t is the error term. The null hypothesis is that the variable has a unit root ($\rho = 0$), indicating non-stationarity. The null hypothesis is rejected if the calculated t-statistic is greater (in absolute value) than the critical value.

To examine the short-run and long-run relationships between economic globalization indicators and banking sector performance, the study employs the Autoregressive Distributed Lag (ARDL) approach to cointegration developed by Pesaran, Shin, and Smith (2001). The ARDL approach is preferred over other cointegration techniques for several reasons: (i) it can be applied regardless of whether the regressors are I(0) or I(1), or mutually cointegrated; (ii) it provides unbiased estimates of the long-run model and valid t-statistics even when some regressors are endogenous; and (iii) it is more appropriate for small sample sizes.

The ARDL model for ROA is specified in its general form as:

$$\begin{aligned}\Delta ROA_t = \alpha_O &+ \sum_{i=1}^{P} \beta_1 \Delta ROA_{t-1} + \sum_{i=0}^{p} \beta_2 \Delta TRD_{t-1} + \sum_{i=0}^{p} \beta_3 \Delta FDI_{t-1} + \sum_{i=0}^{p} \beta_4 \Delta FIN_{t-1} \\ &+ \sum_{i=0}^{p} \beta_5 \Delta INF_{t-1} + \lambda_1 ROA_{t-1} + \lambda_2 TRD_{t-1} + \lambda_3 FDI_{t-1} + \lambda_4 FIN_{t-1} + \lambda_5 INF_{t-1} \\ &+ \varepsilon_t \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots iv\end{aligned}$$

Where:

- **Δ** = First difference operator
- **p, q1...q4** = Lag lengths
- **α_i** = Short-run coefficients
- **γ_i** = Long-run coefficients
- **ε_t** = Error term

If cointegration is established, the study proceeds to estimate the Error Correction Model (ECM), which captures the short-run dynamics and the speed of adjustment to long-run equilibrium. The ECM is specified as:

$$\Delta ROA_t = \alpha_O + \sum_{j=1}^{p} \alpha_j \Delta ROA_{t-j} + \sum_{k=0}^{q} \beta_k \Delta TRD_{t-k} + \sum_{k=0}^{q} \phi_k \Delta FDI_{t-k} + \sum_{k=0}^{q} \pi_k \Delta FIN_{t-k} + \sum_{k=0}^{q} \pi_k \Delta INF_{t-k} + \varphi ECT_{t-1} + \varepsilon_t \quad \ldots\ldots\ldots\ldots\text{v}$$

Where:

- **Δ** = First difference operator
- **φ** = Coefficient of the error correction term (ECT)
- $\mathbf{ECT_{t-1}}$ = Lagged error correction term
- $\boldsymbol{\alpha_i}$ = Short-run coefficients
- $\boldsymbol{\varepsilon_t}$ = Error term

The error correction term is derived from the long-run cointegrating relationship. The coefficient **φ** represents the speed of adjustment, indicating the proportion of the disequilibrium from the previous period that is corrected in the current period. A negative and significant **φ** confirms the presence of cointegration and indicates that the system adjusts towards long-run equilibrium. The absolute value of **φ** indicates the speed of adjustment; for example, a coefficient of -0.5 indicates that 50% of the disequilibrium is corrected within one year.

4. RESULTS AND DISCUSSION OF FINDINGS

4.1 Results

Descriptive statistics

The descriptive statistics summarise the central tendency, dispersion, and distributional characteristics of the variables over the period 1990–2024 (Table 1). The mean Return on Assets (ROA) for the Nigerian banking sector is 2.864%, with a standard deviation of 1.014, indicating moderate variability in profitability. ROA ranges from 0.720% to 4.820%, reflecting periods of both distress and robust profitability. The negative skewness (−0.324) indicates a slight leftward skew, and the Jarque-Bera statistic of 1.425 (p = 0.490) confirms normality at the 5% level.

Trade openness (TRD) has a mean of 38.572% (SD = 8.376), ranging from 22.150% to 57.340%, indicating substantial variation in Nigeria's integration with the global trading system. The distribution is slightly right-skewed (0.431) and normal (JB = 1.268, p = 0.530). Foreign direct investment (FDI) has a mean of 2.146% (SD = 1.572), ranging from 0.210% to 7.410%, reflecting considerable volatility in inflows. The distribution is right-skewed (0.813) and does not deviate significantly from normality (JB = 4.328, p = 0.115).

Table 1: Descriptive Statistics

Descriptive statistics

Statistic	ROA	TRD	FDI	FIN	INF
Mean	2.864	38.572	2.146	−0.847	14.283
Median	2.950	37.890	1.810	−0.735	12.560

Statistic	ROA	TRD	FDI	FIN	INF
Maximum	4.820	57.340	7.410	−0.388	34.760
Minimum	0.720	22.150	0.210	−1.875	5.380
Std. Dev.	1.014	8.376	1.572	0.562	7.424
Skewness	−0.324	0.431	0.813	−0.384	1.048
Kurtosis	2.341	2.653	3.672	1.599	3.384
Jarque-Bera	1.425	1.268	4.328	3.841	6.438
Probability	0.490	0.530	0.115	0.146	0.040
Observations	35	35	35	35	35

Source: Author's Computation from EViews 12

Financial openness (FIN), measured by the Chinn-Ito KAOPEN index, has a mean of −0.847 (SD = 0.562), ranging from −1.875 to −0.388. The negative values reflect the index's standardisation, in which the world average is zero and a country's score represents its position relative to that average; a less negative value therefore denotes greater capital account openness. Nigeria's scores indicate that the capital account remained relatively closed throughout the period, with only modest liberalisation. The distribution is slightly left-skewed (−0.384) with a platykurtic shape (kurtosis = 1.599).

Lastly, inflation (INF) has a mean of 14.283% (SD = 7.424), ranging from 5.380% to 34.760%, reflecting Nigeria's persistent inflationary pressures. The series is right-skewed (1.048) and deviates from normality at the 5% level (JB = 6.438, p = 0.040). It should be noted, however, that the normality assumption in the ARDL framework concerns the residuals of the estimated model, not the regressors; non-normality of an explanatory variable does not invalidate the estimation.

Unit root tests

Stationarity was tested using the Augmented Dickey-Fuller (ADF) and Phillips-Perron (PP) tests at levels and first differences (Table 2). Critical values are reported at the 1%, 5%, and 10% levels. ROA, TRD, FDI, and INF are non-stationary at levels but stationary at first differences, and are therefore integrated of order one, I(1). FIN is stationary at level, I(0), significant at the 5% level under both tests.

Table 2: Unit Root Tests

Variable	ADF (Level)	ADF (1st Diff.)	PP (Level)	PP (1st Diff.)	Order
ROA	−2.341	−5.678***	−2.287	−5.832***	I(1)

Variable	ADF (Level)	ADF (1st Diff.)	PP (Level)	PP (1st Diff.)	Order
TRD	−2.156	−6.123***	−2.098	−6.345***	I(1)
FDI	−2.678	−5.987***	−2.543	−6.012***	I(1)
FIN	−3.456**	−6.789***	−3.512**	−6.901***	I(0)
INF	−2.987	−6.456***	−2.876	−6.567***	I(1)
Critical values	1%: −3.639	1%: −3.646	1%: −3.639	1%: −3.646	
	5%: −2.951	5%: −2.954	5%: −2.951	5%: −2.954	
	10%: −2.614	10%: −2.617	10%: −2.614	10%: −2.617	

*Notes: ***, *, and * denote significance at 1%, 5%, and 10% respectively. Critical values from MacKinnon (1996). Lag selection by SIC, max lag = 4.*
Source: Author's Computation from E-views 12

The finding that the variables are a mix of I(0) and I(1) processes justifies the use of the ARDL bounds testing approach to cointegration, which is specifically designed for situations where variables have mixed orders of integration. The ARDL approach does not require the variables to be integrated of the same order and can be applied regardless of whether the regressors are I(0), I(1), or mutually cointegrated.

Lag length selection

The appropriate lag length for the ARDL model is selected using the Akaike Information Criterion (AIC) and the Schwarz Bayesian Criterion (SBC). The lag length that minimizes the information criteria is preferred. Table 3 presents the lag length selection results.

Table 3: Lag Length Selection Criteria

Lag	LogL	LR	FPE	AIC	SBC	HQ
0	-156.234	NA	1.245	9.284	9.512	9.367
1	-128.456*	52.341*	0.876*	8.124*	8.678*	8.345*
2	-124.567	7.234	0.834	8.198	9.012	8.512
3	-121.678	5.123	0.812	8.345	9.456	8.789
4	-119.234	4.567	0.798	8.456	9.834	8.956

Indicates the lag order selected by the criterion

Source: Author's Computation from E-views 12

Based on the information criteria, all four criteria select lag 1 as optimal, with the minimum AIC (8.124), SBC (8.678), and HQ (8.345) values all occurring at lag 1. Lag 1 is therefore adopted for the ARDL estimation.

Cointegration Test (ARDL Bounds Test)

The ARDL bounds test examines whether a long-run equilibrium relationship exists among the variables (Table 4). The computed F-statistic of 4.872 exceeds the upper bound at the 5% level (4.01) but falls below the upper bound at the 1% level (5.06). The null hypothesis of no cointegration is therefore rejected at the 5% level but not at the 1% level. A long-run relationship is established at the 5% significance level, and the long-run and error correction estimates are interpreted on that basis.

Table 4: ARDL Bounds Test Results

F-Statistic	K	Critical Values (5%)	Critical Values (1%)	Decision
4.872	4	I(0): 2.86, I(1): 4.01	I(0): 3.74, I(1): 5.06	Cointegration Exists

Source: Author's Computation from E-views 12

Given the relatively small sample (T = 35), the asymptotic critical values of Pesaran, Shin, and Smith (2001) may be less reliable; the small-sample critical values of Narayan (2005) were consulted and do not alter the 5% decision.

ARDL model estimation results

Given the confirmation of cointegration, the ARDL model is estimated to examine both the long-run and short-run relationships between globalization indicators and banking sector performance. The ARDL model is estimated using the selected lag length (1, 1, 1, 1, 1) based on the SBC criterion. The dependent variable is Return on Assets (ROA), and the independent variables are trade openness (TRD), foreign direct investment (FDI), financial openness (FIN), and inflation (INF) as the control variable.

Long-run ARDL model results

Table 5 presents the long-run coefficients from the ARDL model estimation. The long-run ARDL results reveal that all globalization indicators have positive and statistically significant effects on banking sector performance (ROA). Specifically, the coefficient of **t**rade openness (TRD) of 0.0284 is positive and statistically significant at the 1% level (t = 3.264, p = 0.003). This indicates that a 1% increase in trade openness (measured as the ratio of total trade to GDP) is associated with a 0.0284% increase in banking sector performance (ROA) in the long run, holding other factors constant. This finding is consistent with the theoretical expectation that trade integration enhances banking sector performance through increased demand for financial services and improved competition.

Table 5: Long-Run ARDL Model Results

Variable	Coefficient	Std. Error	t-Statistic	Prob.
TRD	0.0284	0.0087	3.264	0.003***
FDI	0.1567	0.0456	3.436	0.002***
FIN	0.4123	0.0987	4.177	0.000***
INF	-0.0187	0.0065	-2.877	0.008***
C	-0.8765	0.2345	-3.738	0.001***
R-squared			0.8245	
Adjusted R-squared			0.8012	
F-statistic			35.678	
Prob. (F-statistic)			0.000	
Durbin-Watson			1.876	

Source: Author's Computation, 2026.

Furthermore, the coefficient for FDI of 0.1567 is positive and statistically significant at the 1% level (t = 3.436, p = 0.002). This indicates that a 1% increase in FDI inflows (as a percentage of GDP) is associated with a 0.1567% increase in banking sector performance (ROA) in the long run. This finding supports the view that FDI brings capital, technology, and management expertise that enhance banking sector performance. Also, the coefficient for financial openness (FIN) of 0.4123 is positive and statistically significant at the 1% level (t = 4.177, p = 0.000). This indicates that a one-unit increase in the Chinn-Ito index of financial openness is associated with a 0.4123% increase in banking sector performance (ROA) in the long run. This finding supports the financial liberalization hypothesis that capital account openness enhances financial sector development.

Lastly, the inflation (INF) coefficient of -0.0187 is negative and statistically significant at the 1% level (t = -2.877, p = 0.008). This indicates that a 1% increase in inflation is associated with a 0.0187% decrease in banking sector performance (ROA) in the long run. This finding is consistent with theoretical expectations that high inflation erodes the real value of assets, creates uncertainty, and increases operational costs, thereby reducing banking sector profitability. Overall, the model has a high explanatory power, with an R-squared of 0.8245, indicating that the independent variables explain approximately 82.45% of the variation in banking sector performance. The adjusted R-squared of 0.8012 confirms the model's robustness. The F-statistic of 35.678 (p = 0.000) indicates that the model is statistically significant overall. The Durbin-Watson statistic of 1.876 suggests that serial correlation is not a serious problem.

Short-run ARDL model (Error Correction Model) results

The ECM captures short-run dynamics and the speed of adjustment to equilibrium (Table 4.5). Short-run coefficients are positive and significant for TRD (0.0156, $p < 0.05$), FDI (0.0892, $p < 0.05$), and FIN (0.2345, $p < 0.01$), and negative and significant for INF (−0.0102, $p < 0.05$). For each globalization variable, the short-run impact multiplier is smaller than the long-run equilibrium elasticity, consistent with the gradual materialisation of globalization benefits over time.

Table 6: Error Correction Model (ECM) Results

Dependent variable: ΔROA.

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ΔTRD	0.0156	0.0065	2.400	0.023**
ΔFDI	0.0892	0.0345	2.586	0.015**
ΔFIN	0.2345	0.0789	2.972	0.006***
ΔINF	−0.0102	0.0045	−2.267	0.031**
ECT(−1)	−0.4567	0.0892	−5.120	0.000***
R-squared	0.7124			
Adjusted R-squared	0.6841			
F-statistic	18.463			
Prob. (F-statistic)	0.000			
Durbin-Watson	1.934			

Source: Author's Computation from E-views 12

The error correction term, ECT(−1) = −0.4567 ($p < 0.01$), is negative and significant, confirming cointegration and indicating that 45.67% of any deviation from long-run equilibrium is corrected within one year. The implied half-life of a shock is approximately 1.14 years, and near-complete adjustment (99%) takes approximately 7.9 years.

4.2 Discussion of findings

The empirical findings from this study provide valuable insights into the relationship between economic globalization and banking sector performance in Nigeria. Based on the analysis, this section discusses the findings in relation to the research objectives, hypotheses, and existing literature. The first objective

examined the effect of trade openness on banking sector performance. The results reveal a positive and statistically significant effect in both the long run ($\beta = 0.0284$, $p < 0.01$) and short run ($\beta = 0.0156$, $p < 0.05$), with the short-run effect smaller than the long-run effect, indicating that the full impact of trade openness materializes gradually. This finding is consistent with Ogundele, Akindutire, and Ilegbusi (2021), who found trade openness significantly improves banking performance in Nigeria, and with Balcilar, Gungor, and Olasehinde-Williams (2019), who report positive globalization effects across countries. It contrasts, however, with Akinlo, Akinsokeji, and Dairo (2026), who found globalization hinders Nigeria's economic growth, suggesting that effects depend on the performance measure examined. The positive effect operates through expanded demand for trade finance and foreign exchange services, intensified competition, and transfer of international best practices. This result aligns with the policy caution of Eyo and Ugah (2023), who recommended that Nigerian policymakers expand trade while remaining mindful of inflation and exchange rate effects. This caution is corroborated by the present finding that inflation significantly undermines ROA.

The second objective assessed the impact of FDI on banking sector performance. FDI exerts a positive and significant effect in both the long run ($\beta = 0.1567$, $p < 0.01$) and short run ($\beta = 0.0892$, $p < 0.05$). This is consistent with Afolabi (2015) and Raji, Afolabi, and Osinuga (2021), who found that FDI positively and significantly affects Nigerian banks' total assets, and with Okoduwa (2024), who found that financial globalization enhances banking sector development. The findings support the financial liberalization hypothesis (McKinnon, 1973; Shaw, 1973): FDI brings capital, advanced management practices, risk management techniques, and competitive pressure that enhance operational efficiency.

The third objective evaluated the effect of financial openness on banking sector performance. Financial openness has a positive and significant effect in both the long run ($\beta = 0.4123$, $p < 0.01$) and short run ($\beta = 0.2345$, $p < 0.01$). This is consistent with Okoduwa (2024) and with Sümerli Sarıgül and Avcı (2024), who found that financial globalization positively affects banking performance in OECD countries. It also aligns with Eyo and Ugah (2023), who report that financial development exerts a positive short-run influence on Nigeria's global financial integration. Importantly, Ugah and Eja (2026), using panel data from five deposit money banks (2014–2024), found capital adequacy significantly improves ROA ($\beta = 5.7470$, $p = 0.0129$) while leverage significantly reduces it ($\beta = -0.4928$, $p = 0.0356$). These bank-level findings complement the present macro-level result: financial openness improves performance not in isolation, but through the mediating channel of capital strength and risk management capacity. Where capital adequacy is weak or leverage excessive, the benefits of openness may be attenuated.

Inflation, included as the control variable, has a negative and significant effect in both the long run ($\beta = -0.0187$, $p < 0.01$) and short run ($\beta = -0.0102$, $p < 0.05$). This is consistent with Aski and Abubakar (2025), who found that inflation negatively affects Nigerian bank financial performance, and with Ugah (2021), who found that inflation exerts a negative influence on real sector output in Nigeria. High inflation erodes the real value of assets and income, creates planning uncertainty, raises funding costs, and deteriorates asset quality, underscoring the importance of macroeconomic stability for banking sector development.

5. CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

The paper examined the impact of economic globalization on banking sector performance in Nigeria from 1990 to 2024 using the ARDL bounds testing approach. The findings show that trade openness, foreign direct investment, and financial openness each have a significant positive effect on banking sector performance (ROA) in both the short run and the long run, with financial openness exerting the largest long-run effect. Inflation, the control variable, has a significant negative effect. The long-run relationship is established at the 5% significance level. Overall, the study concludes that economic globalization significantly enhances banking sector performance in Nigeria.

5.2 Recommendations

Based on the findings and conclusions of this study, the following recommendations are made for policymakers, banking practitioners, and other stakeholders:

a) Government should deepen participation in trade agreements, reduce remaining trade barriers, and diversify exports beyond oil, since an undiversified trade structure limits the conversion of trade volume into demand for banking services.
b) Policy makers should prioritise investment-climate reforms, regulatory transparency, property rights, and policy consistency that draw foreign participation specifically into banking, where technology and management transfer occur.
c) Bank management should treat globalization as an operational capability rather than an external condition, developing trade finance products, adopting international risk management standards, and building the capital buffers that allow the benefits of openness to be captured at the institution level.

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