

# **BRIDGING FINANCE AND TRADE GAP: THE ROLE OF SME CREDIT, FINANCIAL DEVELOPMENT, AND INSTITUTIONAL QUALITY IN NIGERIA'S EXTERNAL TRADE COMPETITIVENESS.**

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## **Abstract**

*With decades of financial reforms and policy interventions, SMEs remain underfinanced, and Nigeria's trade structure continue to be contingent heavily on crude oil exports with marginal value addition. This study empirically linked financial deepening, institutional quality, and trade performance, providing evidence on how credit constraints, governance inefficiencies, and macroeconomic volatility jointly impede SME-led export growth. Using annual time-series data (1992–2024) and the Autoregressive Distributed Lag (ARDL) approach, the research examined the effect of financial market depth, institutional performance, and external sector dynamics on SME credit flows and, in turn, influence trade balance outcomes. Results revealed that financial market depth significantly enhances SME financing in the long run, whereas institutional access constraints, exchange rate volatility, and foreign direct investment inflows negatively affect SME credit expansion. The error correction term confirmed a stable long-run equilibrium, with approximately 70% of short-run disequilibria corrected annually. Furthermore, the trade balance model indicated that SME lending positively affects Nigeria's external performance, suggesting that improved access to credit strengthens export capacity and trade competitiveness. Institutional quality remains statistically weak, implying that governance deficiencies undermine the efficiency of financial intermediation. Overall, the findings showed that financial deepening alone is insufficient to enhance SME-driven trade performance without parallel improvements in institutional integrity and macroeconomic stability. Policy recommendations emphasize the need for inclusive financial reforms, digital and alternative credit channels, and coordinated financial–trade policies to foster sustainable SME competitiveness and external resilience in Nigeria.*

**Keywords:** financial development, institutional quality, trade balance, SME financing,

**JEL Codes:** O16, F14, G21, P48

## **1.0 Introduction**

Globally, small and medium enterprise (SMEs) has been recognised as an engine of growth, employment, and trade diversification in developing nations. In Nigeria's economy, SMEs

play a central role in economic performances, accounting for nearly 99% of businesses and approximately 50% of GDP. However, SMEs are severely hampered by inadequate access to finance and incessant structural weaknesses in the trade and financial system. Only about 6.7% of Nigerian enterprises reported having an active loan or line of credit, while SME lending accounts for 5% of total commercial bank credit (World Bank, 2020). With government numerous policy interventions, commercial bank loans to SMEs have declined as a share of total credit over the past three decades, from an average of 12.9% in 1995-2024, to 0.46 in 2005-2014, and further to 0.14% in 2015-2024 a sustained contraction in contraction in SMEs financing relative to Banks's overall lending, revealing inadequate financial deepening and risk-averse lending practices within the banking system (African Development Bank, 2023). This continual financing gap weakens SMEs' capacity to increase production, participate in international trade, and contribute profoundly to Nigeria's economic diversification agenda.

The external sector dynamics pile on the issues in Nigeria as the export remain overshadowed by crude oil. The National Bureau of Statistics reports crude oil accounted for over 80% of export values in Q1 2024 while non-oil exports remain low and imports of manufactured goods continue to grow, contributing to recurrent trade imbalances (World Bank, 2024; NBS, 2024). Frequent swings in the exchange rate expand uncertainty to cross-border transactions, rising import costs for SMEs and erodes the competitiveness of non-oil exporters (Duru et al., 2022; Li, Lan, & Ouyang, 2020).

Foreign direct investment (FDI) inflows is expected to complement domestic financing and promotes linkages with local firms, including SMEs., thereby stimulating both credit expansion and export performance. However, in Nigeria, FDI inflows have been unstable (net FDI inflows was negative in 2022 at -187 million dollars) and concentrated largely in extractive sectors with limited spillovers to SME financing or trade development (UNCTAD, 2023). Measures of financial development, such as financial market depth, financial institutions depth, and financial institutions access, while improving, remain shallow relative to peer economies (IMF, 2023). The percentage of domestic credit to the private sector stood at only 12.1% of GDP in 2020, far below the global average of 61%, emphasising a constant weakness in the country's financial system depth and inclusiveness (TheGlobalEconomy, 2020). These figures collectively illuminate on a systemic financing gap that constrains SME competitiveness, limits investment capacity, and weakens linkages between the financial and trade sectors - thereby diminishing Nigeria's ability to leverage SMEs for external competitiveness and export diversification. This indicates structural bottlenecks in mobilizing financial resources to support SME growth and trade integration.

Another key constraint to economic growth in Nigeria, is the quality of institutions. Transparency International (2025) relates that the bad results in the control of corruption weaken the efficiency of credit allocation, dissuade private investment, and disrupt successful implementation of trade policies. Mutually with shallow financial development, volatile trade outcomes, and exchange rate instability, these institutional drawbacks

generate an uneven connection between finance and trade, eventually isolating SMEs from the prospective advantages of globalization and regional integration. Against this backdrop, there is a pressing need to empirically examine the financial, trade, external, and institutional determinants of SME financing and trade balance outcomes in Nigeria. By applying an autoregressive distributed lag (ARDL) approach, this study seeks to uncover the short-run and long-run dynamics that shape the availability of SME credit and the sustainability of Nigeria's trade balance.

The objective of this study is therefore to investigate how financial development, foreign investment, trade dynamics, exchange rate stability, and institutional quality jointly influence SME financing and trade balance outcomes in Nigeria over the past three decades. Hence, two major research questions are addressed in this study:

- i) How do financial development indicators and external sectors dynamics influence SME financing in Nigeria?
- ii) How does SME financing (CBLSME), alongside financial development, external sector factors, and institutional quality, affect trade balance performance (TBPER) in Nigeria?

## **2.0 Literature Review**

### **2.1 Empirical Review**

Literature features the persistent financing limitations facing small and medium-sized enterprises (SMEs) across both developed and developing economies, and their implications for trade performance. Ganau and Rodríguez-Pose (2021) established that even though European SMEs face significant credit constraints, improvements in regional institutional quality can ease firms' dependence on internal cash flows for investment. Similar dynamics are evident in emerging markets: Ullah (2020) found that financial constraints reduce SME sales and employment growth in transition economies, with institutional weaknesses such as corruption aggravating access impediments. These insights echo strongly with the Nigerian case, where weak institutional quality proxied by indicators like control of corruption remains a binding constraint on SME credit allocation.

Studies in sub-Saharan Africa confirmed that financial access barriers are systemic. Mohammed and Bunyaminu (2021), using World Bank Enterprise Survey data on Ghana, identify finance, electricity, and trade regulations as leading obstacles to enterprise growth, reinforcing the parallels with Nigeria's fragmented business ecosystem. Similarly, Alhaddad (2024) reported that Bahraini SMEs are hindered by rigorous bank collateral requirements and regulatory gaps, underlining how financial depth and efficiency remain critical determinants of SME growth in emerging economies.

The influence of credit constraints on trade outcomes direct. Nucci et al. (2020), using data from 66 developing countries, found that constrained firms import fewer intermediate inputs, with stronger effects in countries with weaker financial systems and institutions. Li et al. (2020) showed that exporters with limited financing capacity respond less effectively

to exchange rate depreciation, limiting export expansion. These findings suggest that financing conditions directly shape Nigeria's trade balance dynamics by constraining firms' ability to engage in global value chains.

Recent scholarship highlights digital finance as a transformative pathway for alleviating SME credit constraints. Halimah and Suryani (2025) demonstrated that digital finance significantly improves SME performance in Indonesia, while Lu et al. (2021) confirmed that digital financial inclusion reduces financing constraints in China, often substituting for local bank access. Similarly, Yao and Yang (2022) revealed that digital finance promotes SME innovation by easing financing barriers. For Nigeria, where digital finance adoption is rising, these studies suggest a potential route to bypass structural weaknesses in formal bank credit.

Trade credit and guarantee mechanisms are emphasized in others streams of literature as alternatives. Qi et al. (2020) demonstrated that trade credit can both alleviate capital constraints and shape supply chain strategies in emission-sensitive industries, while Wang et al. (2021) suggested equity-for-guarantee swaps (EGS) to expand SME credit under liquidity pressure. Evidence from Japan (Uesugi, 2025b; 2025d) showed that large-scale credit guarantees and government lending programs improve SME financing conditions, although the impact on firm performance is mixed. These studies highlight the role of innovative and state-backed mechanisms in bridging credit gaps—a policy lesson relevant for Nigeria.

On the international stage, Auboin and DiCaprio (2017) documented persistent global trade finance shortfalls, with SMEs in developing countries disproportionately excluded from access. The OECD (2021) echoed this, noting that access to trade finance enables SME participation in exports and global value chains but remains uneven, especially in the digital era. These findings underscore the relevance of trade finance constraints in Nigeria, where SMEs remain disconnected from international trade opportunities despite policy reforms.

Empirical evidence across contexts confirms that financing constraints, weak institutional quality, and shallow financial development undermine SMEs' ability to access trade finance and participate in global trade. At the same time, digital finance and innovative financial instruments are emerging as potential solutions, though their effectiveness depends heavily on institutional frameworks and policy support. These insights inform the present study's focus on Nigeria, where fragmented financial and trade structures heighten SME vulnerabilities.

## **2.1 Theoretical Framework**

The finance-growth and open-economy macroeconomic theories anchor this study. They combine to underscore the role of financial and external sector development in shaping firm performance and trade outcomes. The finance-led growth hypothesis (Schumpeter, 1976; McKinnon, 1973; Shaw, 1973) contends that financial development captured here through financial market depth, institutional depth, and access mobilizes savings, reduces

information asymmetries, and channels credit efficiently to productive enterprises, including SMEs. The expectation is that deeper and more accessible financial institutions should expand the share of credit available to SMEs, while stronger financial markets can indirectly ease credit constraints by diversifying funding sources. Complementing this, the financial inclusion perspective (Beck et al., 2007) underscores that broader access to financial services is critical for integrating marginalized enterprises into formal credit systems.

The theoretical connection between the external sector and SME finance is explained by open-economy macroeconomic theory and institutional economics. According to the balance-of-payments framework (Mundell, 1963), trade flows (exports, imports, and current account balance) and exchange rate stability affect the availability and cost of foreign exchange, which in turn influences domestic credit allocation and trade balance sustainability. Foreign direct investment, as predicted by modernization theory, supplements domestic capital and fosters SME integration into global value chains, though its effectiveness depends on institutional quality. Finally, institutional theory (North, 1990) emphasized that governance quality proxied by control of corruption conditions how financial and trade resources are allocated, determining whether SMEs benefit or remain excluded. Together, these perspectives justify an empirical framework that situates SME financing and trade balance outcomes within the interplay of financial development, external sector dynamics, and institutional strength in Nigeria's fragmented economy.

### **3.0 Data and Methodology**

Annual time-series data for Nigeria covering the period 1992–2024 are employed for this study. The secondary data sources are the Central Bank of Nigeria (CBN) Statistical bulletin, World Development Indicators (WDI) of the World Bank and the United Nations Trade International Monetary Fund (IMF) Balance of Payments database, which provide consistent, internationally comparable series. The dependent variable availability and demand for trade finance is proxied by two long-term indicators, commercial bank loan to small and medium enterprise (SMEs) which measures the financial resources extended by banks and other deposit-taking institutions to the SMEs, in the form of loans, trade credits, and other receivables. It serves as a robust proxy for SME financing availability, as trade finance products are embedded within overall credit provision (World Bank, 2024; IMF, 2022). The second dependent variable Trade (% of GDP), the sum of exports and imports of goods and services divided by GDP, this variable captures the degree of openness of the Nigerian economy. A higher trade-to-GDP ratio implies increased reliance on external trade flows and, by extension, a greater demand for trade finance instruments such as letters of credit, guarantees, and factoring (World Bank, 2024; WTO, 2023).

The independent variables are macroeconomic and institutional determinants of trade finance availability, including Inflation rate (CPI, annual %) to capture macroeconomic stability; Exchange rate (NGN/USD, official) as foreign currency access is crucial for trade transactions. Foreign direct investment inflows (% of GDP) is external capital flows

influence liquidity for trade-related credit; Current account balance (% of GDP) is the indicator of trade imbalances influencing financing requirements. All series were transformed into natural logarithms where applicable to stabilize variance and interpret coefficients in elasticities.

### 3.1 Model Specification

The Autoregressive Distributed Lag (ARDL) model developed by Pesaran et al. (2001) is what this study employs, it is suitable for small samples and allows for a mixture of I(0) and I(1) variables. The starting point ARDL representation is specified as follows:

$$\Delta Y_t = \beta_0 + \sum_{i=1}^p \theta_i \Delta Y_{t-i} + \sum_{j=1}^q \delta_j \Delta X_{t-j} + \alpha_1 Y_{t-1} + \alpha_2 X_{t-1} + U_t$$

Where:

$Y_t$  = dependent variable proxying trade finance availability/demand (Domestic Credit to Private Sector, Trade (% GDP))

$X_t$  = vector of explanatory variables (inflation, exchange rate, FDI inflows, capital formation, current account balance)

$\Delta$  = first difference operator

$U_t$  = error term

long-run equation form is  $Y_t = \phi_0 + \sum_{k=1}^p \phi_k X_{k,t} + \varepsilon_t$

where  $\phi_k$  measures the long-run impact of macroeconomic variables on trade finance proxies.

The ARDL bounds testing approach will be employed to test for the existence of long-run relationships, followed by error correction models (ECM) to capture short-run dynamics.

#### Model 1

$$CBLSME_t = f(INFT_t, EXC_t, FDI_t, FIAI_t, FMDI_t, LTB_t)$$

$$\begin{aligned} \Delta CBLSME_t = & \beta_0 + \sum_{i=1}^p \theta_i \Delta CBLSME_{t-i} + \sum_{j=0}^{q_1} \delta_j \Delta INFT_{t-j} + \sum_{j=0}^{q_2} \eta_j \Delta EXC_{t-j} + \sum_{j=0}^{q_3} \sigma_j \Delta FDI_{t-j} \\ & + \sum_{j=0}^{q_4} \psi_j \Delta FIAI_{t-j} + \sum_{j=0}^{q_5} \omega_j \Delta FMDI_{t-j} + \sum_{j=0}^{q_6} \gamma_j \Delta LTB_{t-j} + \chi ECT_{t-1} + \varepsilon_t \end{aligned}$$

#### Model 2

$$TBPER_t = f(CBLSME_t, FMDI_t, FIAI_t, FDI_t, EXC_t, INFT_t)$$

$$\begin{aligned} \Delta TBPER_t = & \alpha_0 + \sum_{i=1}^p \theta_i \Delta TBPER_{t-i} + \sum_{j=0}^{q_1} \delta_j \Delta INFT_{t-j} + \sum_{j=0}^{q_2} \eta_j \Delta EXC_{t-j} + \sum_{j=0}^{q_3} \sigma_j \Delta FDI_{t-j} \\ & + \sum_{j=0}^{q_4} \psi_j \Delta FIAI_{t-j} + \sum_{j=0}^{q_5} \omega_j \Delta FMDI_{t-j} + \sum_{j=0}^{q_6} \gamma_j \Delta CBL SME_{t-j} + \chi ECT_{t-1} + \varepsilon_t \end{aligned}$$

Where:

**CBL SME** = Commercial Banks' Loans to SMEs (% of total credit)

**TBPER** = Trade balance Percentage of imports

**LTB** = Log of Trade Balance (US\$ million)

**EXC** = Exchange Rate (Naira/US\$)

**INFT** = Inflation rate

**FMDI** = Financial Markets Depth Index

**FIDI** = Financial Institutions Depth Index

**FDI** = Foreign Direct Investment inflows (% of GDP)

**TBPER** = Trade balance Percentage of imports

Where **ECT** represents the error correction term capturing long-run adjustment.

## 4.0 Result and Discussion

### Unit root

The Augmented Dickey–Fuller (ADF) unit root test results displayed in Table 1, indicate the stationarity properties of each variable used in the model.

**Table 1: ADF Unit Root Test Results**

| Variable | Level Test Statistic | p-value | 5% Critical Value | Stationarity at Level | Stationarity after Differencing           | Order of Integration |
|----------|----------------------|---------|-------------------|-----------------------|-------------------------------------------|----------------------|
| CAB      | -2.1588              | 0.2245  | -2.9571           | Not stationary        | Stationary (p=0.0005 at 1st diff)         | I(1)                 |
| CBLSME   | -4.9060              | 0.0004  | -2.9571           | Stationary            | –                                         | I(0)                 |
| EXC      | 1.9769               | 1.0000  | -3.5629           | Not stationary        | Becomes stationary at 1st diff (p=0.0143) | I(1)                 |
| FDI      | -1.9429              | 0.3093  | -2.9604           | Not stationary        | Stationary (p=0.0000 at 1st diff)         | I(1)                 |
| FIAI     | -1.1112              | 0.6986  | -2.9604           | Not stationary        | Stationary (p=0.0076 at 1st diff)         | I(1)                 |
| FIDI     | -0.9801              | 0.7483  | -2.9571           | Not stationary        | Stationary (p=0.0005 at 1st diff)         | I(1)                 |
| FMDI     | -2.3425              | 0.1656  | -2.9571           | Not stationary        | Stationary (p=0.0000 at 1st diff)         | I(1)                 |
| INFT     | -2.2651              | 0.1890  | -2.9604           | Not stationary        | Stationary (p=0.0007 at 1st diff)         | I(1)                 |
| LTB      | -2.4610              | 0.1357  | -2.9763           | Not stationary        | Stationary (p=0.0006 at 1st diff)         | I(1)                 |

Source: Computed by the Authors using E-view 13 (2025)

As shown in Table 1, only CBLSME (Commercial Banks' Loans to SMEs) is stationary at level form, with an ADF test statistic of  $-4.9060$  and a p-value of  $0.0004$ , which is below the 5% significance level. This means that CBLSME is integrated of order zero,  $I(0)$ , and does not require differencing to achieve stationarity. All other variables—CAB (Institutional Quality), EXC (Exchange Rate), FDI (Foreign Direct Investment), FIAI (Financial Institutions Access Index), FIDI (Financial Institutions Depth Index), FMDI

(Financial Market Depth Index), INFT (Inflation Rate), and LTB (Log of Trade Balance)—are non-stationary at level, as their p-values exceed 0.05. However, each becomes stationary after first differencing, indicating that they are integrated of order one, I(1). Hence, the mix of I(0) and I(1) variables justifies the use of the Autoregressive Distributed Lag (ARDL) model, which accommodates variables with different integration orders (Pesaran et al., 2001). The absence of any variable integrated of order two (I(2)) confirms the suitability of ARDL estimation for analysing the long-run and short-run relationships among financial development, SME financing, institutional quality, and external sector dynamics in Nigeria.

### **Research Question One: How do financial development indicators and external sectors dynamics influence SME financing in Nigeria?**

The findings of the ARDL (1,0,1,0,1,0,1,1) estimation on the determinants of SME financing (CBLSME) in Nigeria is presented in Table 2. The analysis explores the role of financial development indicators, external sector dynamics, and institutional quality. The model diagnostics confirm the robustness and reliability of the estimated relationships. A significant error correction term (-0.7027,  $p < 0.01$ ), indicating that 70% of short-run disequilibrium adjusts toward the long-run equilibrium annually. Diagnostic tests show no serial correlation ( $p = 0.301$ ), no heteroskedasticity ( $p = 0.751$ ), and a Durbin–Watson statistic of 2.23, confirming model adequacy as displayed in Table 2.

**Table 2: ARDL–ECM Results (Dependent Variable: CBLSME)**

| Category                    | Variable                                     | Coefficient       | Std. Error                                        | t-Statistic                      | p-Value                                                       |
|-----------------------------|----------------------------------------------|-------------------|---------------------------------------------------|----------------------------------|---------------------------------------------------------------|
| Short-Run Dynamics          | D(INFT)                                      | 0.0477            | 0.0168                                            | 2.8443                           | 0.0097                                                        |
|                             | D(FDI)                                       | -0.7574           | 0.2305                                            | -3.2856                          | 0.0035                                                        |
|                             | D(FMDI)                                      | -18.1542          | 8.6487                                            | -2.0991                          | 0.0481                                                        |
|                             | D(LTB)                                       | 0.3169            | 0.1939                                            | 1.6348                           | 0.1170                                                        |
| Error Correction Term       | COINTEQ(-1)                                  | -0.7027           | 0.0480                                            | -14.6257                         | 0.0000                                                        |
| Long-Run Estimates          | CAB                                          | -0.0150           | 0.0613                                            | -0.2440                          | 0.8110                                                        |
|                             | INFT(-1)                                     | 0.0643            | 0.0275                                            | 2.3381                           | 0.0360                                                        |
|                             | EXC                                          | -0.0119           | 0.0037                                            | -3.1910                          | 0.0071                                                        |
|                             | FDI(-1)                                      | -1.9004           | 0.6838                                            | -2.7792                          | 0.0156                                                        |
|                             | FIAI                                         | -55.2423          | 19.8919                                           | -2.7771                          | 0.0157                                                        |
|                             | FMDI(-1)                                     | 46.0780           | 15.0291                                           | 3.0659                           | 0.0090                                                        |
|                             | LTB(-1)                                      | -0.9377           | 0.3892                                            | -2.4090                          | 0.0316                                                        |
|                             | Model Summary                                | R-squared = 0.987 | Adj. R-squared = 0.975                            | F-statistic = 80.72 (p = 0.0000) | The ARDL model is highly explanatory and statistically sound. |
| Cointegration (Bounds Test) | F-statistic = 14.71 > 5% upper bound (4.163) |                   | Long-run cointegration confirmed among variables. |                                  |                                                               |

|                         |                                                        |                                                           |                                        |
|-------------------------|--------------------------------------------------------|-----------------------------------------------------------|----------------------------------------|
| <b>Diagnostic Tests</b> | Breusch–Godfrey LM (p = 0.301): No serial correlation. | Breusch–Pagan–Godfrey (p = 0.751): No heteroskedasticity. | DW = 2.23: No autocorrelation problem. |
|-------------------------|--------------------------------------------------------|-----------------------------------------------------------|----------------------------------------|

**Source:** Computed by the Authors using E-view 13 (2025)

As shown in Table 2 the estimated long-run coefficient for the Financial Institutions Access Index (FIAI) is negative and statistically significant (-55.24,  $p = 0.0157$ ), indicating that improvements in formal financial access have not effectively translated into greater SME lending. This finding resonates with Ganau and Rodríguez-Pose (2021), who observe that institutional quality mediates how credit constraints affect SMEs, and with Alhaddad (2024), who highlights that regulatory rigidities and collateral requirements continue to restrict SME access to finance in Bahrain despite financial-sector reforms. In contrast, the Financial Market Depth Index (FMDI) exhibits a positive and significant long-run impact (46.08,  $p = 0.0090$ ), suggesting that well-developed financial markets enhance SME credit through liquidity and diversification channels. These findings align with Mohammed and Bunyaminu (2021), who identify finance as a leading constraint for SMEs in Ghana, and with Martinez-Cillero et al. (2023), who show that improved market mechanisms reduce financing inefficiencies for small firms. The contrasting signs between FIAI and FMDI underscore the structural dualism in Nigeria’s financial system where market deepening improves access, but institutional inefficiency remains a bottleneck.

Notable effect of external sector variables are on SME financing as displayed in Table 2. The exchange rate (EXC) has a negative and significant long-run coefficient (-0.0119,  $p = 0.0071$ ), suggesting that Naira depreciation increases the cost of imports and tightens credit conditions. This finding corroborates Duru et al. (2022) and Gbaka et al. (2023), who both find that exchange rate volatility adversely affects Nigeria’s trade flows and business credit. Li et al. (2020) provide complementary evidence that financially constrained exporters respond less to currency depreciation, limiting export expansion a dynamic mirrored in the Nigerian SME context. Similarly, foreign direct investment (FDI) exerts a crowding-out effect (-1.90,  $p = 0.0156$ ), implying that external capital inflows divert domestic credit towards foreign-linked enterprises, consistent with Nucci et al. (2020). The trade balance (LTB) also shows a negative long-run effect (-0.94,  $p = 0.0316$ ), implying that external imbalances reduce banks’ liquidity and loan supply. This outcome supports Auboin and DiCaprio (2017), who argue that persistent trade finance gaps in developing economies restrict SME participation in global value chains.

The coefficient for institutional quality (CAB) is statistically insignificant (-0.015,  $p = 0.811$ ), suggesting that governance and regulatory frameworks have not yet translated into measurable SME financing benefits. This aligns with Ullah (2020) and Alhaddad (2024), who note that weak institutions and bureaucratic inefficiencies constrain financial access in emerging economies. However, recent studies on digital finance such as Lu et al. (2021), Yao and Yang (2022), and Zheng (2025) suggest that fintech and digital financial inclusion

can offset institutional weaknesses by expanding access to credit through non-traditional channels. Anagnostopoulos (2018) and Lu (2018) further emphasize the potential of fintech and regtech innovations to streamline regulatory compliance and reduce information asymmetry, thereby improving SME financing outcomes.

**Research Question Two: How does SME financing (CBLSME), alongside financial development, external sector factors, and institutional quality, affect trade balance performance (TBPER) in Nigeria?**

The estimated ARDL (1,0,1,1,1,0) model displayed in Table 3 reveals a stable long-run equilibrium relationship between trade balance performance (TBPER) and its determinants, as confirmed by the bounds F-statistic (5.54 greater than 4.15 at 5% level). The error-correction coefficient ( $-0.7747$ ,  $p < 0.01$ ) indicates a strong and significant adjustment process, suggesting that about 77% of short-run disequilibrium is corrected within one year, thus affirming long-run convergence toward equilibrium.

**Table 3: ARDL–ECM Results (Dependent Variable: TBPER)**

| Category                               | Variable                                                  | Coefficient                                                  | t-Statistic                            | p-Value                       |
|----------------------------------------|-----------------------------------------------------------|--------------------------------------------------------------|----------------------------------------|-------------------------------|
| <b>Long-Run Equation (Levels Form)</b> | CBLSME                                                    | 14.3435                                                      | 3.2067                                 | 0.0046                        |
|                                        | EXC                                                       | 0.0486                                                       | 0.2674                                 | 0.7920                        |
|                                        | FIAI                                                      | 2429.240                                                     | 2.9419                                 | 0.0084                        |
|                                        | FDI                                                       | 32.648                                                       | 2.6860                                 | 0.0146                        |
|                                        | FMDI                                                      | -21.225                                                      | -0.0439                                | 0.9654                        |
|                                        | INFT                                                      | -3.335                                                       | -3.756                                 | 0.0013                        |
| <b>Model Summary</b>                   | $R^2 = 0.775$                                             | Adj. $R^2 = 0.645$                                           | $F = 5.95$ ( $p = 0.0004$ )            | Durbin–Watson = 2.38          |
| <b>Bounds Cointegration Test</b>       | F-statistic = 5.5448                                      | Critical ( $I(0)/I(1)$ ) at 5% = 2.79/4.15                   | Cointegration confirmed                | Long-run relationship exists. |
| <b>Short-Run ECM</b>                   | ECT(-1)                                                   | -0.7747                                                      | -7.7911                                | 0.0000                        |
|                                        | $\Delta$ CBLSME                                           | 14.3435                                                      | 3.2067                                 | 0.0046                        |
|                                        | $\Delta$ FDI                                              | 32.648                                                       | 3.8280                                 | 0.0007                        |
|                                        | $\Delta$ FIAI                                             | 2429.240                                                     | 4.403                                  | 0.0002                        |
|                                        | $\Delta$ INFT                                             | -3.335                                                       | -3.756                                 | 0.0013                        |
|                                        |                                                           |                                                              |                                        |                               |
| <b>Diagnostic Tests</b>                | Breusch–Godfrey LM ( $p = 0.53$ ): No serial correlation. | Breusch–Pagan–Godfrey ( $p = 0.88$ ): No heteroskedasticity. | DW = 2.38: No autocorrelation problem. |                               |

Source: Computed by the Authors using E-view 13 (2025)

As shown in Table 3, the coefficient of commercial banks' loans to SMEs (CBLSME) is positive and significant ( $\beta = 14.34$ ,  $p = 0.0046$ ) in both the short and long run, implying

that increased credit to small and medium enterprises enhances Nigeria's trade balance position. This result underscores the vital role of domestic SME financing in stimulating export-oriented production, value addition, and import substitution. By easing liquidity constraints faced by small producers and traders, access to bank credit enables greater participation in international markets, thereby improving the external account balance.

The coefficients associated with the financial markets depth index (FMDI) and financial institutions depth index (FIDI) are statistically insignificant, indicating that structural depth in the financial sector has not yet translated into measurable improvements in trade balance. This may reflect the predominance of short-term speculative finance and limited linkage between financial market deepening and productive trade-enhancing activities. The findings align with earlier empirical evidence suggesting that financial deepening contributes to growth only when supported by robust intermediation efficiency and real-sector linkages (Beck, 2013).

Exchange rate movements (EXC) show no significant long-run impact on trade performance, suggesting that nominal adjustments alone do not guarantee external competitiveness. Conversely, foreign direct investment inflows (FDI) exert a significant positive influence on the trade balance ( $\beta = 32.65$ ,  $p = 0.0146$ ), demonstrating that capital inflows contribute to productive capacity expansion and export diversification. Inflation (INFT), however, exerts a strong and negative effect ( $\beta = -3.34$ ,  $p = 0.0013$ ), implying that rising domestic prices undermine export competitiveness and widen import dependence. This supports the conventional view that macroeconomic instability weakens external sector resilience.

Institutional quality (FIAI) emerges as a significant driver of trade balance improvement ( $\beta = 2429.24$ ,  $p = 0.0084$ ), emphasizing the role of effective governance, transparency, and policy credibility in facilitating trade-enhancing investment. The result indicates that stronger institutions improve policy coordination and investor confidence, reduce transaction costs, and create a conducive environment for SMEs and foreign investors alike. In this sense, institutional reforms can amplify the benefits of financial deepening and capital inflows for external sector sustainability.

The empirical evidence demonstrates that SME financing, institutional quality, and FDI inflows significantly improve Nigeria's trade balance, while inflation exerts a destabilizing influence. These results align with global evidence that financing constraints and weak institutions jointly determine SME performance and external competitiveness. Ganau and Rodríguez-Pose (2021) show that improved regional institutions mitigate credit dependence in European SMEs, while Ullah (2020) reports that institutional weaknesses—especially corruption—worsen access barriers in transition economies. This resonates with Nigeria's experience, where weak institutional structures constrain efficient SME lending, amplifying credit rationing effects. The strong and positive influence of institutional quality (FIAI) in this study confirms that reforms enhancing governance and regulatory transparency can unlock productive financing channels and improve trade outcomes.

Findings on SME financing (CBLSME) further validate regional evidence that access to credit is central to enterprise competitiveness. Mohammed and Bunyaminu (2021) identify financing as a primary barrier to SME growth in Ghana, consistent with the positive trade

effects of SME loans observed here. Similarly, Alhaddad (2024) highlights that collateral-based lending limits SME expansion in Bahrain paralleling Nigeria's structurally rigid financial system. The implication is that strengthening financial intermediation efficiency and easing collateral requirements could magnify the trade benefits of SME financing, particularly by enabling smaller producers to access export markets.

The results also reinforce the global link between financial conditions and trade outcomes. Nucci et al. (2020) demonstrate that credit-constrained firms import fewer intermediate goods, while Li et al. (2020) show that financially limited exporters fail to respond effectively to currency depreciation. These insights contextualize the insignificant role of exchange rate (EXC) in Nigeria's case: without adequate financing, domestic firms cannot translate exchange rate movements into trade gains. The significant role of FDI inflows in the present model supports the argument that external capital complements domestic credit shortfalls by expanding productive capacity and export diversification.

Emerging research on digital finance offers a possible corrective to these structural bottlenecks. Halimah and Suryani (2025) and Lu et al. (2021) demonstrate that digital financial inclusion can substitute for weak banking systems, alleviating SME credit constraints. Yao and Yang (2022) similarly note that digital finance enhances innovation and productivity. For Nigeria, where digital payment adoption is rapidly expanding, these findings suggest a strategic pathway for mobilizing alternative finance to boost trade competitiveness. Integrating digital credit platforms with export promotion initiatives could thus amplify the gains from SME financing identified in this study.

Finally, the literature on trade credit and guarantee mechanisms provides additional policy insight. Qi et al. (2020) and Wang et al. (2021) emphasize that trade credit and equity-for-guarantee schemes can supplement bank lending during liquidity shocks, while Uesugi (2025b, 2025d) finds that state-backed credit guarantees improve SME financing conditions in Japan. Similarly, Auboin and DiCaprio (2017) and the OECD (2021) highlight persistent trade finance gaps that hinder SMEs' participation in global value chains. Given Nigeria's limited trade credit infrastructure, such mechanisms could help address the financing asymmetries that continue to constrain SME-led trade growth despite macro-level reforms.

## **5.0 Conclusion and Policy Recommendations**

The study examined the interrelations between financial development, external sector dynamics, institutional quality, and SME financing in Nigeria, and further explored how SME financing, alongside these macro-financial factors, influences trade balance performance. The combined evidence from both the models underscores the fundamental but asymmetrical roles of financial and institutional structures in smoothing Nigeria's economic competitiveness.

The results from the SME financing model indicated that financial market depth improves SME lending in the long run, while institutional access inefficiencies, exchange rate volatility, and foreign capital inflows hamper credit to the SME sector. This indicates that Nigeria's financial system remains structurally narrow and institutionally constrained, limiting inclusive access to finance despite ongoing market deepening. This evidence

highlights how weak institutional frameworks continue to undermine financial intermediation and the effectiveness of development-oriented credit policies.

The trade balance (TBPER) model makes known that SME credit has a positive long-run impact on external performance, implying that increased domestic SME financing can stimulate production and export competitiveness. However, adverse effects of exchange rate depreciation and volatile FDI inflows point to macroeconomic fragility that weakens trade outcomes

Consequently, the findings concludes that sustainable SME financing and improved trade performance in Nigeria require a dual approach: (i) deepening financial markets amidst innovation and digitalization to bridge credit gaps, and (ii) reinforcing institutional and macroeconomic stability to guarantee that financial resources effectively transform into productive and export-oriented SME activity. This study therefore recommends the need for inclusive financial reforms, digital and alternative credit channels, and coordinated financial–trade policies to foster sustainable SME competitiveness and external resilience in Nigeria.

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