

Empirical investigation of small and medium scale financing and standard of living in Nigeria

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Abstract

Purpose: This study empirically examines the effect of small and medium-scale enterprise (SME) financing and the standard of living in Nigeria using a time-series data spanning 1992–2025.

Methodology: The unit root test was employed to assess the stationarity of the variables which revealed a combination of I(0) and I(1) variables. The Autoregressive Distributed Lag (ARDL) bounds testing approach was applied to estimate long-run and short-run dynamic relationships.

Results and conclusion: The ARDL bound test result indicates that credit to SMEs exerts a negative and significant relationship, while exchange rate is found to have a positive and significant long-run relationship on standard of living in Nigeria. Inflation rate and lending rate revealed a positive but statistically insignificant correlation. Based on the empirical analysis, this study concludes that while SMEs hold significant potential for economic transformation, there is a shortfall in its financing in Nigeria.

Implication of findings: The implication of the above result is that fluctuation in lending rate, Exchange rate shows a positive long-run relationship with standard of living. Although statistically insignificant, inflation and lending rates indicate that macroeconomic instability undermines SME sustainability, the model stability reinforces the reliability of these findings.

Keywords: Standard of living, Lending, Inflation, Exchange, SME credit.

1. Introduction

Small and medium-scale enterprises (SMEs) play a critical role in fostering indigenous entrepreneurship across nations, generating employment opportunities, and advancing local technological capacity (Sule, 1986; World Bank, 1995). The expansion and sustainability of SMEs is indispensable, particularly within developing economies such as Nigeria, where diverse strategies must be mobilized to stimulate inclusive growth and improve living standards. According to Nigeria's national enterprise policy, SMEs are classified based on employment size and asset value. Specifically, microenterprises employ fewer than 10 persons with assets below ₦10 million; small enterprises employ between 10 and 49 persons with assets under ₦100 million; and medium enterprises employ 50 to 199 persons with assets below ₦1 billion, excluding land and buildings (SMEDAN National Policy on MSMEs, 2025). In cases of discrepancy between employment and asset criteria, the employment-based classification prevails, as it offers greater stability against inflationary distortions. For instance, a firm with assets worth ₦12 million but only seven employees would still be categorized as a micro-enterprise.

The 2025 Nigerian SME Industry Report reveals that SMEs accounted for 80 percent of Nigeria's workforce and contributed 50 percent to GDP. With effective management many SMEs have the potential to evolve into large-scale enterprises. However, accessing finance remains a critical bottleneck, because these firms depend heavily on financial intermediaries to secure capital for expansion.

Despite successive government's interventions through various schemes and institutions aimed at strengthening SMEs, their overall objectives remain elusive. Notable initiatives include the establishment of the Nigerian Industrial Development Bank (1962), the Nigerian Bank for Commerce and Industry (1973), the Bank of Industry (2001), the Small and Medium Scale Enterprises Loan Scheme (1997), and the Commercial Agricultural Credit Scheme (2009), other efforts include the creation of the Nigerian Agricultural Cooperative and Rural Development Bank (2002), the Small and Medium Enterprises Development Agency of Nigeria (2003), microfinance banks, and the SME Credit Guarantee Scheme (2010), alongside programs initiated by the Central Bank of Nigeria, the World Bank, and the Bankers' Committee etc. Collectively, these interventions were designed to provide SMEs with the necessary support to realize their full potential.

However, financing SMEs in Nigeria remains fraught with challenges. Many enterprises face double taxation from government agencies, high lending rates, and restrictive credit policies that undermine access to capital. The absence of collateral, compounded by inflationary pressures, particularly following the removal of fuel subsidies – further exacerbates their vulnerability. Consequently, SMEs often resort to internal financing, personal savings, or borrowing from family, friends, and informal lenders under unfavorable conditions, thereby limiting their growth prospects.

From a theoretical perspective, McKinnon (1973) and Shaw (1973) argued that financial liberalization enhances savings, lowers interest rates, and promotes capital formation. Similarly, Government ingenuity for targeting 1,000 SMEs on the capital market, obviously empowering access to long-term financing. Capital market listing (equity/debt) (SEC & SMEDAN Partnership (Nigeria) 2025). Yet, in practice, many SMEs in developing economies remain constrained to subsistence-level operations. Schumpeter (1973) emphasized the importance of credit in enabling small businesses to innovate and improve living standards- a rationale that underpins continued investment in SME development in Nigeria. OECD 2025 reports that SMEs are faced with an obstructive financing situation occasioned by high interest rates and economic indecision leads to short-term financing at the detriment of fruitful ventures from realizing their transformative potentials.

This study therefore highlights the persistent constraints confronting Nigerian SMEs in their quest to enhance living standards, particularly funding gaps and unstable financial prospects. It employs indicators such as lending rates, SME credit, inflation, exchange rate and per capita income to assess whether SME financing contributes meaningfully to the improvement of the standard of living in Nigeria.

Theoretical framework

The innovation theory of SME

Schumpeter's (1934) theory of innovation underscores the transformative role of entrepreneurial activity in economic development. He identified five thematic dimensions through which innovation manifests: the introduction of new products, the adoption of novel production methods, the discovery of alternative sources of raw materials, the creation of new market linkages, and the reorganization of industries through distinctive structures. These elements collectively highlight the dynamic capacity of entrepreneurship to disrupt existing systems and stimulate growth. Importantly, Schumpeter emphasized that innovation is not merely technological but also organizational and institutional, requiring active support from both government and non-governmental actors.

In the Nigerian context, Schumpeter's framework provides a useful insight for analyzing the constraints and opportunities facing SMEs. While SMEs are widely acknowledged as engines of job creation and poverty reduction, their ability to innovate is often undermined by structural barriers. High lending rates, limited access to finance, and short repayment durations restrict the capacity of SMEs to invest in research, adopt new technologies, or diversify production processes. This reality contrasts sharply with Schumpeter's position that credit is the hallmark of entrepreneurial innovation. Without affordable and accessible financing, SMEs remain locked in subsistence-level operations, unable to generate the disruptive innovations that drive industrial transformation.

Although, Schumpeter's emphasis on institutional support resonates with Nigeria's policy environment initiatives, such as the Economic Recovery and Growth Plan (ERGP) and the National Development Plan (2021–2025) which recognize the importance of SMEs in fostering innovation and improving living standards. However, implementation challenges—such as bureaucratic bottlenecks, elite capture, and regional disparities in infrastructure—limit the effectiveness of these policies. For example, SMEs in southern states like Lagos benefit from better access to finance and infrastructure, enabling them to adopt innovative practices, while northern SMEs remain constrained by weak institutional support and limited market linkages. This uneven distribution of resources undermines the inclusive innovation process envisioned by Schumpeter.

In sum, while Schumpeter's innovation theory remains highly relevant, its application in Nigerian environment reveals significant gaps between theoretical ideals and practical realities. The capacity of SMEs to innovate is constrained by financial, infrastructural, and institutional challenges. Addressing these barriers requires a holistic approach that integrates affordable credit, supportive policy frameworks, and regionally sensitive interventions. Only then can SMEs fulfill their potential as engines of innovation, industrial transformation, and improved living standards in line with Schumpeter's vision.

Financial intermediation theory

Financial intermediation theory highlights the pivotal role of institutions such as banks, microfinance organizations, and development finance agencies in channeling funds between savers and borrowers. The central argument is that intermediaries exist to mitigate market imperfections, including information asymmetry, transaction costs, and liquidity mismatches (Diamond, 1984; Gurley & Shaw, 1960). By performing these functions, intermediaries enhance efficiency in financial markets and facilitate the allocation of capital to productive sectors. SMEs typically lack such access and rely almost exclusively on intermediaries for credit. Intermediaries mobilize savings from households and investors and redistribute them to SMEs, thereby enabling business expansion, innovation, and employment generation. Establishing a causal link between SME financing and intermediaries expands credit access, which enhances productivity, generates employment, and ultimately raises per capita income and living standards. However, when intermediaries are inefficient—due to risk aversion, weak regulation, or inadequate capitalization—SMEs are excluded from formal finance, leading to credit rationing, suppressed income growth, and heightened inequality.

Accessible literature from 2000 to 2024 underscores that effective financial intermediation remains indispensable for SME development. Strengthening intermediaries through risk-sharing mechanisms, regulatory reforms, and digital innovation, which are essential to expand SME access to finance, enhance productivity, and ultimately improve living standards in developing economies such as Nigeria.

2. Literature review

Abdullahi (2025), used panel data from 174 SMEs in Northeastern Nigeria, and it showed that access to long-term credit positively influenced financial sustainability, income generation, and job creation. The study emphasized that credit must be both timely and structured for long-term use to deliver standard of living benefits. Interest rate volatility presents another constraint. The above study resonates Adesina et al (2024), in a nationwide survey of 850 SMEs, demonstrated that timely and complete loan disbursement significantly enhances enterprise outcomes. Their regression analysis revealed a 38% improvement in business performance and a 29% increase in average income for owners and employees, underscoring the importance of efficient credit delivery in boosting productivity and living standards. The conditional nature of success becomes even clearer when examining concessional lending by Adebayo & Yusuf (2024), in a study of 400 SMEs in Lagos and Ogun States, reported that firms accessing Central Bank intervention loans at single-digit interest rates achieved higher profit retention and reinvestment. This translated into a 35% increase in household income among employees, illustrating how subsidized credit supports sustainable operations and contributes to per capita income growth.

Similarly, Okafor et al (2024) provided evidence from 1,200 SMEs accessing concessional loans under national schemes such as BOI, AGSMEIS, and DBN. Their econometric analysis showed that enterprises benefiting from low-interest, long-tenure, and fully disbursed loans recorded 30% higher income growth compared to those constrained by high-interest, short-tenure loans. This corroborates the argument that integrated loan structuring—combining affordability, tenure flexibility, and timely disbursement—is critical for inclusive economic growth. The most frequently cited constraint is interest rates. The Central Bank of Nigeria (CBN, 2023 Statistical Bulletin) confirmed that lending rates for SMEs remain high, averaging between 18% and 30%. These excessively high rates discouraging borrowing and investment, limiting job creation and household income growth. The National Institute of Credit Administration (2024) found that interest rates above 25% led to loan defaults, reduced investment, and reliance on informal lenders, underscoring the necessity of subsidized loan programs. Okonkwo et al (2023), analyzing bank data from Enugu, Abia, and Anambra States, observed that lending rates above 25% discouraged SME borrowing, leading to downsizing, retrenchment, and reduced community investment. Their findings established a direct nexus between high interest rates, declining wages, and rising household poverty, suggesting that lower rates could foster inclusive growth. These findings establish a direct relationship between high interest rates, declining wages, and rising household poverty revealing a condition affect not only firms but the larger economy.

Okeke et al (2023), focusing on Kano, Kaduna, and Bauchi States, found that only 12% of SMEs received the full loan amounts approved under government and commercial programs. Beneficiaries reported stronger working capital, higher output, and a 26% rise in household consumption, reinforcing the argument that actual disbursement—rather than loan approval alone—is decisive for SME-led livelihood support. Ogunmokun et al. (2024) noted that lending constraints across Sub-Saharan Africa, banks' risk aversion—driven by SMEs' poor credit histories and unstructured operations—restricted financing. They argued for SME-friendly risk models to expand access and strengthen livelihoods. Adeyemo et al (2022), through a survey in Ibadan Southeast Local Government Area, identified cooperative societies, microfinance institutions, personal savings, and family support as the primary funding sources for SMEs. They noted persistent challenges including inadequate funding, unfavorable government policies, unreliable power supply, taxation, and high interest rates. They recommended policies that reduce collateral requirements and simplify loan procedures to support both existing and prospective SME operators. Given these persistent challenges, a significant development across the recent literature is the advent of digital finance as a potential game-changer. Onuegbu et al. (2025) examined SMEs in South-

East Nigeria and found that those accessing fintech platforms benefited from faster loan approvals, flexible repayment schedules, and greater income stability compared to firms using traditional banks. This highlights the possibility of digital credit solutions to enhance financial inclusion when supported by effective regulation. Okoye et al (2024) emphasized that fintech, artificial intelligence, and cybersecurity integration improved loan access and competitiveness, though governance gaps and limited digital literacy remain barriers. Olatunji et al. (2024) reinforced these findings, showing that digital financial services improved operational efficiency and credit access, despite infrastructure and security challenges.

Obafemi (2025) investigated medium-sized enterprises (SME) observation of infrastructural development in Lagos with respect to payment of tax, using both primary and secondary data, within the Lagos metropolis. The study found that infrastructural development impacts tax payment behaviour of SMEs satisfactorily with government, spending and compliance with tax regulations. It was recommended that the government should continue to enhance the provision and quality of infrastructure to improve taxpayers' satisfaction and, in turn, stimulate more compliance among residents. From macroeconomic point of view, Onakoya et al. (2024) confirmed that interest rates positively influenced SME financing, while inflation significantly constrained access to affordable credit. In a cautionary note, Onuegbu et al. (2025) emphasized that digital finance platforms are reshaping intermediation by offering rapid, unsecured loans, albeit with concerns about sustainability and destructive lending.

Ibebi et al (2024) argue that microfinance banks play a pivotal role in bridging the financing gap by channeling deposits and loans to SMEs excluded from conventional banking systems. Their study found that microfinance bank assets and loan portfolios significantly enhance SME sustainability, though weak regulatory oversight and low financial literacy remain obstacles. Complementing Adebisi et al (2023) perspectives, Okeke (2025) analyzed microfinance bank data and linked SME financing indirectly to welfare outcomes through the Human Development Index (HDI). The study found that microfinance-related investments in education, health, and infrastructure significantly improved welfare, even though loans alone did not directly influence HD, his study highlights the importance of pairing financial access with complementary developmental services to achieve wider improvements in living standards. Complementary developmental services – a theme echoed in Nkamnebe et al (2024) from a microcredit studies showed that access to microcredit improved rural women's incomes but had limited effects on social status due to persistent gender barriers, suggesting the need for complementary empowerment initiatives. Iyenagbe et al (2022) investigated the influence of bank loans, lending rates, collateral requirements, and credit accessibility on SME development in Delta State.

Drawing on capital formation and supply-side leading theories, and using descriptive and regression analysis, they found that loans and credit accessibility significantly enhanced SME growth, whereas high lending rates and collateral demands constrained development. The study emphasized that financial intermediation plays a crucial role in SME performance and recommended increased funding to maximize the sector's contributions in Delta State. Supporting Iyenagbe et al (2022) Ajibola et al (2024) confirmed that concessional loans from development banks boosted SME investment and revenue growth, linking institutional credit to improved household incomes, Nafiu et al (2024), employing a macroeconomic time-series analysis with ARDL modelling, found that bank credit and national savings significantly enhanced SME growth, while lending rates showed no statistical effect. Their findings suggest that the volume of accessible credit may be more decisive than its cost, though the interaction between affordability and credit uptake remains underexplored. BusinessDay Analysts (2024) reported

that the CBN's benchmark lending rate of 26.75% increased debt servicing costs, indirectly weakening SMEs in the manufacturing value chain. Alimi et al (2016), employing a VAR model with data from 1970 to 2013, observed that shocks in commercial bank credit strongly affect Nigeria's output. Their findings revealed that money supply, loans to SMEs, domestic private sector credit, lending rates, and investment positively influence real output, though the neutrality of investment does not hold in the Nigerian context. Samuel (2026) noted that outsourcing activities of medium-scale enterprises (SMEs) in Osogbo, Osun State, Nigeria, enhances transparency, using a convenience sampling technique to research on the influence of accounting activities, the study added that SMEs should embrace professional accounting and proper supervision should be intensified to ensure enhanced transparency, relevance, and accountability.

Adebisi et al (2023), through a survey of 750 SMEs across twelve states, emphasized the importance of repayment structures. Their regression analysis revealed that repayment periods longer than 18 months increased SME survival rates by 40% and supported income stability for both owners and employees. This underscores the role of flexible loan tenure in sustaining operations and household welfare, shifting attention from credit volume alone to repayment design. From a comparative perspective, Abubakar et al (2021) highlighted the global relevance of SMEs, drawing insights from countries such as Malaysia, China, India, Hong Kong, Bangladesh, and Singapore. They argued that limited access to credit facilities and inadequate borrowing documentation hinder SME growth in Nigeria, despite the sector's proven potential to improve living standards and drive economic development. A finding that resonates across contexts, Ayyagari, et al (2011) found that financial intermediation is a key determinant of firm innovation and productivity. More recent studies in Nigeria and Sub-Saharan Africa confirm that weak intermediation characterized by high lending rates, collateral constraints, and poor credit infrastructure continues to limit SME financing (Agusto & Co, 2023; PwC MSME Survey, 2024). In a related study, Lionel et al (2022) explored the impact of trade openness on SME performance in Nigeria between 1981 and 2019. Employing the Autoregressive Distributed Lag (ARDL) model, they confirmed both short- and long-run relationships between trade openness and SME outcomes. Their analysis highlighted that fluctuations in exchange rates, inadequate infrastructure, labor force dynamics, and foreign direct investment (FDI) significantly influenced SME performance. They recommended the creation of an enabling environment through improved infrastructure and stable exchange rates to strengthen enterprise competitiveness under open trade conditions. Aina (2025) investigated the effect of Technology Organization Environment Framework in business strategy on decision making of Small and Medium Enterprises in Lagos, Nigeria, using Technology Organization Environment (TOE) methodology, with primary data collected from 350 SME managers, the descriptive statistics and multiple linear regression result showed that the use of technology aids operational efficiency and enhances competitive advantage of SMEs, thought with major barriers knowledge gap in technical expertise, high executional cost, knowledge of the availability of new technology, the study highlighted the need for specific training programs, introduction of less expensive tool that will enhance contribution of SME realize its potential.

- H1:** Small and medium enterprise credit does not have significant effect on standard of living in Nigeria.
- H2:** Lending rate does not have significant effect on standard of living in Nigeria.
- H3:** Inflation rate does not have significant effect on standard of living in Nigeria.
- H4:** Exchange rate does not have significant effect on standard of living in Nigeria.

3. Methodology

This study employs an *ex post facto* which is appropriate for investigating relationships among variables when events have already occurred and cannot be manipulated by the researcher. The design is particularly suited to examining how SME financing proxied by SME credit, Lending rates, Inflation rate and Exchange rate has influenced Nigeria’s standard of living, measured through Per Capita Income, spanning from 1992 to 2025.

Secondary data were obtained from Central Bank of Nigeria Statistical Bulletins (2025), National Bureau of Statistics (NBS) and World Bank Development Indicators (WDI). Additional data are drawn from the SMEDAN National MSME surveys, as well as reports from Development Bank of Nigeria (DBN) and Bank of Industry (BOI).

Model specification

The study adopts the model below to express the dependent variables and independent variables below:

$$PCI = f (SMECR, LR, INFLR, EXCR)$$

Where: PCI = Per Capita Income (Proxy for Standard of Living), SMECR = Small and Medium Scale Enterprise (SME) Credit, LR = Lending Rate, INFLR = Inflation Rate, EXCR= Exchange rate.

The econometric form of the model is specified as:

$$PCI_t = \beta_0 + \beta_1SMECR_t + \beta_2LR + \beta_3INFLR_t + \beta_4EXC_t \varepsilon_t$$

Where: β_0 = Intercept, β_1 - β_4 = Coefficients of independent variables, ε_t = Error term, t = Time (year)

The independent variables in this model include:

Table 1: variable measurement

S/N	VARIABLE NAME	MEASUREMENT	ACRONYM
1	Per Capital Income (Dependant variable)	Standard of Living	PCI
2	Small and Medium Scale Enterprise credit (independent variable)	SME Credit	(SMECR)
3	Exchange rate (independent variable)	Exchange rate	EXC
4	Lending Rate (independent variable)	Lending Rate	LR
5	Inflation Rate (independent variable)	Inflation Rate	INFLR

Source: Authors perspective, 2026.

Lionel et al (2022) explored the impact of trade openness on SME performance in Nigeria between 1981 and 2019. Employing the Autoregressive Distributed Lag (ARDL) model, they confirmed both short- and long-run relationships between trade openness and SME outcomes. Their analysis highlighted that fluctuations in exchange rates, inadequate infrastructure, labor force dynamics, and foreign direct investment (FDI) significantly influenced SME performance. They recommended the creation of an enabling environment through improved infrastructure and stable exchange rates to strengthen enterprise competitiveness under open trade conditions. BusinessDay Analysts (2024) reported that the CBN’s benchmark lending rate of 26.75% increased debt servicing costs, indirectly weakening SMEs in the manufacturing value chain.

Analytical technique

The Autoregressive Distributed Lag (ARDL) model was appropriate for the sample size and the variables' mixed stationarity at level and first difference; it was used in the investigation. Since the data in this study covers only 33 years of annual observations, from 1992 to 2025, the ARDL technique is very useful when working with small to medium sample sizes. The ARDL strategy is a better fit for this study because conventional techniques, like the Johansen cointegration test, usually need a larger dataset to yield accurate results.

Furthermore, when the variables show mixed stationarity, when some variables are stationary at level and others only become stationary after initial differencing, the ARDL model works well. The study can represent the long-term relationships between the variables by employing the ARDL approach, which eliminates the requirement to alter the data in order to attain stationarity. Additionally, this guarantees that the outcomes capture both immediate and long-term relationship, accurately reflecting the interactions between the variables. For this reason, the ARDL technique is a suitable and reliable methodology.

4. Results and discussion

Table 2 : Descriptive statistic

	PCI	SMECR	LR	INFLR	EXCR
Mean	1.310	5.172	18.224	19.222	180.522
Median	1.330	1.020	17.553	13.246	133.500
Maximum	2.180	27.040	31.650	72.836	645.190
Minimum	41.639	0.070	11.483	5.388	17.300
Std. Dev.	6.390	6.963	3.956	16.195	150.600
Skewness	-0.338	1.378	1.213	1.988	1.269
Kurtosis	1.964	4.180	5.473	6.103	4.278
Jarque-Bera	2.103	12.358	16.497	34.974	11.097
Probability	0.349	0.002	0.000	0.000	0.004
Sum	4.340	170.660	601.405	634.324	5957.220
Sum Sq. Dev.	1.310	1551.487	500.718	8392.480	725770.400
Observations	33	33	33	33	33

Author E-view 10 Output

Table 2.0 shows the statistical description of each variables, these includes: PCI, SMECR, LR, INFL and EXCR with their respective Mean (1.310, 5.172, 18.224, 19.222, 180.522) which is the average sum of all the variables in the model, the median value of the LR, INFL and EXCR which are 17.553, 13.246 and 133.500 are lower than the mean, indicating a leftward skewness in the data set to the left. The Standard Deviation indicates a moderate level of variability in PCI (6.390) which implies that there is fluctuation in the standard of living in the economy within the study period. The moderate standard deviation of 150.600 (EXCR) indicates that the exchange rate values have been fluctuating, which may raise concerns about policy sustainability while the standard deviation of INFL (16.195) indicates that the inflation rate values have been fluctuating, which may expose the country's naira value to exchange rate risks.

There are three types of kurtoses: mesokurtic (when the kurtosis coefficient is = 0), platykurtic (when the kurtosis coefficient is < 0), and leptokurtic (when the kurtosis coefficient is > 0). Skewness indicates the degree of asymmetry of the distribution, which can be either positively or negatively skewed. The findings indicate that while PCI is somewhat negatively skewed (-0.338) and has a relatively high kurtosis value (1.964), indicating a fairly asymmetrical distribution, the skewness and kurtosis values of

all the variables show a highly positive skewed, indicating a highly asymmetrical distribution. The Jarque-Bera test statistics and p-values (0.002, 0.000, 0.000 and 0.004) indicate that all the employed variables are normally distributed.

Table 3: Unit root analysis

Variables	ADF 1(0)	ADF 1(1)	Order of co-integration	Decision
PCI	-3.612199	-3.562882	1(0)	Stationary
SMECR	-2.957110	-3.568379	1(1)	Stationary
LR	-3.574244	-3.562882	1(0)	Stationary
INFLR	-3.557759	-3.562882	1(1)	Stationary

Source: Author's Computation using E-View 10

The Augmented Dickey-Fuller (ADF) test is applied to assess the stationarity of the variables in the study. The Per Capital Income (Proxy for standard of living) and Lending Rate is stationary at level 1(0) while Small and Medium Scale Enterprise Credit (SMECR) and Inflation Rate is stationary at first difference 1(1). Given the mixed order of stationarity, the Auto regressive distribution lag methodology (ARDL) methodology will be suitable for our analysis.

Table 4: Bounds test result

	10%		5%		1%		p-value	
	I(0)	I(1)	I(0)	I(1)	I(0)	I(1)	I(0)	I(1)
F	2.754	4.219	3.445	5.168	5.235	7.602	0.001	0.008
T	-2.481	-3.616	-2.885	-4.100	-3.739	-5.128	0.001	0.010

F. statistic = 8.001
t. statistic = -5.119

Source: Author's Computation

From the above Table 4, the F-statistics (8.001) exceed the critical bounds at all the value (i.e 1%, 5% and 10%) significance level indicating cointegration among the variables. This suggests that there is a noticeable trend and spillover relationship between the Small and Medium Enterprise financing and the standard of living within the period of this study in the Nigerian economy.

Table 5: ARDL error correction estimates

The dependent variable is Per Capital Income (PCI)				
Dlog PCI	Coefficients	Standard Errors	t-Statistics	P-value
Adjustment	-0.3125	0.0610	-5.12	0.000
Long-Run				
SMECR	-0.0636	0.0059	-10.75	0.000
EXC	0.0005	0.0002	2.21	0.042
INF	0.0018	0.0036	0.49	0.631
LR	0.0097	0.0103	0.94	0.359
Short-Run				
SMECR	0.0232	0.0062	3.77	0.002
EXC	-0.0002	0.0001	-1.61	0.127
INF	-0.0024	0.0010	-2.35	0.032
LR	0.0017	0.0038	0.46	0.650
Constant	10.2033	2.0108	5.07	0.000
R-squared			0.7725	
Adjusted R-Squared			0.6019	
Durbin's alternative test for autocorrelation			0.402 (p = 0.5260)	
Breusch-Pagan/Cook - Weisberg test for heteroskedasticity			0.98 (p = 0.7027)	

Source: Author's computation

From Table 5 the ARDL estimation produced an adjusted R-square of 0.6019, indicating that approximately 60% of the variation in the standard of living is explained by the explanatory variables (SME credit, lending rate, inflation, and exchange rate). In the Short Run, SME credit exerts a positive and significant relationship with per capita income, whereas the inflation rate exhibits a negative and significant relationship with per capita income in Nigeria. Exchange rate and lending rate showed an insignificant relationship in the short run. Surprisingly, SME credit confirms a negative but significant long run relationship on per capital income. While exchange rate has a positive and significant long-term relationship with the standard of living. Inflation and lending rate exhibited a positive and insignificant relationship within period of this study in Nigeria. The diagnostic test indicates that the model is robust, with no evidence of autocorrelation or heteroskedasticity, as confirmed by the Durbin-Watson test and the Breusch-Pagan/Cook-Weisberg test.

CUSUM squared test for model stability

The CUSUM of squares (CUSUMSQ) test suggested that the estimated model maintained structural stability throughout the study period. This decision was taken from the observation that the CUSUMSQ plot consistently remained within the 5% critical bounds during the entire sample period. Though some periods of significant fluctuation were found, notably a sharp rise in the early 2000s, the test statistics did not exceed the upper or lower confidence limits. This indicated absence of significant structural breaks and affirms the stability of the model's parameters, thereby rendering the estimated ARDL results dependable for inference and policy analysis.

Discussion of findings

The study empirically examines the relationship between SME financing and the standard of living in Nigeria. Per-capita income serves as the proxy for the dependent variable (Standard of Living), while SME credit (SMECR), exchange rate (EXC), inflation rate (INFL), and lending rate (LR) are employed as explanatory variables. Findings reveal that SME credit has significant effect in the short run, but in the long run, it shows negative and statistically insignificant relationships. This outcome supports the short-run conclusions of Obikoya et al. (2024) and Nafiu et al. (2024) but diverges from their long-run findings. Exchange rate revealed a negative relationship in the short run and a positive relationship in the long run, though not statistically significant. This result is consistent with Lionel et al. (2022) and partially aligns with Onakoya et al. (2024). Inflation demonstrates a negative short-run relationship and a positive relationship in the long-run but are both statistically insignificant. These findings corroborate the works of Chukunalu et al. (2025), Ebinum et al. (2025), Ezeaku et al. (2025), and Adamu et al. (2024). Lending rates revealed a positive relationship with the standard of living in both the short and long run, though the effect is not statistically significant. Though the above results on lending rate do not support the a priori expectation, this could be the justification for not being statistically significant but aligns with Nafiu et al. (2024) and other report as stated by the business day analyst (2024).

5. Conclusion

Based on the empirical analysis, this study concludes that while SMEs hold significant potential for economic transformation, the current financing mechanisms yield mixed outcomes for living standards in Nigeria. Credit to SMEs shows a positive short-run but negative long-run relationship with per capita income, suggesting unsustainable lending practices. Exchange rate shows a positive long-run relationship with standard of living. Although statistically insignificant, inflation and lending rates indicate that macroeconomic instability undermines SME sustainability. The model's confirmed stability reinforces the reliability of these findings.

The study recommends that:

- i. Institutions such as the Central Bank of Nigeria (CBN), Bank of Industry (BOI), and Small and Medium Enterprise Development Agency of Nigeria (SMEDAN) must strengthen oversight of SME loans to guarantee that funds are channeled into productive activities rather than diverted. This will enable SMEs to fully realize their potential in enhancing the standard of living in Nigeria.
- ii. Government should prioritize strong coordination between fiscal and monetary authorities to effectively control inflation. This is critical for protecting economic welfare in both the short and long term. By keeping inflation in check, policymakers can safeguard purchasing power, enhance SMEs' access to affordable credit, and preserve profitability, thereby strengthening overall economic stability and living standards.
- iii. Government should establish specialized loan programs for SMEs with interest rates below 10%. Prioritize sectors with high employment potential and export capacity as well as provide interest rate subsidies through fiscal support, ensuring SMEs access affordable credit.
- iv. A policy framework for exchange rate management should be established, focusing on SMEs that are active and engaged in exporting local goods and services. Such a framework will aim to balance currency stability with competitiveness, thereby supporting the sustainability of living standards in Nigeria.

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