

Entrepreneurship Funding and Poverty Reduction: Assessing the Moderating Role of Interest Rate, Exchange Rate, and Consumer Price Index

Sandra Asinoye Uzuh¹, Okuji, Obinna Oreh², Ewere Success Obieze³, Okwudili R. Ojeogwu⁴, Solomon Akintayo Ale⁵, & Johnson I. Okoh⁶

¹Human Resource Development, University of the West Indies, Jamaica

²Department of Financial Studies, National Open University of Nigeria, Abuja

³Department of Business Administration, University of Delta, Agbor

⁴General Studies Department, Federal School of Statistics, Ibadan

⁵Bursary Dept., National Open University of Nigeria, Abuja

⁶Department of Financial Studies, National Open University of Nigeria, Abuja

For correspondence, email: jokoh@noun.edu.ng

Abstract

This study examined the impact of bank entrepreneurship funding on poverty reduction in Nigeria while assessing the moderating effects of macroeconomic factors, including exchange rate, interest rate, and inflation (proxied by the Consumer Price Index, CPI). It employed an autoregressive distributed lag (ARDL) model on annual time series data from 1986 to 2022, sourced from the Central Bank of Nigeria (CBN) and the National Bureau of Statistics (NBS). The findings revealed a significant inverse relationship between bank entrepreneurship funding and poverty rates, indicating that increased financial support for entrepreneurs contributed to poverty alleviation. However, macroeconomic conditions played a crucial role in shaping these effects. Specifically, high inflation and elevated interest rates exacerbated poverty by reducing real incomes and increasing borrowing costs, thereby constraining business growth. In contrast, a stable exchange rate and periods of economic expansion fostered a conducive environment for entrepreneurship and job creation, leading to poverty reduction. Despite these findings, the study acknowledged limitations such as data availability, potential endogeneity, and model specification constraints. It provided specific policy recommendations, emphasizing the need for financial institutions to enhance credit accessibility for entrepreneurs while ensuring macroeconomic stability through sound monetary and fiscal policies. By offering empirical insights into the intersection of finance, entrepreneurship, and poverty, this research informed policymakers and development practitioners on strategic interventions to drive inclusive economic growth in Nigeria.

Keywords: Entrepreneurship Funding, Poverty reduction, Consumer Price Index

INTRODUCTION

Poverty remained a significant global challenge, despite continuous efforts by policymakers, international organizations, and financial institutions. Its persistence underscored the complexity of socio-economic structures and the need for multidimensional strategies to address it. The importance of poverty reduction was emphasized in global initiatives such as the Sustainable Development Goals (SDGs), which aimed to eradicate extreme poverty and promote inclusive economic growth. However, many developing economies, including Nigeria, continued to grapple with high poverty rates despite abundant natural and human resources. Nigeria exemplified this paradox, as it remained one of the world's most resource-rich nations while simultaneously recording one of the highest incidences of poverty. This contradiction highlighted structural economic challenges, inefficiencies in resource allocation, and the absence of sustainable financial support for wealth creation through entrepreneurship.

Entrepreneurship played a critical role in addressing poverty by fostering job creation, enhancing innovation, and driving economic development. Small and Medium-sized Enterprises (SMEs), which accounted for more than 90% of all firms outside the white-collar job sector, were identified as key drivers of economic activity. According to Taiwo et al. (2016), SMEs served as a major source of employment and contributed significantly to both domestic and foreign earnings. However, access to adequate funding remained a primary challenge for entrepreneurs in Nigeria, limiting their ability to expand operations, increase productivity, and generate employment. Banks, as the primary financial intermediaries, had the potential to bridge this funding gap through entrepreneurship financing. Despite this potential, the extent to which bank funding contributed to poverty reduction remained uncertain, particularly in the face of macroeconomic instability.

Macroeconomic variables, including interest rates, exchange rates, and the Consumer Price Index (CPI), played a crucial role in shaping the effectiveness of entrepreneurship funding in reducing poverty. Interest rates determined the cost of borrowing for entrepreneurs, with high rates discouraging investment and business expansion due to increased financing costs. In contrast, lower interest rates facilitated access to capital, allowing SMEs to scale their operations and create employment opportunities. Exchange rate fluctuations further influenced business performance by affecting the cost of imports and exports, impacting entrepreneurs reliant on foreign inputs or engaged in international trade. A stable exchange rate environment fostered a conducive business climate, while volatility introduced financial uncertainty, limiting long-term planning and investment.

Inflation, as measured by the Consumer Price Index (CPI), eroded purchasing power and increased production costs, thereby reducing consumer demand and business profitability. Rising inflation led to higher costs for goods and services, disproportionately affecting low-income households and worsening poverty conditions. Entrepreneurs operating in high-inflation environments often faced reduced profit margins, making it difficult to sustain operations and expand employment. Conversely, controlled inflation levels ensured price stability, fostering a favorable environment for economic growth and poverty reduction.

Given these dynamics, this study was driven by the urgent need to understand how entrepreneurship funding by banks could serve as a viable tool for poverty reduction in Nigeria, particularly in the face of macroeconomic volatility. Despite the recognized role of SMEs in economic growth and employment generation, limited access to financial resources continued to stifle their potential impact. Furthermore, the interplay of high interest rates, exchange rate instability, and persistent inflation often undermined the effectiveness of financial interventions, raising concerns about the sustainability of entrepreneurship as a poverty alleviation strategy. Therefore, this research aimed to empirically assess the extent to which bank entrepreneurship funding contributed to poverty reduction while analyzing how macroeconomic variables interest rate, exchange rate, and CPI moderated this relationship. By examining time series data from 1986 to 2022, this study sought to provide evidence-based recommendations for policymakers, financial institutions, and development practitioners on optimizing entrepreneurship funding amidst economic uncertainties. Ultimately, the findings aimed to inform policies that would not only enhance financial access for entrepreneurs but also promote macroeconomic stability, ensuring that entrepreneurship remained a powerful engine for economic transformation and poverty reduction in Nigeria.

LITERATURE REVIEW

Theoretical and Conceptual Review

Keynesian Theory of Poverty

The paper is grounded in the Keynesian Theory of Poverty, which posits that poverty eradication is effectively achieved through targeted government policies and interventions. According to Keynesian theory, poverty arises from structural factors economic, social, or political—that are often beyond the control of the impoverished. Proponents of this theory, including Marshall and Keynes, attribute poverty to economic underdevelopment and a lack of human capital (Jung & Smith, 2016). Okoh (2019) noted a consensus among scholars and economic analysts regarding the pervasive poverty in Nigeria, despite efforts by successive governments to address the issue. Nevertheless, the poverty rate continues to escalate.

Concepts of Poverty and SMEs

Various definitions of poverty exist, including the World Bank's (1990) definition, which describes it as a condition where individuals lack the essentials for a minimum standard of living. Statistically, Omoniyi defines poverty as living on less than one USD per day, measured by purchasing power parity. Small and Medium Enterprises (SMEs) have been defined in multiple ways, leading to some ambiguity. This paper adopts the definition from the Small and Medium Industries Equity Investment Scheme (SMIEIS), which characterizes SMEs as enterprises with total capital employed between N1.5 million and N200 million (excluding land costs) and a workforce ranging from 10 to 300 employees.

Empirical Studies

Existing empirical studies have explored the relationship between entrepreneurship financing and economic growth, but relatively few have focused on its direct impact on poverty

reduction. While financial inclusion has been extensively examined as a mechanism for economic empowerment, there remains a gap in understanding how targeted entrepreneurship funding influences poverty levels, particularly within the Nigerian context.

Doe (2021) investigated the relationship between financial inclusion and entrepreneurship in sub-Saharan Africa, employing a mixed-method approach that combined quantitative financial data with qualitative interviews. The study found that financial access enhanced entrepreneurial activities, leading to poverty reduction. However, it did not account for the influence of macroeconomic variables such as inflation, interest rates, and exchange rates, which can significantly affect financial accessibility and business sustainability. Similarly, Smith (2022) employed econometric modeling to examine financial inclusion and poverty reduction across Nigerian states. The research established a positive link between financial inclusion and poverty reduction but failed to critically analyze variations across regions and economic sectors, limiting its applicability to broader entrepreneurship financing discussions.

Some studies have examined entrepreneurship financing within specific sectors. For instance, Aderemi et al. (2019) analyzed the relationship between agricultural SME financing and GDP growth using the autoregressive distributed lag (ARDL) model and bounds testing for data spanning 1990–2017. The findings suggested an insignificant negative relationship between agricultural financing and GDP growth, raising questions about the efficiency of credit allocation in the sector. However, the study did not explore whether structural issues, such as poor infrastructure and inadequate market access, contributed to this outcome.

Ali (2023) applied panel data analysis to assess financial inclusion and poverty reduction in sub-Saharan Africa, with a focus on Nigeria. The study concluded that higher financial inclusion rates corresponded with lower poverty levels. However, it primarily emphasized financial access without considering the quality of financial services provided, which could influence the sustainability of entrepreneurial ventures. Johnson (2020) adopted a case study approach to evaluate the effectiveness of entrepreneurship development programs in Nigeria. The research demonstrated that bank-funded entrepreneurship initiatives contributed to poverty reduction but lacked a comparative analysis of alternative funding mechanisms, such as government grants or venture capital.

Okoh (2020) explored the role of SME financing in Nigeria's economy using time-series data from 1981 to 2017. The study found that bank credit to SMEs had a positive but statistically insignificant effect on GDP growth, suggesting that access to finance alone may not be sufficient to drive economic expansion. This finding aligns with the work of Okoh et al. (2022), who analyzed SME financing and human capital development in Nigeria from 1992 to 2021. Using an ARDL model, they found that credit to SMEs significantly impacted human capital development in the long run, reinforcing the argument that financial support must be complemented by capacity-building initiatives.

Ibrahim (2024) introduced a comparative dimension by examining the impact of the Islamic banking industry on economic growth and poverty reduction. The study found that Islamic banking's unique financial products, such as interest-free loans, contributed to financial inclusion and poverty alleviation. However, it did not assess the scalability of Islamic banking

models in conventional financial systems. Meanwhile, Olowookere et al. (2021) employed modified ordinary least squares regression and Granger causality analysis to explore SME financing and sustainable economic growth. Their findings confirmed a one-way causality from GDP growth to bank loans for SMEs, implying that economic expansion drives financial accessibility rather than the reverse.

Nwakoby et al. (2017) assessed Nigerian government financial incentives for SMEs between 1999 and 2015. Using simple regression analysis, they found that government expenditure and loan facilities had a significant positive impact on SME output and economic development. However, the study did not examine the sustainability of these financial incentives, leaving a gap in understanding their long-term effectiveness.

Despite growing research on financial inclusion, the specific role of entrepreneurship financing in poverty reduction remains under-explored. While access to financial services is widely recognized as a driver of economic growth, fewer studies isolate entrepreneurship funding as a distinct mechanism for lifting individuals out of poverty. Moreover, the influence of macroeconomic variables particularly interest rates, exchange rates, and inflation (CPI) on the effectiveness of entrepreneurship financing has been largely overlooked. Given the volatile economic conditions in Nigeria, understanding how these macroeconomic factors moderate the impact of entrepreneurship funding is crucial for designing effective financial and policy interventions. This study addresses these critical gaps by examining how fluctuations in interest rates, exchange rates, and inflation shape the relationship between entrepreneurship funding and poverty reduction, providing essential insights for policymakers, financial institutions, and development practitioners

METHODOLOGY

The study employed secondary data spanning from 1986 to 2022 and adopted an ex post facto research design. The historical data used was deemed suitable for empirical analysis, having undergone a series of preliminary and diagnostic tests to ensure its reliability.

Model Specification

In this paper, the list of policy variables is expanded to include, the poverty rate, total banks credit to SMEs (Entrepreneurship funding), exchange rate, and interest rate, consumer price index. The model is specified as follows:

$$POV = F(SME, EXCH, INTR, CPI) \dots\dots\dots(1)$$

where

- POV = Poverty rate
- SME = Entrepreneurship funding =Total banks credit to SMEs
- EXCH = Exchange rate
- INTR = The policy variable (interest rate)
- CPI = Consumer prices index (proxy for Inflation rate)

The econometric form of the model above is stated as:

$$POV_t = \beta_0 + \beta_1 SME_t + \beta_2 EXCH_t + \beta_3 INTR_t + \beta_4 CPI_t + \mu_t \dots\dots\dots(2)$$

μ_t = stochastic error term

β_0 = constant intercept

$\beta_1 - \beta_4$ = co-efficient of the associated variables

The dependent variable and some of the independent variables were not in the same unit, hence, they were logged so as to bring the data to the same level. Thus, the above equation can be re-specified as:

$$POV_t = \beta_0 + \beta_1 LOG(SME)_t + \beta_2 LOG(EXCH)_t + \beta_3 INTR_t + \beta_4 LOG(CPI)_t + \varepsilon_t \dots\dots (3)$$

Method of result evaluation

This paper utilized the Augmented Dickey-Fuller (ADF) test to assess stationarity. This choice was made because the Auto Regressive Distributed Lag (ARDL) bounds test procedure assumes that the variables in question are either integrated of order zero or order one. The ADF test was used to determine the order of integration. The null hypothesis for the test is stated as follows: H0: $\beta=0$ (β has a unit root); H1: $\beta<0$ (alternative hypothesis). When conducting an ARDL model procedure, an appropriate lag length is chosen. It is noted that both the Akaike Information Criterion (AIC) and the Schwarz Criterion (SC) are suitable for small samples, though the SC is considered superior to the AIC. The ARDL model is formulated as follows:

$$\Delta POV_t = \beta_0 + \sum_{i=1}^n \beta_{1i} \Delta POV_{t-i} + \sum_{i=0}^n \beta_{2i} \Delta LOG(SME)_{t-i} + \sum_{i=0}^n \beta_{3i} \Delta LOG(EXCH)_{t-i} + \sum_{i=0}^n \beta_{4i} \Delta INTR_{t-i} + \sum_{i=0}^n \beta_{5i} \Delta LOG(CPI)_{t-i} + \delta_1 POV_{t-1} + \delta_2 LOG(SME)_{t-1} + \delta_3 LOG(EXCH)_{t-1} + \delta_4 INTR_{t-1} + \delta_5 LOG(CPI)_{t-1} + \varepsilon_t$$

where

Δ = Difference operator

ε_t = Stochastic term

Conducting ARDL bound test, an Ordinary Least Square (OLS) is estimated firstly in order to establish if there exists a long run relationship between the variable under consideration. The test is based on an F-Statistic for the joint statistical significance of the lagged variables. The null hypothesis of no cointegration is stated as: $H_0 : \beta_1 = \beta_2 = \beta_3 = \beta_4 = 0$. The underlined assumption is therefore stated as follows: if the F-statistic is > upper critical bound, H₀ is rejected and concludes that the variables under consideration are cointegrated, otherwise it is not accepted. However, if F-statistic \geq lower critical bound \leq upper critical bound, then decision becomes inclusive. If the null hypothesis of no cointegration is rejected, a vector error-correction model (VECM) is therefore estimated. The VECM model is therefore specified as follows:

$$\Delta POV_t = \alpha_0 + \sum_{i=1}^n \alpha_{1i} POV_{t-1} + \sum_{i=1}^n \alpha_{2i} \Delta LOG(SME)_{t-1} + \sum_{i=1}^n \alpha_{3i} \Delta LOG(EXCH)_{t-1} + \sum_{i=1}^n \alpha_{4i} \Delta INTR_{t-1} + \sum_{i=1}^n \alpha_{5i} \Delta LOG(CPI)_{t-1} + \lambda ECM_{t-1} + \mu_t \quad \dots\dots(4)$$

where:

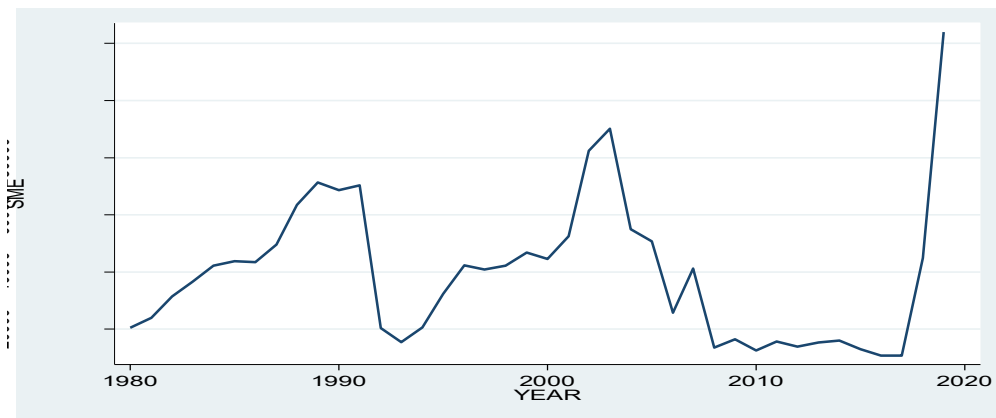
ECM = The error correction term

λ = the error coefficient

DATA ANALYSIS AND RESULTS

The analysis revealed the trends in SME growth in Nigeria from 1986 to 2022. Between 1986 and 2000, SME growth experienced significant fluctuations, likely influenced by economic instability, policy inconsistencies, and structural adjustments within the Nigerian economy. From 2000 to 2016, a dramatic upward trend was observed, which can be attributed to factors such as government interventions, improved access to finance, and favorable economic policies that promoted entrepreneurship. However, from 2016 to 2022, the trend exhibited smooth ups and downs, reflecting the impact of fluctuating macroeconomic conditions, exchange rate volatility, inflationary pressures, and shifts in government policies. These findings highlight the need for a stable economic environment and consistent policy support to sustain SME growth in Nigeria.

Figure 1: the trend of the Entrepreneurship funding in Nigeria from 1986- 2022



Source: Authors’ computation (2024)

DESCRIPTIVE STATISTICS

The descriptive statistics for the variables under consideration are therefore presented as follows:

The descriptive statistics

	POV	SME	EXCH	INTR	CPI
Mean	61.64061	38675.88	108.3859	12.14061	52.47976
Median	65.10000	40844.30	111.9400	12.50000	29.87000
Maximum	74.77000	123932.1	360.2000	26.90000	145.8000
Minimum	27.20000	10747.89	0.600000	3.720000	0.410000
Std. Dev.	11.78515	25201.71	109.5792	5.059745	53.31297
Skewness	-1.101495	1.177034	0.873748	0.393359	0.591053
Kurtosis	3.419686	4.592515	2.755676	3.247404	1.772060
Jarque-Bera	8.591722	13.79948	5.318791	1.161893	4.963066
Probability	0.013625	0.001008	0.069991	0.559369	0.083615
Sum	2527.265	1585711.	4443.820	497.7650	2151.670
Sum Sq. Dev.	5555.595	2.54E+10	480304.0	1024.041	113690.9
Observations	37	37	37	37	37

Source: Authors’ computation from the E-views result (2024)

The descriptive statistics from the result table indicate that, from 1986 to 2022, the poverty growth rate, credit to SMEs (SME), exchange rate (EXCH), interest rate (INTR), and consumer price index (CPI) exhibited an overall positive mean across 37 observations. The standard deviation analysis reveals that SMEs recorded the highest variability, suggesting significant fluctuations in credit allocation, while INTR had the lowest standard deviation, indicating relatively stable interest rates over the period. Skewness statistics show that four of the variables are positively skewed, implying a rightward distribution, while one variable is negatively skewed. The Jarque-Bera test of normality further suggests that four of the variables have probabilities exceeding the 5% significance level, indicating that they do not deviate significantly from a normal distribution.

Correlation

The relationships among the studied variables depicted in the model were tested using correlation matrix and the result presented below:

Correlation matrix

	POV	SME	EXCH	INTR	CPI
POV	1.000000	0.110070	0.411906	0.371948	0.438847
SME	0.110070	1.000000	-0.153305	0.064074	-0.280461
EXCH	0.411906	-0.153305	1.000000	0.264375	0.924729
INTR	0.371948	0.064074	0.264375	1.000000	0.178317
CPI	0.438847	-0.280461	0.924729	0.178317	1.000000

Source: Authors; computation

The correlation matrix results shows that all of the variables are positively related to the POV. The relationships are actually at 11%, 41%, 37%, and 43% respectively. This implies that there is no multicollinearity among the variables under consideration.

Unit root /Stationarity test

The results of the Augmented Dickey Fuller (ADF) test obtained are as follow:

The Unit root test

Variable	Level difference	Probability	Order of integration	First difference	Probability	Order of integration
POV	-3.262535	0.0236	I(0)			
SME	-3.743575	0.0070		-3.187507	0.0286	I(1)
EXCH	0.651564	0.9894		-5.012978	0.0002	I(1)
INTR	-3.009219	0.0425	I(0)			
CPI	-0.580490	0.8632		-14.33973	0.0000	I(1)

Source: Author’s computation from the E-views result (2024)

From the table above the results shows that two of the variables are stationary at level while three other variables are non-stationary at first difference. Since there exists a mixed order of stationarity, a bound cointegration test is therefore conducted.

Bound Auto Regressive Distributed Lag (ARDL) testing approach

Conducting the ARDL bounds test procedure, it is expected that “the variables are I(0) or I(1), otherwise, the variable may be considered spurious. In the conduct of the ARDL test, we adopt the Augmented DickyFuller (ADF) test to determine the difference levels of the variables, to ascertain if they are I(0) and I(1) respectively”. We therefore compute an F-statistics test procedure to test the long-run relationship in which the maximum lag length p is 2 in the ECM. The results for the bounds F-test is therefore presented as follows:

The ARDL Bound test result

ARDL Bounds Test		
Date: 09/14/24 Time: 15:38		
Sample: 1986 2022		
Included observations: 37		
Null Hypothesis: No long-run relationships exist		
Test Statistic	Value	k
F-statistic	5.921529	4
Critical Value Bounds		
Significance	I0 Bound	I1 Bound
10%	2.45	3.52
5%	2.86	4.01
2.5%	3.25	4.49
1%	3.74	5.06

Source: Author’s computation from the E-views result (2024)

The Bound test result from the table above indicates that the underling ARDL model can be established to determine the long-run slope-estimated coefficients and the short-run dynamic-estimated coefficients. The ARDL(1, 4) is selected based on Akaike information criterion (AIC) , and the estimated results are shown in Table 2 below:

The short run relationship of the impact of Entrepreneurship funding on Poverty reduction

There is a long-run equilibrium relationship among the variables in the regression model; however, it is the short-run dynamics that transmit to the long-run equilibrium. The Error Correction Mechanism (ECM) is therefore used to correct or eliminate discrepancies that occur in the short run. The coefficients of the explanatory variables in the error correction model measure the short-run relationship. The assumption of the ECM states that if two variables are cointegrated, then there is an error correction mechanism to adjust for short-term instability (Engle & Granger, 1987). ECM is used to determine the speed of adjustment of the variables to deviations from their common stochastic trend. It corrects deviations from the long-run equilibrium through short-run adjustments. This demonstrates that changes in the dependent variables are a function of changes in the explanatory variables and the lagged error term in a cointegrated regression.

Would you like any further adjustments? The ECM result is therefore presented below:

The short run error correction dynamics

Variable	Coefficient	Std. Error	t-Statistic	Prob.
Dependent variable :POV				
DLOG(SME)	4.075614	1.324676	3.076688	0.0068
DLOG(EXCH)	2.791262	3.068611	0.909618	0.3757
DLOG(EXCH(-1))	-5.185502	3.688519	-1.405850	0.1778
DLOG(EXCH(-2))	5.989097	2.918798	2.051906	0.0559
D(INTR)	0.036328	0.251544	0.144420	0.8869
D(INTR(-1))	-0.034647	0.279897	-0.123784	0.9029
D(INTR(-2))	0.346518	0.258493	1.340530	0.1977
D(INTR(-3))	-0.579382	0.217221	-2.667249	0.0162
DLOG(CPI)	2.760429	8.631026	0.319826	0.7530
DLOG(CPI(-1))	-4.524784	14.745363	-0.306861	0.7627
DLOG(CPI(-2))	17.579744	9.266497	1.897129	0.0749
ECM(-1)	-0.891196	0.169393	-5.261128	0.0001
R-squared	0.781743	Mean dependent var		0.462331
Adjusted R-squared	0.537809	S.D. dependent var		5.566368
S.E. of regression	3.784276	Akaike info criterion		5.802963
Sum squared resid	243.4527	Schwarz criterion		6.673729
Log likelihood	-87.35482	Hannan-Quinn criter.		6.109949
F-statistic	3.204727	Durbin-Watson stat		2.050903
Prob(F-statistic)	0.009703			

Source: Authors’ computation from the E-views result (2024)

In the short-run results, the equilibrium error-correction coefficient ECM (-1) is -0.891196, which has the expected negative sign. This negative and significant error correction term indicates a long-run causality running from the independent variables to the dependent variable. It confirms that all variables are cointegrated and have a long-run relationship. Therefore, 89 percent of the gap between the long-run equilibrium value and the actual value of the dependent variable (POV) has been corrected. This also implies that the speed of adjustment towards long-run equilibrium is 89 percent annually. The t-ratio is -5.261128, and the probability of the null hypothesis being true is 0.0001, which is significant even at $\alpha = 0.05$. Thus, the adjustment is quite meaningful in the short-run ARDL relationship. Statistically, the coefficient of determination R-squared is 0.781743, while the adjusted R-squared is 0.537809. This implies that the independent variables explain approximately 56% of the dependent variable. The F-statistic indicates that the overall regression model has a good fit and is statistically significant. Additionally, the Durbin Watson (DW) statistic is 2.050903, which is greater than the R-squared value, showing that the overall regression is statistically significant and indicating no serial autocorrelation among the variables under consideration.

The long run relationship of the impact of Entrepreneurship funding on poverty reduction in Nigeria

The long run relationship result

Long Run Coefficients				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOG(SME)	9.548958	2.589912	3.686982	0.0018
LOG(EXCH)	-2.059418	3.459111	-0.595360	0.5594
INTR	-0.453072	0.339511	-1.334483	0.1996
LOG(CPI)	8.225629	3.795262	2.167342	0.0447
C	-53.027504	27.339767	-1.939574	0.0692

Source: Author’s computation from the E-views result (2024)

The long-run elasticity of the variables contributing to the poverty growth rate revealed that the coefficient for SME credit was positive and statistically significant, indicating that bank credit to SMEs had a direct, positive impact on the poverty rate in Nigeria during the study period. Specifically, a unit change in the value of bank credit to SMEs led to an increase in the poverty rate. This result diverges from the findings of Opafunso and Adepoju (2014), who observed a positive and significant relationship between SMEs and poverty reduction, as well as employment generation and improved living standards in Ekiti State, Nigeria. The variable Consumer Price Index (CPI) also exhibited a positive sign and was statistically significant, suggesting that rising inflation could contribute to an increase in poverty levels. On the other hand, the exchange rate (EXCH) and interest rate (INTR) variables showed a negative sign, but neither was statistically significant in influencing the poverty rate.

These findings suggest that while bank credit to SMEs appears to have a detrimental effect on poverty in Nigeria, it is essential to consider alternative explanations. Factors such as poor access to credit, high lending rates, or inefficiencies in the financial system could limit the positive impact of SME financing on poverty reduction. Moreover, macroeconomic factors like inflation and exchange rate fluctuations may exacerbate poverty if they are not adequately managed. To strengthen the policy implications, it would be crucial to explore the role of other factors, such as the quality of SME financing, government support, and infrastructure development, which could enhance the positive effects of entrepreneurship funding on poverty alleviation.

Diagnostic test

To ensure the goodness of fit of the model, diagnostic test are conducted. Diagnostic tests examine the model for serial correlation, functional form, non-normality and heteroscedasticity.

Serial correlation tests

Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	2.227758	Prob. F(2,15)	0.1422
Obs*R-squared	8.473386	Prob. Chi-Square(2)	0.0145

Source: Authors’ computation from the E-views result, 2024

The serial correlation test result obtained shows that the null hypotheses of a serial correlation is rejected and the corresponding probability values of the F-statistics are statistically insignificant at 5% level. Thus we conclude that there is no serial correlation among the variables under consideration.

Heteroskedasticity Test: Breusch-Pagan-Godfrey			
F-statistic	2.105886	Prob. F(19,17)	0.0643
Obs*R-squared	25.96720	Prob. Chi-Square(19)	0.1311
Scaled explained SS	5.496596	Prob. Chi-Square(19)	0.9989

Source: Author’s computation from the E-views result, 2024

Ho: homoscedasticity

H₁: heteroscedasticity

Probabilities > 0.05 accept the null hypothesis

Probabilities < 0.05 reject the null hypothesis

From the result, the probability of Chi-Square (19) is 0.1311 and this is greater than 0.05 at 5% significant level and therefore, the null hypothesis is accepted. This implies and therefore confirm the absence of heteroscedasticity in the model. That is the error terms are homoscedastic i.e., they have constant variance in repeated sampling.

CONCLUSION AND RECOMMENDATIONS

The study concluded that while bank credit to SMEs is a critical tool for economic development, its effectiveness in reducing poverty is contingent on macroeconomic stability. The unexpected positive relationship between entrepreneurship funding and poverty suggests that the financial resources channeled to SMEs may not be effectively utilized for productive activities that generate employment and improve livelihoods. Furthermore, high inflation (CPI) exacerbates poverty by reducing purchasing power, while interest rate and exchange rate fluctuations do not significantly impact poverty in the long run.

Given these findings, the study underscores the need for policymakers to not only enhance access to finance for entrepreneurs but also implement measures that ensure efficient allocation and utilization of funds. Addressing macroeconomic instability, particularly controlling

inflation and fostering a conducive business environment, is essential to maximizing the poverty-reducing potential of entrepreneurship funding in Nigeria. Future research should explore the specific challenges affecting SME productivity and the role of institutional frameworks in enhancing the effectiveness of entrepreneurship financing.

Based on the findings of this study, the following recommendations are made:

- i. **Improve Access to Affordable Credit:** Policymakers should encourage financial institutions to lower interest rates on SME loans and ensure the monitoring and transparent utilization of funds. Clear guidelines for SMEs on loan application processes, fund management, and accountability should be established to drive business growth and employment generation.
- ii. **Stabilize the Exchange Rate:** To mitigate the vulnerability of SMEs reliant on imports, policies should support exchange rate stabilization while simultaneously encouraging local sourcing of raw materials. This can reduce exchange rate risks for SMEs and promote self-sufficiency.
- iii. **Regulate Interest Rates Effectively:** The introduction of SME-friendly loan schemes with lower and stable rates, backed by government guarantees, will reduce the financial burden on SMEs and encourage productive borrowing. Additionally, strengthening the financial sector's oversight can ensure that interest rate fluctuations are minimized.
- iv. **Control Inflation to Protect SMEs:** Policymakers must implement measures to control rising inflation, which undermines purchasing power. Introducing inflation-indexed loan products and subsidies for essential goods can help protect SMEs from high-cost burdens.
- v. **Strengthen SME Capacity and Business Environment:** Providing financial literacy programs and business management training for SME loan recipients is critical to improving their financial decision-making. Additionally, reducing bureaucratic bottlenecks and improving infrastructure will lower operational costs and enhance productivity.
- vi. **Enhance Institutional Support Frameworks:** It is crucial for policymakers to strengthen institutional frameworks that support SMEs, including improving access to legal, financial, and technical assistance. Partnerships between the government, financial institutions, and private sector entities can improve the overall business environment for SMEs.
- vii. **Address Potential Risks and Challenges:** While entrepreneurship funding can reduce poverty, potential risks, such as debt overhang and mismanagement of funds, should be considered. Policymakers must design risk-mitigation strategies, such as insurance schemes or flexible repayment options, to protect SMEs from financial distress.

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