

Impact of Entrepreneurship Financing on Economic Growth in Nigeria (1996-2023)**Adewale Abass Adekunle**Department of Finance,
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ozabemelucky@gmail.com**Abstract**

This research investigates the impact of entrepreneurship financing on economic growth in Nigeria from 1996 to 2023. The study is premised on the increasing recognition of entrepreneurship as a catalyst for economic development, job creation, and innovation. The objectives are to examine the impact of credit to the private sector and SMEs on Nigeria's economic growth, assess the relationship between inflation and growth, and determine the effect of interest rates on growth. In this study, entrepreneurship is defined as the provision of financial credit to private sector actors, particularly SMEs, which serve as the engine of entrepreneurial activity and innovation in Nigeria. The study adopts an ex-post facto research design, using annual time series data obtained from the Central Bank of Nigeria (CBN) Statistical Bulletin. Real Gross Domestic Product is used as a proxy for economic growth, while credit to the private sector, credit to SMEs, inflation rate, and interest rate serve as the explanatory variables. The data is analyzed using the Autoregressive Distributed Lag (ARDL) model to estimate both short-run and long-run dynamics. The findings reveal that credit to SMEs significantly and positively impacts economic growth, while credit to the private sector shows a negative effect. Interest rates exhibit a strong negative relationship with growth, and inflation has mixed but generally negative effects. The study concludes that entrepreneurship, particularly through SME development, plays a vital role in Nigeria's economic performance. It recommends improving credit access for SMEs, enhancing credit efficiency in the private sector, implementing inflation control policies, and lowering interest rates to create a more enabling environment for entrepreneurship and sustainable economic growth.

JEL Classifications: L26, O40, O55, G21**Keywords:** inflation, interest rate, entrepreneurship, credit to SMEs**1. Introduction**

Modern economies depend heavily on entrepreneurship since it fosters economic growth, development, wealth creation, job creation, and long-term sustainable development. In both rich and developing nations, entrepreneurship has drawn the interest of governments and policymakers, as noted by Raimi & Haini (2024). According to Nwagu and Enofe (2021), entrepreneurship entails coming up with or finding an unprofitable idea, starting to alter societal business institutions, and boosting output in order to create money. Entrepreneurs frequently transform their hobbies into profitable ventures because they want to be their own bosses and achieve financial independence (Crane, 2022). They use the resources at their disposal to realise economic value, such profit, while closely examining possibilities and dangers (Abdulkarim, 2023). Small and medium-sized businesses (SMEs) are essential to the development of an economy because they reduce poverty,

create jobs, and raise overall productivity (Adeosun & Shittu, 2022). Unemployment rates can reach 50% in the absence of SMEs. SMEs are the main drivers of entrepreneurial development in third-world nations. Governments have worked to promote entrepreneurship and boost growth. According to Cantillon and Clark's theories, entrepreneurship is defined as being aware of potential profit opportunities. Critics contend that in order to realise profit prospects, entrepreneurs must invest resources and own capital (Ajasa & Oluyomi, 2023).

Edobor and Sambo-Magaji (2025) stress that profit opportunities, not invention, are what drive entrepreneurship and that entrepreneurs require incentives from disparities in information and expertise. Decentralised decision-makers can find areas for improvement and predict future shifts in other people's choices with the aid of entrepreneurial discovery (Ajayi & Olufemi, 2023). During prosperous economic times, deposit money banks may reduce lending rates, which may deter businesses and SMEs from taking out loans (Popoola et al., 2023). The ability of SMEs to handle macroeconomic issues depends on capital formation, which produces more tangible assets or items. SMEs' ability to address macroeconomic issues is hindered by a lack of money, and obtaining sufficient funding from financial institutions is a major obstacle (Bosma et al., 2018).

Small and medium-sized enterprises rely heavily on deposit money bank credits for growth and development, but their treatment of the subsector which is meant to be the main source of funding is raising questions. In any economy, interest rates play a critical role in determining how money is allocated, how credit is used, how much is invested and consumed, and how much the economy grows (Adewale & Adeyemo, 2024). Banks ration scarce financial resources among conflicting needs by seeing interest rates as the cost of deposits and borrowing. Due to interest rate risk, banks' sound performance depends on the composition, trajectory, and size of interest rate changes (Adeyemo & Adewale, 2024). The assets and liabilities of banks are intimately linked to interest rate risk (Adewale & Adeyemo, 2024).

Monetary policy rates, commercial bank loan rates, commercial bank liquidity rates, and commercial bank deposit rates are among the various types of interest rates found in the Nigerian financial market (Adewale et al., 2024). A strong, profitable, effective, and well-run banking sector helps maintain the stability of the financial system and shields a nation from unfavourable crises. Nigerian economic growth is significantly impacted by inflation, which varies depending on supply-side shocks, fiscal policies, global oil prices, and currency depreciation (Adewale & Adeyemo, 2024). Inflation and economic growth have been linked in both positive and negative ways, according to studies. While some contend that moderate inflation can encourage investment and consumption, others contend that excessive inflation can devalue money, lower purchasing power, and raise investor uncertainty (Onigah, 2024).

Despite the recognized importance of entrepreneurship and SME development, Nigeria continues to struggle with inadequate credit access, high interest rates, and unstable inflation, which together constrain entrepreneurial activity and overall economic growth. Although studies have examined these variables individually, few have jointly evaluated how entrepreneurial financing through credit to SMEs and the private sector interacts with macroeconomic conditions like interest and inflation rates to affect long-term economic performance. This study seeks to address this gap by empirically investigating the extent to which entrepreneurship financing influences economic growth in Nigeria.

In Nigeria, real wage erosion, decreased investment, and decreased consumer spending have all contributed to the substantial negative correlation between inflation and GDP growth. The economy has also been destabilised by high inflation, particularly during times of external shocks and political unrest (Onigah, 2024). Inflation volatility has exacerbated economic uncertainty, discouraged long-term investments and threatened economic expansion (Adewale & Adeyemo, 2024). This unstable inflation environment has also contributed to unpredictable interest rates, making borrowing more expensive for SMEs and private sector actors. As lenders adjust rates to hedge against inflation risk, access to credit becomes restricted, especially for small businesses. Consequently, high inflation not only reduces consumer and investor confidence but also directly undermines entrepreneurship financing and growth by raising the cost of capital and reducing loan accessibility.

The broad objective of this study is to examine the impact of entrepreneurship financing on economic growth in Nigeria. However, other specific objectives are to;

- i. examine the effect of credit availability to entrepreneurship on economic growth in Nigeria
- ii. investigate the effect of interest rate to entrepreneurship on economic growth in Nigeria
- iii. determine how influence of inflation on interest rate impacted on economic growth of Nigeria

2. Literature Review

2.1 The concept of entrepreneurship

In contemporary economies, entrepreneurship is essential since it contributes significantly to economic growth, development, wealth creation, job creation, and long-term sustainable development (Juliana et al., 2021). It entails developing or uncovering an overlooked business opportunity to turn a profit, starting and implementing improvements to societal business systems, and resulting in higher productivity and wealth creation. Turning interests into profitable ventures, entrepreneurs are driven by the ambition to be their own bosses and financially independent (Okechukwu & Nwekwo, 2020). They use the resources at their disposal to realise economic value, such profit, while identifying new opportunities and risks in society. Coordination between individuals or groups is necessary for entrepreneurship in order to generate new economic value-added (Onileowo & Anifowose, 2020). It can be accomplished by expanding current companies into new markets, which will boost their ability to turn a profit. Finance scholars are drawn to entrepreneurship because it has caught the interest of governments and policymakers in both developed and developing nations.

2.1.1 Credit to Small and Medium Enterprises

Despite requests for more funding from regulatory organisations such as the Central Bank of Nigeria (CBN), Nigerian SMEs are being criticised for not receiving enough capital from banks (Adeyemo & Adewale, 2024). 39% of Nigeria's small and medium-sized enterprises are experiencing financial strain, which has caused many of them to close, according to World Bank data. In addition to generating money while following the rules set forth by regulatory bodies, banks are also in the business of making money while following the rules set forth by regulatory bodies (Vatavu et al., 2021). According to Adewale et al. (2024), a commercial bank is a type of financial institution that is permitted to take deposits and make loans to both individuals and companies. Federal and state laws govern them, and they serve the broader public. According to Ibrahim and Bello (2023), bank lending to SMEs consists of trade credits, loans, account receivables, and acquisitions of non-equity securities. Interest is assessed on advances and loans.

Commercial banks seek to optimise financial resource allocation and maximise shareholder returns. The deregulation of interest rates on loans and deposits was the first reform implemented in Nigeria's banking industry, which has undergone multiple restructurings to promote growth and development (Hamdan et al., 2022).

2.1.2 Interest Rate

As a measure of borrowing costs or return on investment, interest rates are important in commercial banks and the financial system (Adewale et al., 2024). They serve as a benchmark for interest rates on deposits and loans and are represented as a percentage of the principle amount by commercial banks. The benchmark interest rate, which is established by the Central Bank of Nigeria, can influence interest rates. According to Adewale and Adeyemo (2024), interest rates are also influenced by economic factors such as unemployment, growth, and inflation. Interest rates are also affected by borrowers' perceived risk and creditworthiness. Interest rate levels have a direct impact on the risk profile and profitability of commercial banks. A bank's loan rate is determined by the creditworthiness and objectives of the borrower and is used to finance short- and medium-term private sector demands (Adewale & Adeyemo, 2024). Commercial banks have the authority to increase or decrease rates, which vary by location. Banks may raise rates to cover default risks during periods of economic instability and cut rates during periods of economic prosperity (Adeyemo & Adewale, 2024). In Nigeria, inadequate collateral, deteriorating purchasing power, bad management practices, and a lack of support for locally produced goods are the main causes of SMEs' lack of funding.

2.1.3 Inflation

One of the most important economic indicators for sustainable growth is inflation, or the increase in prices for goods and services (Adewale & Adeyemo, 2024). While excessive inflation can cause instability, particularly in developing nations with laxer regulations, moderate inflation might signal growth. Governments, corporations, and consumers are all impacted by this. Coordinated monetary, fiscal, and exchange rate policies are necessary to preserve economic stability in nations like Nigeria, where inflation is frequently associated with unstable oil prices and expansionary fiscal policies (Adewale & Adeyemo, 2024).

2.1.4 Entrepreneurship and Economic Growth in Nigeria

In Nigeria, entrepreneurship represents the spirit of inventiveness and resiliency in the face of a complicated socioeconomic environment. According to Ajayi and Olufemi (2023), Nigerian entrepreneurs are crucial to the country's economic growth, employment generation, and introduction of novel concepts into a range of sectors. However, the ecosystem that supports and promotes entrepreneurs' endeavours is just as important to sustainable economic growth as their presence. The relationship between sustainable development and entrepreneurship is still a crucial subject. According to Edobor and Sambo-Magaji (2025), encouraging entrepreneurship in Nigeria should prioritise social and environmental sustainability in addition to financial rewards. Reaching this equilibrium is essential for long-term development and the welfare of society.

2.2 Theoretical Review

The Classical Theory of Entrepreneurship

According to Cantillon and Clark's theories, entrepreneurship can be defined as being aware of potential profit opportunities. This idea is further developed by Kruger (2004), who characterises competition as a process of discovery in which better foresight serves as the source of entrepreneurial profit. Critics contend that since entrepreneurs don't face uncertainty, they simply need to be aware of one potential profit. Entrepreneurs must commit resources in order to realise the profit opportunity they have found. Kruger acknowledges that entrepreneurs require incentives from variations in agents' information and expertise, and that markets are not always obvious. He thinks that rather than invention, entrepreneurship is motivated by profit prospects.

Decentralised decision-makers can foresee future changes in other people's decisions and identify when current decisions can be improved upon thanks to entrepreneurial discovery. Kruger's study, however, does not explain why a shift has taken place or what or who caused it. Because it emphasises the importance of the entrepreneur in seeing and seizing profit possibilities, especially in unreliable and flawed marketplaces like Nigeria, the Classical Theory of Entrepreneurship is pertinent to this study. It backs up the notion that entrepreneurs stimulate economic growth by employing greater foresight to address market inefficiencies in addition to innovating. This is consistent with the study's emphasis on factors like inflation, interest rates, and SME funding.

According to the theory, entrepreneurship, motivated by profit incentives, makes a substantial contribution to Nigeria's economic development through resource allocation and opportunity discovery, which supports the investigation of how financial access and economic conditions impact entrepreneurial decisions.

2.3 Empirical Review

Singh, Ashraf, and Gupta (2025) used a cross-country analysis involving 157 nations to examine the causal relationship between start-up entrepreneurship and economic development. Using log-linear regression, they substituted the cost of business start-up procedures (CSP) for entrepreneurship and per capita GDP for economic development. The findings indicate that CSP and economic development are negatively correlated, indicating that lower startup costs are a result of improved economic conditions. Additionally, factors that positively affect economic growth are employment vacancies, electricity availability, research and technology, digitalisation, and gender-related regulations. These factors also indirectly promote entrepreneurship by lowering CSP. The study highlights the need of governmental initiatives targeted at these variables in order to encourage entrepreneurial activity globally and offers suggestions for future empirical research subjects.

Edobor and Sambo-Magaji (2025) investigate the role that SMEs play in promoting sustainable economic growth, particularly in relation to poverty alleviation, which is one of the primary goals of the Sustainable Development Goals (SDGs). The study concludes that by generating jobs, SMEs play a significant part in lowering poverty in Nigeria. The authors highlight several persistent barriers that hinder SMEs' capacity to successfully accomplish the SDGs, despite this promise: poverty, superstition, religious dogmatism, corruption, overpopulation, and poor governance. According to the paper, two other major obstacles are the lack of reliable data and political will. The empowerment of SMEs is crucial for Nigeria's progress in achieving the SDGs and reducing development barriers, the authors conclude.

A study by Musa, El-Yaqub, and Magaji (2024) on the effect of bank sector lending on Nigerian SMEs discovered that a percentage shift in bank credit was associated with a large long-term rise

in output. In the short term, government spending also boosted SME output. Nonetheless, interest rates and the output of SMEs in Nigeria were negatively correlated. A correction to disequilibrium among variables was also identified in the investigation, as evidenced by a 43.59 percent speed of adjustment towards the equilibrium point. The data was examined using the Autoregressive Distributed Lag (ARDL) model.

According to a study by El-Yaqub, Musa, and Magaji (2024) on the output of Nigeria's manufacturing sector and commercial bank loans from 1992 to 2021, the latter has a favourable effect on the former's output. A 1% increase in credit to small and medium-sized firms (CSM) results in a 0.1866% increase in MSO, demonstrating the positive relationship between CBC's long-term value and MSO. On the other hand, a unit increase in the deposit interest rate (DINR) resulted in a 0.0081% drop in MSO, while a unit increase in government capital expenditure (GOV) generated a 0.1482% increase over time. According to the report, in order to support favourable interest rates for small and medium-sized enterprises as well as the industrial sector, the federal government should put in place efficient monetary policies.

Msomi (2023) looked into how interest rates affected South African small and medium-sized businesses' (SMEs') ability to obtain loans. The study uses data gathered from 200 SMEs in South Africa and a quantitative research design. Multiple regression analysis, descriptive statistics, and Pearson's correlation coefficient analysis were used to examine the data. The Pearson correlation coefficient revealed a negative association between interest rate and credit accessibility ($r = -.199$, $p < 0.05$). The findings indicate that interest rates significantly impair SMEs' ability to obtain loans in South Africa. Additionally, the study reveals that interest rates are a major factor in the significant challenges SMEs face in securing cheap finance.

Inam and Ebong (2023) investigate the relationship between inflation and economic growth in Nigeria using annual data from 1985 to 2022 and the Autoregressive Distributed Lag (ARDL) Bounds Test. A statistically significant negative association between inflation and output growth was found by the investigation. The threshold for inflation, they found, is 13%, below which it stimulates economic activity and over which it impedes growth. Given these findings, the authors recommend implementing measures to manage and lower inflation and maintain it below 13% in order to promote sustained economic expansion.

Adewale and Adeyemo (2024) examined how unemployment and inflation affected Nigeria's economic growth between 1999 and 2021. They discovered that while unemployment had a negative association with GDP growth, inflation had a strong positive correlation. 54.1% of the variance in GDP growth was explained by the model, underscoring the substantial influence of inflation and unemployment on Nigeria's economic performance. The authors advise tackling the twin problems of unemployment and inflation by enacting laws to reduce inflation, promote job growth, and diversify the economy in order to promote inclusive and sustainable growth.

Onigah (2022) uses secondary data from the Central Bank of Nigeria to examine how different interest rates affect the performance of Nigerian commercial banks. In order to examine the relationship between interest rates—the Monetary Policy Rate (MPR), Commercial Banks Lending Rate (CBLER), Liquidity Rate (CBLIR), and Deposit Rate (CBDR)—and the performance of commercial banks as indicated by loans and credit creation, the study uses multiple regression using the Ordinary Least Squares (OLS) method. The results show that these interest rates and bank performance are significantly correlated. In order to boost commercial bank

performance and promote credit creation, the report suggests a strategic review of interest rates and better regulatory enforcement, both of which will aid in Nigeria's overall economic expansion.

3. Methodology

This study examined how entrepreneurship financing affects Nigeria's economic growth using an ex-post facto research design. From 1996 to 2023, data were obtained from secondary sources, particularly the Statistical Bulletin published by the Central Bank of Nigeria. The key variables include Credit to Entrepreneurship (CRENT) a composite of credit to the private sector and credit to SMEs, Interest Rate (INT), Inflation Rate (INFR), and Real Gross Domestic Product (RGDP) as a proxy for economic growth. Entrepreneurship, in this study, is defined as business activity driven by financial credit to the private sector and SMEs. Econometric techniques, specifically the ARDL model, were used to analyze the time series data. The empirical results were compared with findings from relevant academic literature to enhance interpretation and contextual understanding. A purposive sampling technique was adopted to ensure the selected variables aligned with the study's objectives. Both descriptive and inferential statistics were used to analyze the characteristics and relationships among the variables. A copy of the CBN Statistical Bulletin used for data extraction is attached as Appendix A.

3.2 Model Specification

The role of entrepreneurship in Nigeria's economic progress throughout time is examined in the model specification. Four important factors were estimated by Owuru et al. (2014) using frameworks for corporate social responsibility and credit rationing: real GDP, entrepreneurship, proportion of total credit, and credit to the private sector. Interest rates and inflation rates were employed as mediating factors. Consequently, the following function specifies the relationship between growth and entrepreneurship:

$$RGDP = F(CRENT, INT) \dots\dots\dots (3.1)$$

The regression form of the model specification is thus:

$$RGDP_t = \alpha_0 + \alpha_1 CRPS_t + \alpha_2 CRSME_t + \alpha_3 INFR_t + \alpha_4 INT_t + \mu_t \dots\dots\dots (3.2)$$

$$(\alpha_1, \alpha_2, \alpha_3, \alpha_4 > 0)$$

The model uses RGDP as the dependent variable and other independent variables like CRPS, CRSME, INFR, INT, μ_t , α_0 , $\alpha_1 - \alpha_4$ as the independent variables. It uses RGDP as a proxy for economic growth, Credit to Entrepreneurship (CRENT), CRPS as credit to the private sector, CRSME as credit to SMEs, and INFR as inflation rate and INT as the interest rates.

μ_t = Error term;

α_0 = Intercept of relationship in the model;

$\alpha_1 - \alpha_4$ = Coefficient of each exogenous or explanatory variable.

4. Result and discussion

Table 1: Descriptive Statistics

	RGDP	CRPS	CRSME	INFR	INT
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Mean	4.810621	9778.701	58.06453	13.07977	17.15385
Median	4.756907	9406.309	42.2814	11.99	17.09875
Maximum	14.60438	39293.15	465.37	28.92	24.85
Minimum	-1.92	254.8531	10.74789	0.223606	11.48313
Std. Dev.	3.785222	9580.494	85.23404	5.554116	2.866112
Skewness	0.38752	1.139438	4.083051	0.694199	0.199815
Kurtosis	3.055177	4.288362	20.07458	4.572237	3.677038
Jarque-Bera	0.704353	7.995343	417.9309	5.132841	0.721097
Probability	0.703156	0.018358	1.77E-91	0.07681	0.697294
Sum	134.6974	273803.6	1625.807	366.2334	480.3079
Sum Sq. Dev.	386.8534	2.48E+09	196150.7	832.9016	221.7941
Observations	28	28	28	28	28

SOURCE: Author's computation (2025)

Note: *Credit to the Private Sector (CRPS) and Credit to Small and Medium Enterprises (CRSME) are used as proxies for entrepreneurship financing in this study.*

Table 1 presents the descriptive statistics of the key variables used to examine the impact of entrepreneurship financing on economic growth in Nigeria from 1996 to 2023. Real Gross Domestic Product (RGDP), which represents the overall measure of economic performance, is the dependent variable. The independent variables include Credit to the Private Sector (CRPS) and Credit to Small and Medium Enterprises (CRSME), both of which are used to capture the level of financial support available to entrepreneurial activities. Other explanatory variables include Inflation Rate (INFR) and Interest Rate (INT), which represent macroeconomic conditions that can influence access to credit and business performance.

The average value of Real Gross Domestic Product (RGDP) during the period was 4.81%, with a standard deviation of 3.79%, indicating moderate fluctuations in Nigeria's economic growth. The minimum and maximum values of RGDP were -1.92% and 14.60%, respectively, reflecting the economy's exposure to both recession and expansion phases.

Credit to the Private Sector (CRPS) had a high average of ₦9,778.70 billion, with a large standard deviation of ₦9,580.49 billion, showing substantial variability in credit allocation to private businesses. Its distribution was positively skewed and leptokurtic, indicating that while most years had relatively lower credit levels, a few years experienced sharp increases. This inconsistency may reflect irregular credit policies or economic shocks.

Credit to Small and Medium Enterprises (CRSME) had a much lower average of ₦58.06 billion and a high standard deviation of ₦85.23 billion, suggesting wide disparities in SME funding over the years. The highly skewed and peaked distribution of CRSME underscores the uneven access to entrepreneurship financing among smaller businesses, which play a critical role in Nigeria's economic development.

Inflation Rate (INFR) averaged 13.08% and exhibited moderate variation, suggesting periodic price instability. Interest Rate (INT) averaged 17.15% with relatively lower dispersion, indicating

a generally high and somewhat stable lending environment. These macroeconomic conditions directly affect borrowing costs and the ability of entrepreneurs to access finance.

In summary, the statistics show that entrepreneurship financing through both credit to the private sector and SMEs has not been consistently distributed, while macroeconomic factors like inflation and interest rates remained significant influencers of credit access. These patterns provide important insights into how financial conditions have shaped entrepreneurship and economic growth in Nigeria over the 28-year period under review.

Table 2: Correlation Matrix

	RGDP	CRPS	CRSME	INFR	INT
RGDP	1	-0.48632	-0.08977	-0.09964	0.560789
CRPS	-0.48632	1	0.595382	0.538186	-0.62453
CRSME	-0.08977	0.595382	1	0.61983	-0.20288
INFR	-0.09964	0.538186	0.61983	1	-0.29058
INT	0.560789	-0.62453	-0.20288	-0.29058	1

SOURCE: Author's computation (2025)

Note: *Credit to the Private Sector (CRPS) and Credit to Small and Medium Enterprises (CRSME) are used as proxies for entrepreneurship financing in this study.*

Table 2 displays the correlation coefficients among the study variables, which measure the strength and direction of their linear relationships over the period 1996 to 2023. The focus of this analysis is to understand how entrepreneurship financing captured through Credit to the Private Sector (CRPS) and Credit to Small and Medium Enterprises (CRSME) relates to Real Gross Domestic Product (RGDP), which serves as a measure of economic growth in Nigeria.

Real Gross Domestic Product (RGDP) has a moderate negative correlation with Credit to the Private Sector (CRPS) at -0.486 . This unexpected relationship suggests that increased private sector credit may not have translated effectively into growth, possibly due to credit inefficiency, misallocation, or dominance of non-productive borrowing. Meanwhile, RGDP shows a very weak negative correlation with Credit to Small and Medium Enterprises (CRSME) at -0.089 , indicating a minimal direct linear relationship during the study period, despite the known role of SMEs in economic development.

Interestingly, RGDP has a moderate positive correlation with Interest Rate (INT) at 0.561 . This may imply that during years of higher interest rates, some macroeconomic stability or growth occurred, though this runs counter to the typical expectation that high rates deter borrowing and investment. On the other hand, RGDP and Inflation Rate (INFR) exhibit a weak negative correlation (-0.099), suggesting slight adverse effects of inflation on economic growth, consistent with macroeconomic theory.

Among the independent variables, there is a strong positive correlation between Credit to the Private Sector (CRPS) and Credit to Small and Medium Enterprises (CRSME) at 0.595 , indicating that periods of increased private sector credit generally coincide with greater SME funding. However, CRPS is negatively associated with Interest Rate (INT) at -0.625 , confirming that higher borrowing costs discourage credit expansion.

Overall, the correlation matrix highlights the complexity of the relationship between entrepreneurship financing and economic growth in Nigeria, showing that credit access alone does not guarantee growth, particularly when interest rates and inflation exert mixed influences on financial and entrepreneurial decisions.

Table 3: Long-Run ARDL Regression Results

Dependent Variable: RGDP

Method: ARDL

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
RGDP(-1)	0.426101	0.165696	2.571582	0.027815
CRPS	-0.00195	0.000682	-2.86055	0.016941
CRPS(-1)	0.000247	0.000856	0.288295	0.779008
CRPS(-2)	-0.00091	0.00057	-1.59279	0.142291
CRSME	0.054765	0.019141	2.861165	0.016923
INFR	0.098932	0.120954	0.817927	0.432456
INFR(-1)	0.22998	0.152086	1.51E+00	0.16143
INFR(-2)	0.200439	0.139311	1.438785	0.180766
INFR(-3)	-0.31278	0.151265	-2.06778	0.065527
INT	-0.12045	0.383636	-0.31397	0.759994
INT(-1)	-1.18041	0.449127	-2.62824	0.025238
INT(-2)	-0.41912	0.316774	-1.32309	0.215258
INT(-3)	-1.21408	0.336844	-3.60428	0.004814
C	47.25441	13.67847	3.454657	0.006178
@TREND	1.820737	0.565522	3.219569	0.009182
R-squared	0.898795	Mean dependent var		5.010554
Adjusted R-squared	0.757108	S.D. dependent var		3.959245
S.E. of regression	1.951278	Akaike info criterion		4.458556
Sum squared resid	38.07487	Schwarz criterion		5.189881
Log likelihood	-40.7319	Hannan-Quinn criter.		4.661394
F-statistic	6.343517	Durbin-Watson stat		2.695888
Prob(F-statistic)	0.002902			

SOURCE: Author's computation (2025)

Note: Credit to the Private Sector (CRPS) and Credit to Small and Medium Enterprises (CRSME) are used as proxies for entrepreneurship financing in this study.

Table 3 presents the long-run results from the Autoregressive Distributed Lag (ARDL) regression model, which examines the long-term relationship between entrepreneurship financing and economic growth in Nigeria from 1996 to 2023. The dependent variable is Real Gross Domestic Product (RGDP), which measures economic growth. The key explanatory variables are Credit to the Private Sector (CRPS) and Credit to Small and Medium Enterprises (CRSME), representing entrepreneurship financing. Additional control variables include Inflation Rate (INFR) and Interest Rate (INT), alongside a trend component.

In the long run, Credit to the Private Sector (CRPS) has a statistically significant negative effect on economic growth at the current level (coefficient = -0.00195 , $p = 0.017$). This suggests that increased credit to the general private sector does not necessarily lead to improved economic performance, possibly due to poor credit utilization, misallocation, or dominance of non-productive sectors. Interestingly, the lagged values of CRPS are not significant, further reinforcing the limited long-term contribution of general private sector credit to sustained growth.

In contrast, Credit to Small and Medium Enterprises (CRSME) has a positive and statistically significant effect on economic growth (coefficient = 0.0548 , $p = 0.017$). This confirms that SME financing an essential part of entrepreneurship financing drives long-run economic development in Nigeria. The result supports the theoretical and empirical view that SMEs are critical engines of growth, employment generation, and innovation.

Regarding macroeconomic variables, the Interest Rate (INT) has a significant and strongly negative effect on Real Gross Domestic Product, particularly at lag 1 and lag 3 (coefficients = -1.1804 and -1.2141 ; $p = 0.025$ and 0.005 respectively). This implies that high interest rates hinder economic growth in the long term, likely by discouraging borrowing, reducing capital investment, and limiting the expansion of entrepreneurial ventures.

Inflation Rate (INFR) shows no consistent significant effect, except for the third lag (INFR(-3)), which is weakly significant and negative (coefficient = -0.3128 , $p \approx 0.066$). This suggests that inflation may impact growth with delay, particularly when it becomes volatile or exceeds certain thresholds, aligning with existing literature on inflation-growth dynamics.

The model's overall fit is strong, with an R-squared of 0.899 , indicating that approximately 90% of the variation in Nigeria's economic growth is explained by the included variables. The F-statistic (6.34) is statistically significant ($p = 0.003$), confirming the joint explanatory power of the model. Additionally, the Durbin-Watson statistic (2.70) suggests that the residuals are not autocorrelated, validating the robustness of the estimates.

In summary, these results confirm that entrepreneurship financing, particularly through targeted SME credit, contributes positively to long-run economic growth in Nigeria, while high interest rates act as a constraint. Broad private sector credit, unless efficiently allocated, may not enhance growth, reinforcing the need for focused and inclusive credit policies that support entrepreneurial development.

Table 4: Short-Run Dynamic Regression Results

Variable *	Coefficient	Std. Error	t- Statistic	Prob.

CRPS(-1)	-0.00455	0.00152	-2.99644	0.006877
CRSME	0.095425	0.047252	2.019515	0.056378
INFR(-1)	0.377364	0.514619	0.733287	0.47149
INT(-1)	-5.11251	2.165364	-2.36104	0.027968

SOURCE: Author's computation (2025)

Note: Credit to the Private Sector (CRPS) and Credit to Small and Medium Enterprises (CRSME) are used as proxies for entrepreneurship financing in this study.

Table 4 presents the short-run dynamic regression results of the Autoregressive Distributed Lag (ARDL) model, showing the immediate effects of entrepreneurship financing and selected macroeconomic variables on economic growth in Nigeria. The dependent variable is Real Gross Domestic Product (RGDP), representing the nation's economic performance. The key explanatory variables include Credit to the Private Sector (CRPS) and Credit to Small and Medium Enterprises (CRSME) as measures of entrepreneurship financing, along with Inflation Rate (INFR) and Interest Rate (INT) as macroeconomic control variables.

In the short run, Credit to the Private Sector (CRPS) at lag 1 has a negative and statistically significant impact on Real Gross Domestic Product (coefficient = -0.00455 ; $p = 0.007$). This suggests that short-term increases in credit to the general private sector may not translate to immediate economic gains. The result may reflect inefficiencies in credit allocation, misuse of funds, or delayed productivity effects from private sector loans.

Conversely, Credit to Small and Medium Enterprises (CRSME) has a positive and marginally significant effect on economic growth (coefficient = 0.0954 ; $p \approx 0.056$). Although the p-value slightly exceeds the conventional 5% threshold, it still indicates that entrepreneurship financing targeted at SMEs contributes positively to short-term economic performance. This supports the argument that SMEs play a critical role in stimulating output, employment, and innovation in Nigeria.

Interest Rate (INT) at lag 1 exhibits a strong and statistically significant negative relationship with economic growth (coefficient = -5.1125 ; $p = 0.028$). This implies that an increase in interest rates in the short term significantly hinders economic activity, most likely by reducing access to credit and discouraging entrepreneurship and private investment.

The Inflation Rate (INFR) at lag 1 shows a positive but statistically insignificant effect on growth (coefficient = 0.3774 ; $p = 0.471$). This result indicates that short-term inflation fluctuations do not have a meaningful influence on economic performance within the sample period.

In summary, the short-run dynamics reveal that entrepreneurship financing through SME credit promotes economic growth, while general private sector credit may not yield immediate benefits. Additionally, high interest rates remain a key barrier to growth in the short term. These findings reinforce the importance of targeted financing strategies and interest rate management in supporting Nigeria's entrepreneurial sector and economic development.

Discussion of Findings

The findings of this study provide empirical evidence on the impact of entrepreneurship financing on economic growth in Nigeria over the period 1996 to 2023. Using both long-run and short-run

ARDL regression models, the analysis confirms that access to credit, particularly for small and medium enterprises (SMEs), plays a significant role in promoting economic development.

In the long run, Credit to Small and Medium Enterprises (CRSME) was found to have a positive and statistically significant impact on Real Gross Domestic Product (RGDP), indicating that targeted entrepreneurship financing contributes to sustainable growth. This finding is consistent with the results of Edobor and Sambo-Magaji (2025), who emphasized that expanding access to SME credit supports employment creation and poverty reduction, essential components of Nigeria's sustainable development strategy. Similarly, Musa, El-Yaqub, and Magaji (2024) affirmed that improved bank lending to SMEs stimulates productivity and output growth.

However, Credit to the Private Sector (CRPS) demonstrated a negative relationship with economic growth in both the short and long run. This counterintuitive finding may be due to inefficient credit allocation or a lack of alignment between general private sector loans and productive entrepreneurial activities. This result echoes the concerns raised by Adewale and Adeyemo (2024), who noted that financial resources may not always be directed toward growth-enhancing sectors. It also supports Singh, Ashraf, and Gupta (2025), who argued that weak institutional environments and high start-up barriers often dilute the impact of financial access in emerging economies.

Interest Rate (INT) showed a strong and consistent negative effect on economic growth, especially in the short run. This highlights the sensitivity of entrepreneurship financing to borrowing costs. High interest rates likely discouraged investment and constrained access to credit for entrepreneurs, aligning with the findings of Msomi (2023) and Onigah (2022), both of whom emphasized the restrictive effect of tight monetary conditions on SME financing and broader credit creation.

The effect of Inflation Rate (INFR) was mixed. While it was largely insignificant in the short run, the long-run model identified some delayed negative effects, especially at higher lags. This supports the threshold theory noted by Inam and Ebong (2023), who found that moderate inflation can stimulate economic activity, but excessive inflation introduces uncertainty that undermines investment and planning especially for small businesses.

In summary, the findings suggest that entrepreneurship financing through SME-specific credit enhances economic growth, while general private sector credit requires more strategic targeting. Furthermore, interest rate reductions and inflation stability are crucial for enabling an environment where entrepreneurial ventures can thrive. These results underline the need for policy reforms that prioritize SME credit expansion, manage borrowing costs, and ensure that financial resources are channeled into productive sectors.

Figure 1: Trend Analysis of RGDP, SME Financing, Regulatory Costs, Inflation, and Interest Rates (1996–2023)



SOURCE: Author's computation (2025)

The time series plots illustrate the historical trends of Real Gross Domestic Product (RGDP), Credit to the Private Sector (CRPS), Credit to Small and Medium Enterprises (CRSME), Inflation Rate (INFR), and Interest Rate (INT) over the 28-year study period.

Real Gross Domestic Product (RGDP), which serves as a proxy for economic growth, shows cyclical fluctuations throughout the period. There are noticeable spikes and downturns, with peak growth around the 8th year, followed by several periods of slowdown. A notable decline occurs after the 20th year, which may be attributed to macroeconomic instability or policy constraints affecting national output.

Credit to the Private Sector (CRPS) reveals a rising trend with sharp increases in later years. This suggests growing efforts by financial institutions to support private sector activities. However, the uneven pattern indicates possible inconsistencies in credit policy implementation or absorption capacity within the private sector.

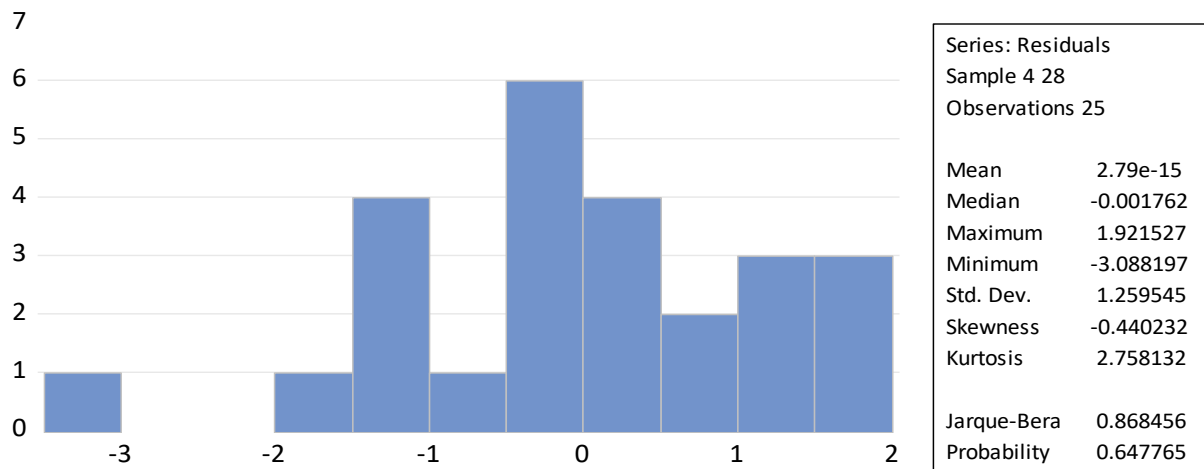
Credit to Small and Medium Enterprises (CRSME) remains relatively low for most of the study period but experiences a significant increase in recent years. This late surge may reflect targeted government interventions, donor programs, or policy reforms aimed at strengthening SME financing consistent with the growing recognition of SMEs as engines of growth.

Inflation Rate (INFR) demonstrates high volatility, with notable spikes around years 8, 20, and 28. These inflationary surges indicate periods of economic instability, which can erode purchasing power and increase uncertainty for investors and small businesses.

Interest Rate (INT) shows a general downward trend, especially in the latter half of the period. Despite this decline, earlier fluctuations in the first decade may have created an unfavorable environment for borrowing and investment, especially for SMEs.

In summary, the visual plots reflect the dynamic nature of Nigeria's macroeconomic environment and entrepreneurship financing landscape. While SME credit and private sector credit have generally increased over time, fluctuations in inflation and interest rates remain key challenges that may affect their contribution to economic growth.

Figure 2: Residual Histogram and Normality Test



SOURCE: Author's computation (2025)

The histogram presented above displays the distribution of the residuals from the regression model. Visually, the residuals appear to follow a bell-shaped curve, suggesting approximate normality. This impression is supported by the statistical indicators provided.

The mean ($-2.79e-15$) and median (-0.001762) of the residuals are both close to zero, indicating a symmetrical distribution around the center. The standard deviation of 1.2595 reflects moderate dispersion, while the skewness value of -0.4402 falls within the acceptable range of -1 to $+1$, indicating slight but not problematic asymmetry.

The kurtosis value of 2.7581 is close to the benchmark value of 3, suggesting that the distribution's tails are neither excessively heavy nor too light. Most importantly, the Jarque-Bera test statistic is 0.8685 with a p-value of 0.6478, which exceeds the conventional 0.05 significance threshold. This means the null hypothesis of normality cannot be rejected.

Overall, these results support the assumption that the residuals of the model are normally distributed. This satisfies one of the key classical assumptions of Ordinary Least Squares (OLS) regression and strengthens the validity of any statistical inferences drawn from the model.

5. Conclusion and Recommendations

Conclusion

This study examined the impact of entrepreneurship financing on economic growth in Nigeria using time series data from 1996 to 2023. Specifically, it assessed how credit to the private sector,

credit to small and medium enterprises (SMEs), inflation, and interest rates influence real GDP as a proxy for economic growth. The findings revealed that credit to SMEs has a significant positive effect on economic growth, indicating that promoting entrepreneurship through SME financing enhances economic development. Conversely, credit to the private sector showed a negative impact, suggesting inefficiencies in credit allocation or its misdirection from productive sectors. Additionally, interest rates had a significantly negative relationship with economic growth, both in the short and long run, underscoring the constraining role of high borrowing costs. Inflation showed mixed results, with weak statistical significance but notable negative effects in lagged terms. Overall, the study confirms that entrepreneurship is a vital driver of economic growth in Nigeria when supported by effective credit systems and stable macroeconomic conditions. It highlights the need for a more targeted and inclusive financial system that can empower entrepreneurs, particularly SMEs, to contribute meaningfully to national development.

Recommendations

1. To enhance the positive impact of entrepreneurship credit on economic growth, financial institutions should prioritize lending to productive and growth-driven sectors. Strengthening regulatory oversight and improving credit risk assessments can ensure funds are effectively utilized.
2. Given the strong link between entrepreneurship credit and economic growth, government and financial bodies should increase access to low-interest loans for SMEs, reduce collateral requirements, and provide technical support to improve business sustainability and growth.
3. Policymakers should adopt inflation-targeting strategies and support local production to stabilize prices. Keeping inflation below the identified 13% threshold is critical for sustaining long-term economic growth.
4. High interest rates negatively affect entrepreneurship and growth. The Central Bank of Nigeria should create targeted policies to lower lending rates for entrepreneurs, particularly in critical sectors like agriculture, manufacturing, and technology.

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Appendix A

YEAR	RGDP	CRPS	CRSME	INFR	INT
1996	4.05	254.8531	42.30	14.3	19.74
1997	2.89	311.3584	40.84	10.2	13.54
1998	2.50	366.5441	42.26	11.9	18.29
1999	0.52	449.0543	46.82	0.2	21.32
2000	5.52	587.9999	44.54	14.50	17.98
2001	6.67	844.4862	52.43	16.50	18.29
2002	14.60	948.4641	82.37	12.20	24.85
2003	9.50	1203.199	90.18	23.80	20.71
2004	10.44	1519.243	54.98	10.00	19.18
2005	7.01	1991.146	50.67	11.60	17.95
2006	6.73	2609.289	25.71	8.50	17.26
2007	7.32	4820.696	41.10	6.60	16.94

2008	7.20	7799.4	13.51	15.10	15.14
2009	8.35	9667.877	16.37	12.00	18.99
2010	9.54	9198.173	12.55	11.80	17.59
2011	5.31	9614.446	15.61	10.30	16.02
2012	4.21	10440.96	13.86	12.00	16.79
2013	5.49	11543.65	15.35	8.00	16.72
2014	6.22	13179.6	16.07	8.00	16.55
2015	2.79	13568.54	12.95	9.60	16.85
2016	-1.58	16500.15	10.75	18.60	16.87
2017	0.82	16193.86	10.75	15.40	17.56
2018	1.91	15438.6	44.82	11.40	19.33
2019	2.27	17436.99	123.93	11.98	15.53
2020	-1.92	19818.38	62.51	15.80	12.32
2021	0.51	22026.37	83.74	15.63	11.48
2022	3.10	26177.15	93.45	21.34	12.33
2023	2.74	39293.15	465.37	28.92	14.20

Source: CBN Statistical Bulletin