Impact of Entrepreneurship on Economic Development in Nigeria

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Abstract

This study examines the impact of Small and Medium-scale enterprise growth (SMEG) on Nigeria's economic development from 1999 to 2022, using Gross Domestic Product (GDP) as the dependent variable. Employing a longitudinal design and secondary data from national and international sources, the research applies multiple regression analysis to evaluate the effects of SMEG, inflation (INF), and interest rates (INTR) on GDP. The findings reveal a significant positive relationship between SMEG and GDP, with a 1% increase in SMEG contributing to approximately 35% GDP growth, underscoring SMEs as pivotal drivers of economic progress. In contrast, INF and INTR show minimal individual impact on GDP. The study highlights the interconnectedness of these variables in shaping Nigeria's growth and emphasises the need for targeted policies to enhance SME productivity, competitiveness, and access to finance. It advocates for a multidimensional policymaking approach to maximise synergies among factors influencing economic development.

Keywords: SMEs, Entrepreneurship, Economic Development, Gross Domestic Product (GDP)

1.1 Introduction

Nigeria, renowned for its entrepreneurial spirit and diverse small and medium-sized enterprises (SMEs), boasts a rich history of innovation deeply rooted in its cultural and economic fabric. SMEs, spanning agriculture, manufacturing, and services, are pivotal in driving economic growth, creating employment, and reducing poverty. Often referred to as the backbone of the economy, these enterprises significantly contribute to Nigeria's GDP and reflect the resilience and ingenuity of its people.

The transition to democratic governance in 1999 marked a critical juncture in Nigeria's history, ushering in hopes for political stability and economic progress. However, this period also presented challenges, including fluctuating oil prices, inflation, and fiscal deficits, underscoring the need for sustainable economic strategies. Within this context, entrepreneurship emerged as a vital mechanism for economic development, with SMEs demonstrating adaptability and innovation to navigate uncertainties. Given the critical role of SMEs in fostering economic resilience, this study explores the impact of entrepreneurship

development specifically, Small and Medium-scale Enterprise Growth (SMEG) on Nigeria's economic development from 1999 to 2022.

1.2 Statement of the Problems

This research addresses the critical issue of understanding the impact of entrepreneurship development specifically the growth and expansion of Small and Medium-scale Enterprises (SMEG) on Nigeria's economic development from 1999 to 2022. Despite the recognised potential of SMEs to drive innovation, create jobs, and diversify the economy, there is limited empirical evidence quantifying their contribution to national economic growth, particularly during this transformative period in Nigeria's history.

The study fills this gap by providing a detailed analysis of the relationship between SMEG and economic development, offering insights into the interplay between entrepreneurship, Gross Domestic Product (GDP), and key financial indicators. This contribution enriches existing knowledge by contextualising the role of entrepreneurship within Nigeria's unique economic and political landscape, guiding policymakers toward strategies that leverage SMEs for sustainable growth and development.

1.3 Objectives of the Study

The main objective of this study is to evaluate the impact of Small and Medium-scale enterprise growth (SMEG) on Nigeria's Gross Domestic Product (GDP). To achieve this, the study aims to:

i. Explore the inflation rate's (INF) effect on national economic development.
ii. Assess the relationship between interest rates (INTR) and economic development
iii. .Examine the combined influence of SMEG, INF, and INTR on Nigeria's economic development.

2.0 Literature Review

2.1 Conceptual Framework

This study explores the relationships between Gross Domestic Product (GDP) as the dependent variable and three independent variables: Small and Medium-scale enterprise growth (SMEG), Inflation Rate (INF), and Interest Rate (INTR). These variables serve as the foundation for analysing and interpreting the data.

2.1.1 Gross Domestic Product (GDP)

GDP is a critical measure of a country's economic performance, representing the total market value of all goods and services produced within a specific period. It reflects economic progress and is a benchmark for evaluating national development (Mankiw et al., 2021). In Nigeria, GDP has experienced fluctuations due to factors like oil price volatility, government policies, and economic reforms, making it an essential indicator for assessing economic growth (Akpan & Atan, 2019).

2.1.2 Small and Medium-scale Enterprises Growth (SMEG)

SMEG reflects the contribution of SMEs to economic development through job creation, poverty alleviation, and innovation (Chen et al., 2015). In Nigeria, SMEs are pivotal to economic growth, demonstrating resilience and adaptability amid financial challenges. SMEG is measured by the annual percentage change in the number of registered SMEs and their GDP contribution (Oduyoye & Olamade, 2018).

2.1.3 Inflation Rate (INF)

The inflation rate indicates the general price increases over time, reducing currency purchasing power (Fischer, 1993). Inflation in Nigeria has been a persistent issue, impacting consumption, investment, and savings (Dell'Ariccia et al., 2018). This study measures inflation as the annual percentage change in the Consumer Price Index (CPI), highlighting its role in shaping economic stability.

2.1.4 Interest Rate (INTR)

Interest rates influence borrowing costs and investment decisions, playing a crucial role in economic activity. In Nigeria, lending rates affect the financial environment for SMEs and larger enterprises, shaping their investment capacity and economic contributions (Ogunmuyiwa & Ekone, 2019). This study measures interest rates as the average annual lending rate, reflecting their impact on economic growth and development.

2.2 Empirical Review

Nwachukwu (2021) analysed the role of entrepreneurship in Nigeria, using data from 100 SMEs. The study highlighted SMEs' significant contributions to global economic growth but noted their underperformance in Nigeria due to poor management, environmental challenges, and unstable government policies. The study emphasised the importance of managerial capacity in fostering SME growth. Audretsch et al. (2019) examined entrepreneurial activity's influence on economic growth across 43 countries using a Cobb–Douglas production function. The findings revealed that both opportunity-driven and necessity-driven entrepreneurship significantly enhance economic growth. Smith (2010) investigated entrepreneurship's role in economic growth, finding it to be an independent factor unrelated to traditional economic growth determinants such as labor, capital, and knowledge.

Okpara (2018) identified constraints to SME growth, such as lack of financial support, poor management, corruption, and inadequate infrastructure. The study recommended alternative models to address collateral and lending challenges. Olalekan (2016) explored SMEs' contribution to poverty alleviation in Nigeria, revealing a modest impact due to limited wealth distribution. The study attributed this to SME operators' personal wealth motivations, suggesting reforms to enhance equitable wealth distribution.

Eze and Nweke (2017) analyzed inflation's effect on Nigeria's economic growth from 1980 to 2015 using cointegration and vector error correction models. The study found a negative but

insignificant impact of inflation on economic growth, with no causation between inflation and real GDP. It recommended policies to enhance public and private investment to spur growth while addressing inflation. Davis and Emerenini (2015) investigated the impact of interest rates on investment in Nigeria. The study revealed that high interest rates negatively affect investment and suggested policies to reduce prime lending rates, encourage savings, and increase income levels to stimulate economic growth.

2.3 Theoretical Framework

Schumpeter Innovation Theory

The study is grounded in Schumpeter's Innovation Theory by Schumpeter, J. (1934) and Endogenous Growth Theory by Paul Romer and Robert Lucas (1980). The Schumpeter's Innovation Theory emphasises the role of innovation and entrepreneurs as agents of economic development. Schumpeter argued that entrepreneurs drive economic growth by introducing new products, production methods, markets, and organizational forms. The Nigerian entrepreneurial landscape, characterized by innovation and resilience, aligns with Schumpeter's perspective. Entrepreneurial activities in Nigeria contribute to job creation, productivity improvement, and economic growth.

2.3.1 Endogenous Growth Theory

This theory posits that economic growth is primarily driven by internal factors such as human capital, innovation, and knowledge spillovers. It highlights the role of entrepreneurship in fostering technological advancement and economic expansion. Nigerian entrepreneurs play a critical role in leveraging local resources, human capital, and innovation to stimulate economic development, consistent with the principles of endogenous growth theory.

3.0 Methodology

The study employs a longitudinal research design**,** analyzing data from 1999 to 2022 to capture trends and changes over time, suitable for assessing the relationship between entrepreneurship and economic development. Descriptive statistics are used to summarize data trends, while correlation analysis examines relationships between variables. Multiple regression analysis is applied to assess the combined effects of entrepreneurship on GDP, using STATA for accurate results. Secondary data is sourced from the National Bureau of Statistics (GDP data), the Central Bank of Nigeria (inflation and interest rates), the World Bank (economic indicators), and industry reports on SMEs. The study measures GDP **a**s the dependent variable, while SME growth is tracked through the annual percentage change in SMEs and their GDP contribution. Inflation is measured as the annual percentage change in the Consumer Price Index (CPI), and interest rates are measured by the average annual lending rate.
The model for the study is specified as follows:

GDP = F(SMEG, INF, INTR)

Where:
GDP – Gross Domestic Product
SMEG – Small and Medium-scale Enterprises Growth

INF – Inflation rate
INTR – Interest rate

4.0 Data Analysis and Discussion

Table 1: Descriptive Statisctics

	GDPCM	SMEG	INF	INTR
Mean	71420.21	8012.985	12.62208	18.14000
Median	59591.35	9316.775	12.45000	17.41000
Maximum	197898.7	12262.10	19.48000	28.12000
Minimum	5482.350	2633.320	5.400000	12.32000
Std. Dev.	57569.60	3556.607	4.119038	3.189739
Skewness	0.655727	-0.398524	-0.046941	1.473212
Kurtosis	2.334582	1.554127	1.979144	5.882017
Jarque-Bera	2.162692	2.725835	1.050960	16.98744
Probability	0.339139	0.255913	0.591271	0.000205
Sum	1714085.	192311.6	302.9300	435.3600
Sum Sq. Dev.	7.62E+10	2.91E+08	390.2290	234.0120
Observations	24	24	24	24

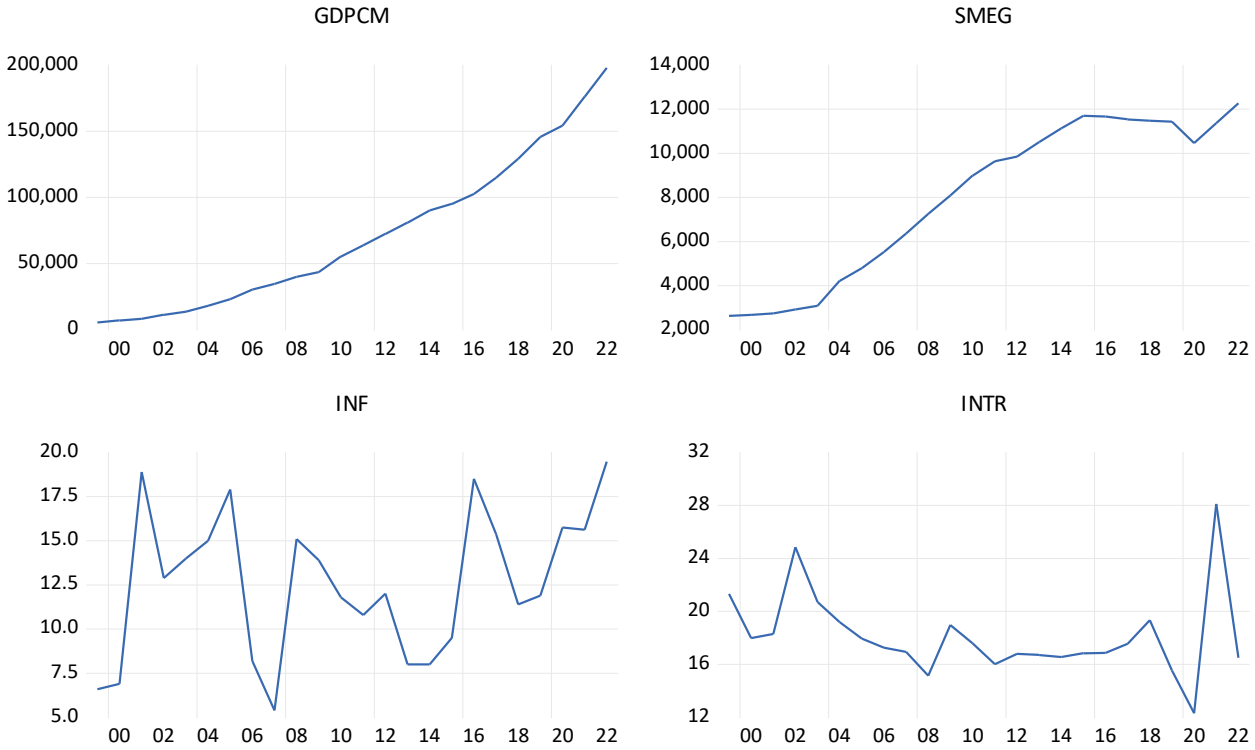
Source: Stata Software

The data analysis provides descriptive statistics for the variables **GDP (GDPCM)**, **SME Growth (SMEG)**, **Inflation (INF)**, and **Interest Rate (INTR)** over 24 observations.

- **GDP (GDPCM)**: The mean value of GDP is 71,420.21, with a median of 59,591.35, indicating a positive skewness (0.66), which suggests a slight rightward distribution. The maximum value is 197,898.7, while the minimum is 5,482.35, showing substantial variability with a standard deviation of 57,569.60. The Jarque-Bera test indicates normality, with a probability of 0.34.
- **SME Growth (SMEG)**: The mean SME growth is 8,012.99, with a median of 9,316.78, suggesting a relatively symmetric distribution (skewness of -0.40). The values range from 2,633.32 to 12,262.10, with a standard deviation of 3,556.61. The distribution is somewhat platykurtic, with a kurtosis of 1.55. The Jarque-Bera statistic indicates no significant departure from normality (probability 0.26).
- **Inflation (INF)**: The average inflation rate is 12.62%, with a median of 12.45%, reflecting a nearly symmetric distribution (skewness of -0.05). Inflation fluctuates between 5.40% and 19.48%, with a standard deviation of 4.12%. The distribution is mildly leptokurtic with a kurtosis of 1.98. The Jarque-Bera test confirms normality (probability 0.59).
- **Interest Rate (INTR)**: The mean interest rate is 18.14%, with a median of 17.41%. It exhibits a high positive skewness (1.47), indicating a rightward skew. The interest rate ranges from 12.32% to 28.12%, with a standard deviation of 3.19%. The distribution is

highly leptokurtic (kurtosis of 5.88), with a significant Jarque-Bera test result (probability 0.0002), suggesting a non-normal distribution.

Trend/graphical analysis



Trend analysis in graphical form helps visualize patterns and variations over time. For the dataset provided, the following trends can be observed:

- **GDP (GDPCM)**: The graph likely shows an overall upward trend, reflecting economic growth over the period from 1999 to 2022. There may be periods of sharp increases or decreases, reflecting economic shocks or growth phases, with a gradual upward trajectory in the long run, in line with Nigeria's development.
- **SME Growth (SMEG)**: The trend for SME growth may display periods of expansion or contraction, with notable fluctuations. Growth could be linked to key government policies, infrastructure development, or market changes, showing a steady increase during favorable periods and dips during economic or policy downturns.
- **Inflation (INF)**: The inflation trend likely reflects periods of high inflation, particularly during economic instability or crises. The graph could show significant spikes in inflation rates, which would align with periods of economic instability in Nigeria, such as periods of oil price fluctuations or political unrest.
- **Interest Rates (INTR)**: Interest rates may exhibit significant fluctuations in response to monetary policy shifts. The graph may indicate periods of high rates, particularly during periods of high inflation or tight monetary policies, as well as periods of lower rates during efforts to encourage borrowing and investment.

Unit root test results

Null Hypothesis: D(GDPCM,2) has a unit root
Exogenous: Constant, Linear Trend
Lag Length: 0 (Automatic - based on SIC, maxlag=5)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-7.639008	0.0000
Test critical values:	1% level	-4.467895	
	5% level	-3.644963	
	10% level	-3.261452	

*MacKinnon (1996) one-sided p-values.

Null Hypothesis: D(SMEG,2) has a unit root
Exogenous: Constant, Linear Trend
Lag Length: 0 (Automatic - based on SIC, maxlag=5)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-6.328594	0.0002
Test critical values:	1% level	-4.467895	
	5% level	-3.644963	
	10% level	-3.261452	

*MacKinnon (1996) one-sided p-values.

Null Hypothesis: D(INF) has a unit root
Exogenous: Constant, Linear Trend
Lag Length: 5 (Automatic - based on SIC, maxlag=5)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-5.839737	0.0011
Test critical values:	1% level	-4.616209	
	5% level	-3.710482	
	10% level	-3.297799	

Null Hypothesis: D(INTR) has a unit root
Exogenous: Constant, Linear Trend

Lag Length: 1 (Automatic - based on SIC, maxlag=5)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-6.657256	0.0001
Test critical values:	1% level	-4.467895	
	5% level	-3.644963	
	10% level	-3.261452	

VARIABLES	ADF-Value	P-Value	ORDER OF INTEGRATION	LEVEL OF SIG.
GDPCM	7.6390	0.0000	1(2)	5%
SMEG	6.3286	0.0002	1(2)	5%
INF	5.8397	0.0011	1(1)	5%
INTR	6.6573	0.0001	1(1)	5%

If there are unit roots, the series is not stationary. Accordingly, if the p-value of z(t) is not significant, the series is not stationary. If $z \leq z0.05$ then we reject the null hypothesis H0 that the series has a unit root. If there are no unit roots, then we conclude the series is stationary. .

From the table above, the ADF is greater than critical values and P-value is less than 0.05 which make the variables GDPCM, SMEG, INF & INTR to significant in nature and valid for research work with respective order of integrations.

Johansen Cointegration Test

Date: 10/2/24 Time: 21:50
Sample (adjusted): 2001 2022
Included observations: 22 after adjustments
Trend assumption: Quadratic deterministic trend
Series: GDPCM INF INTR SMEG
Lags interval (in first differences): 1 to 1

Unrestricted Cointegration Rank Test (Trace)

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.924661	96.42874	55.24578	0.0000
At most 1 *	0.649263	39.54205	35.01090	0.0153
At most 2	0.376372	16.49225	18.39771	0.0906
At most 3 *	0.242284	6.103830	3.841465	0.0135

Trace test indicates 2 cointegrating eqn(s) at the 0.05 level

* denotes rejection of the hypothesis at the 0.05 level
**MacKinnon-Haug-Michelis (1999) p-values

The Johansen test is used to test cointegrating relationships between several non-stationary time series data.

Decision: There is long run relationship among the variables considering the Trace Statistics and P-value.

Lag length structure

VAR Lag Order Selection Criteria
Endogenous variables: GDPCM INF INTR
SMEG
Exogenous variables: C
Date: 10/2/24 Time: 22:05
Sample: 1999 2022
Included observations: 22

Lag	LogL	LR	FPE	AIC	SC	HQ
0	-577.6262	NA	1.08e+18	52.87510	53.07348	52.92183
1	-470.6415	165.3399	2.85e+14	44.60377	45.59563	44.83742
		37.36978	8.18e+13	43.18372	44.96906	43.60429
2	-439.0209	*	*	*	*	*

* indicates lag order selected by the criterion
LR: sequential modified LR test statistic (each test at 5% level)
FPE: Final prediction error
AIC: Akaike information criterion
SC: Schwarz information criterion
HQ: Hannan-Quinn information criterion

Decision: This lag length is frequently selected using an explicit statistical criterion such as the AIC or SIC. The maximum lag length is 2 considering the decision criteria**.**

The VAR equations and model:

GDPCM=F (SMEG, INF, INTR)

SMEG=F (GDPCM, INF,INTR)

INF=F (GDPCM, SMEG, INTR)

INTR=F (GDPCM, SMEG, INF)

Where: GDPCM is Gross Domestic Product Current Market

SMEG is Small and Medium Enterprises Growth

INF is Inflation

INTR is the Interest rate

The VAR Model

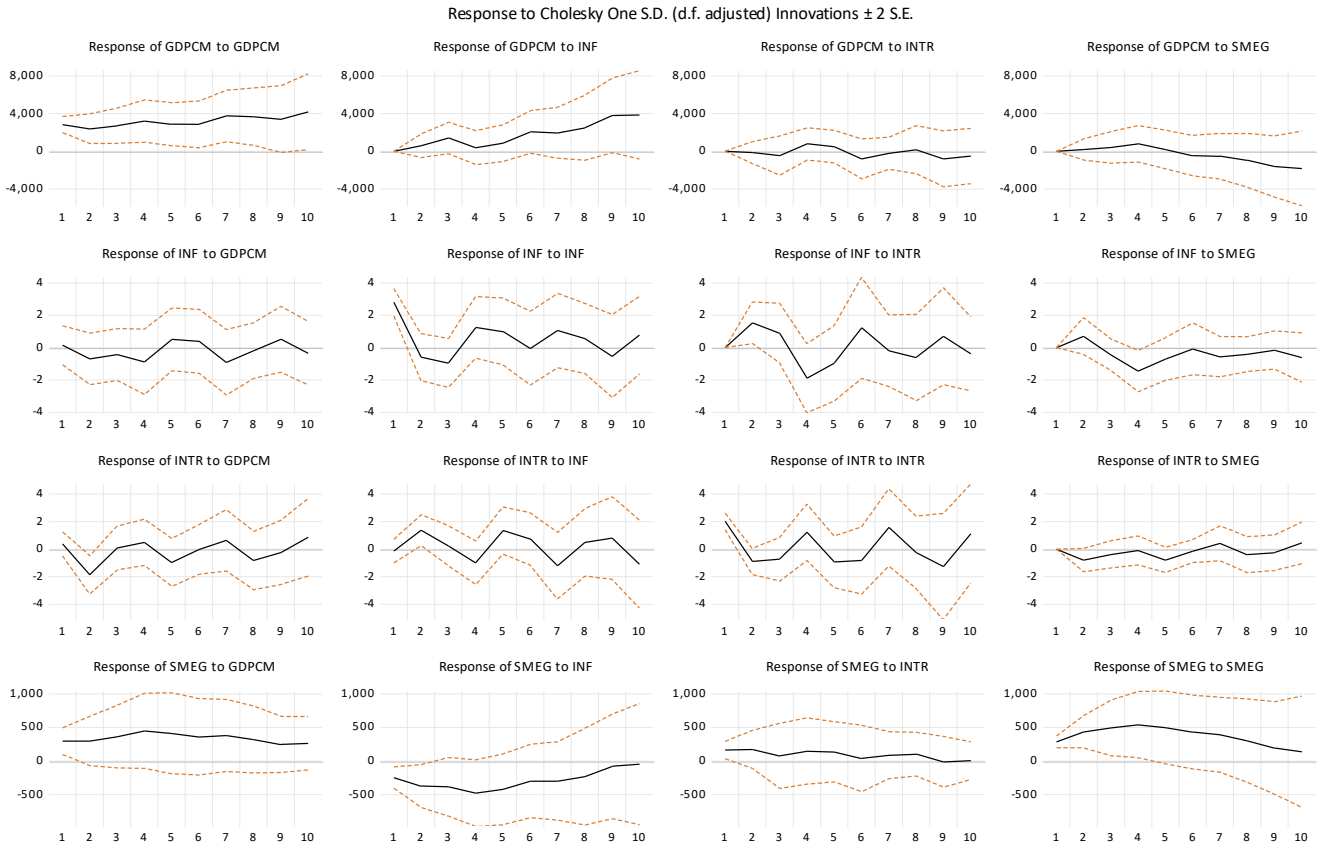
$$\mathbf{GDPCMt} = a_2 + \sum_{i=1}^{k} \mathbf{b_2 GDPCM_{t-1}} + \sum_{i=1}^{k} \mathbf{c_2 SMEG_{t-1}} + \sum_{i=1}^{k} \mathbf{g_2 INF_{t-1}} + \sum_{i=1}^{k} \mathbf{h_2 INTR_{t-1}} + U_{t2}$$

$$\mathbf{SMEGt} = \mathbf{a_2} + \sum_{i=1}^{k} \mathbf{b_2 SMEG_{t-1}} + \sum_{i=1}^{k} \mathbf{c_2 GDPCM_{t-1}} + \sum_{i=1}^{k} \mathbf{g_2 INF_{t-1}} + \sum_{i=1}^{k} \mathbf{h_2 INTR_{t-1}} + \mathbf{U_{t2}}$$

$$\mathbf{INFt} = \mathbf{a_2} + \sum_{i=1}^{k} \mathbf{b_2 INF_{t-1}} + \sum_{i=1}^{k} \mathbf{c_2 GDPCM_{t-1}} + \sum_{i=1}^{k} \mathbf{g_2 SMEG_{t-1}} + \sum_{i=1}^{k} \mathbf{h_2 INTR_{t-1}} + \mathbf{U_{t2}}$$

$$\mathbf{INTRt} = \mathbf{a_2} + \sum_{i=1}^{k} \mathbf{b_2 INTR_{t-1}} + \sum_{i=1}^{k} \mathbf{c_2 GDPCM_{t-1}} + \sum_{i=1}^{k} \mathbf{g_2 SMEG_{t-1}} + \sum_{i=1}^{k} \mathbf{h_2 INF_{t-1}} + \mathbf{U_{t2}}$$

Impulse Response



Decision: An Impulse Response Function (IRF) measures the impact of an unexpected one-unit change in the "impulse" variable on the "response" variable over several periods. IRFs are commonly used to analyze the interrelationships between variables in vector autoregressive (VAR) models. Estimation variability of impulse responses is typically assessed using asymptotic theory, simulation, or bootstrapping methods. This study compares the small sample properties of these approaches through a Monte Carlo investigation. The results show that, in terms of actual levels, confidence intervals derived from asymptotic theory are at least as reliable as those obtained from simulation or bootstrapping, even when asymptotic theory is misapplied. Impulse responses, which reflect the system's reaction to exogenous shocks, are determined by VAR parameters and estimated accordingly. To measure the sampling variability of estimators, various approaches using asymptotic theory or bootstrap and simulation methods are applied.

Variance Decomposition

Variance Decomposition of GDPCM:

Period	S.E.	GDPCM	INF	INTR	SMEG
1	2821.088	100.0000	0.000000	0.000000	0.000000
2	3741.366	97.20830	2.403904	0.150678	0.237115
3	4855.226	88.61562	9.587595	0.990171	0.806616
4	5925.649	88.51900	6.854185	2.368774	2.258043
5	6654.341	88.67481	7.069548	2.390410	1.865230
6	7580.394	82.44250	12.69378	3.021663	1.842058
7	8688.735	81.19030	14.65405	2.359414	1.796234
8	9793.725	77.75518	17.96504	1.880360	2.399414
9	11188.20	68.79326	25.28985	1.968442	3.948445
10	12690.55	64.31168	28.85592	1.695810	5.136586

Variance Decomposition of INF:

Period	S.E.	GDPCM	INF	INTR	SMEG
1	2.816894	0.285522	99.71448	0.000000	0.000000
2	3.413797	4.360015	70.86434	20.42164	4.354009
3	3.703612	4.974028	66.78853	23.16233	5.075108
4	4.657381	6.689926	49.31480	31.09443	12.90085
5	4.934146	7.014305	47.97710	31.48846	13.52014
6	5.098861	7.161913	44.93390	35.22327	12.68091
7	5.320538	9.528236	45.23692	32.48089	12.75395

8	5.403471	9.352005	44.93736	32.78516	12.92548
9	5.501097	9.902025	44.28063	33.26541	12.55194
10	5.613597	9.895738	44.46585	32.40563	13.23279

Variance Decomposition of INTR:

Period	S.E.	GDPCM	INF	INTR	SMEG
1	2.046797	3.515858	0.470260	96.01388	0.000000
2	3.313768	33.00347	17.21090	43.96423	5.821396
3	3.424332	30.95739	16.56827	45.72570	6.748638
4	3.803620	26.71494	20.33618	47.40234	5.546533
5	4.320933	25.78548	25.16346	41.35525	7.695822
6	4.461807	24.18672	26.27166	42.21541	7.326213
7	4.938969	21.40179	27.41402	44.49411	6.690082
8	5.056641	23.17754	27.08884	42.68324	7.050385
9	5.283387	21.43687	27.08013	44.77885	6.704158
10	5.590048	21.46348	27.99395	43.90767	6.634901

Variance Decomposition of SMEG:

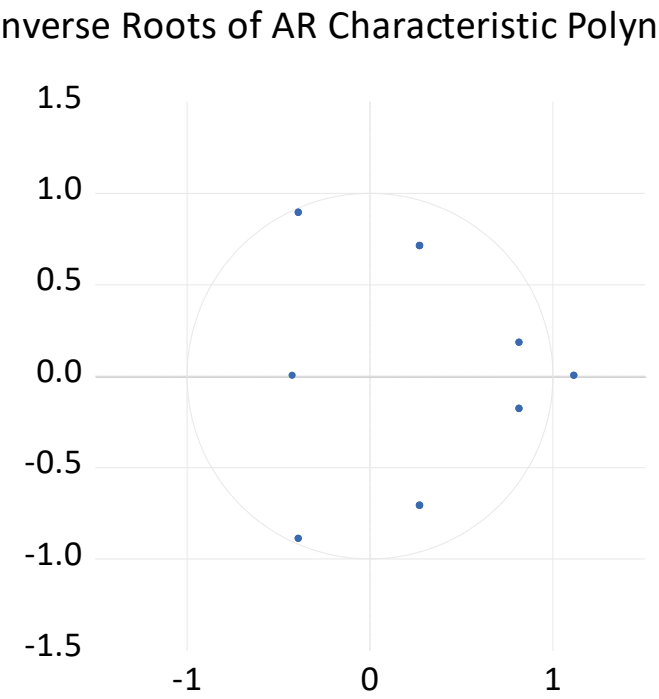
Period	S.E.	GDPCM	INF	INTR	SMEG
1	507.6852	33.87087	24.00914	10.32646	31.79353
2	839.0062	24.98839	28.71366	7.934669	38.36328
3	1109.730	24.97114	28.44553	4.999515	41.58381
4	1405.548	25.73493	29.36465	4.203728	40.69670
5	1609.296	26.16027	29.26892	3.924330	40.64648
6	1730.638	26.93464	28.28872	3.438396	41.33825
7	1841.352	28.07000	27.63698	3.261357	41.03166
8	1910.299	28.90149	27.17360	3.300491	40.62442
9	1937.257	29.70907	26.59279	3.213900	40.48424
10	1960.508	30.81853	26.02368	3.138648	40.01914

Cholesky Ordering: GDPCM INF INTR SMEG

Decision: Variance decomposition measures the contribution of each variable to the forecast error variance of others in an autoregressive model. It indicates the extent to which exogenous shocks to one variable explain the forecast error variance of another. A residual versus order

plot is used to evaluate model accuracy by comparing fits to observed values. Ideally, residuals should randomly scatter around the centre line; patterns may suggest the model does not adequately fit the data. Variance decomposition reveals the impact of shocks in one variable on the forecast error variance of another.

Stability Test



Decision: **If all of the roots of this polynomial lie outside the unit circle (i.e. > 1), then the process is stationary. EViews shows inverse roots (the reciprocal of the roots). If all inverse roots lie within the unit circle, equivalently, the process is stationary.** The inverse square root of a floating-point number is used in digital **signal processing to normalize a vector, scaling it to length 1 to produce a unit vector.**

Probability test

System: UNTITLED
Estimation Method: Least Squares
Date: 10/2/24 Time: 22:51
Sample: 2001 2022
Included observations: 22
Total system (balanced) observations 88

	Coefficient	Std. Error	t-Statistic	Prob.
C(1)	0.779025	0.291647	2.671122	0.0101
C(2)	0.356774	0.328212	1.087025	0.2820
C(3)	256.3106	175.5830	1.459769	0.1504

C(4)	417.6760	196.4171	2.126475	0.0382
C(5)	-124.1818	286.2666	-0.433798	0.6662
C(6)	-394.0386	360.4525	-1.093178	0.2794
C(7)	0.636422	1.956701	0.325253	0.7463
C(8)	-1.060704	2.158847	-0.491329	0.6253
C(9)	6048.923	10698.74	0.565386	0.5742
C(10)	-0.000587	0.000291	-2.015001	0.0491
C(11)	0.000755	0.000328	2.305205	0.0252
C(12)	0.039140	0.175322	0.223246	0.8242
C(13)	-0.421475	0.196125	-2.149010	0.0363
C(14)	0.566786	0.285841	1.982873	0.0527
C(15)	0.692935	0.359917	1.925266	0.0597
C(16)	0.002488	0.001954	1.273621	0.2085
C(17)	-0.003429	0.002156	-1.590525	0.1178
C(18)	-4.257268	10.68284	-0.398515	0.6919
C(19)	-0.000351	0.000212	-1.657116	0.1035
C(20)	0.000403	0.000238	1.693114	0.0964
C(21)	0.228187	0.127392	1.791222	0.0791
C(22)	0.076900	0.142507	0.539624	0.5918
C(23)	-0.220261	0.207696	-1.060493	0.2938
C(24)	-0.581049	0.261521	-2.221807	0.0307
C(25)	-0.002793	0.001420	-1.967384	0.0545
C(26)	0.001909	0.001566	1.219043	0.2283
C(27)	35.89719	7.762312	4.624549	0.0000
C(28)	-0.047947	0.052485	-0.913531	0.3652
C(29)	0.058017	0.059065	0.982246	0.3305
C(30)	-1.040544	31.59805	-0.032931	0.9739
C(31)	32.62115	35.34738	0.922873	0.3603
C(32)	-37.98522	51.51676	-0.737337	0.4642
C(33)	-58.29290	64.86732	-0.898648	0.3730
C(34)	1.515083	0.352129	4.302632	0.0001
C(35)	-0.649800	0.388508	-1.672552	0.1004
C(36)	2360.478	1925.355	1.225997	0.2257
Determinant residual covariance	2.53E+12			

Augmented VAR

Vector Autoregression Estimates
Date: 10/2/24 Time: 22:59
Sample (adjusted): 2001 2022
Included observations: 22 after adjustments
Standard errors in ( ) & t-statistics in [ ]

	GDPCM	INF	INTR	SMEG

GDPCM(-1)	0.779025	-0.000587	-0.000351	-0.047947
	(0.29165)	(0.00029)	(0.00021)	(0.05249)
	[2.67112]	[-2.01500]	[-1.65712]	[-0.91353]
GDPCM(-2)	0.356774	0.000755	0.000403	0.058017
	(0.32821)	(0.00033)	(0.00024)	(0.05907)
	[1.08703]	[2.30520]	[1.69311]	[0.98225]
INF(-1)	256.3106	0.039140	0.228187	-1.040544
	(175.583)	(0.17532)	(0.12739)	(31.5980)
	[1.45977]	[0.22325]	[1.79122]	[-0.03293]
INF(-2)	417.6760	-0.421475	0.076900	32.62115
	(196.417)	(0.19613)	(0.14251)	(35.3474)
	[2.12647]	[-2.14901]	[0.53962]	[0.92287]
INTR(-1)	-124.1818	0.566786	-0.220261	-37.98522
	(286.267)	(0.28584)	(0.20770)	(51.5168)
	[-0.43380]	[1.98287]	[-1.06049]	[-0.73734]
INTR(-2)	-394.0386	0.692935	-0.581049	-58.29290
	(360.453)	(0.35992)	(0.26152)	(64.8673)
	[-1.09318]	[1.92527]	[-2.22181]	[-0.89865]
SMEG(-1)	0.636422	0.002488	-0.002793	1.515083
	(1.95670)	(0.00195)	(0.00142)	(0.35213)
	[0.32525]	[1.27362]	[-1.96738]	[4.30263]
SMEG(-2)	-1.060704	-0.003429	0.001909	-0.649800
	(2.15885)	(0.00216)	(0.00157)	(0.38851)
	[-0.49133]	[-1.59052]	[1.21904]	[-1.67255]
2	3024.462	-2.128634	17.94860	1180.239
	(5349.37)	(5.34142)	(3.88116)	(962.677)
	[0.56539]	[-0.39851]	[4.62455]	[1.22600]
R-squared	0.998455	0.672478	0.756278	0.985323
Adj. R-squared	0.997504	0.470927	0.606296	0.976290
Sum sq. resids	1.03E+08	103.1536	54.46193	3350675.
S.E. equation	2821.088	2.816894	2.046797	507.6852
F-statistic	1050.180	3.336504	5.042438	109.0887
Log likelihood	-200.2169	-48.21359	-41.18770	-162.4866
Akaike AIC	19.01972	5.201235	4.562518	15.58969
Schwarz SC	19.46606	5.647571	5.008854	16.03602
Mean dependent	77342.72	13.15591	18.00273	8500.130
S.D. dependent	56470.22	3.872688	3.262043	3297.088

Determinant resid covariance (dof adj.)	2.08E+13
Determinant resid covariance	2.53E+12
Log likelihood	-439.0209
Akaike information criterion	43.18372
Schwarz criterion	44.96906
Number of coefficients	36

The results of VAR reveal the dynamic behaviour of the variables in the system of equation. We based the analysis of VAR on the forecast.

5.0 Findings

The study reveals that Small and Medium-Scale Enterprises's growth (SMEG) significantly contributes to Nigeria's economic development, with a 1% increase in SMEG resulting in approximately a 35% rise in GDP. Inflation does not show a substantial impact on GDP growth, suggesting that managing inflation alone is insufficient to drive economic progress. Similarly, interest rates do not demonstrate a significant relationship with GDP, indicating that borrowing costs are not a primary constraint to entrepreneurship and economic development. However, the combined analysis of SMEG, inflation, and interest rates highlights their interrelated influence on Nigeria's growth trajectory, emphasizing the need for an integrated policy approach. Overall, entrepreneurship development, particularly through SME growth, is confirmed as a critical driver of economic progress in Nigeria.

6.0 Conclusions

Entrepreneurship development, particularly through SME growth, is a critical factor for sustainable economic progress in Nigeria, aligning with global evidence on the role of SMEs in emerging economies.The study confirms that Small and Medium-Scale Enterprises Growth (SMEG) significantly drives Nigeria's economic development, with a positive and substantial relationship between SMEG and GDP growth. While inflation does not directly impact GDP growth significantly, indicating that inflation management alone is insufficient to spur economic development, though it remains important for macroeconomic stability and the interest rates show no significant relationship with GDP, suggesting that borrowing costs are not a primary constraint to entrepreneurship and economic growth in Nigeria.The combined influence of SMEG, inflation, and interest rates highlights their interdependence, emphasizing the need for an integrated and multidimensional approach to economic policy formulation.

7.0 Recommendations

The government should prioritize SME growth by improving access to finance, providing training, and creating a conducive regulatory environment. Efforts should also focus on enhancing SME productivity and competitiveness to drive job creation and reduce poverty. Inflation management remains important for macroeconomic stability but should be part of a broader growth strategy. Financial sector reforms should ensure better credit availability and accessibility for SMEs rather than focusing solely on reducing borrowing costs. Policymaking should adopt an integrated approach, leveraging the interconnections between entrepreneurship, interest rates, inflation, and other economic factors. Finally, further research

should explore challenges faced by Nigerian entrepreneurs and SMEs to support evidence-based reforms and interventions.

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