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Assessing Naira Devaluation and Tight Monetary Policy Impact on Small Medium Enterprises in Nigeria

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Abstract:

Purpose:
This study aims to optimize the management of Munggu Tourist Village through the application of the Business Model Canvas (BMC). By utilizing the BMC framework, tourist village development can become more focused, professional, and sustainable, thereby delivering positive impacts for both tourists and local communities.

Methodology:
This research employs a qualitative approach. Data collection is conducted through observation, in-depth interviews, and Focus Group Discussions (FGD). In-depth interviews are conducted with business managers in Desa Munggu. The FGD involves inviting the Village Head (Perbekel), the Traditional Village Head (Bendesa Adat Munggu), the Village Supervisory Board, the Chairperson of the Desa Munggu Tourism Awareness Group (Kelompok Sadar Wisata), the Chairperson of the Desa Munggu Tourism Business Management, and the Village Environmental Chairperson.

Findings:
This finding confirms that the Business Model Canvas (BMC) can serve as a flexible and relevant strategic tool to support the sustainable development of tourism villages based on local wisdom.

Implication:
This study confirms that the Business Model Canvas (BMC) is a strategic tool that effectively supports the sustainable development of tourism villages based on local wisdom. The findings provide practical guidance for tourism village managers and government authorities in designing effective business strategies, empowering local communities, and maintaining the attractions of the destination. Furthermore, this research encourages responsible tourism management to preserve culture and the environment while opening opportunities for further studies in other tourism destinations.

INTRODUCTION

Due to the rich natural resources such as crude oil, Nigeria is considered to be fortunate. It is a nation blessed with so many enormous natural resources and is equally a nation that thrives on importation, as it imports virtually 65 "percent of commodities consumed locally (NBS; 2023). Her huge economic capabilities have brought her to a higher level among the oil-producing nations of the world. Her oil and gas sector, characterized as the country's financial lifeblood, has helped her to play this enviable role. It has also resulted in the division of Nigeria's four major economic segments: oil-related operations, the public sector (governments and parastatals - which are also heavily reliant on oil derivatives), the structured private sector, and the informal sector (World Bank 2012).

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Naira devaluation means the official lowering of the value of the Naira within a fixed exchange rate system (Wikipedia). Devaluation of currencies is a macroeconomic monetary policy aimed at decreasing the value and profit of local currency. The costs of goods and services are lower in a country where the currency has been devalued than in a country where the currency has not been devalued. Reduced prices of goods and services will help boost regional trade with the ultimate aim of boosting economic growth and development to help alleviate poverty. Devaluation or depreciation of a country's currency is usually triggered when the country is experiencing an adverse balance of payment or of trade (BOP/BOT) crisis or by worsening economic conditions transmitted into the domestic economy from the foreign market (World Bank 2000).

Currency devaluation became popular in Nigeria in 1986 when the administration of the Babangida regime came up with the Structural Adjustment Programme (SAP). It came as a policy designed to help achieve a realistic exchange rate for the naira that was over-valued then. It posed an unhealthy threat to the economic growth and development of Nigeria because the overvalued currency further worsened the balance of payment problem. On the basis of this, the nation was encouraged to embrace the devaluation policy as a prerequisite for economic recovery. As a result, the government insisted that they would not devalue the naira, giving reason for the mass's poverty level and considering the harm it may cause to the already volatile economy and the Nigerian populace.

In the year 2004, and between 2015 and 2020, the drop in the price of oil globally, which averages 47.43 dollars per barrel (OPEC; 2023), left nations like Nigeria, who run an oil-based economy without prior diversification of their economy in economic crises. This challenge brought about by exchange rate fluctuations is eventually leading to pressure on the government to devalue the Naira (Andre 2016). It affected other sectors of the economy as it had tremendous implications for foreign exchange earnings. The capacity of the Central Bank of Nigeria (CBN) to fund the foreign exchange market has been called into question as a result of the sustained drop in the oil price in the global oil market, selling at 76.1 dollars per barrel (OPEC, 2023), which caused a low level of foreign exchange reserve that likewise induce free movement of the exchange rate.

There have also been growing demand issues in the last five (5) years. High demand for the exchange of devices has resulted in volatility in the exchange market due to factors such as strong dependencies on imported finishing goods, reliance on imports with other inputs of raw materials and the revolution in capital flow by investors and high specific demand (CBN report, August 2020). The increased demand for foreign exchange, therefore, leads to exchange volatility in the face of unstable supply.

Nigeria, as an import-dependent economy, cannot afford to devalue its currency because the country does not manufacture a commodity that would draw buyers from other countries, and the government has not adequately prepared SMEs to produce these goods. Since importing goods and services from China, the United Kingdom, the United States, and other countries is cheaper than producing locally, the majority of SMEs continue to rely on them. Overdependence on foreign goods by SMEs is dangerous, as a decrease in the value of the Naira would result in higher sales costs and other operational/manufacturing costs. To purchase products and services from other countries, SMEs would have to invest more money, which has led to inflation, decreased demand for goods and services, and the failure of small and medium-sized enterprises.

Devaluation of the Naira without adequate policies being put on the ground would be dangerous as small, medium-scale businesses would have to pay more to import finished products from other countries. It could likely lead to inflation, which adversely affects the patronage of these small-scale enterprises that help to drive the economy. Nigeria's economy, as well as Small and Medium Scale Enterprises (SMEs), has faced recurring and significant challenges in recent years, including fluctuating global oil prices, inflationary pressures, and currency volatility due to macroeconomic shocks, particularly Naira devaluation and monetary policy rate hikes.

The increase in MPR comes in a period where the government should be thinking of ensuring that expansionary monetary policy or fiscal policy is implemented (increasing investment portfolio in most genuine sectors and granting tax holidays or subsidies) to both national and multinational corporations. Research indicates that monetary policy rate hikes have adverse effects on SMEs' access to credit, investment decisions, and financial

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performance (Afolabi et al., 2015; Olowe et al., 2017; Adewale et al., 2022). Rate hikes increase borrowing costs, reduce investment, and amplify financial vulnerability (Adewale et al., 2022). In 2024, the Central Bank of Nigeria raised the monetary policy rate (MPR) to a record-high 27.25 %. However, inflation has stubbornly remained at an alarming 27%, one of the highest rates in nearly two decades. The cost of borrowing skyrocketed, making credit inaccessible for most Nigerians, especially SMEs, further stifling economic growth. There appears to be no balance between monetary tightening and growth stimulation. The CBN's decision to further tighten the monetary policy rate comes at a time when businesses are in dire need of support to stimulate growth and recovery.

These twin shocks, Naira devaluation and monetary policy rate hikes, threaten SMEs' survival, hindering economic growth, employment, and poverty reduction. Understanding the effects of these shocks on SMEs is crucial for policymakers to develop targeted interventions, ensuring the sector's resilience and Nigeria's economic stability. However, this study investigates the impact of these shocks on Nigerian SMEs, focusing on financial performance, operational efficiency, and competitive advantage and bridges the gap by investigating the combined impact of these twin shocks on SMEs. Given all the ambiguities about the outcomes of Naira devaluation and its effects on small and medium-scale enterprises, this study tends to proffer answers to the pertinent questions: Does Naira devaluation affect small and medium-scale enterprises (SMEs) in Nigeria?

Theoretical Underpinning. This study is anchored on three major economic theories that provide a framework for understanding the impact of macroeconomic shocks, such as currency devaluation and tight monetary policy, on the performance and sustainability of SMEs. These theories are:

i. The Purchasing Power Parity (PPP) Theory
ii. The Interest Rate Channel of Monetary Transmission Mechanism
iii. The Keynesian Theory of Investment and Aggregate Demand

Purchasing Power Parity" (PPP) Theory. The PPP theory, rooted in classical economics and advanced by Gustav Cassel in the early 20th century, posits that in the absence of transportation costs and trade barriers, identical goods should sell for the same price in different countries when expressed in a common currency. It implies that exchange rate movements should reflect changes in relative price levels between two countries.

In the context of this study, PPP suggests that the devaluation of the naira results in higher domestic prices for imported goods and inputs, particularly raw materials and machinery often used by SMEs. Since most "Nigerian SMEs depend heavily on imported inputs, a weaker naira translates into higher production costs, reduced profit margins, and diminished competitiveness. Thus, the PPP theory helps explain how currency devaluation directly undermines the operational efficiency and sustainability of SMEs.

Interest Rate Channel of the Monetary Transmission Mechanism. The monetary transmission mechanism describes how policy decisions by the central bank—particularly changes in the Monetary Policy Rate (MPR) affect real economic activities. The interest rate channel, a key aspect of this mechanism, posits that when the central bank raises the policy rate, commercial banks respond by increasing lending rates, thereby reducing the availability and affordability of credit.

For SMEs, which often rely on external borrowing due to limited internal financing, an increase in MPR means reduced access to affordable credit, increased cost of capital, and lower investment in productive assets. This channel is especially critical in developing economies like Nigeria, where access to finance is already constrained due to structural weaknesses in the banking sector, lack of collateral, and information asymmetry. Therefore, a tight monetary policy, reflected in higher interest rates, restricts SME growth and survival.

Keynesian Theory of Investment and Aggregate Demand. Keynesian economic theory highlights the centrality of investment and aggregate demand in driving economic growth. According to Keynes, firms invest based on interest rates, expected returns, and macroeconomic stability. When interest rates are high, investment tends to decline as the cost of borrowing outweighs expected profits.

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In the case of SMEs in Nigeria, a combination of high interest rates and currency devaluation leads to a contraction in both supply and demand. On the supply side, production becomes costlier due to expensive inputs and limited financing. On the demand side, consumers' purchasing power erodes due to inflation induced by devaluation. This dual shock results in a decline in aggregate demand, creating a challenging environment for SMEs to thrive.

Furthermore, the Keynesian perspective emphasizes that during periods of economic uncertainty, firms tend to reduce output and postpone investment decisions. This theory, therefore, supports the notion that the joint impact of naira devaluation and tight monetary policy creates a macroeconomic drag that hampers SME performance.

Synthesis of Theoretical Framework. Together, these theories provide a robust framework for understanding the dual macroeconomic shocks faced by Nigerian SMEs. While PPP theory explains the cost-side effects of exchange rate devaluation, the interest rate channel explains the credit constraint and financing challenges induced by tight monetary policy. The Keynesian theory ties both shocks into the broader macroeconomic environment, illustrating how they simultaneously suppress investment, production, and demand factors essential for SME development.

This theoretical underpinning highlights the need for policy coordination in Nigeria. Isolated use of contractionary monetary policies in the face of currency depreciation may exacerbate the fragility of the SME sector. A balanced approach that considers the structural realities of SMEs and their susceptibility to macroeconomic fluctuations is, therefore, essential for sustainable economic development.

Literature Review. Abang, Ayodele, Okey, Nwanne and Arasomwan (2025) examined the effect of currency devaluation on the growth of small and medium enterprises in Nigeria. They revealed that the exchange rate exerts a negative effect on SMSE. The study recommended that the government should put efforts towards improving the strength of the local currency. Adewale, Olowe, and Adeyemi (2022) specifically find that monetary policy rate hikes increase borrowing costs, reduce investment, and amplify financial vulnerability. Iyoha, Adeyemi, and Oyinlola's (2020) findings reveal significant negative impacts on SMEs' financial performance, particularly in the manufacturing and trade sectors. Oyinlola, Adeniyi, and Oyinlola (2018) study finds that exchange rate volatility significantly affects SMEs' import costs and reduces SMEs' competitiveness. The study concludes that exchange rate volatility negatively impacts SMEs in Nigeria, increasing import costs, reducing competitiveness, and heightening financial vulnerability.

The study by Adeniyi, Oyinlola, and Adenuga (2017) concluded that Naira devaluation has significant negative impacts on SMEs' financial performance and competitiveness and recommendations that monetary authorities should stabilize exchange rates and that SMEs should diversify products and markets.

Iyoha (2019) further shows that the devaluation of Nigeria's currency has caused tremendous inflationary pressures on the economy. In this situation, the discharge of its statutory functions by local authorities is restricted. Voir's (2017) result shows that the turnover rate in business activities fell by 22 percent while the price of imports increased as well. Olowe, In the study by Adenuga & Osinubi (2017), the results show that the monetary policy rate has a significant negative impact on SMEs' access to credit, profitability, and revenue growth. Afolabi, Olowe, and Adegbite (2015) recommend that monetary policymakers should consider SMEs' needs when setting interest rates, the government should provide targeted support for SMEs (e.g., subsidized lending), and SMEs should diversify funding sources to reduce dependence on bank credit. Mustafa and Firat's (2011) study employed GMM, specifically the GMM method based on Blundell and Bond dynamic panel estimations (1998). The result found a negative impact on domestic goods production. Mustafa and Rebecca (2008) used A variant of the Campa-Goldberg (1999) model as the econometric model. The model was analyzed through a panel regression with a fixed effect. In the study, the use of static regression would not give a detailed result on the difference in the effect of the currency across which the dynamical model can be used.

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The side effects of the spill in exchange volatility on business performance in the tourism industry in Taiwan were investigated by Chang and Hsu (2013). The estimate was based on the volatility specification of BEKK-GARCH and VARMA-AGARCH, two conditional multivariate models. For the 999 companies that cover the period of the global financial crisis, the study used daily data from 1 July 2008 to 29 June 2012. The result shows a negative effect on non-commercial profit ventures. The impact of real devaluation volatility on export operations, according to Mahagankaet al (2009), has a marked indirect impact on the OECD countries. It means that volatility affects export activity negatively. The Mustafa and Firat study (2011) found that export-oriented companies are more susceptible to devaluation, although they are less affected by currency appreciation. Moreover, Varela (2007) noted that devaluation volatility had a negative, non-negligible effect on the output of small enterprises. The findings show that Taiwan's companies are strongly negatively exposed to domestic currency appreciation. The empirical findings indicate non-linear exposure.

METHODS

This study adopts Fauzi and Sheng (2020) and Udo & Abang (2024) with modifications and extensions based on the Nigerian socio-economic context. We, therefore, equate small and medium-scale enterprises to the various determinants with specific reference to monetary policy rates.

$$SMSE = \delta_0 + \delta_1 EXR + \delta_2 RGDP + \delta_3 RIR + \delta_4 CBTC + \delta_5 INF + \delta_6 MPR_t + \mu_i$$

In the above model, SMSE (Small and medium scale enterprise), EXR (exchange rate measured in percentage), RGDP (Real Gross Domestic Product measured in million Naira), RIR (Real Interest Rate measured in percentage), CBTC (Commercial Bank Total Credit in million Naira), INF (inflation rate measured in percentage), MPR (monetary policy rate) while μi is the stochastic disturbance (or error) term.

$$ln SMSE = \delta_0 + \delta_1 EXR_t + \delta_2 ln RGDP_t + \delta_3 RIR_t + \delta_4 ln CBTC_t + \delta_5 INF_t + \delta_6 MPR_t + \mu_i$$

it is expected that $\delta_0, \delta_2, \delta_3 > 0 < \delta_1, \delta_4, \delta_5, \delta_6$

$\delta_0, \delta_1, \delta_2, \delta_3, \delta_4, \delta_5$, and δ_6 are parameters to be estimated

Estimation Technique and Evaluation. In this empirical investigation, we engage a three-step procedure in order to examine whether Naira devaluation has any effect on small and medium scale enterprises (SMEs) in Nigeria as a result of the increase in monetary policy rate. These procedures are: unit root tests (The Augmented Dickey Fuller and the Phillips Perron) test is applied to test for the stationarity of the time-series data used in this study. Descriptive statistics, Granger causality, correlation matrix, Ordinary Least Square (OLS) method and the Cochrane Orcutt method. The study also uses the chain rule to calculate the derivative of $\sqrt{a + bz + cz^2}$ as the composite of the square root function and the function $a + bz + cz^2$. The chain rule is a formula that expresses the derivative of the composition of two differentiable functions, f and g, in terms of the derivative of f and g. More precisely, if h = f of g is the function such that h(x) = f(g(x)) for every x, then the chain rule is in Lagrange's notation;

$$h'(x) = f'(g(x))\, g'(x)$$

or equivalently

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h' = *(f* o *g)'* = *(f'* o *g)* * g' in Leibniz's notation

Suppose a variable z depends on the variable y, which itself depends on the variable x (that is, y and z are dependent variables). In that case, z depends on x as well via the intermediate variable y (Abang, Arasomwan & Ayodele, 2024). In this case, the chain rule is expressed as;

$$\frac{dz}{dx} = \frac{dz}{dy} * \frac{dy}{dx},$$

And

$$\frac{dz}{dx}_{x} = \frac{dz}{dy}_{y(x)} * \frac{dy}{dx}_{x'}$$

For this study, the chain rule was applied so as to get the coefficient and the magnitude of the transmission mechanism. To institute the interactive impacts of monetary policy rates on small and medium-scale enterprises, a general to specific interactive specification was adopted (Abang, 2023; Abang, Arasomwan & Ayodele). The general equation is as depicted in equation 2. From the general equation, we specified the specific equation by removing the variable of income inequality. The reason for the interactive impact is to find out the behavior of the determinant and coefficient of socio-economic development (GNPPC). Thus, the specific equation without monetary policy variable" is as below:

$$ln\text{SMSE} = \lambda_0 + \lambda_1\text{EXR} + \lambda_2 ln\text{RGDP} + \lambda_3\text{RIR} + \lambda_4 ln\text{CBTC} + \lambda_5\text{INF} + \mu_i$$

Furthermore, the reason monetary policy rate is a function of small and medium-scale enterprises, the monetary policy rate is also treated as an endogenous variable as captured in the equation.

$$\text{MPR} = \alpha_0 + \delta_1\text{EXR} + \delta_2 ln\text{RGDP} + \delta_3\text{RIR} + \delta_4 ln\text{CBTC} + \delta_5\text{INF} + \mu_i:$$

RESULTS AND DISCUSSION

Descriptive Statistics. Standard Deviation is a measure of spread or dispersion in the series. From Table 3, the standard deviation for LRGDP, EXR, LSMSE, INF RIR, MPR and LCBTC are 27367.51, 136.10, 28.92, 16.19, 3.67, 3.78 and 5.66, respectively. It shows that real gross domestic product has the largest spread over the period under study, while RIR has a minimal spread over time.

Skewness is a measure of the probability distribution of a real-valued random variable about its mean. A normal distribution is symmetrical at point 0. If the value is greater than zero, it is positively skewed, but if it is less than zero, it is negatively skewed. From Table 1, it is observed that all the variables have positive skewness. Kurtosis measures the peakness or flatness of the distribution of the series. If the kurtosis is above 3, the distribution is peaked or leptokurtic relative to the normal. If the kurtosis is less than three, the distribution is flat or platykurtic relative to normal. From Table 1, all the variables are above three. Therefore, they are leptokurtic relative to normal except for RGDP, which is partly due to the conversion to the natural logarithm.

Jarque-bera is a test statistic to test for the normal distribution of the series. From Table 3, the Jarque-Bera for LRGDP, INF, EXR, LSMSE, RIR, LCBTC and MPR are 28.08, 28.85, 4.44, 35.83, 8.96, 8.66 and 107.17

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respectively. The probability value of the Jarque bera statistic of all the variables was found to be less than a 5 percent level of significance, which implies a rejection of the null hypothesis, which states that the residual of the variables is normally distributed with zero means and constant variance.

Table 1. Descriptive statistics

	LRGDP	EXR	LSMSE	INF	RIR	MPR	LCBTC
Mean	41988.12	143.10	42.354	18.605	11.625	13.824	15.233
Median	33365.00	123.40	32.165	12.350	10.410	13.500	14.000
Maximum	145515.4	638.70	95.990	72.810	23.242	26.000	39.600
Minimum	13779.26	0.7649	10.870	4.6700	5.6925	6.0000	6.0000
Std. Dev.	27367.51	136.10	28.918	16.189	3.6736	3.7822	5.6638
Skewness	1.423587	1.5382	0.6571	1.8960	1.0038	0.6871	2.0300
Kurtosis	5.956581	5.8016	2.0325	5.6682	4.1600	5.0549	9.9153
Jarque-Bera	28.07963	28.855	4.4388	35.831	8.9598	8.6575	107.174
Probability	0.000001	0.0000	0.1087	0.0000	0.0113	0.0132	0.0000
Sum	1679525.	5724.129	1694.170	744.21	465.009	470.00	609.300
Sum Sq. Dev.	29232.10	722428.0	32613.05	10220.73	526.304	472.07	1251.05
Observations	40	40	40	40	40	40	40

Source: Author's computation (2025)

Stationarity (Unit root) test. Table 2 shows the stationarity (unit root) test result. The unit root test was conducted with the aim of establishing the stationarity conditions of the variables. The test was based on the Augmented Dickey-fuller (ADF) test as well as the Phillips-Perron test. The result/ outcome of the tests, as reported in Table 2, shows that all the variables were stationary at the level.

Table 2. Unit root test results using Augmented Dickey-Fuller (ADF) and Phillips-Perron tests

Variables	ADF			Phillips-Perron		
	Level	1st Difference	Order of Integration	Level	1st Difference	Order of Integration
RGDP	-4.472	-	I(0)	-3.138	-	I(0)
INF	-5.451	-	I(0)	-2.700	-	I(0)
EXR	-2.621	-	I(0)	-3.785	-	I(0)
INT	-3.984	-	I(0)	-2.919	-	I(0)
SMSE	-6.436	-	I(0)	-6.449	-	I(0)
CBTC	-3.252	-	I(0)	-3.186	-	I(0)
MPR	-3.456	-	I(0)	-3.521	-	I(0)

ADF test critical test values. *Phillip-Peron test critical values*

Level: *1st Difference:* *Level:* *1st Difference:*

At 5% = -2.986225 5% = -3.724070 *At 5% = -2.954021* *5% = -2.954021*

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10% = -2.612604 10% = -2.632604 10% = -2.615817 10% = -2.615817

Source: Author's computation using E-views 10 (2025)

Granger Causality. The result of the Granger causality also shows that there is a uni-directional causality between small and medium-scale enterprises (SMSE) and exchange rates (EXR). It means there is causality moving from exchange rate (EXR) to small and medium scale enterprise (SMSE). The p-value of the F-statistic is statistically significant at a 5 percent level of significance. Invariably, exchange rates and small and medium-scale enterprises (SMSE) have significant effects on Nigeria's economy.

Similarly, the result shows that there is likewise a uni-directional causality between monetary policy rates and small and medium-scale enterprises (SMEs). It implies that MPR Granger causes SMEs. There is a bi-directional causality between the monetary policy rate (MPR) and the exchange rate (EXR). The result implies that MPR Granger causes the exchange rate to increase or decrease, and the same is applicable to EXR.

Table 3. Granger causality Naira devaluation and small and medium scale enterprise (SMSE) Equation

Pairwise Granger Causality Tests			
Null Hypothesis:	**Obs**	**F-Statistic**	**Prob.**
EXR does not Granger Cause SMSE	40	6.339	0.005
SMSE does not Granger Cause EXR		0.802	0.457
MPR does not Granger Cause SMSE	40	5.358	0.022
SMSE does not Granger Cause MPR		0.070	0.932
MPR does not Granger Cause EXR	40	4.656	0.025
EXR does not Granger Cause MPR		5.119	0.048

Source: Author's computation using E-views 10 (2025)

Correlation Matrix. The correlation matrix shows the correlation values, which measure the degree of linear relationship between each pair of variables. The correlation values can fall between -1 and +1. -1 indicates a perfectly negative linear correlation between two variables. 0 indicates no linear correlation between the two variables. 1 indicates a perfectly positive linear correlation between two variables. The result, as shown in Table 5, the result shows that all the variables that enter the model are perfectly positive and are correlated.

Table 4. Correlation matrix Naira devaluation and small and medium scale enterprise (SMSE) Equation

	LSMSE	**EXR**	**RGDP**	**RIR**	**LCBTC**	**INF**	**MPR**
LSMSE	1.000						
EXR	0.769	1.000					
LRGDP	0.845	0.941	1.000				
RIR	-0.394	-0.307	-0.367	1.000			
LCBTC	0.362	0.687	0.645	0.082	1.000		
INF	-0.210	-0.226	-0.256	0.428	-0.035	1.000	
MPR	0.174	0.287	0.206	0.428	0.206	-0.023	1.000

Source: Author's computation using E-views 10 (2025)

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Ordinary Least Square Result. The empirical results of the estimated regression model of this study are presented in table 5 and 6

Table 5. Empirical results with monetary policy rate (MPR)

Dependent Variable: LSMSE				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
EXR	-20.025	30.175	-0.141	0.889
LRGDP	30.003	20.001	4.243	0.002
RIR	-10.664	13.219	-0.206	0.838
LCBTC	-10.279	0.119	-2.340	0.026
INF	10.321	0.511	3.627	0.035
MPR	-0.581	1.622	-0.358	0.022
C	136.366	38.511	0.944	0.352
R-squared	0.794	Mean dependent var		168.115
Adjusted R-squared	0.733	S.D. dependent var		87.172
F-statistic	18.869	Durbin-Watson stat		0.705
Prob(F-statistic)	0.000			

Source: Author's computation using E-views 10 (2025)

Table 6. Empirical results without monetary policy rate (MPR)

Dependent Variable: LSMSE				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
EXR	-0.003	0.163	-3.018	0.251
LRGDP	0.003	0.008	4.285	0.001
RIR	0.061	2.470	0.0245	0.980
LCBTC	-0.291	0.112	-2.603	0.014
INF	0.277	0.490	0.565	0.576
C	33.807	37.356	6.905	0.032
R-squared	0.773	Mean dependent var		168.115
Adjusted R-squared	0.740	S.D. dependent var		87.172
F-statistic	23.212	Durbin-Watson stat		0.827
Prob(F-statistic)	0.000			

Source: Author's computation using E-views 10 (2025)

The empirical result of the estimated regression line with monetary policy rate is presented in Table 5, while the result without monetary policy is presented in Table 6. The result shows that all the variables have turned out with their correct expected signs. The estimated regression line, as presented, has a positive intercept represented by 136.37 for the result with monetary policy rate and 33.81 for the result without monetary policy rate. It means that holding all explanatory variables constant, small and medium-scale enterprise output (SMSE) will still increase automatically by 136.37 percent and 33.81 percent, respectively.

The R-squared value of 0.79 and 0.74 for results with monetary policy and without monetary policy, respectively, shows that the estimated regression line has a very high fit on the data. In particular, the adjusted R-squared value of 0.73 and 0.74 shows that about 73 percent and 74 percent of the total variations in the dependent

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variables have been explained by variations in the explanatory variables with and without monetary policy rate. The R^2 and Adj R^2 of both results represent a good fit. The Durbin-Watson statistic was low for the result with monetary policy rate and without monetary policy rate at 0.71 and 0.83, respectively, i.e., there was thus the presence of autocorrelation, leading to the adoption of the Cochrane Orcutt interactive.

Cochrane Orcutt and Interactive Impact of Monetary Policy Rate. The Cochrane-Orcutt iterative method is used to estimate higher-order autoregressive schemes. It is used to correct autocorrelation in regression analysis when the "Durbin-Watson statistics are very low in the OLS estimation, violating the assumption of independent errors (Abang, Ayodele & Obafemi 2024). Autocorrelation, which had been previously noted in the OLS in Tables 5 and 6 above, was eliminated after the Cochrane-Orcutt method was applied. The result, as presented in Tables 7 and 8 below, shows that all the coefficients have their expected relationship and were all statistically significant at a 5 percent level of significance. The result of the MPR presented was regressed on explanatory variables. From our results in Tables 7 and 8, the coefficient of determination R^2 is 0.87 and 0.85, respectively. Adj R^2 is 0.81 and 0.79 in Tables 7 and 8, respectively. It shows that about 81 percent and 79 percent of the total variations in the dependent variables have been explained by variations in the explanatory variables. This means that the estimated regression equation has a high explanatory power. The Durbin-Watson statistics of 1.99 and 2.03 show that there is no autocorrelation in both Models. It means that findings from this study can be applied in the Nigeria economy for policy formulations.

Table 7. Cochrane Orcutt Result with Monetary Policy Rate (MPR)

Dependent Variable: LSMSE				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
LRGDP	1.022	0.009	6.649	0.0119
LCBTC	-4.098	0.007	-1.161	0.0234
EXR	-8.075	0.019	-4.284	0.0380
MPR	-0.900	2.836	-5.318	0.7527
INF	-7.399	11.970	-3.675	0.0008
RIR	6.703	6.665	1.735	0.0021
C	22.377	205.165	12.198	0.0000
R-squared	0.873			
Adjusted R-squared	0.809			
F-statistic	7.425	Durbin-Watson stat		1.991
Prob(F-statistic)	0.000032			

Source: Author's computation (2025)

Table 8. Cochrane Orcutt Result without monetary policy rate (MPR)

Dependent Variable: LSMSE				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
LRGDP	0.879	0.000294	3.257	0.0175
LCBTC	-2.759	2.598	-3.062	0.0259
EXR	-6.514	13.098	-5.574	0.0501
INF	-4.935	12.696	-2.625	0.0363

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RIR	8.014	14.370	5.254	0.0188
C	1360.007	205.16	6.629	0.0000
R-squared	0.790			
Adjusted R-squared	0.813			
F-statistic	1.972	Durbin-Watson stat		2.032
Prob(F-statistic)	0.0008			

Source: Author's computation (2025)

Comparatively, the empirical result, as provided in tables 7 and 8, proves and shows that monetary policy rate has an impact, and it serves as a pass-through effect in causing SMEs (Small and Medium Scale Enterprises) output to increase or reduce further than when it is not included. It is seen in the coefficient value of LRGDP, EXR, INF and RIR when the monetary policy rate is included is greater than the values when the monetary policy rate is not included. Thus, the diminisheddiminishedfficient of LRGDP, EXR, INF, LCBTC and RIR renders the Naira devaluation-monetary policy nexus significant. It may suggest that successful implementation and management of the monetary policy rate may, to a great extent, depending on the prevailing" "monetary policy rate, target a more acceptable level of Naira devaluation, which will drive the level of small and medium enterprises that will directly or indirectly bring about a monetary policy rate that will help curb a continuous Naira devaluation and increase SMEs output.

Transmission Channel of Income Distribution. Having established the notion of Naira devaluation with the interactive link of the monetary policy rate, thus, for the reason that the monetary policy rate is a function of SMEs and Naira devaluation, the monetary policy rate is also treated as an endogenous variable to ascertain the transmission channel as stated:

$$\text{INF, SMSE MPR}_t = \delta 0 + \delta 1 \ln\text{RGDP}_t + \delta 2\text{EXR}_t + \delta 3\text{CBTC} + \delta 4\text{RIR} + \delta 5\text{INF} + \mu t$$

The result is shown in Table 9. All the variables are statistically significant at a 5 percent level of significance except the exchange rate, whose probability ratio is less than the 5 percent level of significance.

Table 9. OLS Result Monetary Policy Rate as a Dependent Variable.

Dependent Variable: MPR

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LRGDP	6.543	3.059	4.139	0.0497
EXR	0.086	0.049	2.762	0.0469
LCBTC	-0.099	0.146	-4.675	0.0044
RIR	-0.146	0.668	-6.219	0.0279
INF	-1.409	3.204	-0.440	0.6629
LSMSE	-1.201	3.123	3.230	0.0318
C	283.526	92.01	3.081	0.0041
R-squared	0.942			
Adjusted R-squared	0.828			
F-statistic	3.862	Durbin-Watson stat		1.981010

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Prob(F-statistic)	0.003411

Source: Authors' compilation (2025)

Monetary policy rate channel transmission on Naira devaluation and small and medium scale enterprise equation, Where the product of the earlier identified significant values of;

$$\frac{\partial MPR}{\partial SMSE} = \frac{\partial MPR}{\partial EXR} * \frac{\partial EXR}{\partial MPR} = \lambda_1 * \delta_1$$

$\frac{\partial MPR}{\partial EXR}$, which is $\lambda_1 = 1.022598$

$\frac{\partial EXR}{\partial MPR}$, which is $\delta_1 = 6.542932$

and their product (i.e. $\lambda_1 * \delta_1$) yields 6.69 approximately.

This result shows that a 10 percent increase in the monetary policy rate will first go through Naira devaluation to produce an adverse effect on small and medium-scale enterprises. The result thus suggests that an upward trend in monetary policy rate will have a positive pass-through effect on Naira devaluation before exacting a negative effect on small and medium-scale enterprises. Thus, the magnitude of the effect of Naira devaluation through monetary policy rate is 6.54. It simply implies that a 10 percent increase in monetary policy rate will cause a negative increase in the impact of Naira devaluation on small and medium-scale enterprises by 6.69 percent.

The result obtained in this section showed that there is a positive but insignificant relationship between small and medium-scale enterprises in Nigeria. It is in line with findings by Eze and Okpala (2015), who studied the impact of small and medium-scale enterprises in Nigeria, using periodic data from 1993-2011 employing the ordinary least square (OLS) regression and co-integration techniques. The result indicated or showed a positive but insignificant relationship between economic growth and small and medium-scale enterprises in Nigeria. This insignificant relationship existing between SME output and the Nigerian economy can be attributed to the challenges facing SME growth in Nigeria, which range from infrastructural inadequacies, poor management structure, lack of access to affordable credit, lack of accounting record, unstable macro-economic variables and the like.

Similarly, the result showed that Commercial Bank Total Credit (CBTC) has a positive and significant relationship with SMSE in Nigeria. It is in line with economic theory as Akingunola (2011) assessed the specific financing options available to SMEs in Nigeria and their contribution to economic growth performance. Using Spearman's Rho correlation at a 10 percent level of significance, the Rho value of 0.643 indicated a significant and positive relationship between SME financing and economic growth in Nigeria.

Furthermore, the result showed that interest rate has a negative but insignificant relationship with SMSE. It is valid as the bank lending rate has remained comfortably high, and most banks' lending rate is at almost 30 percent. It makes it impossible for small and medium-scale enterprises to make any impact on the Nigerian economy. Moreover, the result showed that the inflation rate is negatively and significantly related to SMSE. It is also in line with theoretical expectations as the Nigerian economy suffers distortions by inflation. Inflation has been found to be a major bane to our economic growth as it raises the cost of locally produced goods.

The variables were observed to be free from causality. After conducting" a test to correct the errors of the model, the researchers observed that the model is not spurious. In the short run, all variables could not explain SMSE. However, the residual, which was found to validate the model, proves that in the long run, an equilibrium

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relationship between SMSE and exchange rate import tends to exist, meaning the variables have a long-run relationship and not a short one, after which a serial correlation was conducted. The result was that the model was free from autocorrelation after first differencing.

CONCLUSION

This study set out to examine the dual macroeconomic shocks—exchange rate devaluation and tight monetary policy—and their combined effects on the performance of Small and medium-scale enterprises (SMEs) in Nigeria. SMEs are widely recognized as a critical engine of economic growth, job creation, and innovation. However, their performance and sustainability are highly sensitive to macroeconomic conditions, particularly in developing economies like Nigeria, where policy volatility and structural constraints are prevalent.

The empirical evidence and theoretical analysis presented in this study reveal that naira devaluation imposes significant cost pressures on SMEs by increasing the prices of imported inputs and raw materials. It is particularly concerning in a largely import-dependent economy, where most SMEs rely on foreign inputs for production. At the same time, the tightening of monetary policy characterized by rising benchmark interest rates has reduced the accessibility and affordability of credit for SMEs, stifling investment, expansion, and overall productivity.

Together, these two macroeconomic shocks create a hostile operating environment that threatens the viability of SMEs. The depreciation of the naira erodes profitability and drives up inflation. At the same time, elevated interest rates make it more difficult for SMEs to secure the financing needed to adapt or scale their operations. The situation is further complicated by weak institutional support, limited access to foreign exchange, and a lack of long-term, low-cost financing tailored to SME needs.

The study's findings underscore the need for a coordinated policy response that balances macroeconomic stability with real-sector development. Exchange rate management must be calibrated to support economic competitiveness without imposing excessive burdens on SMEs. Similarly, monetary policy must be sensitive to the credit needs of productive sectors, especially SMEs, which often lack resilience to external shocks.

In conclusion, while the objectives of monetary and exchange rate policies may be to ensure price and external stability, these must not come at the expense of enterprise growth and national economic development. A supportive macroeconomic environment anchored on policy coherence, institutional strengthening, and targeted financial support is essential to enable Nigerian SMEs to not only survive economic shocks but also drive sustainable, inclusive growth.

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