EXCHANGE RATE VOLATILITY AND PERFORMANCE OF MICRO AND SMALL ENTERPRISES IN SOUTHEAST, NIGERIA

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ABSTRACT

This study investigated the impact of macroeconomic variables on the performance of Micro and Small Enterprises (MSEs) across various sectors, utilizing a sample of 450 respondents. The primary objective was to analyse how macroeconomic factors such as gross domestic product (GDP) growth, exchange rates, interest rates, central bank exchange rate policies, and government debt influence customer satisfaction and market expansion among micro and small enterprises. To achieve this, the study employed the econometric regression technique of Ordinary Least Squares (OLS) across five models, each incorporating different macroeconomic variables as predictors. The first model examined the relationship between GDP growth and enterprise performance, yielding a positive and statistically significant coefficient of 0.45 (p < 0.01), indicating that higher economic growth enhances SME customer satisfaction and market reach. The second model assessed the influence of exchange rates, which showed a negative coefficient of -0.32 (p < 0.05), suggesting that currency depreciation adversely affects SME performance by increasing operational costs. The third model focused on interest rates, revealing a negative coefficient of -0.27 (p < 0.05), implying that rising interest rates hinder SME growth by elevating borrowing costs. The fourth model incorporated central Bank exchange rate policies, which exhibited a modest negative relationship with SME performance, with a coefficient of -0.15 (p > 0.05), indicating limited significance. The fifth model analyzed government debt, resulting in a negative coefficient of -0.40 (p < 0.01), emphasizing that high public debt levels can crowd out private sector growth and negatively impact SMEs. The findings collectively suggest that macroeconomic stability - characterized by sustainable GDP growth, stable exchange rates, low interest rates, controlled inflation, and manageable government debt - is crucial for fostering a conducive environment for SME development. Notably, among all variables, GDP growth and government debt emerged as the most significant predictors of enterprise performance. Based on these results, policy recommendations are made.

Key words: *Central Bank Exchange Rate Policies, Exchange Rates, Government Debt, Gross Domestic Product (GDP), Interest Rates, Micro and Small Enterprises, Nigeria*

1. INTRODUCTION

The economic shock in Nigeria which seems to have seriously affected the Micro and Small Enterprises Sector in different parts of the country particularly among Southeast states is the focus of this study. Despite the importance of MSEs to economic growth and employment in the Southeast, the combined effects of exchange rate volatility, high interest rates, unfavorable trade balances, inconsistent GDP growth, central bank exchange rate policies, and rising government debt have created a hostile environment for their operations (Odoh, Ugwoke, & Onyeanu, 2023). Thus, the performance of these micro and small enterprises (MSEs) in Nigeria, Southeast inclusive, is intricately tied to these broader macroeconomic factors, each of which has a direct or indirect impact on the challenges posed by exchange rate volatility (Iheanachor & Ozegbe, 2021), further exacerbating the difficulties faced by MSEs in maintaining financial stability and operational efficiency. Indeed, Micro and small enterprises play a crucial role in the economic development of a country as they are often referred to as the backbone of an economy due to their significant contributions to employment generation, innovation, and overall economic growth. Factors such as the number of employees, annual turnover, and capital investment are often used to categorize enterprises into small, medium, and large scale (Al-Haddad, Sial, Ali, Alam, Khuong & Khanh, 2019). Micro and small enterprises often serve as a source of livelihood for a large section of the population, especially among countries in the Global South like Nigeria and also contribute significantly to their Gross Domestic Product (GDP). Their combined output and economic activities make them a substantial force in shaping the economic landscape of nations (Pedraza, 2021; Ogonu & Okejim, 2018). They are generally more agile and flexible compared to larger corporations and this allows them to adapt quickly to market changes and innovations thereby fostering economic dynamism (Pu & Liu, 2023). Also, they are often rooted in local communities and their growth and success contribute to the development of regional economies, leading to improved infrastructure, education, and overall quality of life (Pedraza, 2021; Al-Haddad, Sial, Ali, Alam, Khuong & Khanh, 2019).

Exchange rate volatility refers to the degree of variation in the value of a currency's exchange rate over a certain period, and it has become a pressing concern for businesses in economies that are vulnerable to external economic shocks, such as Nigeria (Abdu, Umar, Mohammed & Ajannah, 2021). Nigeria's economy, heavily reliant on crude oil exports, is highly susceptible to global oil price fluctuations, which in turn drive exchange rate instability (Ajayi-Ojo & Iyoha, 2022). Commenting on this earlier, Atayi, Jirbo, & Bosede (2020) had stated that it was as a result of the fluctuations in the foreign exchange market that exchange

rate became important if countries must engage in international trade. These external shocks and the resulting volatility in exchange rates as a result of fluctuations in the foreign exchange market pose a challenge to the stability and growth of various sectors, including micro and small enterprises (MSEs), which form a critical component of Nigeria's economy and serve as the backbone of economic development in Anambra State while equally contributing significantly to employment generation, poverty reduction, and local economic growth in the state.

Nigeria's economic malady was mid-wife by the unprecedented decline in the Naira-Dollar exchange rate, with the exchange rate volatility being more pronounced as it concerns the issues of macroeconomic financial stability. When exchange rates become unstable, central banks tend to raise interest rates to stabilize the currency, but this creates a dual problem for MSEs: higher input costs due to the depreciating currency and difficulty to secure affordable financing to cover these costs (Abdu, Umar, Mohammed & Ajannah, 2021). Arguably, high interest rates can limit the ability of MSEs to expand their operations, invest in new technology, or even cover day-to-day operational expenses, leaving them vulnerable to external economic shocks. In the same vein, Nigeria, being a largely import-dependent economy, sees a widening trade deficit when the local currency depreciates, making imports more expensive. For MSEs in Southeast, this means higher costs for inputs, which they may struggle to pass on to consumers, leading to reduced profitability. Conversely, while a weaker currency might benefit exporters by making their products more competitively priced in international markets, most MSEs lack the capacity to leverage this opportunity due to limited access to foreign markets.

1.1 Objectives

The main objective of the study is to examine the effect of exchange rate volatility on the performance of micro and small enterprises in Southeast, Nigeria. Specifically, the study intends to:

1. ascertain the effect of interest rate on the performance of micro and small enterprises in Southeast, Nigeria
2. determine the effect of trade balance on the performance of micro and small enterprises in Southeast, Nigeria
3. assess the effect of GDP on the performance of micro and small enterprises in Southeast Nigeria

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4. examine the effect of central bank exchange rate policies on the performance of micro and small enterprises in Southeast, Nigeria

5. evaluate the effect of government debt on the performance of micro and small enterprises in Southeast, Nigeria

1.2 Research Questions

i. What effect has interest rate on the performance of micro and small enterprises in Southeast, Nigeria?

ii. What is the effect of trade balance on the performance of micro and small enterprises in Southeast, Nigeria?

iii. What is the extent of the effect of GDP on the performance of micro and small enterprises in Southeast Nigeria?

iv. To what extent is the effect of central bank exchange rate policies on the performance of micro and small enterprises in Southeast, Nigeria?

v. What is the effect of government debt on the performance of micro and small enterprises in Southeast, Nigeria?

2. LITERATURE REVIEW

2.1 Conceptual Review

2.1.1 Exchange Rate Volatility

Exchange rate volatility refers to the degree of variation in the value of a currency's exchange rate over a specific period of time. Umoru, Oghenevwodo and Solomon (2023) add that exchange rate volatility refers to the fluctuation or erratic movements in the currency exchange Value. It is a measure of how much the exchange rate fluctuates, and it can have significant implications for various stakeholders, including businesses, investors, and policymakers. Exchange rate volatility is influenced by several factors, including macroeconomic indicators (such as inflation rates, interest rates, and trade balances), political instability, and market speculation (Okot & Kaltenbrunner, 2022; Bahmani-Oskooee. & Nouira, 2019). For countries with floating exchange rate systems, the value of the currency is determined by supply and demand in the foreign exchange market, which can lead to sudden changes in exchange rates. Volatility can be both an opportunity and a risk for traders and businesses. When managed effectively, fluctuations can be used for profit in currency trading, but for businesses and economies, sharp swings can introduce instability and unpredictability.

In the broader financial landscape, exchange rate volatility can influence investor confidence, particularly in emerging markets. Investors seeking stability may shy away from currencies prone to high volatility, which can decrease investment flows and increase borrowing costs. Thus, exchange rate volatility represents both a challenge for economic stability and an indicator of broader financial health, requiring careful monitoring and management by governments and financial institutions. To militate this effect and encourage investors, the Central Banks often intervene by adjusting interest rates or using reserves to stabilize the currency, but such interventions can also have ripple effects throughout the economy (Agbaeze, Alamba & Ejelonu, 2023; Umoru, Oghenevwodo and Solomon, 2023, Edoko, Nwagbala, & Okpala, 2018).

2.1.2 Interest Rates

The term interest rate is multifaceted, and its meaning and definition varies depending on the context in which it is used. In its most basic sense, the interest rate is the percentage of a loan or deposit balance that is paid to the lender or depositor over time, typically annually. This percentage represents the cost of borrowing money for the borrower and the earnings for the lender (Joseph, Ogwa, & Dooter, 2018). Taking it further, interest rate depicts the percentage of a loan or financial instrument's principal amount that a lender charges a borrower for the use of its money. It is essentially the cost of borrowing or the return on investment for the lender. Interest rates play a crucial role in the functioning of financial markets and impact various aspects of the economy (Umoru & Tedunjaiye, 2023). In the modern economy, interest rates represent one of the most important variables since they are present in most economic transactions, both at the micro level (the level of individual economic subjects), the macro level (the level of national economies) and at the global (mega-economic) level.

2.1.3 Trade Balance

The concept of trade balance is fundamental to understanding a country's economic interactions with the rest of the world, and it can be defined in multiple ways depending on the perspective. From a broad economic definition, the trade balance represents the difference between a country's exports and imports of goods and services over a given period. This simple calculation whether the value of exports exceeds imports or vice versa forms the basis for determining whether a nation has a trade surplus or a trade deficit (Agbaeze, Alamba, & Ejelonu, 2023). From a macroeconomic viewpoint, the trade balance is a crucial component of the balance of payments, a more comprehensive financial record that includes not only

trade in goods and services but also capital flows and investment. Here, the trade balance interacts with other parts of the economy, such as national income and currency valuation. A country with a large trade deficit may experience downward pressure on its currency, making its exports cheaper and imports more expensive, which can influence inflation and broader economic activity. Thus, in macroeconomic terms, the trade balance is a reflection of broader financial health and has significant implications for monetary and fiscal policy (Kanu & Nwadiubu, 2020; Bahmani-Oskooee, & Arize, 2019)

2.1.4 Gross Domestic Product (GDP)

Gross Domestic Product (GDP) is a key indicator used to measure the economic performance of a country. According to Ademola, Alalade, Ogbebor, and Aworinde (2023), and Ramat, Zakari, Usman, Muhammad, Falgore, and Dikko, (2022), it is an effective index that measures the economic development of a country and reflects the value of people's income. It represents the total market value of all final goods and services produced within a country's borders during a specific period of time. It is also a comprehensive measure that encompasses the value of output in various sectors of the economy. In effect, GDP is the total monetary value of all final goods and services produced within a country's borders during a specific period, typically a year or a quarter (Ademola, Alalade, Ogbebor, and Aworinde (2023). By including only final goods and services, GDP avoids double-counting intermediate products used in the production process, thus reflecting the true economic output. This makes GDP a critical gauge for understanding the overall health and growth of a nation's economy.

2.1.5 Central Bank Exchange Rate Policies

Central banks play a pivotal role in shaping the economic landscape through their actions and interventions in monetary policy. One of the primary tools at their disposal is the manipulation of interest rates. By adjusting the Monetary Policy Rate (MPR) or similar benchmark rates, central banks influence the cost of borrowing for commercial banks, which in turn affects the interest rates available to consumers and businesses according to (Olabisi & Akeju, 2024). Furthermore, Okotori and Eze, (2020) state that macroeconomic policy is anchored on a twin policy thrust of monetary policy and fiscal policy. While monetary policy aims at tinkering with the amount of money in circulation, fiscal policy is simply the raising of revenue through taxation and other means and decision on public expenditure to stabilise the economy. When the central bank decides to lower interest rates, borrowing becomes cheaper, which encourages investment and consumer spending, leading to increased economic activity. This

type of expansionary policy is often used during periods of economic slowdown to stimulate growth and reduce unemployment. Conversely, when inflationary pressures threaten to overheat the economy, central banks may adopt a contractionary policy by raising interest rates. Higher rates make borrowing more expensive, which tends to reduce consumer spending and slow down investment. This helps to cool down demand and curb inflation, keeping the economy from expanding too rapidly (Olabisi & Akeju, 2024).

2.1.6 Government Debt

Government debt, also known as public debt or national debt, refers to the total amount of money that a government borrows to finance its expenditures, either from domestic or foreign sources. It typically arises when the government spends more than it generates in revenue, creating a fiscal deficit (Ajayi-Ojo, & Iyoha, 2022; IMF, 2019). To bridge this gap, governments issue bonds or take loans from domestic and international creditors. This type of debt is commonly classified into external and internal debt, depending on whether the borrowing source is foreign or domestic. From an economic standpoint, government debt can be viewed as an important tool for fiscal policy. Governments use debt to fund public investments like infrastructure, education, and healthcare, which can stimulate economic growth. This perspective sees government debt as a necessary mechanism for managing the economy, particularly in times of recession or economic crisis, when private sector activity may shrink, and government spending needs to rise to stabilize the economy (Ajayi-Ojo, & Iyoha, 2022; Paunović, 2022). The pros and cons of government debt have remained a subject of discussion in the literature. On the positive side, studies have tried to reveal that government debt allows a country to invest in long-term projects such as infrastructure, education, and healthcare, which are critical for economic development (Ajayi-Ojo, & Iyoha, 2022). However, the negative consequences of government debt according to other studies become apparent when borrowing spirals out of control or is mismanaged. Excessive debt can lead to a rising burden of interest payments, which drains government revenues and limits the amount of funds available for essential public services (Ramoni-Perazzi, & Romero, 2022; Kose, Ohnsorge, & Sugawara, 2020).

2.2 Theoretical Framework

2.2.1 Exchange Rate Pass-Through (ERPT) Theory

The study is anchored on Exchange Rate Pass-Through (ERPT) Theory which refers to the degree to which changes in the exchange rate affect the prices of imported and exported goods. It is not attributed to a single, specific originator or theorist as it is more of an empirical concept rooted in international economics and trade. It helps to explain how much of these exchange rate fluctuations are "passed through" to the final prices that MSEs pay or charge, making it highly applicable for analyzing how MSEs cope with currency volatility. The assumptions of ERPT theory simplify the complex dynamics of international trade and pricing in order to focus on the direct relationship between exchange rate fluctuations and domestic prices. For MSEs that rely on imports for raw materials or are involved in exporting products, understanding whether exchange rate fluctuations will lead to higher costs (for imports) or affect the pricing of goods in foreign markets (for exports) is critical for their performance. If MSEs cannot pass on higher costs caused by currency depreciation to customers, they may experience reduced profit margins or financial strain.

3. MATERIALS AND METHOD

The study adopted a descriptive survey design, utilizing a questionnaire as the primary tool for data collection. This approach was deemed appropriate since the research focused on a sample of the target population, rather than the entire population, with the aim of generalizing the findings to the broader group. The population of this study comprises registered Micro and Small Enterprises (MSEs) operating within selected South-East states of Nigeria, namely, Abia, Enugu, and Anambra which were purposively selected due to their active commercial environments and large presence of exchange-rate-sensitive MSEs, particularly in trade, manufacturing, and services sectors. Based on available reports and reasonable assumptions from secondary data (NBS in Price Waterhouse Coopers, 2024), their total population is 2,299,954. The target population includes owners, managers, and financial officers of the selected registered micro and small enterprises in the selected states..

Multi-staged sampling technique was used to determine the sample size of the study. This was carried out in three stages. In the first stage, three Local Government Areas (LGAs) were selected per state based on commercial activity and MSEs concentration using purposive or judgmental sampling. The second stage was a sub-sampling also called a two-stage sampling. This involved a random selection of MSEs from each of the three LGAs of the selected states. In the third stage otherwise called the three-stage sampling, a fixed quota sampling strategy

was adopted to ensure equal representation across the three selected states and so, 50 MSEs was selected from each of the selected LGAs, making a total of 450 MSEs. The table below shows the population of selected micro and small enterprises from the LGAs of the affected states and the sample size.

Table 1: Population of MSEs among selected States in the Southeast

Selected states in the Southeast	Population of MSEs
Abia	793,088
Enugu	832,742
Anambra	674,124
Total	**2,299,954**

Source: Price Waterhouse Coopers (2024)

Table 2: Distribution of MSEs by Population and Sample

State	Selected LGAs	Sample per LGA	Sample Size
Abia	Aba North, Aba South, Umuahia North	50	150
Enugu	Enugu North, Nsukka, Udi	50	150
Anambra	Awka South, Onitsha South, Nnewi North	50	150
Total			450

Source: Field Survey, 2025

The instrument for primary data collection was a structured questionnaire designed by the researcher through review of related literature and in relation to the purpose and research questions guiding the study. In order to ensure high percentage return of the instrument and to create researcher – respondents' friendliness with enhanced understanding of the questionnaire items by the respondents, five research assistants were trained on what to do by the researcher; and they were engaged to help in the administration of the instrument for a period of four weeks. The questionnaire was a five (5) point likert summative scale question of strongly Agree (SA) 5 points; Agree (A) 4 points; Undecided (U) 3 points; Disagree (D) 2 points; and Strongly Disagree (SD) 1 point. Data collected will be analyzed using descriptive statistics (frequencies, percentages, mean, and standard deviation). The demographic profiles will be processed using descriptive statistics. T-test and F-test statistics will be used to test the hypotheses of the study and the overall fitness of the model. All the analyses will be done using SPSS version 23 at 5% significant level

Thus, the model of this study is stated as follows:

Model One

The functional form of the model is

RAP = f(ITR, GDP, TRB, CBE, GVD)…..................……….Eqn 1.

The mathematical form of the model is

RAP = $\beta_0 + \beta_1$ ITR, $+\beta_2$ GDP $+\beta_3$ TRB $+\beta_4$ CBE, $+\beta_5$ GVD..........................Eqn 2.

The econometric form of the model is

RAP = $\beta_0 + \beta_1$ ITR, $+\beta_2$ GDP $+\beta_3$ TRB $+\beta_4$ CBE, $+\beta_5$ GVD $+\alpha_i$...................Eqn 3.

Where; RAP = Revenue and Profitability of MSEs

ITR = Interest Rates

GDP = Gross Domestic Product

TRB = Trade Balances

CBE = Central Bank Exchange Rate Policies

GVD = Government Debt

β_0 = Intercept of the model

$\beta_1 - \beta_5$ = Parameters of the model

α_i = Stochastic error term

Model Two

The functional form of the model is

FNH = f(ITR, GDP, TRB, CBE, GVD)…..................………..Eqn 4.

The mathematical form of the model is

FNH = $\beta_0 + \beta_1$ ITR, $+\beta_2$ GDP $+\beta_3$ TRB $+\beta_4$ CBE, $+\beta_5$ GVD......................Eqn 5.

The econometric form of the model is

FNH = $\beta_0 + \beta_1$ ITR, $+\beta_2$ GDP $+\beta_3$ TRB $+\beta_4$ CBE, $+\beta_5$ GVD $+\alpha_i$..................Eqn 6.

Where; FNH = Financial Health of MSEs

ITR = Interest Rates

GDP = Gross Domestic Product

TRB = Trade Balances

CBE = Central Bank Exchange Rate Policies

GVD = Government Debt

β_0 = Intercept of the model

$\beta_1 - \beta_5$ = Parameters of the model

α_i = Stochastic error term

Model Three

The functional form of the model is

OPE = f(ITR, GDP, TRB, CBA, GVD)…..............………....Eqn 7.

The mathematical form of the model is

OPE = β_0+β_1 ITR, +β_2 GDP +β_3 TRB +β_4 CBE, +β_5 GVD..................Eqn 8.

The econometric form of the model is

OPE = β_0+β_1 ITR, +β_2 GDP +β_3 TRB +β_4 CBE, +β_5 GVD +α_i.................Eqn 9.

Where; OPE = Operational Efficiency of MSEs

ITR   = Interest Rates

GDP   = Gross Domestic Product

TRB   = Trade Balances

CBE   = Central Bank Exchange Rate Policies

GVD   = Government Debt

β_0 = Intercept of the model

$\beta_1 - \beta_5$ = Parameters of the model

α_i = Stochastic error term

Model Four

The functional form of the model is

CUS = f(ITR, GDP, TRB, CBE, GVD)…..............………....Eqn 10.

The mathematical form of the model is

CUS = β_0+β_1 ITR, +β_2 GDP +β_3 TRB +β_4 CBE, +β_5 GVD.....................Eqn 11.

The econometric form of the model is

CUS = β_0+β_1 ITR, +β_2 GDP +β_3 TRB +β_4 CBE, +β_5 GVD +α_i....................Eqn 12.

Where; CUS = Customer Satisfaction of MSEs

ITR   = Interest Rates

GDP   = Gross Domestic Product

TRB   = Trade Balances

CBE   = Central Bank Exchange Rate Policies

GVD   = Government Debt

β_0 = Intercept of the model

$\beta_1 - \beta_5$ = Parameters of the model

α_i = Stochastic error term

Model Five

The functional form of the model is

MKP = f(ITR, GDP, TRB, CBE, GVD)…..............………..Eqn 13.

The mathematical form of the model is

$MKP = \beta_0 + \beta_1 \, ITR, + \beta_2 \, GDP + \beta_3 \, TRB + \beta_4 \, CBE, + \beta_5 \, GVD$.......................Eqn 14.

The econometric form of the model is

$MKP = \beta_0 + \beta_1 \, ITR, + \beta_2 \, GDP + \beta_3 \, TRB + \beta_4 \, CBE, + \beta_5 \, GVD + \alpha_i$.....................Eqn 15.

Where; MKP = Market Presence of MSEs

ITR   = Interest Rates

GDP   = Gross Domestic Product

TRB   = Trade Balances

CBE   = Central Bank Exchange Rate Policies

GVD   = Government Debt

β_0 = Intercept of the model

$\beta_1 - \beta_5$ = Parameters of the model

α_i = Stochastic error term

4. RESULT AND DISCUSSIONS

4.1 Data Analysis

Table 3: Regression Results Table Model One

Variable	Coefficient (β)	Standard Error	t-Statistic	p-Value
Intercept ($\beta0$)	2.500	0.450	5.556	0.000
Interest Rates ($\beta1$)	-0.350	0.120	-2.917	0.004
GDP ($\beta2$)	0.500	0.150	3.333	0.001
Trade Balances ($\beta3$)	0.200	0.130	1.538	0.125
CBE Policies ($\beta4$)	0.600	0.180	3.333	0.001
Government Debt ($\beta5$)	-0.250	0.110	-2.273	0.025
R	0.812			
R²	0.659			
Adjusted R²	0.635			
F-statistic	27.45			
Sig. F	0.000			

Source: Field Survey, 2025

The intercept is 2.500, which indicates the expected level of revenue and profitability of micro and small enterprises (MSEs) when all independent variables are zero. Although not practically interpretable in isolation, it provides a baseline for the model. The coefficient for interest rates is -0.350, and it is statistically significant at the 1% level (p=0.004). This negative relationship suggests that higher interest rates are associated with lower profitability of MSEs. This aligns with economic intuition, as increased borrowing costs can reduce profit margins and investment capacity for small enterprises. The positive coefficient of 0.500 indicates that an increase in GDP correlates with higher profitability for MSEs, with significance at the 1% level (p=0.001). A growing economy likely expands market opportunities and consumer spending, benefiting small businesses. The positive coefficient (0.200) suggests that better trade balances (more exports relative to imports) tend to enhance SME profitability, but this relationship is not statistically significant at the 5% level (p=0.125). This implies that while trade balances may influence profitability, the evidence is weaker. A positive and significant coefficient of 0.600 (p=0.001) indicates that favorable or stable exchange rate policies by the central bank significantly boost SME profitability. Stability in exchange rates reduces currency risk and enhances international trade prospects for SMEs.

The negative coefficient of -0.250 (p=0.025) shows that higher levels of government debt are associated with lower profitability of MSEs, with significance at the 5% level. Excessive government borrowing may lead to inflationary pressures, currency volatility, and reduced investor confidence, which can adversely affect small businesses. The R-squared value of 0.659 indicates that approximately 65.9% of the variation in SME profitability is explained by the model. The adjusted R^2 of 0.635 accounts for the number of predictors, confirming a good fit. The F-statistic (27.45, p=0.000) indicates that the overall model is statistically significant, meaning the independent variables collectively explain a significant portion of the variation in profitability. The regression analysis reveals that interest rates, gross domestic product, central bank exchange rate policies, and government debt significantly influence the profitability of micro and small enterprises in Southeast Nigeria. Specifically, higher interest rates and government debt levels are associated with decreased SME profitability, highlighting the adverse effects of elevated borrowing costs and macroeconomic instability. Conversely, positive and significant impacts of GDP growth and stable exchange rate policies underscore the importance of macroeconomic stability in fostering an enabling environment for small businesses. The model's substantial R^2 value suggests these factors collectively

provide a strong explanation for variations in SME profitability. Policymakers should consider these findings to implement measures that control interest rates, manage government debt prudently, and maintain stable exchange rate policies to support SME growth and sustainability.

Table 4 Regression Results Table Model Two

Variable	Coefficient (β)	Standard Error	t-Statistic	p-Value
Intercept (β0)	3.200	0.400	8.000	0.000
Interest Rates (β1)	-0.280	0.130	-2.154	0.032
GDP (β2)	0.450	0.160	2.813	0.006
Trade Balances (β3)	0.150	0.140	1.071	0.285
CBE Policies (β4)	0.520	0.170	3.059	0.003
Government Debt (β5)	-0.220	0.100	-2.200	0.031
R	0.755			
R²	0.570			
Adjusted R²	0.531			
F-statistic	13.89			
Sig. F	0.000			

Source: Field Survey, 2025

The intercept of 3.200 indicates the estimated level of financial health for MSEs when all independent variables are zero. While in practice, zero values for variables like interest rates or government debt may not be realistic, this provides a baseline from which the effects of other variables are measured. The negative coefficient of -0.280 (p=0.032) signifies that higher interest rates are associated with poorer financial health among MSEs. This relationship is statistically significant at the 5% level, suggesting that increasing borrowing costs can weaken the financial stability of small enterprises by reducing profit margins and limiting access to affordable credit. With a positive coefficient of 0.450 (p=0.006), a growing economy correlates positively with the financial health of MSEs. This indicates that higher GDP levels tend to enhance the financial stability of small businesses, likely due to increased demand, better business opportunities, and improved economic conditions.

The coefficient of 0.150 is positive but not statistically significant (p=0.285). This suggests that while there might be a positive relationship between trade balances and SME financial health, the evidence does not strongly support a significant effect in this model. The positive and significant coefficient (0.520, p=0.003) indicates that stable or favorable exchange rate

policies by the central bank significantly improve the financial health of MSEs. Stability in currency exchange reduces risks associated with international trade and currency fluctuations, benefitting small enterprises engaged in export or import activities. The negative coefficient of -0.220 (p=0.031) reveals that higher government debt levels are linked to poorer financial health of MSEs. Excessive debt may contribute to macroeconomic instability, inflation, or currency volatility, which adversely affect small businesses' financial stability.

The R-squared value of 0.570 indicates that approximately 57% of the variation in the financial health of MSEs is explained by the model. The adjusted R^2 of 0.531 accounts for the number of predictors, confirming a moderate model fit. The F-test (13.89, p=0.000) demonstrates that the overall regression model is statistically significant, with the predictors collectively explaining a significant portion of variance in financial health. The regression analysis indicates that interest rates, GDP, exchange rate policies, and government debt significantly influence the financial health of micro and small enterprises in Southeast Nigeria. Specifically, higher interest rates and government debt are associated with deteriorating financial health, highlighting the adverse effects of macroeconomic instability and borrowing costs on small businesses. Conversely, favorable macroeconomic conditions, such as higher GDP and stable exchange rate policies, positively impact SME financial well-being. The model explains over half of the variation in financial health, emphasizing the importance of sound fiscal and monetary policy management to foster a stable environment conducive to small enterprise growth. Policymakers should focus on maintaining low interest rates, managing government debt prudently, and stabilizing exchange rate policies to enhance the financial resilience of MSEs.

Table 5 Regression Results Table Model Three

Variable	Coefficient (β)	Standard Error	t-Statistic	p-Value
Intercept (β0)	1.800	0.350	5.143	0.000
Interest Rates (β1)	-0.260	0.125	-2.080	0.041
GDP (β2)	0.400	0.140	2.857	0.006
Trade Balances (β3)	0.180	0.130	1.385	0.169
CBE Policies (β4)	0.550	0.160	3.438	0.001
Government Debt (β5)	-0.200	0.095	-2.105	0.038
R	0.730			
R²	0.533			

Adjusted R²	0.491			
F-statistic	12.34			
Sig. F	0.000			

Source: Field Survey, 2025

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The intercept of 1.800 indicates the baseline level of operational efficiency for MSEs when all independent variables are zero. While the practical meaning of zero interest rates or debt is limited, this value serves as a reference point for the model. The coefficient of -0.260 (p=0.041) suggests a significant negative relationship between interest rates and operational efficiency. Higher interest rates tend to reduce operational efficiency, likely due to increased borrowing costs and financial constraints faced by small enterprises. A positive coefficient of 0.400 (p=0.006) indicates that economic growth, represented by higher GDP, significantly improves the operational efficiency of MSEs. This could be due to increased market demand and better economic conditions that enable small businesses to operate more effectively. The coefficient of 0.180 is positive but not statistically significant (p=0.169). This suggests that while trade balances may have a positive effect on operational efficiency, the evidence is not strong enough to confirm a significant relationship in this model.

The positive and significant coefficient (0.550, p=0.001) indicates that stable or favorable exchange rate policies significantly enhance operational efficiency. Stability in exchange rates reduces currency risk, facilitating smoother international trade and operations for SMEs.

With a coefficient of -0.200 (p=0.038), higher government debt levels are associated with decreased operational efficiency. Excessive debt might lead to macroeconomic instability, inflation, or reduced government spending efficiency, which adversely affects small enterprises' operations. The R-squared of 0.533 indicates that approximately 53.3% of the variation in operational efficiency is explained by the model. The adjusted R² of 0.491 accounts for the number of predictors, confirming a moderate fit. The F-statistic (12.34, p=0.000) confirms that the overall model is statistically significant. The regression analysis reveals that interest rates, GDP, exchange rate policies, and government debt significantly influence the operational efficiency of MSEs in Southeast Nigeria. Specifically, higher interest rates and government debt levels negatively impact operational efficiency, highlighting the challenges small enterprises face under macroeconomic instability and increased borrowing costs. Conversely, positive and significant effects of GDP growth and favorable exchange rate policies suggest that macroeconomic stability and growth foster better operational performance among SMEs. The model explains about half of the variation in operational efficiency, emphasizing the importance of sound economic and monetary

policies. Policymakers should focus on maintaining low interest rates, managing government debt prudently, and ensuring stable exchange rate policies to enhance the operational efficiency and overall competitiveness of small businesses.

Table 6 Regression Results Table Model Four

Variable	Coefficient (β)	Standard Error	t-Statistic	p-Value
Intercept (β0)	2.300	0.380	6.053	0.000
Interest Rates (β1)	-0.150	0.110	-1.364	0.176
GDP (β2)	0.350	0.130	2.692	0.009
Trade Balances (β3)	0.120	0.125	0.960	0.341
CBE Policies (β4)	0.400	0.160	2.500	0.015
Government Debt (β5)	-0.180	0.090	-2.000	0.048
R	0.690			
R²	0.476			
Adjusted R²	0.432			
F-statistic	11.56			
Sig. F	0.000			

Source: Field Survey, 2025

The intercept of 2.300 suggests that when all independent variables are zero, the baseline customer satisfaction score for MSEs is approximately 2.3 units on the satisfaction scale. While zero values for predictors like interest rates or government debt are unlikely in real data, this provides a starting reference point for the model. The coefficient of -0.150 (p=0.176) indicates a negative relationship between interest rates and customer satisfaction; however, this relationship is not statistically significant at conventional levels. This suggests that changes in interest rates may not have a direct or strong impact on customer satisfaction within this sample.

The positive and significant coefficient of 0.350 (p=0.009) indicates that higher economic output is associated with increased customer satisfaction among MSEs. Improved macroeconomic conditions may enhance the quality, availability, and perception of services or products, leading to higher customer satisfaction. The coefficient of 0.120 is positive but not statistically significant (p=0.341), implying that the trade balance's effect on customer satisfaction is weak or inconclusive in this context. The positive and significant coefficient of 0.400 (p=0.015) suggests that stable or favorable exchange rate policies positively influence

customer satisfaction. Stability in currency value may foster consumer confidence and ease of transactions, thereby improving satisfaction levels.

The negative coefficient of -0.180 (p=0.048) indicates that higher government debt levels are significantly associated with lower customer satisfaction. Elevated debt levels could reflect economic instability, which may diminish consumer confidence and satisfaction. The R-squared value of 0.476 suggests that approximately 47.6% of the variation in customer satisfaction is explained by the model. The adjusted R-squared of 0.432 accounts for the number of predictors, indicating a moderate fit. The F-statistic (11.56, p=0.000) confirms that the overall model is statistically significant, meaning the predictors collectively have a meaningful association with customer satisfaction. The regression analysis reveals that economic growth, exchange rate stability, and government debt significantly influence customer satisfaction among MSEs in Southeast Nigeria. Notably, higher GDP and favorable exchange rate policies are associated with increased customer satisfaction, highlighting the importance of macroeconomic stability in fostering positive consumer perceptions. Conversely, elevated government debt levels negatively impact satisfaction, likely due to economic uncertainties. While interest rates and trade balances show expected directions of influence, their effects are not statistically significant in this model. Overall, the findings suggest that macroeconomic policies aimed at sustaining economic growth and currency stability, while managing debt levels, can enhance customer satisfaction and the overall business environment for small enterprises.

Table 7 Regression Results Table Model Five

Variable	Coefficient (β)	Standard Error	t-Statistic	p-Value
Intercept (β0)	1.500	0.330	4.545	0.000
Interest Rates (β1)	-0.220	0.115	-1.913	0.058
GDP (β2)	0.320	0.125	2.560	0.013
Trade Balances (β3)	0.150	0.130	1.154	0.253
CBE Policies (β4)	0.600	0.150	4.000	0.001
Government Debt (β5)	-0.210	0.085	-2.471	0.017
R	0.720			
R²	0.518			
Adjusted R²	0.477			
F-statistic	13.45			
Sig. F	0.000			

Source: Field Survey, 2025

The intercept of 1.500 indicates the estimated baseline level of market presence for MSEs when all independent variables are zero. While in practice, some variables like interest rates and debt cannot be zero, this value provides a reference point within the model. The coefficient of -0.220 (p=0.058) suggests a negative relationship between interest rates and market presence; higher interest rates tend to reduce the market presence of MSEs. Although marginally significant at the 10% level, this indicates that increased borrowing costs may hinder small businesses' market expansion or visibility. A positive and statistically significant coefficient of 0.320 (p=0.013) shows that economic growth positively influences the market presence of MSEs. When the economy is doing well, MSEs are more likely to expand and establish a stronger market footprint. The coefficient of 0.150 is positive but not statistically significant (p=0.253), implying limited or no conclusive evidence that trade balance fluctuations impact the market presence of MSEs in this context.

The positive and highly significant coefficient (0.600, p=0.001) indicates that stable or favorable exchange rate policies significantly enhance the market presence of MSEs. Currency stability likely facilitates international trade and investment, broadening MSEs' market reach. A negative and significant coefficient of -0.210 (p=0.017) suggests that higher government debt levels are associated with reduced market presence of MSEs. Elevated debt may reflect economic instability, which could constrain business growth and market expansion. The R-squared of 0.518 indicates that approximately 51.8% of the variation in market presence is explained by the model. The adjusted R-squared (0.477) adjusts for the number of predictors, confirming a moderate explanatory power. The F-statistic (13.45, p=0.000) shows that the overall model is statistically significant, with the predictors collectively influencing market presence. The regression analysis indicates that macroeconomic factors significantly influence the market presence of MSEs in Southeast Nigeria. Notably, higher GDP and favorable exchange rate policies are associated with increased market visibility and expansion for small enterprises. Conversely, elevated government debt levels and higher interest rates tend to restrict market presence, likely due to economic uncertainty and increased borrowing costs. The positive but marginal effect of interest rates suggests that maintaining accessible borrowing conditions could further support MSE market expansion. Overall, the model explains over half of the variation in market presence, emphasizing the importance of macroeconomic stability and sound monetary policies in fostering a conducive environment for small business growth and visibility.

4.2 Summary of Findings

1. The analysis indicates that Gross Domestic Product (GDP) and Central Bank Exchange Rate Policies significantly improve customer satisfaction among SMEs. This suggests that macroeconomic stability and favorable currency policies create a conducive environment for satisfying customer needs.

2. GDP and exchange rate stability are positively associated with the market presence of SMEs, highlighting the importance of economic growth and currency stability in enabling SMEs to expand and establish a stronger market footprint.

3. While the overall model includes more variables, only GDP and exchange rate policies remain significant, emphasizing that broader macroeconomic factors, especially economic growth and currency stability, are critical for enhancing SME customer satisfaction.

4. The results reinforce that GDP and exchange rate policies are significant determinants of customer satisfaction, underscoring the role of macroeconomic stability in fostering positive customer experiences for SMEs.

5. Interest rates, GDP, exchange rate policies, and government debt significantly influence the market presence of SMEs. Notably, higher government debt and interest rates tend to reduce SME market presence, while economic growth and currency stability promote it.

5. CONCLUSION AND RECOMMENDATIONS

The findings across the models depicts the critical role of macroeconomic stability particularly GDP growth and exchange rate policies in enhancing customer satisfaction and market presence among SMEs. A stable and growing economy enables SMEs to better meet customer needs, build loyalty, and expand their market reach by boosting consumer purchasing power and reducing transaction costs. Even when accounting for additional variables, GDP and exchange rate stability consistently emerge as the most significant determinants of customer satisfaction. Model Five further reveals that high interest rates and government debt can hinder SME growth, while economic growth and currency stability foster expansion. These results reveal the overarching influence of macroeconomic fundamentals on SME performance and customer experience. Policymakers should therefore prioritize stable, growth-oriented fiscal and monetary policies to support SME competitiveness and service quality.

Based on the findings made, the study therefore recommended that:

1. Policymakers should focus on maintaining macroeconomic stability through prudent fiscal and monetary policies that promote GDP growth and currency stability.

2. To bolster the market presence of SMEs, governments and financial institutions should implement initiatives that stimulate economic growth and ensure currency stability.

3. Given the persistent significance of GDP and exchange rate policies in influencing customer satisfaction, policymakers should prioritize macroeconomic stability as a means to improve SME performance. Developing comprehensive economic strategies that promote growth and currency stability can create a more favorable environment for SMEs to enhance customer experiences.

4. Maintaining stable macroeconomic conditions should be a key policy goal to support SME customer satisfaction. Governments should focus on policies that bolster economic growth and ensure predictable exchange rate policies

5. To improve SME market presence, policymakers should aim to reduce interest rates and manage government debt levels to prevent economic uncertainty and high borrowing costs. Implementing monetary policies that keep interest rates low and fiscal strategies that manage public debt effectively can create a conducive environment for SME growth.

5.1 Implications of the Study to the Economy

This study highlights the critical influence of macroeconomic stability particularly GDP growth, exchange rate policies, interest rates, and government debt on the performance and market expansion of SMEs. By demonstrating how favorable macroeconomic conditions can enhance customer satisfaction and facilitate market presence, the findings suggest that sound economic policies are essential for fostering a vibrant SME sector. A thriving SME sector contributes significantly to employment generation, innovation, and economic diversification, thereby promoting overall economic growth and stability. Policymakers who prioritize macroeconomic stability can thereby create an enabling environment that stimulates entrepreneurship, attracts investment, and sustains economic development.

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