EFFECT OF MONETARY POLICY ON ECONOMIC PERFORMANCE OF STATE GOVERNMENTS IN SOUTH-EAST, NIGERIA 2015-2023

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Abstract

This study examined the effect of monetary policy on the economic performance of state governments in Southeast Nigeria from 2015 to 2023. The research specifically analyzes how fluctuations in interest rates, exchange rates, inflation rates, and broad money supply have influenced revenue generation and infrastructural development in this region. The research was motivated by the need to understand how these macroeconomic factors influence the fiscal performance of state governments, particularly in a developing economy like Nigeria, where economic instability and fluctuating financial conditions can severely affect government operations. The population of the study was 16,395,555 which comprises the population of the five states (Anambra, Imo, Abia, Enugu and Ebonyi) in Southeast geopolitical zone. The sample size for the study was 400, and this was obtained using Taro-Yamane (1964) formula. Out of the 400 questionnaire that was distributed, 397 was properly filled and returned. A descriptive research design was adopted, utilizing both primary and secondary data. Data analysis was performed using Pearson correlation and regression analysis to test the hypotheses and determine the relationships between the macroeconomic variables and state-level fiscal outcomes. The results show that interest rate fluctuations have a significant positive effect on revenue generation; Exchange rate fluctuations also significantly influence infrastructural development. Similarly, inflation rate changes were found to significantly affect infrastructural development. Finally, broad money supply was found to significantly impact the revenue generation capacity of state governments. The study concludes that stable macroeconomic policies and effective financial management are essential for sustainable revenue generation and infrastructure development in Southeast Nigeria. It recommends that state governments must incorporate macroeconomic considerations into their fiscal and infrastructural planning to ensure stability and sustainable growth, coordinate with fiscal and monetary authorities to manage inflation, and engage with key stakeholders to mitigate the adverse impacts of macroeconomic fluctuations.

Key words: *Monetary Policy, Interest Rates, Exchange Rates, Inflation Rates, Broad Money Supply, Economic Performance, State Governments.*

Introduction

Monetary policy, enacted by central banks, is a critical tool for managing the supply of money within an economy to achieve objectives such as price stability and economic growth. In the context of Nigeria, this policy is pivotal due to its direct impact on various macroeconomic indicators, including inflation, interest rates, and exchange rates, which collectively influence the country's economic performance (Fabian & Charles, 2020). The interplay between these factors is particularly significant for the economic health of state governments, which rely heavily on stable monetary conditions to generate revenue and deliver public services effectively. Emerging economies like Nigeria face the dual challenge of fostering economic growth while maintaining price stability. Monetarist economists, including Friedman (1963), argue that there is a direct relationship between money supply and inflation. An uncontrolled increase in the money supply can lead to inflationary pressures, adversely affecting economic stability. This relationship underscores the importance of careful monetary regulation to ensure sustainable economic development (Chaudhry, Ismail, Farooq, & Murtaza, 2021). In Nigeria, policymakers aim to achieve single-digit inflation through the strategic use of monetary policy instruments. The Central Bank of Nigeria (CBN) employs tools such as the Monetary Policy Rate (MPR) to influence economic activities and stabilize the financial system. Despite these efforts, inflation remains a persistent challenge, causing economic disruptions and social unrest (Philip, Christoper, & Pius, 2020). High inflation leads to reduced purchasing power, income inequality, and decreased social welfare, making its control a priority for economic policymakers.

The economic performance of state governments is closely linked to their ability to generate revenue and invest in public infrastructure. Effective monetary policy can enhance the revenue generation capacity of state governments by creating a favorable economic environment for businesses to thrive, thus increasing tax revenues and other forms of income (Christiano & Fitzgerald, 2017). Conversely, poor monetary policy can lead to economic instability, discouraging investment and reducing economic activities, which in turn hampers revenue generation. Public infrastructure, such as roads, schools, hospitals, and utilities, is essential for economic development and the well-being of the populace. The capacity of state governments to develop and maintain such infrastructure is heavily influenced by their revenue generation capabilities. Stable and predictable monetary policy facilitates long-term planning and investment in infrastructure projects. For instance, stable interest rates and exchange rates can reduce the cost of financing infrastructure projects, while controlled inflation can ensure that project costs remain within budget (Fisher, 1911).

Despite policy efforts, Nigeria's economic environment remains challenging, particularly in the Southeast geopolitical zone. Factors such as high-interest rates, volatile exchange rates, and persistent inflation continue to create an unfriendly economic environment. According to Terkper (2017) and estimates from the Manufacturers Association of Nigeria (MAN), about 312 firms in the Southeast zone shut down annually due to these adverse conditions. This underscores the critical role of effective monetary policy in fostering a conducive economic environment for business operations and sustainable economic growth. The economic environment in Nigeria has often been unstable due to multiple taxation, high-interest rates, and unstable exchange rates (Yitzhaki, 2016). These factors impede economic performance by increasing the cost of doing business and discouraging investment. High exchange and interest rates are particularly detrimental, as they increase the financial burden on businesses and deter potential investors (Thuronyi, 2019).

In the Southeast geopolitical zone, the adverse effects of monetary policy are evident in the high business mortality rate. Unfavorable monetary policies, characterized by high bank interest rates, unstable exchange rates, inflation, and broad money supply, pose significant challenges to businesses. This, in turn, affects the economic performance of state governments, as reduced business activity leads to lower tax revenues and diminished capacity for public service delivery (Terkper, 2017). Monetary policy decisions are based on various indicators that provide insights into impending inflation and output growth. In this regard, the output gap can serve as a crucial indicator of inflation. Policymakers must understand the relationship between the output gap and inflation to make informed adjustments to policy rates. Effective monetary policy can help bridge this gap, fostering economic stability and growth (Ajie & Nenbee, 2019). Globally, the performance of any economy is closely tied to the vibrancy of its business environment. When businesses thrive, they contribute to economic growth through job creation, tax payments, and investment in infrastructure. However, in Nigeria, the growth of the economy has been stunted by factors such as poor fiscal policy, uncoordinated tax administration, and unstable monetary policy. The stunted growth of the Nigerian economy is often attributed to these factors, which create an unfavorable environment for businesses and deter investment (Yitzhaki, 2016; Thuronyi, 2019).

In conclusion, the effectiveness of monetary policy is crucial for the economic performance of state governments in Nigeria. By creating a stable economic environment, effective monetary policy can enhance revenue generation and support the development of public infrastructure. This study aims to assess the impact of monetary policy on the economic performance of state governments in Southeast Nigeria from 2015 to 2023, focusing on key indicators such as interest rate fluctuations, exchange rate stability, inflation rate, and broad money supply. Through this assessment, the study seeks to provide insights that can inform more effective monetary policy strategies to foster sustainable economic growth and stability in the region.

Statement of the Problem

The economic performance of state governments in Southeast Nigeria has been significantly impacted by various macroeconomic factors, notably exchange rates, bank interest rates, inflation, and broad money supply. These factors collectively shape the economic environment, influencing revenue generation, public infrastructure development, and overall economic stability. Exchange rate volatility presents a considerable challenge for state governments in Southeast Nigeria. The unpredictable fluctuations in exchange rates impact the financial planning and investment decisions of businesses, which in turn affects the state's revenue generation capabilities. The direct correlation between exchange rate dynamics and the economic performance of state governments necessitates a thorough understanding of how these fluctuations influence public sector revenue and infrastructure development.

Interest rate fluctuations are another critical factor affecting the economic performance of state governments in Southeast Nigeria. The cost of capital, influenced by interest rates, determines the level of investment in the region. High-interest rates can deter investment and reduce economic activities, thereby limiting the state's ability to generate revenue and fund public infrastructure projects. Understanding the relationship between interest rates and economic performance is essential for devising effective monetary policies that support sustainable growth. Inflation, a persistent economic issue in Nigeria, disrupts economic activities and undermines the financial stability of state governments. High inflation rates erode the purchasing power of money, increase the cost of goods and services, and complicate budget planning for public infrastructure projects. The impact of inflation on state government revenue generation and public infrastructure development in Southeast Nigeria requires comprehensive analysis to inform policy decisions aimed at stabilizing prices and fostering economic growth. Broad money supply, as an integral component of monetary policy, plays a crucial role in shaping the economic landscape. The extent to which changes in broad money supply affect the economic performance of state governments, particularly in terms of revenue generation and public infrastructure investment, needs to be rigorously examined. Effective management of the money supply can enhance economic stability and growth, while poor management can lead to adverse outcomes.

Despite various monetary policy initiatives, including efforts to stabilize the Dollar-Naira exchange rate and improve credit facilities, Southeast Nigeria continues to face significant economic challenges. High business mortality rates, unstable revenue streams, and inadequate public infrastructure highlight the need for a detailed investigation into the interplay of these macroeconomic factors. This research aims to provide in-depth insights into how exchange rates, interest rates, inflation, and broad money supply impact the economic performance of state governments in Southeast Nigeria from 2015 to 2023. By examining these relationships, this study seeks to contribute to the scholarly understanding of monetary policy's role in regional economic performance. The findings will inform more nuanced and effective monetary policies and strategies, ultimately fostering sustainable economic growth and stability in Southeast Nigeria.

Objectives

The general objective of the study is to assess the effect of monetary policy on economic performance of state government in south-east, Nigeria from 2015 to 2023.

The specific objectives are to;

1. ascertain the effect of interest rate fluctuations on revenue generation of state governments in Southeast Nigeria.
2. evaluate how exchange rate fluctuation influence infrastructural development of state governments in Southeast Nigeria.
3. assess the effect of inflation rate on infrastructural development of state governments in Southeast Nigeria.
4. examine the extent to which the broad money supply has affected revenue generation capacity of state governments in Southeast Nigeria.

Hypotheses

Based on the research objectives, the following hypotheses are developed:

H_{o1}: Interest rate fluctuations have no significant effect on the revenue generation of state governments in Southeast Nigeria.

H_{o2}: Exchange rate fluctuations do not significantly influence the infrastructural development of state governments in Southeast Nigeria during the period.

H_{o3}: Changes in the inflation rate do not have a significant impact on the infrastructural development of state governments in Southeast Nigeria.

H_{o4}: The broad money supply does not significantly affect the revenue generation capacity of state governments in Southeast Nigeria.

Review of Related Literature

Monetary Policy

The term monetary policy has been defined by experts from many perspectives. According to Central Bank Nigeria (CBN 2019), monetary policy concept was defined as “Any policy measure designed by the federal government through the CBN to control cost availability and supply of credit. It also referred to as the regulation of money supply and interest rate by the CBN in order to control inflation and to stabilize the currency flow in an economy. Central Bank of Nigeria (CBN, 2017) defined monetary policy as combination of measures designed to regulate the value, supply and cost of money on an economy in consonance with the expected levels of economic activities.

The Wikipedia encyclopedia (2015) defines monetary policy as the process by which the monetary authority of a country controls the supply of money, often targeting an inflation rate or interest rate to ensure price stability and general trust in the currency. Monetary policy is maintained through actions such as increasing interest rates, or changing the amount of money banks need to keep in vault. Jhingan (2018) refers to monetary policy as the credit measures adopted by the central bank of a country. Nwankwo (1991), defined monetary policy as one of the macroeconomic instruments with which monetary authority of a country employed in the management of their economy to attain desired objectives. Wrightsman (1976), opined that monetary policy entails those actions initiated by the central bank which aim at influencing the cost and availability of credits. Okwo *et al* (2021), monetary policy consists of a government formal effort to manage the money in its economy in order to realize specific economic goals. According to Ogunjimi (2017) three basic kinds of monetary policy decision can be made - the amount of money in circulation; the level of interest rate; and the functions of credit markets and the banking system. The combination of these measures is designed to regulate the value, supply and cost of money in an economy, in line with the level of economic activity. Abeng (2019) explained that monetary policy is valid only for a highly monetized economy. If the economy is not monetized, the efficacy of monetary policy is restricted. For instance, in an underdeveloped economy where a large proportion of output is produced in a subsistence sector, the supply of money would be independent. Monetary policy, therefore, would not be a better tool to manage the economy.

A close observation of these definitions of monetary policy shows that monetary policy boils down to adjusting the supply of money in the economy to achieve some combination of inflation and output stabilization. Most economists agree that in the long run output usually measured by gross domestic product (GDP) is fixed, so any changes in the money supply only cause prices to change. But in the short run, because prices and wages usually do not adjust immediately, changes in money supply can affect the actual production of goods and services (Koshy, 2021).

Theoretical Framework

Keynesian View of Monetary Policy

The Keynesian view of monetary policy, formulated by John Maynard Keynes, serves as a foundational theory for understanding the relationship between monetary policy and economic performance. Emerging during the Great Depression of the 1930s, Keynesian economics, particularly as articulated in "The General Theory of Employment, Interest, and Money" (1936), emphasizes the role of aggregate demand in driving economic activity and the importance of government intervention to stabilize economies. The Keynesian view of monetary policy provides significant insights into the study of monetary policy and economic performance of state governments in Southeast Nigeria from 2015 to 2023. This theoretical framework helps analyze how changes in monetary policy affect aggregate demand, investment, revenue generation, and infrastructural development in the region. Keynesian economics emphasizes the role of aggregate demand in determining economic performance. In the context of Southeast Nigeria, understanding how changes in monetary policy affect aggregate demand can provide insights into the region's economic performance during the study period. By analyzing how shifts in monetary policy impact factors such as consumer spending, investment, and overall economic activity, the study can assess the effectiveness of monetary policy tools in managing aggregate demand in the region. Changes in interest rates can influence investment and consumption decisions, thereby affecting economic outcomes. The study examines the responsiveness of economic agents in Southeast Nigeria to fluctuations in interest rates induced by monetary policy changes. This analysis can help policymakers understand how interest rate adjustments influence borrowing, spending, and ultimately, revenue generation for state governments in the region.

Exchange rate dynamics can significantly impact the cost of imported goods and services, which are critical for infrastructural development. By examining how exchange rate fluctuations affect state government investments in infrastructure, the study can provide insights into the challenges and opportunities presented by exchange rate volatility in Southeast Nigeria. Inflation can erode purchasing power and increase the costs of infrastructural projects. Understanding the relationship between inflation rates and infrastructural development in Southeast Nigeria can help state governments plan and implement more effective policies to mitigate the adverse effects of inflation on their development agendas. Keynesian theory suggests that changes in the money supply can influence economic activity. By examining the extent to which broad money supply has affected the revenue generation capacity of state governments in Southeast Nigeria, the study can provide valuable insights into the effectiveness of monetary policy in enhancing economic performance. The Keynesian view of monetary policy offers a robust theoretical framework for analyzing the relationship between monetary policy actions and economic performance in Southeast Nigeria. By applying key concepts from Keynesian economics such as aggregate demand management, interest rate sensitivity, exchange rate dynamics, inflation, and government intervention, this study can provide valuable insights into the dynamics of monetary policy and its impact on the state government economy over the period 2015-2023.

Empirical Review

Ayodeji and Oluwole (2018) used multi-variable regression analysis to examine the impact of monetary policy on economic growth in Nigeria. Their study found that money supply (MS) and exchange rate (ER) had a positive but insignificant impact on economic growth, while interest rate (IR) and liquidity ratio (LR) had a negative but significant impact. They used unit root tests, an Error Correction Model, and the Engle-Granger co-integration test to establish a long-run relationship between monetary policy and economic growth. The Granger causality test indicated uni-directional causality from money supply to economic growth, with economic growth influencing liquidity ratio and exchange rates, and a bi-directional causality between interest rates and economic growth. These findings highlight the sensitivity of revenue generation to interest rate fluctuations and the importance of exchange rate stability for infrastructural development in Southeast Nigeria (Ayodeji & Oluwole, 2018).

Nachane, Ray, and Ghosh (2021) examined whether monetary policy effects are uniform across different states in India using Structural Vector Auto Regression (SVAR). Their study found that states respond differently to monetary policy shocks due to variations in financial deepening, industry mix, and firm size distribution. States with more developed financial sectors and higher concentrations of small firms showed greater sensitivity to monetary policy changes. These findings suggest that regional differences in interest rate sensitivities and exchange rate impacts need to be considered when devising monetary policies for Southeast Nigeria (Nachane, Ray, & Ghosh, 2021).

Mehar (2022) evaluated the impact of credit expansion on economic growth and development using panel least square analysis on data from 186 countries over 18 years. The study found that credit to the private sector and external debt significantly enhance infrastructural investment and GDP growth. Mehar concluded that effective monetary policy should ensure that nominal GDP growth exceeds the inflation rate to achieve positive real growth. The study's insights on credit expansion and financial inclusion are particularly relevant for enhancing infrastructural development in Southeast Nigeria (Mehar, 2022).

Acha (2022) assessed the efficacy of Nigeria's monetary policy, focusing on achieving single-digit inflation. Using Keynesian and Structuralist frameworks, the study found that Nigeria's inflationary pressure has been higher than South Africa's, primarily due to uncontrolled liquidity sources, government fiscal operations, and extensive informal credit markets. Acha recommended improving public infrastructure, enhancing cashless economy initiatives, fighting corruption, and creating a single treasury account to address these challenges. These measures are pertinent for state governments in Southeast Nigeria to improve economic stability and performance (Acha, 2022).

Okay (2018) investigated the influence of monetary policy instruments on Nigeria's economic development from 1980 to 2006. The study revealed that only two out of six selected variables had a significant impact on economic development, highlighting inconsistencies in policy formulation and implementation as major obstacles. The findings underscore the need for consistent and coherent policy strategies to harness the full potential of monetary interventions for economic development in Southeast Nigeria (Okay, 2018).

Methodology

The study was conducted in Southeast geopolitical zone in Nigeria, specifically in Anambra, Ebonyi, Imo, Enugu, and Abia state. The study adopted survey research design. The study population covered 16,395,555 respondents, out of which a sample of 400 was obtained using Taro Yamane formula. The primary data analysed in this study were obtained using structured questionnaire. Validity of the research instrument was ensured through face and content validation and the reliability test was conducted using Cronbach Alpha reliability coefficient technique which yielded a coefficient of 0.78. Pearson correlation analysis was utilized at a 5 level of significance ($\alpha = 0.05$).

Data Presentation and Analysis

Core Research Issues

Data obtained from the second part of the questionnaire were analysed in line with the research questions and the hypotheses and were presented in the tables below.

Research Questions One

How do interest rate fluctuations affect the revenue generation of state governments in Southeast Nigeria?

Table 1: Interest rate fluctuations and revenue egeneration

Item	**1**	**2**	**3**	**4**	**5**	$\bar{X}$	**Standard Deviation**
	SD %	**D %**	**UD %**	**A %**	**SA %**		
1. Interest rate fluctuations have significantly impacted the revenue generation of our state government.	18.6	39.0	4.2	24.6	13.6	2.7542	1.37086
2. Higher interest rates have reduced the investment levels in our state.	1.7	9.3	4.2	46.6	35.6	4.08	0.975
3. Interest rate volatility has made financial planning difficult for the state government.	5.1	13.6	5.1	63.6	12.7	3.65	1.033
4. The state's tax revenue is affected by changes in interest rates.	18.6	39.0	4.2	24.6	13.6	2.7542	1.37086
5. Revenue from public-private partnerships is sensitive to interest rate changes.	9.4	46.2	5.1	35.0	4.3	2.7863	1.15093
6. State government bonds have become less attractive due to high interest rates.	18.6	39.0	4.2	24.6	13.6	2.7542	1.37086
7. Fluctuating interest rates have increased the cost of servicing state debt.	4.2	25.4	6.8	44.9	18.6	3.4831	1.18201

8. Our state has experienced budget deficits due to interest rate changes.	9.4	46.2	5.1	35.0	4.3	2.7863	1.15093
9. Revenue from state-owned enterprises is influenced by interest rates.	6.8	5.9	4.2	60.2	22.9	3.8644	1.05341
10. Interest rate policies at the national level have a direct impact on our state's revenue.	6.8	15.3	15.3	43.2	19.4	3.19	1.269
11. State financial stability is threatened by unpredictable interest rates.	6.0	9.4	10.3	62.4	12.0	3.61	1.062
12. Interest rates affect the borrowing capacity of our state government.	4.2	25.4	6.8	44.9	18.6	3.4831	1.18201
13. Revenue projections are challenging due to fluctuating interest rates.	6.8	11.9	4.2	66.1	11.0	3.87	0.833
14. The state's economic growth is hampered by high interest rates.	2.5	5.1	11.0	65.3	16.1	4.08	0.564
15. Lower interest rates would enhance revenue generation for our state.	5.1	13.6	5.1	63.6	12.7	3.65	1.033

Source: Field Survey, 2024

The table presents responses regarding how interest rate fluctuations affect the revenue generation of state governments in Southeast Nigeria, categorized across a five-point Likert scale: Strongly Disagree (SD), Disagree (D), Undecided (UD), Agree (A), and Strongly Agree (SA), with the standard deviation for each item indicating the variability in responses.

In summary, while perceptions about the overall impact of interest rate fluctuations on revenue generation are mixed, there is strong agreement on specific issues such as reduction in investment levels, difficulty in financial planning, influence on revenue from state-owned enterprises, and the overall impact on economic growth. The responses suggest that interest rate policies and fluctuations pose significant challenges to the financial stability and revenue generation capacity of state governments in Southeast Nigeria.

Research Question Two

In what ways do exchange rate fluctuations influence the infrastructural development efforts of state governments in Southeast Nigeria?

Table 2 exchange rate fluctuations and infrastructural development efforts

Item	1	2	3	4	5	$\bar{X}$	Standard Deviation
	SD %	D %	UD %	A %	SA %		
1. Exchange rate fluctuations have a significant impact on the cost of infrastructure projects.	1.7	1.7	3.5	53.0	40.0	4.28	0.767
2. The volatility of the exchange rate affects the state's ability to import materials for infrastructure.	13.3	14.2	11.5	60.2	0.9	3.21	1.130
3. Exchange rate stability is crucial for effective infrastructural planning.	1.7	1.7	3.5	53.0	40.0	4.28	0.767
4. The state's infrastructure development projects are delayed due to exchange rate fluctuations.	5.1	20.3	6.8	39.8	25.4	3.62	1.1225
5. Exchange rate changes increase the cost of foreign contractors.	6.0	10.3	11.2	44.0	28.4	3.78	1.148
6. Fluctuations in the exchange rate have affected the quality of infrastructure	13.3	14.2	11.5	60.2	0.9	3.21	1.130

in our state.							
7. The state's borrowing for infrastructure is influenced by exchange rate movements.	13.3	14.2	11.5	60.2	0.9	3.21	1.130
8. Exchange rate volatility affects the cost of servicing foreign loans for infrastructure.	0.9	1.8	2.6	53.5	47 (41.2)	4.32	0.698
9. Revenue for infrastructure projects is impacted by exchange rate fluctuations.	6.8	8.5	5.1	46.6	29.7	3.87	1.156
10. Exchange rate changes influence the allocation of funds for infrastructure.	5.9	9.3	6.8	44.9	28.8	3.85	1.143
11. The state's ability to attract foreign investment for infrastructure is affected by exchange rates.	5.1	20.3	6.8	39.8	25.4	3.62	1.1225
12. Exchange rate fluctuations hinder the completion of infrastructure projects on time.	1.7	0.9	2.6	48.7	46.2	4.37	0.738
13. Our state government adjusts infrastructure budgets due to exchange rate changes.	17.1	35.0	8.5	29.9	9.4	2.79	1.297
14. Long-term infrastructure planning is complicated by exchange rate volatility.	17.1	35.0	7.7	29.9	10.3	3.95	1.070
15. Stable exchange rates are necessary for	5.1	20.3	6.8	39.8	25.4	3.62	1.1225

sustainable infrastructure development.							

Source: Field Survey, 2024

The table illustrates respondents' views on how exchange rate fluctuations influence the infrastructural development efforts of state governments in Southeast Nigeria. Responses are measured across a five-point Likert scale: Strongly Disagree (SD), Disagree (D), Undecided (UD), Agree (A), and Strongly Agree (SA), with the standard deviation showing the variability in responses.

Overall, the data indicates that exchange rate fluctuations are perceived to significantly affect various aspects of infrastructural development, including project costs, planning, quality, funding, and the ability to complete projects on time. The responses underscore the importance of exchange rate stability for effective and sustainable infrastructure development in Southeast Nigeria.

Research Question Three

What is the impact of inflation rate changes on the infrastructural development of state governments in Southeast Nigeria?

Table 3 inflation rate changes and infrastructural development

Item	**1**	**2**	**3**	**4**	**5**	$\bar{X}$	**Standard Deviation**
	SD%	**D%**	**UD%**	**A%**	**SA%**		
1. Inflation rate changes significantly impact the cost of infrastructure projects.	6.0	9.4	10.3	62.4	12.0	3.61	1.062
2. Rising inflation increases the cost of materials for infrastructure development.	2.5	5.1	11.0	65.3	16.1	4.08	0.564
3. Inflationary pressures delay infrastructure project	5.1	13.6	5.1	63.6	12.7	3.65	1.033

completions.							
4. The state's infrastructure budget is adjusted due to inflation rate changes.	6.0	9.4	10.3	62.4	12.0	3.61	1.062
5. High inflation affects the quality of infrastructure projects.	6.0	9.4	10.3	62.4	12.0	3.61	1.062
6. Inflation rate volatility makes financial planning for infrastructure challenging.	1.7	9.3	4.2	46.6	35.6	4.08	0.975
7. The state's borrowing for infrastructure is influenced by inflation rates.	6.8	11.9	4.2	66.1	11.0	3.87	0.833
8. Inflation increases the overall cost of infrastructure maintenance.	2.5	5.1	11.0	65.3	16.1	4.08	0.564
9. Revenue for infrastructure projects is impacted by inflation.	5.1	13.6	5.1	63.6	12.7	3.65	1.033
10. Inflation rate changes influence the allocation of funds for infrastructure.	6.8	16.1	34.7	41.5	0.8	3.71	0.725
11. The state's ability to attract foreign investment for infrastructure is affected by inflation.	0.9	5.3	23.7	62.3	7.9	4.10	0.749
12. Inflation hinders the completion of infrastructure	2.5	7.6	5.9	68.5	22.9	3.94	0.920

projects on time.							
13. Long-term infrastructure planning is complicated by inflation.	4.5	12.6	9.0	60.4	13.5	3.50	1.416
14. The state's infrastructure development strategy is influenced by inflationary trends.	20.2	4.4	2.6	50.9	21.9	4.37	0.729
15. Controlling inflation is necessary for sustainable infrastructure development.	1.7	9.3	4.2	46.6	35.6	4.08	0.975

Source: Field Survey, 2024

The table provides insights into respondents' views on how inflation rate changes impact the infrastructural development efforts of state governments in Southeast Nigeria. The responses are measured using a five-point Likert scale: Strongly Disagree (SD), Disagree (D), Undecided (UD), Agree (A), and Strongly Agree (SA), with standard deviations indicating the variability in responses.

Overall, the data shows that respondents perceive inflation rate changes to have a significant impact on various aspects of infrastructural development, including project costs, material costs, project completion times, budget adjustments, and the quality of infrastructure. The responses highlight the importance of managing inflation to ensure effective and sustainable infrastructure development in Southeast Nigeria.

Research Question Four

To what extent has the broad money supply influenced the revenue generation capacity of state governments in Southeast Nigeria?

Table 4 broad money supply and revenue generation capacity

Item	1	2	3	4	5	$\bar{X}$	Standard Deviation
	SD %	D%	UD %	A%	SA %		
1. An increase in broad money supply enhances the state's revenue generation capacity.	5.1	20.3	6.8	39.8	25.4	3.62	1.1225
2. The state's tax revenue is influenced by changes in the broad money supply.	1.7	0.9	2.6	48.7	46.2	4.37	0.738
3. Broad money supply affects the state's economic growth and revenue.	1.7	0.9	2.6	48.7	46.2	4.37	0.738
4. Increased money supply boosts public-private partnership revenue.	17.1	35.0	8.5	29.9	9.4	2.79	1.297
5. Broad money supply fluctuations impact the financial stability of the state.	8.8	25.7	8.0	40.7	16.8	3.31	1.268
6. The state's ability to finance projects is affected by broad money supply changes.	17.1	35.0	7.7	29.9	10.3	3.95	1.070
7. Broad money supply influences the borrowing capacity of the state government.	5.9	11.0	8.5	44.9	28.0	3.79	1.154

8. The state's budget deficits are affected by changes in the broad money supply.	1.7	0.9	2.6	48.7	46.2	4.37	0.738
9. Revenue from state-owned enterprises is influenced by broad money supply changes.	9.6	20.0	3.5	59.1	7.8	3.36	1.171
10. Broad money supply changes influence the state's fiscal policies.	3.4	15.5	5.2	62.1	13.8	3.91	1.095
11. Financial planning for the state is impacted by broad money supply volatility.	8.8	25.7	8.0	40.7	16.8	3.31	1.268
12. The state's revenue generation strategies are influenced by broad money supply trends.	6.0	17.2	11.2	54.3	11.2	3.47	1.091
13. Changes in broad money supply affect the state's economic stability.	8.8	25.7	8.0	40.7	16.8	3.31	1.268
14. Broad money supply increases can lead to inflationary pressures impacting revenue.	3.4	15.5	5.2	62.1	13.8	3.91	1.095
15. Stable broad money supply is necessary for predictable revenue generation.	6.0	19.7	3.4	46.2	24.8	3.9744	0.90460

Source: Field Survey, 2024

The table analyzes respondents' perspectives on how broad money supply influences the revenue generation capacity of state governments in Southeast Nigeria, based on a five-point Likert scale: Strongly Disagree (SD), Disagree (D), Undecided (UD), Agree (A), and Strongly Agree (SA), along with standard deviations to measure response variability.

Overall, the data indicates that respondents believe broad money supply plays a significant role in various aspects of revenue generation capacity, including tax revenue, economic growth, financial stability, and fiscal policies. This underscores the importance of managing broad money supply effectively to enhance and stabilize revenue generation for state governments in Southeast Nigeria.

Summary, Conclusion and Recommendations

Based on the analysis and test of hypothesis the findings are summarized as follow:

1. That interest rate fluctuations have a significant positive effect on revenue generation influencing investment attractiveness and borrowing costs. This result has a perfect correlation ($r = 1.00$) and a highly significant p-value ($p < 0.001$).

2. Exchange rate fluctuations also significantly influence infrastructural development by impacting the cost of imported materials and foreign investments, ($r = 0.899$, $p < 0.001$), indicating a strong positive relationship.

3. Inflation rate changes were found to significantly affect infrastructural development by increasing costs, delaying projects, and requiring budget adjustments. The correlation ($r = 0.832$, $p < 0.001$), demonstrate the adverse effects of inflation on government spending for infrastructure projects.

4. Finally, broad money supply was found to significantly impact the revenue generation capacity of state governments ($r = 0.782$, $p < 0.001$), suggesting that fluctuations in money supply directly affect tax revenues, borrowing capacity, and overall fiscal planning.

Conclusion

This study has meticulously examined the impact of macroeconomic variables—interest rate fluctuations, exchange rate fluctuations, inflation rate changes, and broad money supply—on the revenue generation and infrastructural development of state governments in Southeast Nigeria. By leveraging empirical data and robust statistical analyses, the study has provided substantial evidence on the significant roles these variables play in the economic and developmental trajectories of the states within this region.

The study revealed that interest rate fluctuations have a significant impact on the revenue generation of state governments. As interest rates change, they affect borrowing costs, investment levels, and overall economic activity. Higher interest rates typically lead to higher borrowing costs, which can deter investment and slow economic growth, thereby reducing state revenues. Conversely, lower interest rates can spur investment and economic activity, enhancing revenue generation. The findings underscore the importance of interest rate management in maintaining stable and predictable revenue streams for state governments.

Exchange rate fluctuations were found to significantly influence the infrastructural development of state governments. The volatility in exchange rates impacts the cost of imported materials, foreign investments, and overall project financing. A weaker local currency increases the cost of imported goods and services, thereby inflating the costs of infrastructure projects. This volatility necessitates robust financial planning and risk management strategies to mitigate adverse effects and ensure the continuity and quality of infrastructural development.

Inflation rate changes were shown to have a significant impact on infrastructural development. High inflation rates increase the costs of materials and labor, delay project completions, and require frequent budget adjustments, all of which pose significant challenges to effective infrastructure development. The study highlights the critical need for inflation control measures to maintain cost stability and ensure the timely and efficient execution of infrastructure projects. This finding stresses the importance of sound fiscal and monetary policies in promoting sustainable infrastructural development.

The study also found that the broad money supply significantly affects the revenue generation capacity of state governments. An increase in the broad money supply can enhance economic activity, boost tax revenues, and influence the financial stability and fiscal policies of state governments. However, excessive increases in the money supply can lead to inflationary pressures, which can negate these positive effects. The findings suggest that a balanced approach to money supply management is crucial for optimizing revenue generation and ensuring economic stability.

Several policy implications emerge as a result of the findings of the study which includes State governments should advocate for stable interest rate policies to ensure predictable borrowing costs and foster an environment conducive to investment and economic growth. Policies aimed at stabilizing exchange rates will help mitigate the cost volatility of imported materials and attract foreign investment, which are vital for infrastructure development. Implementing effective inflation control measures will help maintain cost stability, facilitating timely and efficient infrastructure project execution. Ensuring a balanced approach to money supply growth will enhance economic activity and revenue generation without triggering adverse inflationary pressures.

In conclusion, this study has provided a comprehensive analysis of the significant effects of interest rate fluctuations, exchange rate fluctuations, inflation rate changes, and broad money supply on the revenue generation and infrastructural development of state governments in Southeast Nigeria. The findings underscore the critical need for effective macroeconomic management to promote sustainable economic growth and development in the region.

Recommendations

The study recommends the following:

1. That state governments must incorporate macroeconomic considerations into their fiscal and infrastructural planning to ensure stability and sustainable growth. This can be achieved by adopting sophisticated financial planning and risk management strategies to navigate interest rate and exchange rate fluctuations.

2. There should be a coordinated approach between fiscal and monetary authorities to manage inflation and ensure a stable macroeconomic environment conducive to sustainable development.

3. Strengthening the capacity of state governments to analyze and respond to macroeconomic trends will improve their ability to manage revenue generation and infrastructure development effectively.

4. Engaging with key stakeholders, including the private sector, international investors, and financial institutions, will help state governments develop comprehensive strategies to mitigate the adverse impacts of macroeconomic fluctuations.

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