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The Influence of Government Economic Policies on Nigeria's Economic Development

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Abstract

Aim: By implementing different policies and intervening in the economy, governments have a significant impact on the state of affairs. The purpose of this study was to investigate how government economic policies affect Nigeria's economic growth.

Methodology: The study made use of secondary data sources. Secondary data were gathered from international organizations, statistical agencies, and official publications, including the World Bank, the Central Bank of Nigeria, and the National Bureau of Statistics. This study used quantitative analysis as its only method. The quantitative analysis involved econometric techniques, such as regression (multiple) analysis and panel modelling, to determine the statistical significance and direction of the relationships between the government economic policies and the measures of economic development in Nigeria.

Results: An inverse relationship was found between the real gross domestic product (RGDP), tariffs (TARR), and interest rates (INTR). RGDP had a significant negative correlation (-0.6749) with INTR and a moderately negative correlation (-0.5774) with TARR. The interest rate (INTR) and tariff (TARR) had a positive correlation (0.7233), suggesting a potential association between the variables. There was a fairly positive association (0.7278) between sectoral support (SECSUPP) and the exchange rate (EXR).

Implications and recommendations: According to the study, efforts should be made to bolster the beneficial effects that have been identified, such as advancements in technology or infrastructure, trade policies that could strengthen the exchange rate, and sector-specific government programmes that could strengthen the exchange.

Originality/value: The study contributes to the discussion on the effectiveness of government economic policies in the context of a developing economy by integrating the analysis of multiple policy instruments – tariffs, interest rates, sectoral support, and the exchange rate – within a single econometric model for Nigeria.

Keywords: Economic policy, economic development, sectorial support, exchange rate and gross domestic product

1. Introduction

The Nigerian government's economic policies have a significant influence on the country's economic development trajectory. As a developing nation, Nigeria has implemented various economic strategies and initiatives to foster growth, reduce poverty, and improve the overall living standards of its citizens. Understanding the impact of these government policies is crucial for evaluating their effectiveness and informing future policy decisions. Public policy encompasses the broad spectrum of government actions designed to influence the well-being of its citizens. This includes a wide range of areas, such as education, social welfare, law enforcement, infrastructure development and maintenance, and scientific and technical research.

Economic analysis of public policy focuses on its impact on factors that influence economic growth. These factors include the quality of education, infrastructure development, the regulatory environment, and the level of investment in research and development. Economic development encompasses a multifaceted approach that prioritises infrastructure improvements, educational system enhancements, robust public safety measures, park and recreational space revitalisation, and the implementation of strategic business incentives to attract new enterprises and job creation.

Any open economy must recognise the critical roles that trade, monetary, and fiscal policy play, particularly when it comes to economic management. The pursuit of achieving and maintaining macroeconomic goals notably elucidates the crucial functions performed by trade, monetary, and fiscal policies in both established and emerging countries, including Nigeria (Olufemi & Oladipo, 2021). Once more, during an economic crisis, these policies are primarily employed to maintain and stabilise economic growth. Governments in many economies employ fiscal policy measures, such as modifying public expenditure to moderate taxation, to counteract economic imbalances, being a crucial way to controlling aggregate demand, financial instability, and economic distortions.

The classicalists argued in favour of an efficient price mechanism that allocates resources robustly and efficiently enough to ensure economic freedom without requiring government intervention to address economic crises. As a result, this theoretical model has been applied in practice as a guide for policy to sustain economic activity throughout time (Ishola & Titiloye, 2020). However, in order to provide a stable framework for full employment, Keynes suggested that this strategy be implemented, particularly during economic downturns. As a result, this theoretical model has been employed as a practical guide for policy decisions to support economic activity over time. The government uses a combination of monetary and fiscal policies to stabilise the business cycle during economic downturns.

Through stabilising the exchange rate, the government established trade policy to enhance trade relations and create the required safety net against external shocks. Massive trade, monetary, and fiscal deficits have plagued many developing economies over the years, including Nigeria. The rate of government expenditure greatly influences the character and quantity of the macroeconomic

framework as well as the fiscal sustainability of any small open economy. Public goods, such as infrastructure and utility services, are insufficient by nature (Nwosa et al., 2020). In Nigeria, trade, monetary, and fiscal policies are typified by wastefulness and a weak financial system, which is reinforced by incompetent handling of the country's substantial oil earnings, endangering the macroeconomic conditions.

Recent economic literature has increasingly focused on incorporating new theoretical frameworks, such as endogenous growth models, and empirically testing their predictions – study by Mankiw et al. (1992) exemplify this trend. However, a separate strand of research in political economy emphasizes the limitations of purely economic explanations. This school of thought argues that economic factors alone cannot fully account for the significant disparities in growth, economic outcomes, and policy decisions observed across different countries. The new growth theory posits that government policy, particularly its influence on the pace of technological advancement, can exert a lasting impact on a nation's long-term economic growth trajectory (Sulaiman & Migiro, 2019).

2. Literature Review

2.1. Conceptual Review

Economic development, synonymous with economic growth or advancement, signifies the wealth generation that translates into societal benefit and progress, and extends beyond isolated projects, encompassing the broad improvement of an economy in relation to factors like education, resource availability, and living standards. This development involves the construction of robust education systems, recreational facilities, and public safety infrastructure (Afolabi et al., 2020). Ultimately, economic development serves as the cornerstone of population well-being. Sovereign authorities recognise development as a critical factor in policy design, aiming to improve the overall quality of life for their citizens. Efficient resource allocation is fundamental to economic development, explaining the sluggish growth often observed in command economies. The imperative of economic development necessitates its implementation across various facets of society. Examples of such initiatives include fostering new business creation, infrastructure improvements, educational advancements, and the formulation of growth-oriented policies (Onyeiwu, 2018).

From a policy perspective, economic development refers to a comprehensive set of efforts aimed at enhancing the economic well-being and quality of life within a community. These efforts focus on job creation and retention, alongside supporting income growth and the overall economic base.

Economic growth primarily reflects an increase in jobs and income within a community or state, and signifies an expansion in overall economic activity. However, economic development encompasses a broader scope as it not only considers job and income growth, but also prioritises a sustainable increase in the productivity of individuals, businesses, and resources. This focus ultimately translates into improved overall well-being and a higher quality of life for citizens (Duodo & Baidoo, 2020). Economic development policies encompass a multifaceted approach categorised into three primary areas by Salmon Valley Business and Innovation Centre for serious consideration.

a) Macroeconomic Policies: undertaken by governments to achieve broad economic objectives, such as price stability, high employment levels, an expanded tax base, and sustainable growth. Examples include monetary and fiscal policies, regulations governing financial institutions, trade policies, and tax structures.
b) Infrastructure and Service Provision: focuses on policies and programs that ensure the availability of essential infrastructure and services. This includes motorways, parks, affordable housing, crime prevention initiatives, and educational programmes.
c) Job Creation and Retention Strategies: a core focus for economic development professionals, which comprises policies and programmes explicitly aimed at fostering job creation and retention.

This can involve initiatives in business finance, marketing, neighbourhood development, small business development and support, business retention and expansion programmes, technology transfer, workforce training, and real estate development.

2.2. Theoretical Review

Adam Smith and other classical economists promoted minimal government intervention in the provision of public goods, law and order, and those investments that the private sector is unable to sufficiently offer because of their high risk or unprofitable nature. This theory referred to a specific economic ideology or set of principles which dominated economic thinking and policy making during that time, and formed the structure and functioning of economies across the globe. However, the Great Depression brought to light the inherent weaknesses and limitations of this prevailing theory. The economic collapse exposed the shortcomings of the existing class structure, which was unable to effectively address the challenges and systemic vulnerabilities that led to the crisis.

Conversely, Keynesian economists favoured the use of public spending to boost aggregate demand and foster growth and development, particularly in times of economic slump, clear justification for government involvement in the economy in the modern era. In addition, government spending affects citizen welfare and the business climate for the private sector by providing basic services like health, education, communication, and transportation, among others.

The neoclassical growth models, initially put forth by Solow in 1956 and later expanded upon by Cass in 1965 offer a framework for understanding the determinants of long-run or steady-state economic growth. These models, which have undergone subsequent modifications and refinements by various economists, provide insights into the factors that drive sustained economic expansion. In the context of these neoclassical growth models, the primary contributors to long-term economic growth are discount factors which encompass rates of capital depreciation, population growth, and technological progress. Capital depreciation refers to the decline in the value or usefulness of physical capital over time. In the neoclassical growth models, the rate of capital depreciation directly influences the potential for economic growth. A lower rate of depreciation implies a more efficient utilisation and preservation of capital, leading to higher levels of productivity and output.

2.3. Empirical Review

Olufemi & Oladipo (2021) examined how the Nigerian economy was expanding in relation to the impact of various fiscal policy elements on that expansion. The study found that federal spending had a favourable effect on community and social services, administration, and economic growth. It did, however, also note that federal spending on economic services and transfer payments had a negative effect on Nigeria's economic expansion. The study recommended that federal government should prioritise administrative, social, and community services in its budgetary policies as they have the ability to positively impact the growth of the Nigerian economy.

Ishola & Titiloye (2020) used the ARDL technique to study how fiscal and monetary policy affected the growth of the Nigerian economy using the OLS estimating technique. According to the study, Nigeria's economic growth is stimulated by the availability of money relative to government spending and revenue. In order to stabilise economic growth, the study suggested that the government must permit expansionary monetary policy. Duodo & Baidoo (2020) used a baseline regression model to investigate inclusive growth in Nigeria in relation to the function of fiscal policy, and discovered that fiscal policy in Nigeria greatly encourages inclusive growth. The study also found that fiscal policy and inclusive growth in Nigeria are causally related in a one-way manner, which suggested that, in order to promote inclusive growth, government spending should be focused on infrastructure development and profitable investments.

Nwosa et al. (2020) looked into how Nigeria's economic growth was impacted by fiscal policies between 1977 and 2009 using the OLS estimation technique. The research findings indicated that the

nation's economic growth is positively impacted by productive expenditure. To promote economic growth, the study advised that the government should increase its spending on economic services, healthcare, and education. Afolabi et al. (2020) used the ARDL technique to study how trade (and trade policy) affects the expansion of Nigeria's economy. Price-based factors and the adjusted trade ratio have been shown to have a favourable long and short-term impact on GDP. Dynamic responses over time showed that trade policy had a favourable impact on GDP. The authors suggested that legislators should enact measures to foster global innovation and trade, therefore it was recommended that the government should introduce a more encouraging trade policy.

Sulaiman & Migiro (2019) looked into the relationship between monetary policy and the expansion of the Nigerian economy using the OLS estimation approach. The study found that monetary policy promotes economic growth, but it also established that monetary policy has no bearing on economic growth. The authors concluded that the monetary policy transmission mechanism improves economic growth by raising the productivity of the Nigerian economy, and suggested strengthening the financial sector's regulatory framework in order to improve the effectiveness of the monetary policies implemented by the government. Idris et al. (2018) used the ordinary least squares method to investigate the impact of Nigerian monetary policies on economic growth, and found that while the inflation rate has a negative impact on monetary policy, it positively influences economic growth. The authors suggested managing interest rates, liquidity, and currency rates through monetary policy to create an environment that is favourable for investment.

Hlongwane et al. (2018) examined how interest rates, currency rates, and money supply affect Nigeria's economic performance in relation to monetary policy by utilising the VECM approach. According to the results of their research, prudent monetary policy could encourage investment, stabilise the economy, and enhance economic performance. Based on their outcome, monetary policy should be effectively implemented to ensure economy’s performance. Chinedu et al. (2018) used an error correction model technique to investigate how sectoral distributions of government expenditure affect Nigerian economic growth. Sectoral distributions of government spending were found to have a favourable effect on Nigeria's economic performance. The government's spending on defense and agriculture was shown to have statistical significance, yet the study also revealed that government spending on communication, transportation, education, and health did not significantly differ statistically. According to the report, the authorities in Nigeria ought to possess the political will necessary to turn the nation into a developed one by using public finances responsibly and openly.

Ayomitunde et al. (2019) used an ARDL Bound estimate technique to look at how monetary policy affected Nigerian economic growth from 1990 to 2017. The results demonstrated a strong positive correlation between economic growth and inflation rate, with the monetary policy rate driving Nigeria's economy's growth in the short term while the inflation rate influenced it both in the long and medium run. They advised Apex Bank to employ monetary policy tools that support Nigeria's economic expansion. Onyeiwu (2018) investigated the relationship between monetary policy and Nigeria's economic development using the OLS estimation approach. The results showed that monetary policy has a negative impact on the inflation rate but positively boosts the gross domestic product and balance of payments. It was suggested that the money market should work to offer financial instruments that satisfy the demands of an increasing number of participants and that monetary policy be utilised to foster an atmosphere that is favourable to investment.

Idris et al. (2017) used the error correction model technique to investigate how monetary policy affected the expansion of Nigeria's economy by using the ARDL technique. The study discovered that while the money supply in Nigeria is unrelated to economic growth, monetary policy tools including the inflation rate, exchange rate, and foreign reserves support growth in the Nigerian economy in line with theoretical assumptions. As a result, the study suggested creating main and secondary markets for government bonds, which would improve the efficiency of monetary policy and lessen the government's dependency on the central bank for direct funding. Afolabi et al. (2017) used the ordinary least squares method to study the relationship between foreign trade and Nigeria's economic

growth. The analysis revealed that while foreign direct investment and exchange rates had a significant negative impact on Nigeria's economic growth, government spending, interest rates, imports, and exports all had favorable effects. The study suggested that the nation should promote non-primary and non-oil exports in addition to its trading in primary and oil exports.

Maiga (2017) investigated the relationship between fiscal and monetary policies and Nigerian economic growth using the vector error correction model technique to discover which has been more successful in fostering the country's progress. While monetary policy had no impact on the gross domestic product, the analysis found that fiscal policy distorted economic growth in the short term. According to the author, the employment of policy alternatives should prioritise fiscal policy, and suggested that government should promote monetary policy to positively impact on the GDP. Ajayi and Aluko (2017) used the OLS estimating technique to assess the effectiveness of Nigeria's fiscal and monetary policies, and found that while government spending had no effect, increases in exports and the money supply strongly drove economic growth. Furthermore, the research indicates that monetary policy had a greater effect on growth than fiscal policy. The study suggested that the Nigerian government should employ monetary policy as a weapon for economic stabilisation instead of fiscal policy.

Idris et al. (2017) employed the OLS estimation technique to investigate the relationship between fiscal policy and economic growth in Nigeria, with a particular emphasis on the various components of public spending, and established that when government revenue increased, so did government spending. The authors concluded that there is a significant and positive association between government spending and economic growth, hence it was recommended that more efforts should be made in the collection of revenue since there is a positive significant relation between revenue and expenditure. Jelilov (2016) studied how fiscal policy affected economic growth, and highlighted the role that taxation and spending by the government play in promoting development by utilising a panel regression model. According to their conclusions, Nigeria's economy could grow steadily if fiscal policies were implemented well, such as investing more in infrastructure and productive industries. It was recommended that fiscal policies must be well implemented.

3. Research Methodology

The impact of government economic policies on Nigeria's economic development was investigated in this study based on the available data. In using historical data, an ex-post facto approach was employed to examine the link between independent variables (policy) and dependent variables (development). The study included secondary data from government publications, statistical services, and international organisations, such as the World Bank, the Central Bank of Nigeria, and the National Bureau of Statistics, between 2000 and 2024. To ensure the precision of the findings, time series data spanning a 25-year period (2000-2024) was employed. A variety of statistical techniques were applied to analyse the data, including multiple regression and panel time-series modelling using the E-view econometrics software package, in addition to correlation analysis to ascertain the relationship between the variables, cointegration testing to establish a long-term equilibrium relationship between the non-stationary time series, and Augmented Dickey-Fuller (ADF) to effectively affirm that the variables were stationary. Other tests included heteroscedasticity, which showed that the variance of the error components (residuals) in the regression model was not constant over the observations, and autocorrelation, which determines whether present values are associated with their own historical values.

3.1. Variables

This study examined the impact of government economic policies on economic development. Economic development was measured by the growth rate of Gross Domestic Product (GDP) which is dependent variable, while the independent variables encompassed a variety of government economic policies such as:

Fiscal policies (government spending),

Monetary policies (interest taxes, exchange rates, money supply),

Trade policies (tariffs),

Industrial policies (sectorial support).

3.2. Model Specification

The general model for the relationship between government economic policies and Nigeria's economic development can be expressed as:
Economic Development = f(Government Economic Policies)
Mathematically, the model can be represented as:

$$ED = \beta_0 + \beta_1 Govtexp + \beta_2 Ms + \beta_3 Tarr + \beta_4 Intr + \beta_5 Extr + \beta_6 Secsupp + \varepsilon,$$

where:
ED = Economic Development (Dependent Variable) measured by indicator of GDP growth rate,
Govtexp = Government expenditure,
Ms = Money supply,
Tarr = Tariffs,
Intr = Interest rate,
Exr = Exchange rate,
Secsupp = Sectorial support,
β_0 = Constant term,
$\beta_1 - \beta_6$ = Coefficients to be estimated,
ε = Error term.

3.3. Hypothesis Development

Based on the model specification, the following hypotheses were formulated:
Ho_1: Government expenditure has a significant impact on Nigeria's economic development.
Ho_2: Money supply has a significant impact on Nigeria's economic development.
Ho_3: Tariff policies have a significant impact on Nigeria's economic development.
Ho_4: Interest policies have a significant impact on Nigeria's economic development.
Ho_5: Exchange rates have a significant impact on Nigeria's economic development.
Ho_6: Sectorial support has a significant impact on Nigeria's economic development.

4. Empirical Results and Discussion

Table 1. Augmented Dickey-Fuller Unit Test Root

	t-statistic	Critical value 5%	Probability	Level	Remarks
Variables	3.6776	2.9918	0.0000	1(1)	stationary
MS	4.6718	-2.9982	0.0012	1(1)	stationary
TARR	4.9476	-2.9980	0.0006	1(1)	stationary
INTR	4.8669	2.9980	0.0008	1(1)	stationary
EXR	3.8653	3.0292	0.0000	1(1)	stationary
SECSUPP	3.0817	-2.9981	0.0422	1(1)	stationary

Source: authors' computation from E-views, 2024.

The results indicate that all six variables – Government expenditure (**GOVTEXP**), Money supply (**MS**), Tariff (**TARR**), Interest Rate (**INTR**), Exchange Rate (**EXR**), and Sector Support (**SECSUPP**) – were non-stationary at levels but became stationary after their first difference. This confirms that all the variables were integrated of order one. The absolute value of the ADF **t-statistic** for instant 3.6776 for GOVTEXP

was greater than the **5% critical value** (2.9918), allowing to accept the unit root alternative hypothesis. Furthermore, all the probability values were below the 0.05 (5%) significance threshold, however the majority, such as GOVTEXP and EXR (0.0000), were quite significant, suggesting a very minimal chance of a Type I error. The integration order shown by the "Level" column was appropriately identified as I (1), which indicates that while the variables reflected a trend in their raw form, their growth rates or changes over time remained steady.

Table 2. Correlation matrix

	RGDP	GOVTEXP	MS	TARR	INTR	EXR	SECSUPP
RGDP	1	0.890116	-0.36781	-0.57736	-0.67488	0.778544	0.994102
GOVTEXP	0.890116	1	-0.36462	-0.26381	-0.50589	0.894413	0.842695
MS	-0.36781	-0.36462	1	-0.1222	0.090202	-0.33094	-0.36865
TARR	-0.57736	-0.26381	-0.1222	1	0.723335	-0.1804	-0.62899
INTR	-0.67488	-0.50589	0.090202	0.723335	1	-0.37601	-0.71207
EXR	0.778544	0.894413	-0.33094	-0.1804	-0.37601	1	0.727767
SECSUPP	0.994102	0.842695	-0.36865	-0.62899	-0.71207	0.727767	1

Source: authors' computation from E-views, 2024.

RGDP had a strong positive correlation (0.8901) with the constant term (C), indicating that the constant term is an important component in explaining the variation in RGDP. RGDP had a moderate negative correlation (-0.3678) with money supply (MS), suggesting an inverse relationship between money supply and RGDP. RGDP also had a strong positive correlation (0.7785) with exchange rate (EXR) and an extremely strong positive correlation (0.9941) with sectoral support (SECSUPP), implying that these variables are closely associated with RGDP. RGDP had a moderate negative correlation (-0.5774) with tariff (TARR) and a strong negative correlation (-0.6749) with interest rate (INTR), suggesting that these variables had an inverse relationship with RGDP.

Government expenditure (GOVTEXP) had a strong positive correlation (0.8944) with exchange rate (EXR) and a moderate positive correlation (0.8427) with sectoral support (SECSUPP), indicating potential multicollinearity concerns. Tariff (TARR) had a moderate positive correlation (0.7233) with interest rate (INTR), suggesting a potential interdependence between these variables. Exchange rate (EXR) had a moderate positive correlation (0.7278) with sectoral support (SECSUPP), implying a possible relationship between these variables.

Table 3. Variance ratio test on RGDP

Joint Tests		Value	df	Probability
Max |z| (at period 7)*		2.555021	24	0.1480
Individual Tests				
Period	Var. Ratio	Std. Error	z-Statistic	Probability
2	1.404380	0.227516	1.777366	0.0755
3	1.651747	0.327905	1.987609	0.0469
4	1.885506	0.396436	2.233667	0.0255
5	2.074312	0.448963	2.392875	0.0167
6	2.224007	0.495709	2.469205	0.0135
7	2.384116	0.541724	2.555021	0.0106
8	2.493814	0.586533	2.546857	0.0109
9	2.385155	0.628282	2.204670	0.0275
10	2.154539	0.666101	1.733280	0.0830
11	2.000756	0.699926	1.429804	0.1528
12	1.882321	0.730261	1.208226	0.2270
13	1.709623	0.757803	0.936421	0.3491
14	1.487635	0.782975	0.622798	0.5334
15	1.176926	0.806087	0.219488	0.8263
16	0.645577	0.827435	-0.428339	0.6684

Source: authors' computation from E-views, 2024.

The analysis was based on heteroskedasticity robust standard error estimates, used to ensure valid statistical inferences in the presence of heteroskedasticity in the residuals. The test was conducted for a range of lags, from a minimum of 2 to a maximum of 16, with a step size of 1. The maximum absolute value of the z-statistic was 2.555021, which occurred at lag 7. The associated probability of 0.1480 suggests that the null hypothesis of no heteroskedasticity cannot be rejected at the conventional significance levels.

Lags 3 to 8 had z-statistics, statistically significant at the 5% level, indicating the presence of heteroskedasticity in the residuals during these periods. Lags 9 and 10 had z-statistics, statistically significant at the 10% level, suggesting potential heteroskedasticity issues in these periods as well. Lags 11 to 16 had z-statistics that were not statistically significant, implying that the residuals were more likely to be homoscedastic in these later periods.

Therefore, the joint test results suggest that the overall null hypothesis of no heteroskedasticity cannot be rejected at the conventional significance levels, indicating that the residuals were likely to be homoscedastic. However, the individual test results revealed that heteroskedasticity was present in the residuals during certain lag periods, particularly lags 3 to 8.

Table 4. Regression analysis

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-6162.956	2804.020	-2.197901	0.0413
GOVTEXP	0.847245	0.149010	5.685837	0.0000
MS	8.87E-05	7.71E-05	1.149869	0.2652
TARR	-53.02094	83.59167	-0.634285	0.5339
INTR	269.6337	94.86790	2.842202	0.0108
EXR	1.559767	2.560559	0.609151	0.5500
SECSUPP	0.954988	0.034513	27.67009	0.0000
R-squared	0.998559	Mean dependent var		53981.99
Adjusted R-squared	0.998078	S.D. dependent var		19348.12
S.E. of regression	848.1545	Akaike info criterion		16.55550
Sum squared resid	12948588	Schwarz criterion		16.89678
Log likelihood	-199.9437	Hannan-Quinn criter.		16.65016
F-statistic	2078.554	Durbin-Watson stat		1.582447
Prob(F-statistic)	0.000000			

Source: authors' computation from E-views, 2024.

The constant term of -6162.956 represented the estimated value of the dependent variable (economic development) when all the independent variables were zero. The coefficient of 0.847245 for government expenditure (GOVTEXP) suggests that a one-unit increase in government expenditure was associated with a 0.847245 increase in the measure of economic development, holding other factors constant. This relationship was statistically significant at the 5% level (p-value < 0.05). The coefficient of 8.87E-05 for money supply (MS) indicated a positive, but statistically insignificant (p-value > 0.05) relationship between money supply and economic development.

The coefficient of -53.02094 for tariff (TARR) suggested a negative relationship between tariffs and economic development, but the relationship was statistically insignificant (p-value > 0.05). The coefficient of 269.6337 for interest rate (INTR) implied that a one-unit increase in interest rates was associated with a 269.6337 increase in the measure of economic development, holding other factors constant. This relationship was statistically significant at the 5% level (p-value < 0.05).

The coefficient of 1.559767 for exchange rate (EXR) indicated a positive, but statistically insignificant (p-value > 0.05) relationship between exchange rate and economic development. The coefficient of 0.954988 for sectoral support (SECSUPP) suggested that a one-unit increase in sectoral support was

associated with a 0.954988 increase in the measure of economic development, holding other factors constant. This relationship was statistically significant at the 5% level (p-value < 0.05).

The R-squared value of 0.998559 indicated that the independent variables in the model explained approximately 99.86% of the variation in the measure of economic development. The adjusted R-squared of 0.998078 suggested that the model had a high goodness of fit, even after accounting for the number of independent variables. The standard error (S.E.) of the regression was 848.1545, representing the average deviation of the observed values from the predicted values, and provided a measure of the model's accuracy in predicting the dependent variable.

The F-statistic of 2078.554 with a p-value of 0.000000 indicated that the overall model was statistically significant, meaning that the independent variables, as a group, had a significant impact on the measure of economic development. The Durbin-Watson statistic of 1.582447 suggested that there may be some degree of autocorrelation in the residuals, which should be further investigated.

Therefore, the research results revealed that government expenditure, interest rate, and sectoral support had a statistically significant positive impact on the measure of economic development in Nigeria, while the impact of money supply, tariffs, and exchange rate was not statistically significant. The model overall had a very high goodness-of-fit, indicating that the independent variables included in the model were important determinants of economic development in Nigeria.

Table 5. Johansen Cointegration Test – Unrestricted Cointegration Rank Test (Trace)

TAHypothesised		Trace	0.05	
No. of CE(s)	Eigenvalue	Statistic	Critical Value	Prob.**
None *	0.998089	330.4363	125.6154	0.0000
At most 1 *	0.967595	186.4585	95.75366	0.0000
At most 2 *	0.849712	107.5812	69.81889	0.0000
At most 3 *	0.836389	63.99146	47.85613	0.0008
At most 4	0.335175	22.35546	29.79707	0.2791
At most 5	0.318068	12.96613	15.49471	0.1161
At most 6 *	0.165497	4.161129	3.841466	0.0414

Source: authors' computation from E-views, 2024.

The cointegration results above show that "at most 4", the trace statistic 22.35 was smaller than the critical value of 29.79 and the p-value of 0.2791 was much higher than the 0.05 level of significance. This indicates that the test marked stops significant at this point. Moreover, "at most 6" the p-value was significant at 0.0414, however trace statistic stopped at first rank where the null hypothesis was not rejected. Overall, there were four cointegration relationships among the variables.

Table 6. Autocorrelation Test

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
. |****** |	. |****** |	1	0.885	0.885	22.042	0.000
. |****** |	. *| . |	2	0.768	-0.074	39.334	0.000
. |***** |	. *| . |	3	0.642	-0.106	51.961	0.000
. |**** |	. | . |	4	0.530	-0.010	60.977	0.000
. |*** |	. | . |	5	0.423	-0.047	67.023	0.000
. |**. |	. | . |	6	0.321	-0.060	70.687	0.000
. |**. |	. *| . |	7	0.219	-0.076	72.490	0.000
. |*. |	. *| . |	8	0.116	-0.090	73.023	0.000
. | . |	. *| . |	9	0.007	-0.117	73.025	0.000
. *| . |	. *| . |	10	-0.096	-0.079	73.443	0.000
. *| . |	. | . |	11	-0.184	-0.037	75.079	0.000
.**| . |	. | . |	12	-0.254	-0.032	78.437	0.000

Source: authors' computation from E-views, 2024.

The autocorrelation at lag 1 was 0.885, which was very high and statistically significant (p-value < 0.001). The partial correlation at lag 1 was also 0.885, indicating a strong positive relationship between the current value and the first lagged value. The autocorrelation at lag 2 was 0.768, which is also quite high and statistically significant (p-value < 0.001). The partial correlation at lag 2 was -0.074, suggesting that the relationship between the current value and the second lagged value was relatively weak after accounting for the first lag. The Lags 3-12 autocorrelations and partial correlations gradually decreased as the lag length increased, but they remained statistically significant up to lag 12. The Q-statistic values increased with the lag length, indicating the presence of significant autocorrelation in the data. The probability values associated with the Q-statistics were all less than 0.001, suggesting that the null hypothesis of no autocorrelation can be rejected at all the lag lengths.

The results showed a very high degree of autocorrelation in the data, with the autocorrelation coefficient at lag 1 being 0.885, which implies that the current value of the variable was strongly related to its previous value. The partial correlation plot reinforced the finding of strong positive autocorrelation, as the partial correlation at lag 1 was also 0.885. The gradually decreasing but still statistically significant autocorrelations and partial correlations at higher lags suggested the presence of a persistent autocorrelated process in the data. The high and statistically significant autocorrelation indicated that the data can exhibit non-stationarity or the presence of a unit root, which should be further investigated using appropriate statistical tests.

The strong autocorrelation observed in the data has important implications for the modelling and analysis of the underlying process, and suggests the need to account for the dynamic structure of the data, potentially through the use of time series models, such as autoregressive (AR) or autoregressive integrated moving average (ARIMA) models.

Table 7. Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	0.691496	Prob. F(6,18)	0.6594
Obs*R-squared	4.683032	Prob. Chi-Square(6)	0.5851
Scaled explained SS	4.099235	Prob. Chi-Square(6)	0.6632

Source: authors' computation from E-views, 2024.

The Breusch-Pagan-Godfrey test was used to detect the presence of heteroskedasticity in the residuals of the regression model. The F-statistic was 0.691496, with a corresponding p-value of 0.6594, while the observed R-squared value was 4.683032, with a p-value of 0.5851, and the scaled explained sum of squares was 4.099235, with a p-value of 0.6632. Therefore, the p-values associated with the F-statistic, Obs*R-squared, and Scaled Explained SS were all greater than the conventional significance levels of 0.01, 0.05, or 0.10. This means failing to reject the null hypothesis of homoskedasticity – in other words, the test results did not provide evidence of heteroskedasticity in the residuals.

5. Conclusion and Recommendations

The government's economic policies play a crucial role in the economic development of Nigeria. The study concluded that the constant term, exchange rate (EXR), and sectoral support (SECSUPP) all exhibited strong positive correlations with RGDP, suggesting they are significant factors driving economic growth. Money supply (MS), tariff (TARR), and interest rate (INTR) all showed negative correlations with RGDP, implying an inverse relationship. In other words, an increase in these factors might lead to a decrease in economic output. The strong positive correlations between government expenditure (GOVTEXP) and both EXR and SECSUPP raise concerns about multicollinearity, hence these variables might be statistically interdependent, potentially affecting the accuracy of regression models. The moderate positive correlation between tariff (TARR) and interest rate (INTR) suggests

a potential link between these two factors, which could be further investigated. Thus, the study recommended looking for ways to reinforce the positive influences that were discovered, such like infrastructure or technical improvements, the exchange rate (which could be strengthened through trade policies), and sectoral support (which could be strengthened by specific government programmes).

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Wpływ polityki ekonomicznej rządu na rozwój gospodarczy Nigerii

Streszczenie

Cel: Wdrażając różne polityki oraz interweniując w gospodarkę, rządy wywierają istotny wpływ na sytuację gospodarczą. Celem niniejszego badania jest analiza wpływu rządowej polityki ekonomicznej na wzrost gospodarczy Nigerii.

Metodyka: W badaniu wykorzystano wtórne źródła danych pozyskane z organizacji międzynarodowych, agencji statystycznych oraz publikacji urzędowych, w tym Banku Światowego, Banku Centralnego Nigerii i Krajowego Biura Statystycznego. Zastosowano analizę ilościową obejmującą techniki ekonometryczne, takie jak analiza regresji wielorakiej oraz modelowanie szeregów czasowych (danych panelowych), w celu określenia istotności statystycznej i kierunku zależności między rządową polityką ekonomiczną a miarami rozwoju gospodarczego Nigerii.

Wyniki: Badanie wykazało odwrotną zależność między realnym produktem krajowym brutto (RGDP) a taryfami celnymi (TARR) oraz stopami procentowymi (INTR). RGDP wykazało istotną ujemną korelację (-0,6749) z INTR oraz umiarkowanie ujemną korelację (-0,5774) z TARR. Stopa procentowa (INTR) i taryfy celne (TARR) były dodatnio skorelowane (0,7233), co sugeruje potencjalny związek między tymi zmiennymi. Wsparcie sektorowe (SECSUPP) i kurs walutowy (EXR) wykazały dość silną dodatnią korelację (0,7278).

Implikacje i rekomendacje: Wyniki badania wskazują na potrzebę podejmowania działań wzmacniających zidentyfikowane pozytywne efekty, takie jak postęp technologiczny i infrastrukturalny, odpowiednio ukierunkowane polityki handlowe mogące wpływać na umocnienie kursu walutowego oraz sektorowe programy rządowe wspierające rozwój gospodarczy.

Oryginalność/wartość: Badanie wnosi wkład w dyskusję na temat skuteczności rządowej polityki ekonomicznej w kontekście gospodarki rozwijającej się, łącząc analizę wielu instrumentów polityki – taryf celnych, stóp procentowych, wsparcia sektorowego i kursu walutowego – w jednym modelu ekonometrycznym dla Nigerii.

Słowa kluczowe: polityka ekonomiczna, rozwój gospodarczy, wsparcie sektorowe, kurs walutowy, produkt krajowy brutto