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THE CORRELATION BETWEEN THE VALUE OF GLOBAL MARKETING ADVERTISEMENTS AND NIGERIA'S BALANCE OF TRADE PERFORMANCE

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ABSTRACT: *This study assesses the relationship between the value of global marketing advertisements and Nigeria's balance of trade performance. The dependent variable is Nigeria Trade Balance (NTB) while the independent variables are Global advertisement market value (GAMV), Global inflation rate (GINFR) and Global interest rate growth (GIR). Secondary data was utilized (2018–2023). The research employed descriptive statistics, Augmented Dickey-Fuller (ADF), and Ordinary Least Square (OLS) at a 5% significance level. Results: R= 0.953, adjusted R= 0.883, indicating a strong fit of the model to the data. It was recommended that Nigeria should diversify marketing strategies to include local and regional campaigns, digital marketing and influencer partnerships; mitigate global inflation impacts; diversify exports; stabilize the naira; increase forex reserves; and strengthen trade ties. To counter global interest rate effects, Nigeria should invest in less sensitive sectors, enhance financial resilience, promote fixed-rate financing, and foster domestic investment.*

KEYWORDS: Global Marketing, Advertisements, Nigeria, Balance of Trade, Performance.

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INTRODUCTION

The global trade landscape has been subject to significant fluctuations, with various factors influencing the trade balance of nations worldwide. In the case of Nigeria, a major economy in Africa, the trade balance (TBN) is influenced by a complex interplay of global and regional economic dynamics. The global value of the marketing and advertising industry is substantial, reflecting its critical role in driving economic growth and consumer engagement worldwide. As of recent estimates, the global advertising market is valued at over $700 billion annually (Statista, 2022). The global marketing advertisement value can influence the trade balance of Nigeria by affecting the demand for Nigerian products and services in the global market. Increased marketing advertisement efforts can help boost the visibility and competitiveness of Nigerian exports, potentially leading to an improvement in the trade balance (Kumar & Adeyemi, 2021). The global marketing advertisement value is a crucial element in shaping international trade patterns. As businesses seek to expand their reach and influence consumer behavior across borders, the investment in global marketing and advertising campaigns can have a direct impact on trade flows (Kotler & Keller, 2016).

Additionally, the global inflation rate (GIR) and the global interest rate growth (GIRG) are macroeconomic variables that can significantly influence the trade balance of nations. High inflation rates and interest rate fluctuations can affect the competitiveness of exports, the demand for imports, and the overall economic stability of a country (Mankiw, 2014). Africa, as a continent, has experienced diverse economic trends in recent decades, with some countries emerging as significant players in the global trade landscape. Nigeria, being the largest economy in Africa, plays a vital role in the region's trade dynamics. The trade balance of Nigeria is not only influenced by global factors but also by regional economic conditions, including the growth and development of other African economies, regional trade agreements, and the integration of African markets (UNECA, 2019). Nigeria's trade balance is a crucial indicator of its economic performance and integration with the global economy. The country's reliance on oil exports, its efforts to diversify its economy, and its engagement in regional and international trade agreements have all contributed to shaping its trade balance (Alawode & Alawode, 2020). Understanding the dynamics between GMAV, GIR, GIRG, and Nigeria's trade balance can provide valuable insights into the country's economic development and its position within the global trade landscape.

Statement of Problem

The relationship between Nigeria's trade balance (TBN) and global factors such as global marketing advertisement value (GMAV), global inflation rate (GIR), and global interest rate growth (GIRG) remains underexplored in current literature. Despite the significant impact that these global factors have on Nigeria's economic performance, comprehensive analyses of their influence on the country's trade balance are scarce (Alawode & Alawode, 2020; Adebiyi & Dauda, 2019). There is a pressing need for a more nuanced understanding of the determinants of Nigeria's trade balance, specifically through the development of a model that captures the complex interplay between these variables. This study aims to fill this gap by providing a detailed examination of how GMAV, GIR, and GIRG affect Nigeria's trade balance.

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Objectives of the Study

1. To examine the impact of global marketing advertisement value (GMAV) on the trade balance of Nigeria.

2. To investigate the influence of global inflation rate (GIR) on the trade balance of Nigeria.

3. To analyze the relationship between global interest rate growth (GIRG) and the trade balance of Nigeria.

Hypotheses of the Study

H1: Global advertisement market value (GAMV) has no significant positive effect on the trade balance of Nigeria.

H2: Global inflation rate (GINFR) has no significant positive effect on the trade balance of Nigeria.

H3: Global interest rate growth (GIR) has no significant positive effect on the trade balance of Nigeria.

LITERATURE REVIEW

Conceptual Framework

Trade Balance Nigeria (TBN): The trade balance of Nigeria is the difference between the value of its exports and the value of its imports. A positive trade balance indicates a trade surplus, while a negative trade balance indicates a trade deficit. The trade balance is a key indicator of a country's economic performance and its ability to compete in the global market. It reflects the country's competitiveness, domestic consumption patterns, and the strength of its trading relationships. The trade balance of Nigeria can be influenced by macro-economic variables (Abiodun, 2019).

The Global Marketing Advertisement Value (GMAV): The global marketing advertisement value refers to the financial value or investment in advertising and marketing activities across different countries and regions around the world. This encompasses various forms of advertising, including digital, television, print, radio, and outdoor media. Digital advertising, in particular, has seen significant growth, accounting for a substantial portion of this total. Advertising and marketing play a crucial role in shaping global trade and consumer behavior. Effective global marketing strategies can help businesses expand their reach, increase brand awareness, and drive sales in international markets. Increased global marketing and advertising efforts can lead to higher demand for Nigerian exports, thereby improving the trade balance (Czinkota & Ronkainen, 2013; Keegan & Green, 2015).

The Global Inflation Rate (GIR): The global inflation rate refers to the rate of increase in the general price level of goods and services across the world (Okafor & Adebayo, 2018). Global inflation is a crucial economic indicator that reflects the overall purchasing power and cost of living in the global economy. It can have significant implications for trade, investment, and economic stability (Okafor & Adebayo, 2018). The global inflation rate can impact the trade

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balance of Nigeria by affecting the relative prices of Nigerian exports and imports. High global inflation may erode the purchasing power of Nigerian exports, making them less competitive in the international market. Conversely, it may also influence the cost of Nigerian imports, which can impact the country's trade balance (Okafor & Adebayo, 2018). A higher global inflation can lead to increased cost of production and reduced competitiveness of Nigerian exports, resulting in a deterioration of the trade balance (Krugman & Obstfeld, 2018; Salvatore, 2019).

The Global Interest Rate Growth (GIRG): The global interest rate growth refers to the overall trend and changes in interest rates across different countries and regions globally. Global interest rates play a crucial role in influencing investment, consumption, and the flow of capital across borders. Changes in interest rates can have significant implications for economic activity, trade, and financial stability. The global interest rate growth can affect the trade balance of Nigeria by impacting the cost of borrowing, the accessibility of capital, and the investment decisions of both domestic and international businesses. Higher global interest rates may make Nigerian exports more expensive, while also affecting the cost of Nigerian imports, potentially influencing the country's trade balance (Nwokoma, 2017). A rising global interest rates can lead to higher borrowing costs, which may discourage investment and reduce the competitiveness of Nigerian exports, thereby impacting the trade balance negatively (Mankiw, 2018; Mishkin, 2019).

Empirical Reviews

According to a study conducted by (White & Brown, 2021), the global value of the marketing and advertising industry has had a positive impact on trade balances in various countries. On the other hand, according to a study by Johnson and Thompson (2018), a sustained trade deficit in Nigeria could constrain the country's capacity to generate foreign currency, potentially limiting the budget and resources available for global marketing and advertising initiatives targeting the Nigerian market. Equally, studies by Okafor and Ugochukwu (2021) have argued that limited foreign currency reserves result in a persistent trade deficit which could constrain Nigeria's ability to generate foreign currency. This could limit the government's and businesses' access to foreign exchange, making it challenging to finance imports and international marketing campaigns.

According to empirical studies, Nigeria's trade balance can have both positive and negative impacts on global inflation rates. Iwayemi (2013) found that as a major exporter of oil and commodities, Nigeria's trade surplus can help increase global supply, exerting downward pressure on prices and potentially curbing inflationary pressures worldwide. However, Onyekwena and Ekeruche (2019) observed that when Nigeria's trade surplus is accompanied by significant foreign exchange reserve accumulation, it can lead to an expansion of the global money supply, potentially contributing to higher inflation. Additionally, the researchers noted that if Nigeria's exports are heavily concentrated in a few commodities, disruptions to their supply can have a disproportionate impact on global inflation.

Studies have found that a strong trade surplus in Nigeria can lead to an accumulation of foreign exchange reserves, which can be invested in international financial markets, putting upward pressure on global interest rates and attracting more foreign investment (Akpan, 2009). On the other hand, if the trade surplus is accompanied by a significant increase in Nigeria's savings, it can reduce global demand for loanable funds, leading to a downward pressure on global interest

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rates (Nwosa, 2017). Nwosa (2017) added in his study that if Nigeria's exports are concentrated in commodities, volatility in commodity prices can affect global financial markets and interest rate dynamics.

Theoretical Reviews

These theories explain the relationship between the value of global marketing advertisements and Nigeria's balance of trade performance: Demand-Side Theory, Purchasing Power Parity (PPP) and Global Inflation Theory, and the Interest Rate Parity Theory. The theory that best explains the study is the Demand-Side Theory.

Purchasing Power Parity (PPP) and Global Inflation Theory: According to this theory, global inflation rates can influence the trade balance through changes in relative prices. If global inflation rates are high, the cost of goods and services in international markets may increase, affecting Nigeria's imports and exports. Higher global inflation can make imports more expensive and exports relatively cheaper, potentially improving Nigeria's trade balance if the country can export more competitively priced goods (Aluko & Akinola, 2020). Conversely, if global inflation is low, it can make imports cheaper and exports less competitive, possibly worsening the trade balance (Olayiwola & Okodua, 2013).

Interest Rate Parity Theory: This theory suggests that global interest rates and their growth can affect exchange rates, which in turn influences the trade balance. An increase in global interest rates, particularly in major economies, can lead to capital flows out of emerging markets like Nigeria, causing a depreciation of the Nigerian naira. A weaker naira can make Nigerian exports cheaper and more competitive internationally, potentially improving the trade balance (Adegboye & Ojo, 2019). On the other hand, it can also make imports more expensive, affecting the overall trade dynamics (Ayodele & Olayiwola, 2015).

Demand-Side Theory

This theory posits that the trade balance is influenced by the demand for goods and services, which can be affected by global marketing activities. When companies invest heavily in global marketing, they create awareness and stimulate demand for their products. This can lead to increased exports from Nigeria if Nigerian products are part of those marketed goods (Ajayi & Okafor, 2018). Conversely, higher global advertising may also lead to higher imports into Nigeria if Nigerian consumers are influenced by these advertisements to purchase foreign goods (Eze & Ogbonna, 2017). Demand-Side Theory focuses on stimulating consumer demand to drive economic growth. It posits that when demand for goods and services increases, businesses respond by producing more, leading to economic expansion. Key elements include government intervention through fiscal policies like increased public spending and tax cuts to boost consumers' purchasing power. This theory contrasts with supply-side economics, which emphasizes boosting production capabilities. By enhancing demand, it aims to reduce unemployment and stimulate economic activity, particularly during recessions. Demand-side policies often involve public investments in infrastructure, education, and healthcare, which not only provide immediate jobs and services but also lay the groundwork for long-term economic health. Critics argue that excessive focus on demand can lead to inflation and deficits, but proponents believe it is essential for stabilizing economies and fostering growth, especially when the private sector is unable or unwilling to invest sufficiently. Demand-Side Theory, developed by John Maynard Keynes during the Great Depression, revolutionized

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economic thought by emphasizing the role of aggregate demand in driving economic performance and employment. In his 1936 work, "The General Theory of Employment, Interest, and Money," Keynes argued that government intervention is necessary during economic downturns to stimulate demand through increased spending and tax cuts. This approach challenged classical economics, which believed in self-regulating markets. Keynes' ideas laid the foundation for modern macroeconomics, advocating for active government policies to manage economic cycles and stabilize growth, profoundly influencing global economic policies post-World War II.

Demand-Side Theory partially explains Nigeria's trade balance through global marketing advertisement value (GMAV), global inflation rate (GIR), and global interest rate growth (GIRG). Higher GMAV boosts demand for exports, while GIR and GIRG influence competitiveness and currency value. However, this theory overlooks supply-side factors crucial to trade balances, such as production capacity, infrastructure and structural issues. Nigeria's dependency on commodities like oil, supply chain inefficiencies and international trade policies also play significant roles. Thus, while demand-side factors are important, a comprehensive analysis requires integrating supply-side considerations and structural reforms to fully understand Nigeria's trade balance.

RESEARCH METHODOLOGY

The research design employed in this study is ex-post facto, as it prevents the researcher from altering the data obtained. This is due to the fact that the data used in the study is derived from event already concluded, in which case it is secondary in nature. The annual series of the Global advertising market size was compiled between 2018 and 2023. The study employs descriptive statistics and Ordinary Least Square methods at a significance level of 5% for the purpose of detailed estimation. The model utilized in this study is presented as follows:

Model Specification

TBN = f(GMAV, GIR, GIRG)

Econometrics form of the model:

$$NTB = \alpha + \beta_1 GMAV + \beta_2 GIR + \beta_3 GIRG + \epsilon$$

where:

Global interest rate growth = GIR

Nigeria Trade Balance = NTB

Global advertisement market value = GAMV

Global inflation rate = GINFR

β_o = Intercept, β_1, β_2, and β_3 = Constant parameters, ϵ_t = Error term.

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RESULTS AND DISCUSSIONS

Data Analyses

Table 4.1: Descriptive Statistics

	NBT	GAMV	GINFR	GIR
Mean	9.340000	681.6667	4.983333	3.250000
Median	9.275000	639.0000	4.150000	3.300000
Maximum	11.25000	874.0000	7.900000	4.100000
Minimum	7.600000	578.0000	3.000000	2.200000
Std. Dev.	1.365840	120.9457	2.188531	0.609098
Skewness	0.129386	0.689809	0.514336	-0.523544
Kurtosis	1.747928	1.923235	1.482821	3.030558
Jarque-Bera	0.408662	0.765692	0.840000	0.274332
Probability	0.815193	0.681918	0.657047	0.871825
Sum	56.04000	4090.000	29.90000	19.50000
Sum Sq. Dev.	9.327600	73139.33	23.94833	1.855000
Observations	6	6	6	6

The data provides statistical measures for four variables (NBT, GAMV, GINFR, GIR) across six observations. NBT and GAMV have higher means (9.34, 681.67) compared to GINFR and GIR (4.98, 3.25). NBT has the least skewness (0.13), while GIR shows slight negative skewness (-0.52). GAMV displays the highest variability (Std. Dev. 120.95). None of the variables significantly deviate from normal distribution (Jarque-Bera probabilities > 0.65).

Table 4.1.1

Null Hypothesis: GIR has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=0)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-1.501662	0.4535
Test critical values:	1% level	-5.604618	
	5% level	-3.694851	
	10% level	-2.982813	

*MacKinnon (1996) one-sided p-values.
Warning: Probabilities and critical values calculated for 20 observations
and may not be accurate for a sample size of 5

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The ADF test statistic is -1.501662 with a p-value of 0.4535, failing to reject the null hypothesis of a unit root. Critical values are -5.604618 (1%), -3.694851 (5%), and -2.982813 (10%). Thus, the GIR series has a unit root, indicating non-stationarity.

Table 4.1.2

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(GIR)
Method: Least Squares
Date: 05/23/24 Time: 10:12
Sample (adjusted): 2019 2023
Included observations: 5 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
GIR(-1)	-1.170040	0.779164	-1.501662	0.2302
C	3.743725	2.424690	1.544002	0.2203

R-squared	0.429114	Mean dependent var	0.140000
Adjusted R-squared	0.238818	S.D. dependent var	0.887694
S.E. of regression	0.774475	Akaike info criterion	2.615911
Sum squared resid	1.799433	Schwarz criterion	2.459686
Log likelihood	-4.539777	Hannan-Quinn criter.	2.196619
F-statistic	2.254988	Durbin-Watson stat	1.594082
Prob(F-statistic)	0.230185		

The regression shows that GIR(-1) has a coefficient of -1.170040 (p-value 0.2302) and a constant of 3.743725 (p-value 0.2203). R-squared is 0.429114, suggesting 42.91% of variance in D(GIR). The model is not statistically significant overall, with an F-statistic p-value of 0.230185. D(GIR).

Table 4.1.3

Null Hypothesis: D(GIR) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=0)

	t-Statistic	Prob.*

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Augmented Dickey-Fuller test statistic		-2.148984	0.2381
Test critical values:	1% level	-6.423637	
	5% level	-3.984991	
	10% level	-3.120686	

*MacKinnon (1996) one-sided p-values.
Warning: Probabilities and critical values calculated for 20 observations and may not be accurate for a sample size of 4

Table 4.1.4
The ADF test statistic is -2.148984 with a p-value of 0.2381, failing to reject the null hypothesis that D(GIR) has a unit root. Critical values are -6.423637 (1%), -3.984991 (5%), and -3.120686 (10%). Thus, D(GIR) has a unit root, indicating non-stationarity.

Table 4.2

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(GIR,2)
Method: Least Squares
Date: 05/23/24 Time: 10:12
Sample (adjusted): 2020 2023
Included observations: 4 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(GIR(-1))	-1.518519	0.706622	-2.148984	0.1647
C	0.174074	0.551889	0.315415	0.7823

R-squared	0.697800	Mean dependent var	0.250000
Adjusted R-squared	0.546700	S.D. dependent var	1.636052
S.E. of regression	1.101514	Akaike info criterion	3.338101
Sum squared resid	2.426667	Schwarz criterion	3.031248
Log likelihood	-4.676203	Hannan-Quinn criter.	2.664736
F-statistic	4.618132	Durbin-Watson stat	1.225388
Prob(F-statistic)	0.164656		

The regression shows that D(GIR(-1) has a coefficient of -1.518519 (p-value 0.1647) and a constant of 0.174074 (p-value 0.7823). R-squared is 0.697800, indicating 69.78% of variance in D(GIR,2). The model is not statistically significant overall, with an F-statistic p-value of 0.164656.

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Table 4.2.1

Null Hypothesis: GINFR has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=0)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		0.044700	0.9140
Test critical values:	1% level	-5.604618	
	5% level	-3.694851	
	10% level	-2.982813	

*MacKinnon (1996) one-sided p-values.
Warning: Probabilities and critical values calculated for 20 observations
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The ADF test statistic is 0.044700 with a p-value of 0.9140, failing to reject the null hypothesis that GINFR has a unit root. Critical values are -5.604618 (1%), -3.694851 (5%), and -2.982813 (10%). Thus, GINFR has a unit root, indicating non-stationarity.

Table 4.2.2

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(GINFR)
Method: Least Squares
Date: 05/23/24 Time: 10:12
Sample (adjusted): 2019 2023
Included observations: 5 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
GINFR(-1)	0.018923	0.423333	0.044700	0.9672
C	0.776739	1.990477	0.390228	0.7224

R-squared	0.000666	Mean dependent var	0.860000
Adjusted R-squared	-0.332446	S.D. dependent var	1.359412
S.E. of regression	1.569191	Akaike info criterion	4.028172
Sum squared resid	7.387080	Schwarz criterion	3.871947

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Log likelihood	-8.070429	Hannan-Quinn criter.	3.608880
F-statistic	0.001998	Durbin-Watson stat	1.465379
Prob(F-statistic)	0.967156		

The regression shows that GINFR(-1) has a coefficient of 0.018923 (p-value 0.9672) and a constant of 0.776739 (p-value 0.7224). R-squared is 0.000666, indicating very little variance in D(GINFR). The model is not statistically significant, with an F-statistic p-value of 0.967156.

Table 4.2.3

Null Hypothesis: D(GINFR) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=0)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-1.407072	0.4721
Test critical values:	1% level	-6.423637	
	5% level	-3.984991	
	10% level	-3.120686	

*MacKinnon (1996) one-sided p-values.
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Table 4.2.4

The ADF test statistic is -1.407072 with a p-value of 0.4721, failing to reject the null hypothesis that D(GINFR) has a unit root. Critical values are -6.423637 (1%), -3.984991 (5%), and -3.120686 (10%). Thus, D(GINFR) has a unit root, indicating non-stationarity.

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(GINFR,2)
Method: Least Squares
Date: 05/23/24 Time: 10:13
Sample (adjusted): 2020 2023
Included observations: 4 after adjustments

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Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(GINFR(-1))	-0.854437	0.607245	-1.407072	0.2947
C	1.033076	1.003792	1.029173	0.4116

R-squared	0.497469	Mean dependent var	0.200000
Adjusted R-squared	0.246203	S.D. dependent var	1.867262
S.E. of regression	1.621185	Akaike info criterion	4.111044
Sum squared resid	5.256478	Schwarz criterion	3.804191
Log likelihood	-6.222088	Hannan-Quinn criter.	3.437678
F-statistic	1.979851	Durbin-Watson stat	2.041760
Prob(F-statistic)	0.294685		

The regression shows that D(GINFR (-1) has a coefficient of -0.854437 (p-value 0.2947) and a constant of 1.033076 (p-value 0.4116). R-squared is 0.497469, indicating 49.75% of variance in D(GINFR ,2) is explained. The model is not statistically significant, with an F-statistic p-value of 0.294685.

Table 4.3

Null Hypothesis: GAMV has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=0)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		0.793321	0.9757
Test critical values:	1% level	-5.604618	
	5% level	-3.694851	
	10% level	-2.982813	

*MacKinnon (1996) one-sided p-values.
Warning: Probabilities and critical values calculated for 20 observations
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The ADF test statistic is 0.793321 with a p-value of 0.9757, failing to reject the null hypothesis that GAMV has a unit root. Critical

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values are -5.604618 (1%), -3.694851 (5%), and -2.982813 (10%). Thus, GAMV has a unit root, indicating non-stationarity.

Table 4.3.1

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(GAMV)
Method: Least Squares
Date: 05/23/24 Time: 10:13
Sample (adjusted): 2019 2023
Included observations: 5 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
GAMV(-1)	0.297265	0.374709	0.793321	0.4855
C	-132.2006	242.6818	-0.544749	0.6238

R-squared	0.173408	Mean dependent var	59.00000
Adjusted R-squared	-0.102123	S.D. dependent var	60.51859
S.E. of regression	63.53366	Akaike info criterion	11.43019
Sum squared resid	12109.58	Schwarz criterion	11.27397
Log likelihood	-26.57548	Hannan-Quinn criter.	11.01090
F-statistic	0.629359	Durbin-Watson stat	2.238139
Prob(F-statistic)	0.485544		

The regression shows that GAMV(-1) has a coefficient of 0.297265 (p-value 0.4855) and a constant of -132.2006 (p-value 0.6238). R-squared is 0.173408, indicating 17.34% of variance in D(GAMV). The model is not statistically significant, with an F-statistic p-value of 0.485544.

Table 4.3.2

Null Hypothesis: D(GAMV) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=0)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-1.052999	0.6135
Test critical values:	1% level	-6.423637	
	5% level	-3.984991	

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10% level	-3.120686

*MacKinnon (1996) one-sided p-values.
Warning: Probabilities and critical values calculated for 20 observations
and may not be accurate for a sample size of 4

The ADF test statistic is -1.052999 with a p-value of 0.6135, failing to reject the null hypothesis that D(GAMV) has a unit root. Critical values are -6.423637 (1%), -3.984991 (5%), and -3.120686 (10%). Thus, D(GAMV) has a unit root, indicating non-stationarity.

Table 4.3.3

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(GAMV,2)
Method: Least Squares
Date: 05/23/24 Time: 10:13
Sample (adjusted): 2020 2023
Included observations: 4 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(GAMV(-1))	-0.737637	0.700511	-1.052999	0.4028
C	52.00068	53.58564	0.970422	0.4342

R-squared	0.356666	Mean dependent var	14.75000
Adjusted R-squared	0.035000	S.D. dependent var	81.94460
S.E. of regression	80.49781	Akaike info criterion	11.92119
Sum squared resid	12959.79	Schwarz criterion	11.61434
Log likelihood	-21.84238	Hannan-Quinn criter.	11.24782
F-statistic	1.108807	Durbin-Watson stat	1.587586
Prob(F-statistic)	0.402784		

The regression shows that D(GAMV (-1) has a coefficient of -0.737637 (p-value 0.4028) and a constant of 52.00068 (p-value 0.4342). R-squared is 0.356666, indicating 35.67% of variance in D(GAMV,2) is explained. The model is not statistically significant, with an F-statistic p-value of 0.402784.

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Table 4.3.4

Null Hypothesis: NBT has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=0)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		24.17671	0.9999
Test critical values:	1% level	-5.604618	
	5% level	-3.694851	
	10% level	-2.982813	

*MacKinnon (1996) one-sided p-values.
Warning: Probabilities and critical values calculated for 20 observations
and may not be accurate for a sample size of 5

The ADF test statistic is 24.17671 with a p-value of 0.9999, failing to reject the null hypothesis that NBT has a unit root. Critical values are -5.604618 (1%), -3.694851 (5%), and -2.982813 (10%). Thus, NBT has a unit root, indicating non-stationarity.

Table 4.4
Augmented Dickey-Fuller Test Equation
Dependent Variable: D(NBT)
Method: Least Squares
Date: 05/23/24 Time: 10:13
Sample (adjusted): 2019 2023
Included observations: 5 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
NBT(-1)	0.072567	0.003002	24.17671	0.0002
C	0.079941	0.027053	2.954962	0.0598

R-squared	0.994894	Mean dependent var	0.730000
Adjusted R-squared	0.993192	S.D. dependent var	0.080932
S.E. of regression	0.006678	Akaike info criterion	-6.890843
Sum squared resid	0.000134	Schwarz criterion	-7.047068
Log likelihood	19.22711	Hannan-Quinn criter.	-7.310135
F-statistic	584.5131	Durbin-Watson stat	2.889427

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Prob(F-statistic)	0.000155

The regression shows that NBT(-1) has a coefficient of 0.072567 (p-value 0.0002) and a constant of 0.079941 (p-value 0.0598). R-squared is 0.994894, indicating 99.49% of variance in D(NBT) is explained. The model is statistically significant, with an F-statistic p-value of 0.000155.

Table 4.4.1

Null Hypothesis: D(NBT) has a unit root
Exogenous: Constant
Lag Length: 0 (Automatic - based on SIC, maxlag=0)

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		0.750355	0.9673
Test critical values:	1% level	-6.423637	
	5% level	-3.984991	
	10% level	-3.120686	

*MacKinnon (1996) one-sided p-values.
Warning: Probabilities and critical values calculated for 20 observations
and may not be accurate for a sample size of 4

The ADF test statistic is 0.750355 with a p-value of 0.9673, failing to reject the null hypothesis that D(NBT) has a unit root. Critical values are -6.423637 (1%), -3.984991 (5%), and -3.120686 (10%). Thus, D(NBT) has a unit root, indicating non-stationarity.

Table 4.4.2

Augmented Dickey-Fuller Test Equation
Dependent Variable: D(NBT,2)
Method: Least Squares
Date: 05/23/24 Time: 10:14
Sample (adjusted): 2020 2023
Included observations: 4 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.

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D(NBT(-1))	0.097065	0.129359	0.750355	0.5313
C	-0.015688	0.091130	-0.172156	0.8792

R-squared	0.219674	Mean dependent var	0.052500
Adjusted R-squared	-0.170488	S.D. dependent var	0.012583
S.E. of regression	0.013613	Akaike info criterion	-5.448657
Sum squared resid	0.000371	Schwarz criterion	-5.755510
Log likelihood	12.89731	Hannan-Quinn criter.	-6.122023
F-statistic	0.563033	Durbin-Watson stat	2.499069
Prob(F-statistic)	0.531306		

The regression shows D(NBT(-1)) has a coefficient of 0.097065 (p-value 0.5313) and a constant of -0.015688 (p-value 0.8792). R-squared is 0.219674, indicating 21.97% of variance in D(NBT,2) is explained. The model is not statistically significant, with an F-statistic p-value of 0.531306.

Table 4.4.3

Dependent Variable: NBT
Method: Least Squares
Date: 05/23/24 Time: 10:08
Sample: 2018 2023
Included observations: 6

Variable	Coefficient	Std. Error	t-Statistic	Prob.
GAMV	0.017462	0.007876	2.217074	0.1569
GINFR	-0.219340	0.410138	-0.534797	0.6463
GIR	-0.916806	0.471859	-1.942965	0.1915
C	1.509081	3.059024	0.493321	0.6706

R-squared	0.953360	Mean dependent var	9.340000
Adjusted R-squared	0.883399	S.D. dependent var	1.365840
S.E. of regression	0.466392	Akaike info criterion	1.547139
Sum squared resid	0.435042	Schwarz criterion	1.408312
Log likelihood	-0.641416	Hannan-Quinn criter.	0.991403
F-statistic	19.62712	Durbin-Watson stat	2.257930
Prob(F-statistic)	0.000138		

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The regression analysis results show a high R-squared value (0.953), indicating that 95.3% of the variation in the dependent variable (NBT) is explained by the independent variables (GAMV, GINFR, GIR). However, the p-values for GAMV (0.1569), GINFR (0.6463), and GIR (0.1915) are all above the typical significance level (0.05), suggesting that none of these variables are statistically significant predictors of NBT individually. The model's overall significance is high (Prob(F-statistic) = 0.000138), suggesting that the independent variables, as a group, significantly explain NBT.

HYPOTHESIS TESTING

To determine if we reject the null hypothesis, we compare the p-value of each coefficient with the significance level (alpha = 0.05).

For GAMV:

p-value = 0.1569

Since 0.1569 > 0.05, we fail to reject the null hypothesis (H0).

Conclusion: GAMV does not have a significant positive effect on NTB.

H1: We fail to reject the null hypothesis. GAMV does not have a significant positive effect on NTB.

For GINFR:

p-value = 0.6463

Since 0.6463 > 0.05, we fail to reject the null hypothesis (H0).

Conclusion: GINFR does not have a significant positive effect on NTB.

H2: We fail to reject the null hypothesis. GINFR does not have a significant positive effect on NTB.

For GIR:

p-value = 0.1915

Since 0.1915 > 0.05, we fail to reject the null hypothesis (H0).

Conclusion: GIR does not have a significant positive effect on NTB.

H3: We fail to reject the null hypothesis. GIR does not have a significant positive effect on NTB.

Based on the p-values from the regression results, none of the variables (GAMV, GINFR, GIR) has a significant positive effect on the trade balance of Nigeria (NTB) at the 0.05 significance level. These results suggest that within the scope of this model and the given data, the global advertisement market value, global inflation rate, and global interest rate growth do not significantly influence Nigeria's trade balance.

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DISCUSSION OF FINDINGS

The coefficient for Global Advertisement Market Value (GAMV) is 0.017462, indicating a positive relationship with NTB. The p-value for GAMV is 0.1569, which is greater than 0.05, meaning it is not statistically significant at the 5% level. We fail to reject the null hypothesis. GAMV does not have a significant positive effect on NTB.

The coefficient for Global Inflation Rate (GINFR) is -0.219340, indicating a negative relationship with NTB. The p-value for GINFR is 0.6463, which is greater than 0.05, meaning it is not statistically significant at the 5% level. We fail to reject the null hypothesis. GINFR does not have a significant positive effect on NTB.

The coefficient for Global Interest Rate Growth (GIR) is -0.916806, indicating a negative relationship with NTB. The p-value for GIR is 0.1915, which is greater than 0.05, meaning it is not statistically significant at the 5% level. We fail to reject the null hypothesis. GIR does not have a significant positive effect on NTB.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions:

In conclusion, the relationship between the value of global marketing advertisements and Nigeria's balance of trade performance had mixed results. Secondary data was utilized (2018–2023). The research employed descriptive statistics (ADF), and (OLS) at a 5% significance level. **Results:** R = 0.953, adjusted R= 0.883, indicating a strong fit of the model to the data. **GAMV:** The global advertisement market value does not significantly positively affect Nigeria's trade balance. The relationship, although positive, is not strong enough to be considered significant. **GINFR** and **GIR**, the global inflation rate and the global interest rate growth both does not have a significant positive effect on Nigeria's trade balance. In fact, the relationship observed is negative for both, suggesting that higher global inflation rates and the global interest rate growth might negatively impact the trade balance, but this effect is not statistically significant.

RECOMMENDATIONS

1. Diversify Marketing Strategies Beyond Global Advertisements. While global marketing advertisements coefficient was positive, their impact on Nigeria's trade balance is not significant. Relying heavily on these advertisements without substantial return can lead to wasted resources. With a high R-value (0.953) indicating a strong model fit, it is clear that other factors could be influencing the trade balance more significantly. Nigeria should diversify its marketing strategies to include local and regional campaigns that might resonate more effectively with specific markets. Investment in digital marketing, influencer partnerships, and localized content could provide better returns and potentially improve the trade balance.

2. Implement Measures to Mitigate the Impact of Global Inflation Rates. Understanding the negative relationship between global inflation rates and Nigeria's trade balance helps in

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planning effective countermeasures. Nigeria cannot directly control global inflation rates, making it challenging to manage their impact on the trade balance. Although the relationship is not statistically significant, the negative trend suggests that higher global inflation rates could affect Nigeria's trade balance. Nigeria should adopt economic policies designed to shield the domestic economy from the effects of global inflation fluctuations. These policies could include:

Diversifying Export Products: By expanding the range of exportable goods and services, Nigeria can reduce dependency on any single sector and mitigate the risks associated with global inflation.

Stabilizing Local Currency: Implementing measures to stabilize the naira can help buffer against inflationary pressures from abroad.

Increasing Foreign Exchange Reserves: Building up foreign exchange reserves can provide a cushion against global economic shocks, including inflationary spikes.

Strengthening Trade Relationships: Developing stronger trade ties with countries that have stable inflation rates can help balance the impact of global inflation on Nigeria's trade balance.

3. Implement Measures to Mitigate the Impact of Global Interest Rates. Recognizing the negative relationship between global interest rates and Nigeria's trade balance is crucial for developing protective economic strategies. Global interest rates are beyond Nigeria's direct control, presenting difficulties in managing their influence on the trade balance. While the relationship is not statistically significant, the observed negative trend indicates potential adverse effects of rising global interest rates on Nigeria's trade balance. Nigeria should implement policies to buffer the economy from the negative impacts of global interest rate fluctuations. These measures could include:

Encouraging Investments in Less Sensitive Sectors: Promoting investments in sectors that are less affected by global interest rate changes can help stabilize the trade balance.

Enhancing Financial Sector Resilience: Strengthening the resilience of Nigeria's financial sector through regulatory measures and financial reforms can mitigate the adverse effects of global interest rate changes.

Promoting Long-term, Fixed-rate Financing: Encouraging the use of long-term, fixed-rate financing options for businesses and infrastructure projects can reduce exposure to volatile global interest rates.

Fostering Domestic Investment: Creating an environment that encourages domestic investment can reduce reliance on foreign capital, thereby lessening the impact of global interest rate changes on the economy.

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