

# Foreign Direct Investment, Trade and Tourism in Nigeria: A Dynamic Model Approach

Ikenna Paulinus Nwodo, Sunday E. EGBO,  
Department of Economics, University of Nigeria, Nsukka, Nigeria

\*Odanwu Idenyi Madueke (PhD)  
Department of Economics, Enugu State University of Science and Technology, Enugu

\*Corresponding Author's

## Abstract

The study investigates the impact of foreign direct investment and trade on international tourism arrival in Nigeria between 1995 and 2025 using WDI (2025) dataset. The study employed Phillips-Perron unit root and ARDL-Bound test approaches as analytical tools wherein the former shows that all the variables are integrated of the first order while the latter shows no long run relationship among the variables. The estimated results show that while a significant and positive relationship exists between foreign direct investment and tourism arrival in Nigeria, a significant and negative association exists between foreign trade and tourism. That is, as foreign direct investment improves tourism, foreign trade does the opposite in Nigeria. The implication of these results among others is that should there be neglect on the FDI attractive policies, tourism will suffer which will spillover to growth and ultimately welfare.

**Key Words:** FDI, Trade, Tourism, Nigeria, Dynamic Model  
JEL Classification Code: F1, F21, L83, C22

## 1. Introduction

Foreign trade (hereafter FT) literally implies trade emanating beyond the shores of a given country inclusive of Nigeria. In the present study foreign trade and trade are used interchangeably to imply the same thing. FT refers "to the movement of products and services, especially capital assets, from one country to another". Consequently, the level of import and export compared to GDP remains the conventional measure of economy's total foreign trade. This approach also depicts the

degree of openness to trade by every economy and is widely used in the empirical literature. The more the country's economic openness, the greater its trade, foreign direct investment (FDI) and international tourism (hereafter tourism) and to a large extent environmental degradation. Specifically, commercialization increases the growth of a country's economy, resulting in increased FDI as well as tourism receipt.

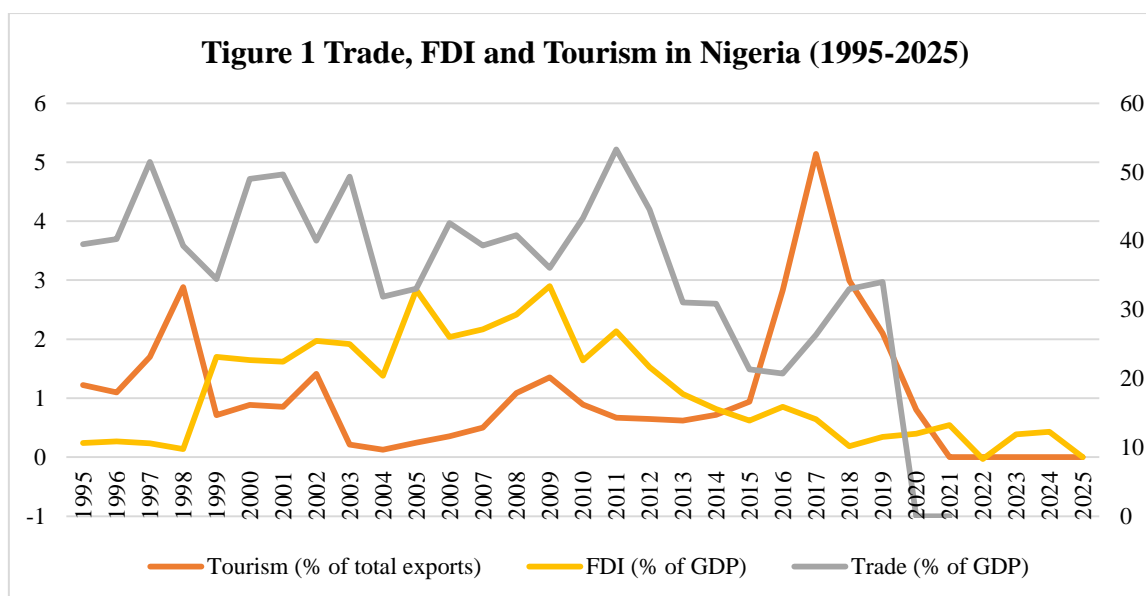
Historically evidence reveals some good insights about Nigeria FT, FDI and tourism. According to United Nations Commodity Trade Statistics (UN Comtrade) (2017), the Nigerian total trade volume (export + import) in 2017 was over 75 billion (b) United States Dollars (hereinafter US\$) where total export and import accounted for 13.17% and 13.18% of the GDP respectively. Similarly, in 2018, the total trade volume due to Nigeria is over US\$105b, of this volume, total export value accounted for over US\$62b, while over US\$43b is attributed to total import value (UN Comtrade, 2019). Furthermore, Nigeria's total export and import in 2019 is over US\$53b and US\$47b respectively (UN Comtrade, 2020). This statistic yields a total trade balance of over US\$6b and a total trade volume of over US\$100 for 2019. Also, the GDP of Nigeria in 2019 stood at over US\$448b. Then, close examination shows that export and import contribution to Nigeria's GDP rose significantly in 2019 from their previous 2018 contributions. Therefore, statistics show that in 2019, the percentage contribution of export and import to Nigeria's gross domestic product (GDP) are 14.22% and 19.8% respectively. The 2019 trade statistics show that the trade volume declined. Explicitly, the statistical facts reveal that Nigeria trade

volume rose significantly by 39.2% between 2017 and 2018 but declined slightly thereafter by 4.2% between 2018 and 2019.

Similarly, foreign direct investment (FDI) is simply investment inflows recorded in host nations from overseas. FDI aids in economic advancement of every nation world-over. It is a key driver to economic sustainability. According to IMF (1993), FDI is an investment involving long-run association which reflects long-term interest where an enterprise of a host country is controlled by foreign investor. In most developing countries especially Nigeria, foreign aid and foreign direct investment help to shore-up their external reserve (Oyegoke & Aras, 2021). They further opined that, FDI helps in capital accumulation, technical know-how, together with effective medium for exchange among nations. This kind of investment also serves as a link through which invention, knowledge and innovation are transfer for the host country.

Nigeria is the first country to accommodate foreign direct investment in sub-Saharan Africa as shown statistically and also third worldwide. With the aim of diversifying the economy away from oil, there has been several trade policies imposed by the Nigerian economy. These policies are focused on enhancing the industrial sector, together with the results from amendment in expenditure and tax policies. The total FDI inflow to the country in 2018 was about USD 1.9 billion, while in 2017, FDI inflow was around USD 3.5 billion, reflecting a decline because of the consequences of the rigid measures imposed in 2018. At mid-2019, the FDI was only 3.37% (USD 200.08 million) of the total capital inflow for the period. Specifically, with these significant contributions of FDI between Nigeria and the rest of the world at large, shows that the level of globalization of the economy has become incredible in recent time and the opportunity which FDI presents to the economy and its effect on the level of tourism receipts can no longer be ignored.

Furthermore, tourism simply means a temporal movement of individual from one nation (developed) to another nation (less developed) for leisure, educational purposes, and etc. Tourism sector exposes us to significant and vital opportunity such as, technology transfer, knowledge transfer, economic growth and development, structural change based on economic diversification which helps to improve other sectors of the economy thereby liberating them from dependency on oil revenue, easy ground for exchange and economic and macroeconomic stability. According to Marshal and Solomon (2017), Nigeria being the largest economy in Africa went into recession in 2016 because of shocks in oil price which started in 2013. Thus, the tourism sector offers African economies especially Nigeria, most of which depend on the export of basic minerals and primary products, a means of insulating themselves against unexpected shocks in demand. (Shadab, 2018; Tourism is said to be an effective and profitable potential to actualizing economic diversification and sustainable growth and development in African especially Nigeria. It is believed that for a business entity to succeed in a given location it will have to adapt to its environment. Likewise, tourism, cannot exist in isolation from its surroundings; (social, political, economic, technological, legal and ecological surroundings) because these afar mentioned factors affect an entity in an economy, and its survival depend solely on its responsiveness to the threats and opportunities the environment (surroundings) presents to it. According to Archibong, (2004), Nigeria tourism is focused on the events owed by the great number of Nigerian's ethnic classes, such as savannah, waterfalls, rainforests and etc. (Appiah 2010), said that Lagos has become the center for African and black cultural identity. Numerous festival activities are being held in Lagos and some other cities monthly and annually. These festivals include but not limited to the Lagos black heritage festival, Festac food fair, Eyo festival among others.



Source: Authors' plot using WDI (2025)

Prior to international tourist arrivals, Nigeria recently is surpassing Zimbabwe, as it has been recorded as the fifth most visited country in Africa with about two million international arrivals in 2016, showing a 50% increase in 2015 which has about 1255000 total numbers of arrivals (UNWTO, 2017). Based on statistics from global travel and tourism council, tourism contribution in 2016 to Nigerian economy was around 1861.4 billion naira, or over 1.7% of total GDP with yearly growth estimate of 3.6%. Travel and tourism currently support over 600,000 jobs in Nigeria (UNWTO, 2016). Figure 1 below shows the graphical representation of the trade, FDI and tourism statistical in Nigeria between 1995 and 2025. Trade is placed on the secondary axis because its data points is significantly larger than FDI and tourism. Overall, the chart shows that these indices have been up over time but have continued to decline in recent time.

Many researchers have agreed that tourism sector has a very high potential to the growth and development of developing countries. The sector has been adjudged as imperative to fostering productive activities, export expansion, employment generation, income generation, poverty alleviation, economic development and structural transformation thereby improving the agricultural and other sector of the economy leading to economic stability and human welfare (Yusuf & Akinde,

2015; Sharpley, 1999; Steinmetz, 2010; Davidmac, Jonathan, Anthony & Ugbor, 2021). Apart from FDI, it has also been asserted that the performance of the tourism sector is influenced by trade activities especially that of the foreign aspect which increases gross domestic product (GDP) and by extension generates employment. Despite these benefits that tourism presents to us, its present state has not reflected the level of FDI and FT seen in recent Nigeria economic history thus tourism contributes meagerly to Nigerian GDP. The argument is that tourism contribution to GDP has not commiserated the increases observed with especially foreign trade and that of the FDI and that boils down to the problem identified. However, given the ugly state of the Nigerian tourism sector, the Nigerian government and other relevant authorities is not just on looking. The Nigerian Tourism Development Corporation (NTDC) create in 1962 to oversee all developmental activities of tourism industry in Nigeria as well as conceive promotional strategies has been grappled with lots of challenges especially the advent of the global pandemic otherwise known as COVID-19. Tourism as known is a gold mine that rakes in billions of dollars annually for various countries of the world but it appears worst hit as international travels were banned, while social gatherings and non-essential activities were grounded in most countries of the world. In Nigeria, the sector suffered a huge blow as all tourist sites were shut down. This has

impacted greatly on the Nigerian tourism recent potentials. Also, poor investment (including advertisement) in tourism and general poor state of Nigeria infrastructure is considered to be a huge challenge. Gbadel (2007) pointed out the need for professional ground handling arrangements in the tourism industry which is equally identified as another problem of tourism industry in Nigeria. To this end, this paper explores the effect of FDI and FT on tourism arrival in Nigeria. The rest of this paper is organized as follows; section 2 discusses the brief empirical review; section 3 takes on methodology and data while sections 4 and 5 presents and concludes the results respectively.

## 2. Biref Empirical Review

### 2.1 FT and Tourism Link

Wipaporn and Piriya (2017) analyzed the relationship between international trade and international tourism demand in Thailand between 1998-2010. The study employed Tobit model on 207 trade partnership countries of Thailand. The findings of the study are that the degree of trade openness was positively correlated with international tourism demand. A percentage increase in trade share to GDP contributed about 0.046 percent of short-term foreign tourism and 0.807 percent of long-term tourism demand in Thailand. The import volume from origin countries' tourists to Thailand also increased the short-term tourism demand by 0.029 percent and the long-term tourism demand by 0.592 percent in Thailand. Jigar and Ronaldo (2010) examined the relationship between international tourism and international trade flows using a network sciences approach, covering the period of 2006 and 2010. The empirical results show strong weighted degree correlation and strong Page Rank correlation between trade and tourism networks. This paper shows the relationship using metrics derived from network sciences. Oladunjoye and Areyemi (2021) investigated the impact of tourism and globalization on economic growth in Nigeria between 1986 and 2018. Secondary data on gross domestic product per capita, international tourism receipt, exchange rate and foreign direct investment were sourced from the World Development Indicators (WDI) of the World Bank while data on terms of trade and globalization index were sourced from Statistical Bulletin of the Central Bank of

Nigeria and KOF Swiss Economic Institute Database respectively. Data collected were analyzed using econometrics techniques of autoregressive distributed lag (ARDL) model. The study finds that interactive effect of both tourism and globalization has a negative but insignificant impact on economic growth in Nigeria which implies that the tourism industry in Nigeria is largely underdeveloped and has failed to take advantage of increasing globalization while foreign direct investment and exchange rate significantly promote economic growth in Nigeria. The study concludes that the tourism industry in Nigeria is underdeveloped and has failed to harness the opportunities linked with globalization.

### 2.1 FDI and Tourism Link

Ahmad, Somaye and Soraya (2013) investigates the existence of Granger causality and cointegrated relationships between tourism related foreign direct investment (FDI) and tourism development in developing countries using panel VECM techniques from 1995 to 2008. The results confirm the existence of a co-integrated relationship between variables in the long run. In addition, there is a bilateral long-run causality between tourism related FDI and tourism development, while there is no short-run causality between variables. Ogechi, Nathaniel, Ellis and Olaniyi (2020) examine the nexus between foreign direct investment (FDI) inflow and tourism development. Using annual data for 44 countries in Africa from 1995 to 2014, and three different specifications of panel autoregressive distributed lag model, the study finds short-run and long-run dynamics between FDI and tourism development. The study finds a significant positive relationship and a bidirectional long-run causality between FDI inflows and tourism development. In addition, the results show a negative short-run relationship between exchange rate and tourism development. Furthermore, there is evidence that economic growth and political stability are important determinants of tourism development. A major policy implication for African countries is that creating a politically stable environment and sustaining a growing economy help attract FDI inflows to boost tourism development.

Henri and Sonja (2016) investigated on the links between the tourism of African countries and inward FDI in tourism covering the period

2003-2014. The findings through a descriptive analysis are that, not only, does FDI in tourism positively affect the various tourism categories' figures but also that the main investors are not the traditional African FDI partners. FDI in tourism is also focused on a narrow band of highly specialized tourist destinations, which allows for highly specialized policy adaptations. These results help to focus FDI policy formulation by African governments and Investment Promotion Strategies, Investment Incentives and Bilateral Investment Agreements between home and host countries as well their respective Investment Promotion Agencies. The results may also help industry to understand the untapped potential for tourism FDI in Africa. Olaniyi and Ikechukwu (2018) studied to determine the effects of Foreign Direct Investment (FDI), trade, aid, remittances and tourism on welfare under terrorism and militancy. Using Nigeria as a case study for the period from 1980 -2016, using the method of autoregressive distributed lag (ARDL) bounds testing approach and the Cobb-Douglas production function. The empirical findings showed that, in the short-run, FDI, trade, aid, remittances and tourism had positive significant effects on welfare, even under terrorism and militancy. However, in the long run, only aid and remittances had significant effects while FDI, trade and tourism were insignificant. In other words, FDI, trade and tourist inflows were repressed as a result of the presence of terrorism and militancy in the long-run, meaning that they could not thrive in tensed and insecure environments. Surprisingly, despite the presence of militancy and terrorism, in the long-run, aid and remittances still had significant effects on welfare. The findings also showed that terrorism and militancy had significant negative effects on welfare both in the short and long run. In conclusion, terrorism and militancy not only undermined FDI, trade and tourism, but also led to a significant decline in welfare. Ebuloluwa and Osman (2021) examined the impact of FDI on economic growth in Nigeria by determining the effect of FDI on the host country, and evaluating the effect on the owners of FDI using Nigeria as a case study. The variables under consideration are the FDI inflow, FDI outflow, and the GDP, for the period 1970-2019, the data was collected from the World

Bank indicators (2019 version) and analyzed using the ordinary least square (OLS) method. The finding shows that, FDI inflow has a positive impact on the economy which implies that the developmental goal of foreign investment in developing countries is evident in Nigeria. In other words, as FDI increases its flow into the country, positive economic changes are also recorded. It is pertinent to also note that FDI is an integral part of trade, hence policies that promote foreign investment and at the same time protect, supplement domestic production and investment, as well as complements the development goals of the host countries should be encouraged. I, therefore, recommend that for all FDI inflow into the country, at least 80% local content should be emphasized and closely monitored to ensure compliance, thereby strengthening the domestic markets and stimulating a sustained economic growth.

Finally, multiple literatures painstakingly reviewed in this study reveals existence of scanty or limited studies in this area. Most studies reviewed concentrated on the impact of tourism on economic growth either as a country-specific analysis or cross-country analysis (Ekeocha et al., 2021; Ojo, et al., 2014; Ekundayo & Grace, 2015; Matthew, et al., 2018; Agri, et al., 2016; Khan, et al., 2020; and Akighir & Aaron, 2017). Also, few studies that attempted to nip in the bud the relationship between either international trade or FDI and tourism are either lacking in scope (Wipaporn & Piriya, 2017; Jigar & Ronaldo, 2010; and Ahmad, et al., 2013) or methodology (Oladunjoye & Areyemi, 2021; Ogechi, et al., 2020; and Romanus, et al. 2020). To this end, we believe that little or no work has attempted the combined effect of FDI and international trade on tourism arrival in Nigeria. Also, other efforts made by previous studies failed to account for the past histories of FDI and international trade on tourism arrival in Nigeria.

### 3. Data and Methodology

This study is modeled by the push-pull theory. This hypothesis developed by Everett lee in 1966, is of the view that individuals migrate because they are forced out of their own area. Others move because they are drawn to or captivated by other places. People yearning to have vacation have the alternative of choosing a destination that best suit their requirements





**Table 4.2 Stationarity Test**

Phillips-Perron (PP) Unit Root Test Results					
With Constant and Time Trend					
Variables	Level Statistics	Probability	1 <sup>st</sup> Diff. Statistics	Probability	Remark
EXR	-1.907588	0.6437	-4.074753	0.0092	I(1)
FDI	-1.559927	0.8022	-5.844434	0.0000	I(1)
FT	-2.061654	0.5608	-5.057284	0.0003	I(1)
GDP	-0.096130	0.9944	-4.030934	0.0105	I(1)
T	-1.544016	0.8081	-5.313248	0.0001	I(1)
INF	-2.117831	0.5298	-8.623489	0.0000	I(1)
HOS	-2.758824	0.2159	-4.318831	0.0043	I(1)

**Source:** Author's computation using Eviews9  
Table 4.2 reveals the outcome of the Phillips-Perron unit root test result conducted. The result shows that all the variables are integrated of order one,  $I(1)$ . This is to that none of the variables are stationary at levels, this is exemplified by their corresponding large p-values. However, after first

differencing, all the series become stationary given their respective small p-values which is at least below 5% significance level. Therefore, we conclude that all our variables are of the same other.

**Table 4.3 Co-integration Test Results**

ARDL Bound Test				
Lower Bound (I0)	Upper Bound (I1)	Significance	F-Statistic	K
1.75	2.87	10%	1.792446	6
2.04	3.24	5%		
2.32	3.59	2.5%		
2.66	4.05	1%		

**Source:** Author's computation using Eviews9  
The co-integration test procedure is conducted to establish a long run relationship among the variables under consideration. According to Gujarati (2004), two variables are said to be co-integrated if they have a long run or equilibrium relationship between them. The purpose of the co-integration test is to determine whether a group of non-stationary series is co-integrated or not. In table 4.3, following the outcome of the unit root results, cointegration test is conducted using Auto-regressive Distributed Lag (ARDL) bound test approach. The results confirms that the null hypothesis of no long run association between the dependent and independent variables cannot be rejected, hence we conclude that we have sufficient evidence against the alternative hypothesis of cointegration. This can simply

be verified by comparing the f-statistic (1.792446) with 5% critical lower bound. Thus, since the f-statistic is less than the 5% critical lower bound (2.04), we cannot reject the null hypothesis of no long run equilibrium association. This therefore leaves the confidence of conducting only the long run ARDL shown below. This however implies that only the long run model of the ARDL is estimated and reported.

#### 4.1 Regression Results

Table 4.4 shows the actual empirical regression results for this study. The result shows that past (both first and second periods) histories of tourism arrivals (T) in Nigeria are statistically significant at 1% level given their probability values (p-value) of 0.0000 which is almost zero. Furthermore, both the lag values

of T show alternating signs in relation to the current value of T. Specifically, first period lag of T is positive whereas the second period lag is negative. This implies that rise in first period lag of T increases its present value while the second period lag does the opposite. Foreign direct investment (FDI), gross domestic product (GDP), exchange rate (EXR) and infrastructure (INF) are all found to be statistically significant with positive associations with tourism arrival (T). This implies that FDI is statistically significant with positive association with tourism arrival in Nigeria. Quantitatively, a percentage increase in FDI will be associated with about 0.03% rise in tourism arrival on the average in Nigeria. This follows economic theory since tourism depends on pull factors. For GDP,

positive and significant relationship exists between GDP and tourism arrival in Nigeria. Empirically, a percentage increase in the level of GDP will significantly increase tourism arrival in Nigeria by about 4.64% on the average. Exchange rate (EXR) on the other hand has a positive and significant relationship with tourism arrival in Nigeria. Explicitly, a percentage increase in EXR will be associated with about 0.28% rise in tourism arrival on the average in Nigeria. For infrastructure (INF), positive and significant relationship also exists between it and tourism arrival in Nigeria. Therefore, a percentage increase in level of infrastructure will be associated with about 2% rise in tourism arrival on the average in Nigeria.

**Table 4.4 ARDL long Run Results based on ARDL (2, 0, 0, 2, 2, 2, 2)**

<b>Dep. Variable: T</b>				
<b>Variable</b>	<b>Coefficient</b>	<b>Std. Error</b>	<b>t-Statistic</b>	<b>Prob.*</b>
T(-1)	1.443407	0.082771	17.43864	0.0000
T(-2)	-0.545136	0.080475	-6.773944	0.0000
FT	-0.001515	0.000739	-2.050029	0.0433
FDI	0.027932	0.010301	2.711426	0.0080
HOS	-0.004860	0.001767	-2.750392	0.0072
HOS(-1)	0.008605	0.003109	2.767564	0.0069
HOS(-2)	-0.003220	0.001885	-1.707825	0.0911
GDP	4.639214	1.140892	4.066305	0.0001
GDP(-1)	-8.745893	2.117880	-4.129551	0.0001
GDP(-2)	4.142573	1.094346	3.785434	0.0003
EXR	0.002828	0.001089	2.596828	0.0110
EXR(-1)	-0.006098	0.001936	-3.149246	0.0022
EXR(-2)	0.003414	0.001057	3.229976	0.0017
INF	0.019500	0.004543	4.292343	0.0000
INF(-1)	-0.036549	0.008020	-4.557133	0.0000
INF(-2)	0.017085	0.004056	4.212452	0.0001
Adjusted R-squared	0.993668			
Durbin-Watson stat	2.251529			

**Source:** Author’s computation using Eviews9  
Variables such as foreign trade (FT) and hospitality (HOS) have mixed results. Both have a negative and significant relationship with tourism in Nigeria. One would expect the two variables to depict positive associations with tourism. Therefore, the negative relationship of trade could be associated with trade diversion brought about by regional economic integrations which are seen as agents of trade liberalization. Also, this result is not however surprising as Nigeria continues to record persistence trade deficits which ultimately deteriorates her terms of trade, stifling the local firms thereby reducing growth and development and subsequent tourism decline. This implies that 1% increase in FT reduces tourism by averagely 0.15% other things being equal. On the part of HOS, the negative sign could be linked to the poor hospitality infrastructure and management compare to the emerging market economies. Again, most of the hospitality facilities such as lodging, meals and local transportation are costly in Nigeria. Then, a percentage rise in

HOS leads to an average decline of 0.48% in tourism other things being equal.

The R-square statistic shows that the overall model is reliable as about 99% of the variations in tourism arrival in Nigeria is explained by all the independent variables put together while the Durbin-Watson statistic reveals that the model has no first-order autocorrelation suggesting that the model is good.

**4.2 Granger Causality Test (Pairwise)**

The granger causality test helps in testing the existence of causality and determines its direction. Therefore, pairwise Granger causality test is conducted to ascertain the direction of causality between FDI, foreign trade and tourism in Nigeria. Having tested the long-run relationship of the variables, we investigate the type of causality between variables. The direction of causality can be determined by comparing the f-statistic of the variables with its corresponding table value or simply by using the probability values.

**Table 4.5 Causality Analyses Result**

Null Hypothesis:	Obs	F-Statistic	Prob.
FT does not Granger Cause T	106	0.16661	0.8468
T does not Granger Cause FT		1.12337	0.3292
FDI does not Granger Cause T	106	1.56247	0.2146
T does not Granger Cause FDI		0.70049	0.4987
FDI does not Granger Cause FT	106	0.14985	0.8610
FT does not Granger Cause FDI		0.91284	0.4047

**Source:** Author’s computation using Eviews9  
Table 4.5 therefore, displays the granger causality test result. The results therefore show that there is zero causality between tourism and foreign trade, and between tourism and FDI. This is verifiable using the probabilities associated with the F-statistic of each result. For instance, the null hypothesis say, FT does not granger cause T and T does not granger cause FT. with a probability value of 0.85 and

0.33 for both scenarios, it is obvious that we cannot reject the null hypothesis of no causality for both scenarios. Similarly, causality between FDI and tourism and vice versa shows that we have little or no evidence against the null hypothesis thus we conclude that there is no causality between FDI and tourism in Nigeria.

**4.3 Post Estimation Diagnostics**

**Table 4.6 Serial correlation test**

Breusch-Godfrey Serial Correlation LM Test	
F-Statistic	2.003646 [0.1409]
Obs*R-squared	4.616731 [0.0994]

**Note:** probability values are in square bracket.

**Source:** Author’s computation using Eviews9

This test is used to ascertain whether the error term is serially correlated (specifically at the higher order) or not which is one of the assumptions of the classical linear regression model. The Breusch Godfrey LM test follows the F-and Chi-square distributions. The decision rule is do not reject the null when the

$p > 0.05$  reject if otherwise. The main interest is on the Chi-square statistic. The above table shows the null hypothesis of no higher-order autocorrelation cannot be rejected thus we conclude that the model is free from serial correlation.

**Table 4.7 Heteroskedasticity Test**

<b>Breusch-Pagan-Godfrey Test</b>	
<b>F-Statistic</b>	<b>1.148869 [0.3249]</b>
<b>Obs*R-squared</b>	<b>18.14535 [0.3155]</b>
<b>Scaled explained SS</b>	<b>72.20124 [0.0000]</b>

**Note:** probability values are in square bracket.;  
**Source:** Author’s computation using Eviews9  
Table 4.7 depicts the result of heteroscedasticity test for constant variance of our model. The decision rule is similar to that of the serial correlation. The analyses result show that we cannot reject the null hypothesis

of homoscedasticity given the large p-value (0.3155) of the observed R-squared statistic. This implies that the variance of our model constant overtime and does not depend on time.

**Table 4.8 RESET Test**

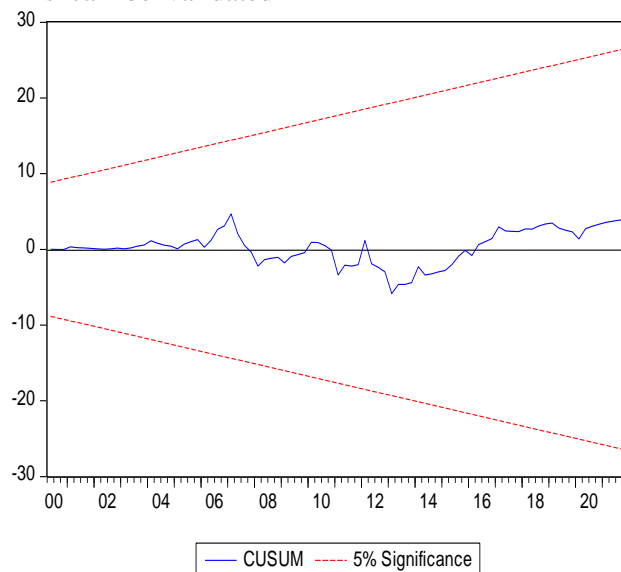
Test Statistic	Value	df	Probability
t-statistic	0.043621	89	0.9653
F-statistic	0.001903	(1, 89)	0.9653

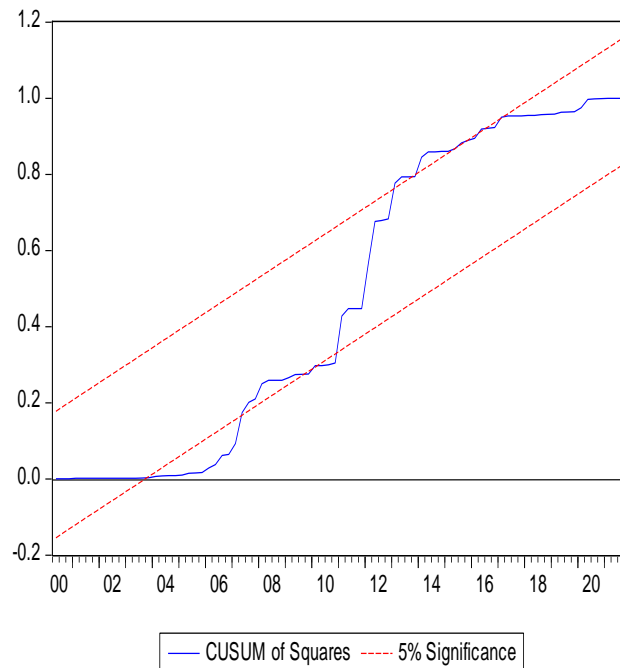
**Source:** Author’s computation using Eviews9  
RESET means Ramsey Regression Equation Specification Error Test. Model specification error test conducted using Ramsey Reset approach shows that the model is devoid of specification problem. This can be validated

through the model t-statistics the associated p-values.

**4.4 Stability Test**

**Figure 4.1 CUSUM and CUSUM of Square Test**





**Source:** Author's computation using Eviews9  
The model's stability diagnostics are conducted and shown by the cumulative sum (CUSUM) and CUSUM of square tests in figures 4.1 above. CUSUM tests show that the model is stable as deviation cannot be established within the 5% critical bounds. However, CUSUM of square result shows that the model deviates slightly from the 5% critical bounds.

### 5. Conclusion and Policy Implications

The study applied ARDL method to distill the hidden facts between foreign direct investment, foreign trade and international tourism arrival relationship. The ARDL bound test results for the study shows that the variables are not cointegrated thus only the traditional ARDL long run results are presented. The result shows that foreign trade and foreign direct investment is significantly influential on international tourism arrival in Nigeria. That is, FDI improves tourism while foreign trade reduces tourism in Nigeria. This therefore implies that the findings of this study with respect to the relationship between FDI and tourism is consistent with the earlier studies by Ogechi, et al., (2020); and Henri and Sonja (2016). As for foreign trade and tourism nexus, our findings contradict or opposes the earlier studies conducted by Wipaporn and Piriya (2017). Based on the foregoing findings of this study; the following are the possible policy implications.

1. Since FDI is found to impact on tourism arrival in Nigeria, the implication is that increases in FDI will raise tourism arrivals in Nigeria and subsequent increase growth and welfare. Therefore, the implication of this is that should there be neglect on the FDI attractive policies, tourism will suffer which will spillover to growth and ultimately welfare.
2. In as much that exchange rate is found to improve tourism arrival, stability in the foreign exchange market is of important such that tourists won't experience unusual spikes that characterize the Nigerian foreign exchange market especially in recent time. This will aid and guide the planning as well as smooth experience by intending and prospective tourists.
3. Also, since GDP is found to improve tourism, the implication is that sustained growth will be beneficial to the tourism industry which will equally contribute to growth in the next period whereas growth decline will do the opposite.
4. As for the foreign trade, the implication is that the neglect of terms of trade is detrimental to the tourism industry in Nigeria. Therefore, renegotiation of trade terms as well as bilateral trade relations and other regional trade integrations involving Nigeria remains too critical to be neglected. The implication of this neglect is shown by the declining tourism and its concomitant spillovers into other sectors of the economy.

In as much as we have made good attempts in this study, there still exists open explorable areas in this field. Also, since tourism is affected by seasonality variations, this study falls short as it does not account for seasonality pattern of tourism in Nigeria. In this regard, we encourage future researchers to look into seasonal adjustment of the variables in subsequent research.

## References

- Adeola, O., Boso, N., Osabutey, E. L. C., & Evans, O. (2020). Foreign direct investment and tourism development in Africa. *Tourism Analysis*, 25(4), 395–409. <https://doi.org/10.3727/108354220X15894802540212>
- Ahmad, A. J. S., Sadeghi, S., & Sadeghi, S. (2013). The relationship between foreign direct investment and tourism development: Evidence from developing countries. *International Journal of Institutions and Economies*, 5(2), 59–68.
- Appiah, K. (2010). [Details on Lagos as center for African and black cultural identity; festival activities].
- Archibong, (2004). [Nigerian tourism focused on ethnic classes, savannah, waterfalls, rainforests].
- Bezuidenhout, H., & Grater, S. (2016). The dimensions of FDI in the tourism sector in Africa. *Journal of Applied Business Research*, 32(2), 637–652.
- Central Bank of Nigeria. (Various years). *Statistical Bulletin*.
- Chaisumpunsakul, W., & Pholphirul, P. (2018). Does international trade promote international tourism demand? Evidence from Thailand's trading partners. *Kasetsart Journal of Social Sciences*, 39(3), 393–400. <https://doi.org/10.1016/j.kjss.2017.06.001> (Original work published 2017)
- Ebunoluwa, O. O., & Aras, O. N. (2021). Impact of foreign direct investment on economic growth in Nigeria. *Journal of Management, Economics, and Industrial Organization*, 5(1), 31–33. <https://doi.org/10.31039/jomeino.2021.5.1.2>
- Ekeocha, D. O., Ogbuabor, J. E., Orji, A., & Kalu, U. I. (2021). International tourism and economic growth in Africa: A post-global financial crisis analysis. *Tourism Management Perspectives*, 40, 100896.
- Engle, R. F., & Granger, C. W. J. (1987). Co-integration and error correction: Representation, estimation, and testing. *Econometrica*, 55(2), 251–276.
- Evans, O., & Kelikume, I. (2018). The effects of foreign direct investment, trade, aid, remittances and tourism on welfare under terrorism and militancy. *International Journal of Management, Economics and Social Sciences*, 7(3), 1–20.
- Foresti, P. (2006). Testing for Granger causality between stock prices and economic growth.
- Gujarati, D. N. (2004). *Basic econometrics* (4th ed.). McGraw-Hill.
- Henri, B., & Sonja, G. (2016). The dimensions of FDI in the tourism sector in Africa. *Journal of Applied Business Research*.
- International Monetary Fund. (1993). *Balance of payments manual* (5th ed.).
- Jigar, B., & Ronaldo, (2010). On the relation between tourism and trade: A network experiment. In *Proceedings of the 2013 IEEE/ACM International Conference on Advances in Social Networks Analysis and Mining* (or related IEEE publication).
- Khan, A. M., Naseem, S., & Khan, U. (2021). Tourism industry and its impact on economic growth of five GCC countries. *International Journal of Entrepreneurship*, 25, 1-9.
- Marshal, I., & Solomon, I. D. (2017). Nigeria economy and the politics of recession: a critique. *Journal of Advances in Economics and Finance*, 2(4), 259.
- Matthew, O. A., Ede, C., Osabohien, R., Ejemeyovwi, J., Ayanda, T., & Okunbor, J. (2021). Interaction effect of tourism and foreign exchange earnings on economic growth in Nigeria. *Global Business Review*, 22(1), 7-22.
- Ogechi, A., Nathaniel, B., Ellis, O., & Olaniyi, E. (2020). Foreign direct investment and tourism development in Africa. *Tourism Analysis*.
- Ojo, J. S. (2014). Managing tourism for socio-economic development in Nigerian Local Government: A case study of Idanre Local Government. *Journal of African studies and Development*, 6(2), 29.
- Oladunjoye, O. N., & Areyemi, (2021). Tourism, globalization and economic growth in Nigeria. *African Journal of Economic Review*, 9(2), 1–15.
- Olaniyi, E., & Ikechukwu, K. (2018). The effects of foreign direct investment, trade, aid, remittances and tourism on welfare under terrorism and militancy. *International Journal*

*of Management, Economics and Social Sciences.*

Oyegoke, E. O., & Aras, O. N. (2021). Impact of foreign direct investment on economic growth in Nigeria. *MPRA Paper No. 108348*.

Pesaran, M. H., Shin, Y., & Smith, R. J. (2001). Bounds testing approaches to the analysis of level relationships. *Journal of Applied Econometrics*, 16(3), 289–326. <https://doi.org/10.1002/jae.616>

Sharpley, R. (2014). Host perceptions of tourism: A review of the research. *Tourism management*, 42, 37-49.

United Nations Commodity Trade Statistics Database. (2017, 2019, 2020). *UN Comtrade*.

United Nations World Tourism Organization. (2016, 2017). *UNWTO tourism highlights / World tourism barometer*.

Wipaporn, C., & Piriya, P. (2018). Does international trade promote international tourism demand? Evidence from Thailand's trading partners. *Kasetsart Journal of Social Sciences*, 39(3), 393–400.

World Bank. (2025). *World Development Indicators*.

<https://databank.worldbank.org/source/world-development-indicators>