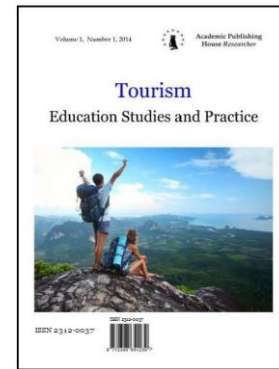


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The Effect of Tourism on Nigerian Economic Growth

A.O. Isaac ^{a, *}, A.O. Oyelade ^a

^a University of Ibadan, Nigeria

Abstract

This study empirically investigated the effect of tourism on Nigerian economic growth using annual time series data from 1980 to 2016. The study made use of standard neoclassical growth theory while ordinary least square (OLS) and Granger causality test was the estimation techniques used in the study. The result of the OLS revealed that gross capital formation and labour were positively related to gross domestic product while total average on spending, total visit and total earnings were negatively related with gross domestic product in Nigeria. Total visit and total earning were inversely related with gross domestic product, which is again the result expected. Also, the Adjusted R-square showed that about 72.8 % of the total variations in the behaviour of gross domestic product are explained by explanatory variables and the Durbin-Watson statistics of 2.108 implied that there is no autocorrelation or serial correlation in the data for the model. Also, Granger causality result revealed that out of the three tourism variable, causality only run from total earning from tourism to economic growth while causality does not run from both total average spending on tourism centre and total visit to economic growth. The study recommended that the authorities in charge of tourism in Nigeria need to embark on public-private partnership for more investment in tourism and this will go a long way in developing the country's tourist centre and this will make our tourist centre to compete with others outside the country. There should be increase in spending on tourism centre so as to attract more visitor from within and outside the country and this will make the nation to have more revenue. There should be proper monitoring of our tourist centre and proper maintenance of the centre.

Keywords: GDP, gross capital formation, labour, total average spending on tourism, total visit and total earnings from tourism, Ordinary Least Square (OLS), Granger Causality Test.

1. Introduction

Tourism involves the travels of persons to places outside their usual environment for leisure, it is indicative of how such activities may benefit host and local economies and communities (Ayeni, Ebohon, 2012). Tourism is the migration of people, families and groups to places outside their normal residential areas for a limited period of time and their personal choice. Also, it is a temporary short movement of people to destination outside the place where they normally live and work. However, a clear definition adopted by the International Association of Scientific Experts in Tourism (IASSET) reads that "Tourism is the sum total of the phenomenon and relationship arising from the travel and stay of non-residents, in so far as they do not lead to permanent residence" (Ndajiya et al., 2014).

* Corresponding author

E-mail addresses: Isaac.036@yahoo.com (A.O. Isaac), adontopdominating@gmail.com (A.O. Oyelade)

Despite that tourism is of great importance to developing countries like Nigeria, there are still some negative aspect, ranging from insecurity of tourist down to environmental hazards and fear of kidnapping. Nigeria tourism industry especially is facing the problem of lack of political will on the part of the government which gives rise to the numerous problems facing the industry. Again, there is urgent need for the review of national policy on tourism so as to make it more encompassing, broad based proper planning and dynamism, such as giving tourism its rightful place in the constitution, offering tourism courses in universities, standardization of hotels, zoning etc. (Ayeni, Ebohon, 2012). Another problem of tourism is that of funding. It is not advisable and not the case in place, where tourism has developed to have too much government involvement but rather government provide the guidelines then allow the private sectors and financial institutions to take up the development of tourism industry. In fact, tourism is a product of sectoral cooperation and governmental backing. This is a very big problem in Nigeria. A situation where roads are in bad shape, inadequate and in some cases absence of portable water, erratic power supply, poor communication networks and other aspects of social amenities required to support tourism are not in existence will not augur well for tourism industry (Ndajiya et al., 2014). Political instability, conflicts, insecurity and poor attitudinal changes among Nigerians will tend to scare away genuine tourists. Nevertheless, catalogue of problems plaguing the prospects of this viable industry cannot be overemphasized due to the following reasons: Nigeria has all the potentials of tourist attractions from rocks and falls, wildlife parks and gardens down to hotels and conference centres (Eruotor, 2014).

Based on the above problems, the study is set to investigate the effect of tourism on Nigerian economic growth and specifically to determine the impact of tourism on economic growth in Nigeria and causal relationship between tourism and economic growth in Nigeria.

2. Literature Review

The relationship between tourism and economic growth had been studied by different researcher and they came out with different results. Fayissa et al. (2007) examined the impact of tourism on economic growth and development in Africa by using a panel data of 42 African countries for the years that span from 1995 to 2004. The results showed that receipts from the tourism industry significantly contribute both to the current level of gross domestic product and the economic growth of Sub-Saharan African countries as do investments in physical and human capital. In the same vein, Ndajiya et al., (2014) investigated the possible impact of tourism industry on Nigeria economy. The empirical result showed that inadequate funding, investment and political will have been a constraint to tourism industry, it has bright prospects if its policies are well articulated to develop it in a sustainable, equitable and responsive manner to raise the living standard of Nigerians.

Olayinka (2013) determined the effects of tourism exports on Africa's economic growth using a panel co-integration analysis from 1990 to 2011 for thirty African countries. The study found that tourism has the potentials of accelerating long-run economic growth, while African growth can be used in the development of tourism exports. Also, Atan and Arslanturk, (2012) examined the tourism and economic growth nexus by means of input-output analysis, covering forward and backward linkage effects. The analysis showed that tourism sector has important and significant impact on economy especially with hotel and restaurant indicator. Seghir et al. (2015) analyzed the relationship between tourism spending and economic growth in 49 countries. The results indicated bidirectional causality between tourism spending and economic growth, which could be a good tool to prioritize the allocation of resources across industries to ensure a better tourism in general and economic outcomes.

Furthermore, Ohlan (2017) investigated relationship between tourism and economic growth in India by considering the relative importance of financial development over the period of 1960–2014. The results of newly-developed Bayer and Hanck combined test indicated that tourism, economic growth and financial development are co-integrated. It is shown that the inbound tourism spurs economic growth in India both in long-run and short-run. In addition, the analysis indicated the presence of a long-run one-way Granger-causation running from tourism to economic growth. Figini and Vici (2013) provided an empirical assessment of the relationship between tourism specialization and economic growth on 150 countries covering different time spans between 1980 and 2005. The study found out that tourism-based countries did not grow at a

higher rate than non-tourism based countries, except for the 1980–1990 period for which, however, data on international tourism are not fully reliable.

Gautam (2014) confirmed empirically about the positive impact of tourism in Nepal. It was based on Nepalese data of foreign exchange earnings from tourism and gross domestic product for the period between 1974/75 and 2009/10. The evidence confirmed the conventional wisdom that tourism development causes economic growth both in short and long-run. Tang and Tan (2015) attempted to further verify the validity of the tourism-led growth hypothesis in Malaysia using annual data from 1975 to 2011. The study found out tourism has a positive impact on Malaysia's economic growth both in the short-run and in the long-run while Granger causality run from tourism to economic growth in Malaysia. All these provides the empirical support for the tourism-led growth hypothesis in Malaysia. Also, Ekanayake and Long, (2012) used the newly developed heterogeneous panel co-integration technique to examine the causal relationship between tourism development and economic growth by using the annual data for the 1995–2009 period. The results showed that the elasticity of tourism revenue with respect to real GDP is not statistically significant for all regions, its positive sign indicates that tourism revenue makes a positive contribution to economic growth in developing countries. The results of the study suggest that governments of developing countries should focus on economic policies to promote tourism as a potential source of economic growth.

In the same vein, Zaei and Zaei (2013) investigated the impacts of tourism industry on host community. Tourism positively contributes to the maintenance of a natural environment by protecting, creating or maintaining national parks or other protected areas. Flecha et al. (2010) examined the economic impacts of tourism in Ouro Preto, MG, Brazil. The results revealed the real importance of tourism for Ouro Preto, representing up to 10.4 % of GDP in 2002, up to 21.8 % of tax revenues in 2004 and approximately 11 % of the region's population in 2002 was related to tourism sales. Some actions can be outlined from these results in order to illustrate the current economic reality of the tourism in Ouro Preto. It is also possible to improve the tourist planning accomplished by the local City Hall in a coherent way with the economic results generated by the tourism. Chou (2013) examined causal relationships between tourism spending and economic growth in 10 transition countries for the period 1988–2011. The results support the evidence on the direction of causality, and are consistent with the neutrality hypothesis for 3 of these 10 transition countries (i.e. Bulgaria, Romania and Slovenia). The growth hypothesis holds for Cyprus, Latvia and Slovakia while reverse relationships were found for the Czech Republic and Poland. The feedback hypothesis also holds for Estonia and Hungary. The study empirical findings provided important policy implications for the 10 transition countries being studied.

3. Theoretical Framework and Methodology

3.1. Theoretical Framework

The theoretical framework for this study is based on the standard neoclassical growth theory. Neoclassical growth theory is an economic theory that outlines how a steady economic growth rate can be accomplished with the proper amounts of the three driving forces; labor, capital and technology. The theory states that by varying the amounts of labor and capital in the production function, an equilibrium state can be accomplished. The theory also argues that technological change has a major influence on an economy and that economic growth cannot continue without advances in technology. Therefore, the production function of neoclassical growth theory is used to measure the growth and equilibrium of an economy, and is depicted as:

$$Y = Af(K, L) \dots\dots\dots (1)$$

“Y” denotes an economy's gross domestic product (GDP); “K” represents its share of capital; “L” describes the amount of unskilled labor in an economy; and “A” represents a determinant level of technology. However, due to the relationship between labor and technology, an economy's production function is often re-written as:

$$Y = f(K, AL) \dots\dots\dots (2)$$

There are two types of capital; the domestic capital and foreign capital. Domestic capital refers to investment in the country regardless of ownership. It thus includes investment in the country by companies owned by non-residents, and excludes investment abroad by resident firms while foreign capital includes any inflow of capital in home country from abroad. It may be in the

form of foreign aid or loans and grants from the host country or an institution at the government level as well as foreign investment and commercial borrowings at the enterprise level or both.

However, since the focus of this study is on tourism and growth, incorporating the above statement into equation (3) yield.

$$Y = f(K, AL, T) \dots\dots\dots (3)$$

Therefore, *T* is the tourism variable and increasing any one of these inputs allows a person to see how it would affect the GDP, and therefore the equilibrium, of an economy. However, it is important to note that the three factors of neoclassical growth theory are not all equal. The returns of both labor, capital and tourism on an economy are diminishing. That means that increases in these two inputs have exponentially decreasing returns.

$$Y = f(K, AL, T) = K^\alpha AL^\beta T^\lambda \dots\dots\dots (4)$$

Where *Y* = Gross Domestic Product (GDP); *K* = Quantity of Capital; *L* = Quantity of Labour; *A* = Technology and *T* = Tourism. Therefore, α , β and λ are also the output elasticity's of capital labor and tourism respectively. These values are constants determined by available technology. Output elasticity measures the responsiveness of output to a change in levels of either labor or capital or tourism used in production.

3.2. Research Methodology

This sub-section deal with research methodology where related issues like model specification, definition of the variables, the data requirement and source and estimation technique are discuss.

3.2.1 Model Specification

The model specification for this research work is based on the theoretical framework above.

$$Y = f(K, AL, T) = AK^\alpha L^\beta T^\lambda \dots\dots\dots (5)$$

The output is assumed to depend on quantity of capital, labour and tourism. Equation (5) will be expressed in logarithm form by logging both sides.

$$\text{Log}Y = A + \alpha \text{Log}K + \beta \text{Log}L + \lambda \text{Log}T \dots\dots\dots (6)$$

$$\text{Log}Y = A + \alpha \text{Log}K + \beta \text{Log}L + \lambda \text{Log}T \dots\dots\dots (7)$$

For study specific, tourism will be divided into tourism average spending, tourism visit and earnings from tourism (income) and they will be incorporated into the model.

$$\text{Log}Y = \beta_0 + \beta_1 \beta \text{Log}K + \beta_2 \beta \text{Log}L + \beta_3 \text{LogTAS} + \beta_4 \text{LogTV} + \beta_5 \text{LogET} \dots\dots\dots (8)$$

Where *LogY* is Logarithm of Gross Domestic Product (₦"million); *LogK* is Logarithm of Gross Capital Formation (₦"million); *LogL* is Logarithm of Labour (Total Number of Employment); *LogTAS* is Logarithm of Total Average Spending on Tourism (₦"million); *LogTV* is Logarithm of Total Visit (Total Number of Visitor to Tourisms Centre) and *LogET* is Logarithm of Total Earnings from Tourism (₦"million).

The econometric relationship of this model is giving below

$$\text{Log}Y = \beta_0 + \beta_1 \beta \text{Log}K + \beta_2 \beta \text{Log}L + \beta_3 \text{LogTAS} + \beta_4 \text{LogTV} + \beta_5 \text{LogET} + u \dots\dots\dots (9)$$

The variables are transformed to their natural logarithms to eliminate any serial correlation and to normalize the variables.

3.2.2. A priori Expectation

The a priori expectation is that a positive relationship would be established between gross domestic product, gross capital formation; labour (total number of employment); total average spending on tourism centre; total visit and total earnings from tourism (Gautam, 2013; Ndajiya et al., 2014; Tang, Tan, 2015; Yusuff, 2016; Kasimati, 2016).

Table 1. A priori Expectation

Explanatory Variables	Symbols	Hypothesis	Expected Sign
Gross capital formation	K	Gross capital formation is expected to have a positive effect on gross domestic product.	+
Labour (total number of employment)	L	Labour (total number of employment) is expected to have a positive effect on gross domestic product.	+

Total average spending on tourism centre	TAS	Total average spending on tourism centre is expected to have a positive effect on gross domestic product.	+
Total visit	TV	Total visit is expected to have a positive effect on gross domestic product.	+
Total earnings from tourism	TE	Total earning from tourism is expected to have a positive effect on gross domestic product.	+

Source: Author’s Computation

3.2.3. The Data Requirement and Source

Annual data covering the period from 1980 to 2015 was employed. Gross domestic product; gross capital formation; labour (total number of employment); total average spending on tourism centre; total visit and total earnings from tourism will be the variables of interest. The data was sourced from Nigerian Tourism Development Corporation (NTDC annual report, 2016) and CBN Statistical Bulletin (CBN, 2016).

3.2.4. Estimation Technique

The study made use of ordinary least squares method (OLS) approach. The OLS method was used because, under certain conditions, it has some very attractive statistical properties that has make it one of the most powerful and popular methods of regression analysis. The method of ordinary least squares was attributed to Carl Friedrich Gauss, a German mathematician. It was based on the principle of minimizing the sum of squares of the prediction errors. The least square estimators has desirable optimal properties often abbreviated as BLUE – Best Linear Unbiased Estimator. The method of least square is regarded as the automobile of modern statistical analysis. Despite its limitations and numerous variations and extensions, it was known and valued by all.

4. Empirical Analysis

4.1. Preliminary Analysis

This section deals with the preliminary analysis which include descriptive, correlation analysis, unit root test and co-integration test.

4.1.1. Descriptive Statistics

Table 2 gives a summary of descriptive statistics of series for the model. The reported statistics include the mean with their corresponding maximum, minimum and standard deviation. The distributional properties are also examined through their skewness and kurtosis, while the Jarque-Bera test statistic is used to test for normality in the distribution.

Table 2. Descriptive Statistics

	LNGDP	LNK	LNL	LNTAS	LNTV	LNTE
Mean	12.396	28.937	17.455	20.426	13.120	18.532
Median	12.271	28.660	17.426	20.656	13.323	18.234
Maximum	12.856	29.892	17.808	23.122	14.257	20.681
Minimum	12.058	27.995	17.218	16.809	11.513	16.951
Std. Dev.	0.2647	0.539	0.207	2.084	0.766	1.202
Skewness	0.503	0.318	0.334	-0.407	-0.478	0.537
Kurtosis	1.649	1.751	1.609	1.930	1.970	1.928
Jarque-Bera	4.376	3.028	3.669	2.788	3.046	3.548
Probability	0.112	0.220	0.160	0.248	0.218	0.170
Sum	458.640	1070.679	645.844	755.746	485.442	685.699
Sum Sq. Dev.	2.522	10.439	1.537	156.291	21.112	51.970
Observations	37	37	37	37	37	37

Source: Author’s Computation

Note: *, ** and *** imply 1 %, 5 % and 10 % rejection of null hypothesis for normality using JB statistics

The weighted average value of gross domestic product is 12.396 with its positive minimum value of 12.058 and maximum value of 12.856. The mean of gross capital formation over the period of study is 28.937 having a minimum value of 27.995 and maximum value of 29.892. The mean

value of labour is 17.455; its minimum and maximum ranges between 17.218 and 17.808 respectively. The weighted average value of total average on spending is 20.426 over the period, its minimum value is 16.809 and maximum value is 23.122. The weighted average value of total visit is 13.120, having 11.513 as minimum and 14.257 as maximum. The mean value of total earning is 18.532; its minimum and maximum ranges between 16.951 and 20.681 respectively.

As shown in the tables all the series exhibit positive average values. Consequently, gross capital formation has the highest yearly mean value of 28.937 while gross domestic product has the lowest yearly mean value of 12.396. Given the standard deviation values of the six series under consideration, total average on spending seems to be more volatile while labour appears to be least volatile. This finding is however, in agreement with the statistical properties of the series. With respect to the statistical distribution of the variables, all the series are positively skewed except for total average on spending and total visit. All of the series are playkurtic (< 3).

4.1.2. Correlation Analysis

The study makes use of correlation analysis in order to show the relationship tourism and economic growth.

Table 3. Correlation Analysis

	LNGDP	LNK	LNL	LNTAS	LNTV	LNTE
LNGDP	1.000					
LNK	0.880	1.000				
LNL	0.811	0.659	1.000			
LNTAS	0.582	0.462	0.869	1.000		
LNTV	0.487	0.394	0.770	0.656	1.000	
LNTE	0.745	0.653	0.907	0.802	0.662	1.000

Source: Authors Computation

From [Table 3](#), the correlation analysis carried out between the log of gross domestic product and the log of select macroeconomic are presented. The correlation analysis of gross domestic product and gross capital formation is positively related. This implies that there is linear positive relationship between gross domestic product and gross capital formation. Specifically, the correlation coefficient between the two is 0.880. Since the coefficient of the relationship between the two is greater than 0.5, there exit a “strong positive correlation” between gross domestic product and gross capital formation. This show that as gross capital formation increase, gross domestic product also increases. The correlation analysis between labour and gross domestic product is positively related. This implies that there is linear positive relationship between labour and gross domestic product. Specifically, the correlation coefficient between the two is 0.811. Since the coefficient of the relationship between the two are greater than +0.5, there exit a “strong positive correlation” between labour and gross domestic product. This shows that as labour increases, gross domestic product also increases.

The correlation analysis between total average on spending and gross domestic product is positively related. This implies that there is linear positive relationship between total average on spending and gross domestic product. Specifically, the correlation coefficient between the two is 0.582. Since the coefficient of the relationship between the two is greater than 0.5 there exit a “strong positive correlation” between total average spending and gross domestic product. This show that as total average on spending increases, the gross domestic product output also increases. The correlation analysis between total visit and gross domestic product is positively related. This implies that there is linear positive relationship between total visit and gross domestic product. Specifically, the correlation coefficient between the two is 0.487. Since the coefficient of the relationship between the two is less than +0.5, there exit a “weak positive correlation” between total visit and gross domestic. This shows that as total visit increases, the gross domestic product output increases but in a decreasing rate.

The correlation analysis between total earning and gross domestic product is positively related. This implies that there is linear positive relationship between total earning and gross domestic product. Specifically, the correlation coefficient between the two is 0.745. Since the coefficient of the

relationship between the two is greater than +0.5, there exit a “strong positive correlation” between total visit and gross domestic product. This show that as total earing increases, the gross domestic product also increases. The implication of this result is that as gross capital formation, labour, total average on spending, total visit and total earning increases, gross domestic product will also increase and thereby leads to increase in the total output of the economy.

4.1.3. Unit Root Test

The unit root test is used to test the stationarity of the variables to know whether the variables are stationarity at level or at difference and this is presented in Table 4.

Table 4. Unit Root Test Using Augmented Dickey-Fuller (ADF) In Nigeria: 1980–2016

Variables	Order	T-statistics	Probability Value	Remark
LNGDP	Level	-0.182	0.932	I(1)
	First difference	-4.956	0.000*	
LNK	Level	-1.230	0.650	I(1)
	First difference	-9.719	0.000*	
LNL	Level	-0.973	0.995	I(1)
	First difference	-4.099	0.003*	
LNTAS	Level	-1.330	0.605	I(1)
	First difference	-6.922	0.000*	
LNTV	Level	-2.288	0.181	I(1)
	First difference	-7.217	0.000*	
LNTE	Level	-1.167	0.678	I(1)
	First difference	-6.679	0.000*	

Source: Authors computation

Note: *, ** & *** implies 1 %, 5 % & 10 % level of significant

The results in Table 4 showed that the variables are non-stationary at levels. The unit root tests applied to the variables at levels reject the null hypothesis of stationarity of all the variables used. The variables are therefore differenced once in order to perform stationarity tests on difference variables. After differencing the variables once, all the variables were confirmed to be stationary. The ADF and PP test applied to the first difference of the data series accept the null hypothesis of stationarity for all the variables used. It is, therefore, worth concluding that the variables are integrated of order. Therefore, the variables will be co-integrated in order to ascertain the existence of long run relationship of the variables.

5.1.4. Co-integration Tests

In table 5, the null hypothesis of no co-integrating vector can be rejected for all the variables used in the study and the empirical findings reinforce the conclusions about the presence of long-run relationship between gross domestic products; gross capital formation; labour; total average spending on tourism centre; total visit and total earnings from tourism. However, the results of the co-integration test of variables are presented in Table 5.

Table 5. Co-integration Test in Nigeria: 1980–2016

Hypothesized	Trace	0.05	Max-Eigen	0.05
No. of CE(s)	Statistic	Critical Value	Statistic	Critical Value
$r \leq 0$	121.500	95.754**	49.908	40.078**
$r \leq 1$	71.592	69.819**	30.325	33.877
$r \leq 2$	41.268	47.856	18.426	27.584
$r \leq 3$	22.841	29.797	11.839	21.132
$r \leq 4$	11.002	15.495	8.808	14.265
$r \leq 5$	2.195	3.841	2.195	3.841

Source: Author computation

Note: ** implies 5 % level of significance

Empirical results from Table 5 show that both the maximum eigenvalue and trace tests on statistics have values greater than the critical values at 5 % level of significance. Therefore, the null hypotheses of no co-integrating vectors ($r = 0$; $r \leq 1$) against the specific alternatives are clearly rejected. There is co-integration at most none with at least one co-integrating equation. It is a clear evidence to say that there are long run equilibrium relations among the six variables

4.2. The Impact of Tourism on Economic Growth in Nigeria

In the presence of co-integration and first difference stationarity among the series, the study employ the ordinary least squares (OLS) estimation technique and it is presented in Table 6.

Table 6. Ordinary Least Squares (OLS) Test

Dependent Variable: LNGDP				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
D(LNK)	0.139	0.045	2.569	0.000*
D(LNL)	0.110	0.006	2.440	0.001*
D(LNTAS)	-0.750	0.060	2.315	0.092***
D(LNTV)	-0.590	0.200	-1.997	0.056***
D(LNTE)	-0.101	0.311	-0.325	0.508
C	3.010675	2.715	1.109	0.403
R-squared = 0.842				
Adjusted R-squared = 0.728				
F-Statistic = 12.894 [0.000]				
Durbin-Watson stat = 2.108				

Source: Author computation

Note: *, ** & *** implies 1 %, 5 % & 10 % level of significance

From the Table 6, gross capital formation and labour are positively related to gross domestic product while total average on spending, total visit and total earning is negatively related with gross domestic product in Nigeria. Total visit and total earning inversely related with gross domestic product which again the result unexpected because an increase total visit to the tourism and total earning from the tourism should result in an increase in the country gross domestic product. The R-square shows that about 84.2 % of the variations in the behaviour of gross domestic product are explained by the explanatory variables. The Adjusted R-square shows that about 72.8 % of the total variations in the behaviour of gross domestic product are explained by the explanatory variables. Furthermore, the Durbin-Watson statistics of 2.108 shows that there exist no autocorrelation or serial correlation in the data for the model. Moreover, the OLS result revealed that gross capital formation and labour caused a rise in gross domestic product of about 0.139 % and 0.110 %, this mean that if gross capital formation increase by a percentage gross domestic product will increase by 0.139 % and also if labour increased by a percent gross domestic product will increase by 0.110 %.

In the same vein, total average on spending, total visit and total earning reduce gross domestic product by 0.750 %, 0.590 % and 0.101 % respectively. The implication of this is that and increase in total average on spending by a percentage will reduce gross domestic product by 0.750 %, also an increase in total visit by a percentage will reduce gross domestic product by 0.590 % while an increase in total earning by a unit will reduce the log of gross domestic product by 0.101 %. From the above interpretation and analysis it was observed that gross capital formation and labour which have a positive relationship with gross domestic product are statistically significant at 1 %, 5 % and 10 % level of significant and total average on spending and total visit which have an inverse relationship with gross domestic product was found statistically significant not at 1 %, 5 % but at 10 % level of significant. Lastly, total earning has inverse relationship with gross domestic product and also not statistically significant.

4.3. Causal Relationship between Tourism and Economic Growth in Nigeria

In order to achieve the second specific objective of the study which is the causal relationship between tourism and economic growth in Nigeria, Granger causality test will be use and this is presented in [Table 7](#).

Table 7. Pairwise Granger Causality Tests

Pairwise Granger Causality Tests			
Null Hypothesis:	Obs	F-Statistic	Prob.
D(LNK) does not Granger Cause D(LNGDP)	35	0.578	0.567
D(LNGDP) does not Granger Cause D(LNK)		13.371	7.E-0
D(INL) does not Granger Cause D(LNGDP)	35	4.873	0.015
D(LNGDP) does not Granger Cause D(INL)		1.097	0.347
D(LNTAS) does not Granger Cause D(LNGDP)	35	1.250	0.301
D(LNGDP) does not Granger Cause D(LNTAS)		0.043	0.958
D(LNTV) does not Granger Cause D(LNGDP)	35	2.170	0.132
D(LNGDP) does not Granger Cause D(LNTV)		1.258	0.299
D(LNTE) does not Granger Cause D(LNGDP)	35	2.274	0.120
D(LNGDP) does not Granger Cause D(LNTE)		2.750	0.080
D(INL) does not Granger Cause D(LNK)	35	8.220	0.001
D(LNK) does not Granger Cause D(INL)		0.323	0.727
D(LNTAS) does not Granger Cause D(LNK)	35	5.157	0.012
D(LNK) does not Granger Cause D(LNTAS)		2.283	0.1194
D(LNTV) does not Granger Cause D(LNK)	35	2.153	0.134
D(LNK) does not Granger Cause D(LNTV)		0.003	0.997
D(LNTE) does not Granger Cause D(LNK)	35	4.618	0.018
D(LNK) does not Granger Cause D(LNTE)		0.926	0.407
D(LNTAS) does not Granger Cause D(INL)	35	4.383	0.021
D(INL) does not Granger Cause D(LNTAS)		0.225	0.800
D(LNTV) does not Granger Cause D(INL)	35	1.691	0.202
D(INL) does not Granger Cause D(LNTV)		2.919	0.069
D(LNTE) does not Granger Cause D(INL)	35	0.164	0.850
D(INL) does not Granger Cause D(LNTE)		6.985	0.003
D(LNTV) does not Granger Cause D(LNTAS)	35	0.313	0.733
D(LNTAS) does not Granger Cause D(LNTV)		2.658	0.087
D(LNTE) does not Granger Cause D(LNTAS)	35	2.473	0.101
D(LNTAS) does not Granger Cause D(LNTE)		3.087	0.060
D(LNTE) does not Granger Cause D(LNTV)	35	4.033	0.028
D(LNTV) does not Granger Cause D(LNTE)		1.842	0.176

Source: Author computation

Note: *, ** & *** implies 1 %, 5 % & 10 % level of significance

From Table 7, there is a unidirectional relationship between labour and gross domestic product. Only labour granger cause growth domestic product implying that any increase in labour will bring an increase in gross domestic product. Also, total earnings from tourism and gross domestic product has a unidirectional relationship with each other implying that only gross domestic product granger causes total earnings from tourism. As the gross domestic product, they invest more on tourism and this attract many visit and increases total earnings from tourism. Also, labour and gross capital formation has unidirectional relationship and this implies that only labour granger causes gross capital formation. As the number of employees increases, they need more machine to operate on and this make gross capital formation to increase.

Furthermore, there is a unidirectional relationship between total average spending on tourism and gross capital formation implying that total average spending on tourism increases investment in Nigeria. In the same manner, gross capital formation and total earnings from tourism has unidirectional relationship meaning that only total earnings from tourism that granger cause gross capital formation. As total earnings from tourism increase, this motive more of private investment that that is the reason why gross capital formation increases. There is a unidirectional relationship between labour and total visit. As a result of increases in the number of visitor to tourisms centre increases, there will be more labour needed to work in the centre and this will also increase total visit to tourism center.

In the same vein, total earnings from tourism and labour has a unidirectional relationship with each other. As total earnings from tourism, labour also increase. Also, total average spending on tourism and total visit (total number of visitor to tourisms centre) has unidirectional relationship implying that total visit (total number of visitor to tourisms centre) increase total average spending on tourism. Lastly, total visit (total number of visitor to tourisms centre) and total earnings from tourism has a unidirectional relationship. More total visit (total number of visitor to tourisms centre) lead to more total visit (total number of visitor to tourisms centre).

5. Conclusion

The study empirically investigated the effect of tourism on Nigerian economic growth using annual time series data from 1980 to 2016 and the study concluded that gross capital formation and labour positively affect gross domestic product while total average on spending, total visit and total earnings negatively affect gross domestic product in Nigeria. Total visit and total earning inversely related with gross domestic product which again the result expected because an increase total visit to the tourism and total earning from the tourism should result in an increase in the country gross domestic product.

The study recommended that the authorities in charge of tourism in Nigeria need to embark on public-private partnership for more investment in tourism and this will go a long way in developing the country's tourist centre and this will make our tourist centre to compete with other tourist centre outside the country. There should be increase in spending on tourism centre so as to attract more visitor from within and outside the country and this will make the nation to have more revenue and there should be proper monitoring of our tourist centre and proper maintenance of the centre.

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