

EXPLORING TOURISM DEVELOPMENT AND ECONOMIC PERFORMANCE AMONG TOURIST-BOUND ECONOMIES

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Abstract

The study examines tourism development and economic performance of some selected African countries (Kenya, Nigeria, and Tanzania) from 1999 to 2021 using a panel Pool Mean Group/ Autoregressive distributed Lag (PMG/ARDL) model. Tourism development was represented by tourism receipt and number of tourists' arrivals while GDP represented economic growth. The result reveals that tourism receipts (TR) of the selected developing countries is statistically significant in explaining the variation in the growth of their economies. Hence, the study accepted the alternative hypothesis of the study and concluded that: there is a significant relationship between tourism receipts and economic growth of the selected developing countries. Tourism arrivals (TAR) to the selected developing countries is statistically non-significant, implying that it does not promote growth in the selected countries. The long-term effect of tourism development according to our analysis shows some degree of productivity with adequate funding and development to sustain the present state of the economy. Tourism should be encouraged as a development strategy of these economies.

Keywords: Tourism development, African Countries, Panel Pool Mean Group, Growth.

JEL Classification: C18, O55, Z32

1. INTRODUCTION

The tourism industry is among the largest contributors to economic growth and employment generation in most economies of the world, and Africa is not an exception as outlined by World Tourism Organization (UNWTO). Tourism contributes considerably to national incomes and is a key foreign currency earner in several countries mostly in developed nations. Thus, many countries in sub-Saharan Africa (SSA) are paying more attention to tourism development as alternative growth path to boost their economies (Bekun, Gyamfi, Bamidele, and Udemba, 2021). The meteoric increase in tourism industry in Spain in the past twenty years brought about a correlative increase in tourist arrivals and tourist expenditures in seasonal products, taking into account the rise in foreign direct investments, the lower tariffs of exports and imports of goods and services. The rise of tourist expenditures is one of the most

indicative measures of tourism growth in a widely developed country such as Spain. Tourism development comes with great opportunities for small business development. These small and medium businesses and community members partake in tourism activities, which can lead to employment generation and national aggregate output.

Africa as a continent has experienced a rise in tourist arrivals from 8.4 million to 10.6 million and receipts growth from \$2.3 billion to \$3.7 billion, for the last two decades. The records from the World Tourism Organization (WTO, 2006) shows that, the tourism industry in Sub-Saharan Africa enjoyed a robust annual market share growth rate of 10 percent in 2006 .Globally, tourism grew phenomenally from 25 million arrivals in 1950 to 808 million in 2005, with an average annual growth rate of 6.5 percent (UNWTO, 2006). In 2005, tourist arrivals in Africa registered only 37 million as compared to 444 million arrivals in Europe, 156 million in Asia/ Pacific, 133 million in the Americas, and 38 million in the Middle East (Fayissa Nsiah, and Tadasse, 2007). Within Africa, the northern sub-region had the highest share of tourist traffic and revenue. In rank order, the top five tourist destinations in Sub-Saharan Africa include: Seychelles, Mauritius, Namibia, Cape Verde, and Botswana. Records from research show that the tourism sector is among the fastest-growing sectors in the global economy. According to the World Travel and Tourism Council 2020 report shows that in 2019 in the global economy, the tourism sector 0.3% (US\$ 8.9 trillion) of global Gross Domestic Product (GDP) and 330 million jobs, which account for about 10% of all global employment (WTTC, 2020). The report also affirms that the growth rate of the world tourism sector in 2019 outpaced the overall global economic growth rate: the tourism sector grew at 3.5% as compared to the global economic growth rate of 2.5% (Fayissa, et al 2007). Besides, the sector's role in the overall improvement of human development through income and job creation, tourism is making a significant contribution in many countries towards the balance of payment, poverty alleviation, foreign exchange generation, creation of a market for indigenous commodities, promotion of the hospitality industry, and stimulation of transport sector development (Kyara, Rhaman, & Khaman, 2021).

The impact of tourism to economic growth and development is reflected in the form of exports as it represents over 40 percent of all exports of services, making it one of the largest categories of international trade (UNWTO, 2006). While tourism generates a significant amount of foreign exchange earnings to most economies of the world towards economic growth and development it has not been effectively harnessed in Africa. The significant increase of international tourism receipts, in the form of export, contributes to increasing forex and a better balance of payment (Gisore and Ogutu, 2015; Luvanga and Shitundu, 2003). The contribution of the tourism sector with some of the Africa countries to their national income is second and third to the manufacturing and service sectors from economic research. In 2019 for Tanzania and Kenya the travel and tourism sector's GDP were US\$ 6,577.3 million, equivalent to 10.7% of the country's GDP (WTTC, 2020). The tourism sector created 1,550,100 jobs in 2019, which is equivalent to 11.1% of the Tanzania

and Kenya's total employment. The sector is used as an instrumental tool to fight against poverty through employment generation and the development of a market for local products (Luvanga and Shitundu, 2003; Odhiambo, 2011; Wamboye et al., 2020). The development of the tourism sector in developing countries at large, is a stimulant for the development of transport, hospitality industries and local products (Gisore and Ogutu, 2015; Sokhanvar et al., 2018).

Tugcu (2014) explained that the growth rate in the tourism sector can be used to first, increase regional and seasonal employment and, as a special type of export, tourism growth generates foreign currency that have positive effect on the balance of payment, also that tourism development promotes the growth of transport sector, hospitality industry, and construction in the host country and tourism growth can be used by policy makers to improve income inequalities in the host country. Sokhanvar et al. (2018) opined that tourism development has the potential to increase the market price of non-traded local goods and services, thereby leading to increase the employment of people and use of resources, which culminate in improved people's wellbeing.

1.1. STATEMENT OF THE PROBLEM

Some African government has neglected the tourism industry not knowing how much it can help to solve socio and macroeconomic problems. Over the years tourism has been at a disadvantage in tourism infrastructure. It is lacking in the area of protection of natural and cultural resources, air transportation system as 90 percent of tourist travel by air. Tourism is also at disadvantage as most of the roads leading to tourist site are not accessible, electricity is also a major challenge, most of the rural areas were popular tourist site are located do not have access to basic infrastructures. The lack of basic amenities is discouraging to potential tourists. The problem with access to finance most especially from the government to fund the tourism industry is a critical constraint on tourism growth. Insecurity with high crime rate are needs to be addressed to help improve tourism in developing countries.

1.2 OBJECTIVES OF THE STUDY

The broad objective of this research is to investigate the contributions of tourism development and how it affects the performance of developing economies with reference to Kenya, Nigeria and Tanzania. Specifically, the study is guided by the following specific objectives. To examine the impact of tourism receipts on the economic growth in selected African countries and establish the relationship between tourist's arrival and economic growth of the three Africa countries.

1.3 RESEARCH HYPOTHESES

1. H_{01} : There is no significant relationship between tourism receipt and economic growth.
2. H_{02} : Tourism arrivals do not have significant effects on economic growth.

1.4 JUSTIFICATION OF THE STUDY

The research is motivated by the tourism-led growth hypothesis which lacks adequate and robust empirical evidences across climes. The econometric analysis from this research will therefore make a significant contribution towards narrowing the gap in tourism-income relationship literature, which will provide a solid foundation as a basis for the formulation of tourism-economic growth-related policies in the developing region. Hence the current study will provide a unique contribution to the existing literature on tourism.

2. LITERATURE REVIEW

Tourism development is increasingly viewed as an important instrument in promoting economic growth, alleviating poverty, and advancing food security (Richardson, 2012). Several studies including United Nations World Travel Organization (UNWTO, 2002) have shown that tourism can play a significant role towards a sustainable development and can also be effectively harnessed to generate net benefits for the poor nations. The potential of the tourism sector as a development tool to positively contribute to economic growth and poverty reduction emanates from its several peculiar characteristics (UNWTO, 2002) including the following:

- (i) the tourism sector represents an opportunity for economic diversification,
- (ii) tourism is the only export sector where the consumer travels to the exporting country thus providing opportunities for the poor to become exporters through the sale of goods and services to foreign tourists,
- (iii) the sector is labor-intensive and supports a diverse and versatile labor market; and
- (iv) Finally, there are numerous indirect benefits of tourism for the poor.

Global records have shown that the tourism industry has continued to experience rapid and uninterrupted growth for over six decades. As of 1970, international tourist arrivals were estimated at 165.80 million. Between 1980 and 1990, it rose from 278.10 million to 439.40 million (World Tourism Organization, 2019). According to Ademola, O.Y.(2020), More remarkable is the fact that despite the challenging economic environment occasioned by the increase and unforeseen shocks from global terrorism, health pandemics, unstable political climate, economic crisis and natural disasters, sub-Saharan Africa (SSA) alone welcomed a 6 percent increase in 2018, to reach 37.4 million, against 16.35 million and 25 million tourist arrivals in 2012 and 2017 respectively, demonstrating the resilience of the industry as a leading and reliable economic sector

According to Wang, Zhang, and Lee (2012) explain that tourism consumption directly stimulates the growth and development of traditional industries such as civil aviation, railway, highway, commerce, food, accommodation and further promotes modern services such as international finance, logistics, information consultation, cultural originality, movie production, entertainment,

conferences and exhibitions. The tourism industry in most economies of the world recently gain the support government encouraging more research work to understand the full potential of tourism in progressing economic growth and improving economic development across economies of nations. Recent study has shown the effect of tourism on economic development in developing countries. Studies on Tourism has shown that it has positive impact on economic growth through employment and income generation, stimulation of the tourism sector and the sectors with linkages with the tourism sector – leading to generally increased economic activity in the economy (Ivanov, S.H and Webster, C (2007).

2.1 EMPIRICAL EVIDENCE

Plethora of empirical evidences shows the causal relationship between economic growth and tourism development. Phiri (2016) examined the cointegration and causal effects between tourism and economic growth in South Africa , with tourism development proxied by tourist receipts and number of international arrivals. The study adopts both linear and nonlinear framework and established that, the linear framework supports the economic growth- driven-tourism-hypothesis for tourist arrivals whereas the nonlinear framework depicts no causality between tourist arrivals and economic growth. Nyasha, Odhiambo & Asongu (2020), examines the dynamic relationship between tourism development and performance in some Africa countries, using the Generalized Method of Moments from 2002 to 2018, The outcome of the study shows that tourism expenditure affects economic growth negatively while tourism receipts have a positive effect in some of the African countries.

Kyara et al, (2021), investigated an empirical insight into the actual nature of tourism-economic growth in Tanzania using the Granger causality, impulse response function, and Wald test methods on international tourism receipt, real Gross Domestic Product, and real effective exchange rate from 1989 to 2018. The analysis shows a unidirectional causality from tourism development to economic growth. The study suggests that Tanzania should focus on economic strategies that encourage sustainable tourism development as a feasible source of economic growth.

Bekun et al, (2021), used econometrics analysis to investigate the nexus between tourism arrival, GDP growth, urbanization, carbon dioxide emission, and foreign direct investment in sub-Saharan Africa (SSA) countries, to ascertain the effect of tourism and FDI on the environmental performance.. The results show that tourism, GDP growth, and FDI dampen the quality of the environment. Meaning that, a 1% increase in tourism activities worsens the quality of the environment by 1.09%. However renewable energy shows statistical strength to improve environmental quality.

Odhiambo (2021), examined the impact of tourism development on poverty alleviation for 32 sub-Saharan African (SSA) Economies from 2005 to 2014. The indicators of tourism development used are, tourist arrivals and tourism revenue. Some control variables were integrated into the model, economic growth, trade, the

rule of law, and income inequality, this was achieving with the Gini coefficient, the Atkinson index and the Palma ratio. The generalized method of moments (GMM) regression analysis that was used shows that the effect of tourism development on poverty reduction is not unanimous. The result shows an increase in tourism development when the number of tourist arrivals was used which consistently leads to an increase in household welfare; hence, a decrease in poverty, irrespective of the specification used. However, when tourism revenue was used as a proxy, there was no significant effect of tourism development on household welfare. The results also show that income inequality has significant negative effect on household welfare in SSA countries.

Okocha, Agina & Ojiula (2021), examined the effectiveness of tourism marketing on destination and economic development of Nigeria and other African countries. The main objective of the study was to examine the ratings on effectiveness of marketing for Nigeria and that of other African countries. Secondary data was collected and Finding shows that some African countries are taking the issue of tourism marketing seriously. Meanwhile, Nigeria’s performance outcome shows lack of commitment to tourism marketing and has adversely affected the number of international tourists’ arrivals, and its effect on inbound receipts and GDP.

Rasool, Maqbool & Tarique (2021), examine the Nexus between inbound tourism, development and economic growth with the use of panel data in Brazil, Russia, India, China and South Africa. The results of the panel analysis show the cointegration between tourism and development in the long run. The Granger causality analysis used demonstrates that the causality between inbound tourism and economic growth shows a bi-directional relationship, that validates the ‘feedback-hypothesis’ in the specified countries. The study suggests that the five countries should invest more in tourism and promote policies to push up the economic growth and in turn economic growth will contribute positively to international tourism.

2.2 THEORETICAL FRAMEWORK

The Harrod-Domar growth theory is the theoretical underpinning which explains that the growth rate of an economy depends on the level of saving and investment.

$$\frac{\Delta Y}{Y} = \frac{s}{k} \tag{1}$$

In equation (1), $\frac{\Delta Y}{Y}$: economic growth rate; s represents saving rate while

k represents capital-output ratio, $\frac{s}{k}$ measures the productivity of capital and $k = 1/\text{marginal product of capital}$. Savings rate to economy-wide income ratio is represented as $S = sY$.

- **k**: capital-output ratio, measures the productivity of capital and $k = 1/\text{marginal product of capital}$
- if you plug $s = S/Y$, and $\Delta K/\Delta Y$ into the formula above, you get
- $\Delta Y/Y = (S/Y)/(\Delta K/\Delta Y)$
- $Y/Y = (S/\Delta K) \times (\Delta Y/Y)$
- $1 = S/\Delta K$
- $S = \Delta K = I$
- S is national savings.
- ΔK is the change in the capital stock, which is equal to net investment (I) in the economy.

The economic implication of the model is that economic growth depends on policies to increase investment, by increasing saving, and using that investment more efficiently through technology to grow the economy Harrod Domar is used to explain the tourism-led growth hypothesis (TLGH) use as the framework, it is a term coined by Balaguer and Cantavella-Jordá (2002). The TLGH refers to a situation in which tourism plays a vital role in the economic growth process (Tugcu 2014). The investment function in the Keynesian growth model is able to replicate the relative stability of growth of tourism-based economies and how tourism receipt contributes to economic growth. Therefore, the authors propose a model with an investment function that, by relating the acceleration of investment just to the “permanent” increases in demand, is able to replicate the “relative stability” of growth of tourism-based economies.

3. MODEL AND METHOD

3.1. MODEL SPECIFICATION

The study focuses on three countries; Kenya, Nigeria, and Tanzania with a space of twenty-three years for the purpose of data availability from 1999 to 2021.

Following Nyasha, Odhiambo & Asongu (2020), we specify our model as follows the performance of tourism development on economic growth in developing economies, the empirical model is specified in functional form in Equation (1) and in linear form in Equation (2).

$$Y = (TR, TAR) \tag{1}$$

$$Y_{it} = \alpha_0 + \alpha_1 TR_{it} + \alpha_2 TAR_{it} + \varepsilon_{it} \tag{2}$$

Where Y is economic growth; TAR is tourism arrival; TR is tourism receipt; ε is the error term; α_0 is the intercept; and α_1-2 are the coefficients.

Following Equation (2), the associated panel data estimation model is specified as follow:

$$Y_{it} = \alpha_{it} + \vartheta_i + \rho t + (X_{it}) + \varepsilon_{it} \tag{3}$$

where, y is the dependent variable, economic growth proxied by gross domestic product (GDP) and is in logs; X is a vector of explanatory variables; TAR , and TR ; γ is a scalar vector of parameters $\alpha 1-2$; ε is the disturbance term which follows $N(0, \sigma^2)$; the subscripts “ i ” and “ t ” represent country and time, respectively, such that $t = 1, \dots, T$; $i = 1, \dots, N$ where T is the number of observations over time while N is the number of individual panel members; and ϑ_i and ρ_t are country and time specific effects, respectively.

3.2 METHOD OF DATA ANALYSIS

The data for all the variables are sourced from the World Development Indicators (WDI, 2021) annual database. The study employs panel PMG/ARDL (Pool Mean Group/ Auto Regressive Distributed Lag) technique for Cointegration developed by Pesaran et al. (2003). According to Pesaran et al. the homogeneity in the long-run relationship can be attributed to arbitration condition, common technologies, or the institutional development which was covered by all groups. Haug (2002) has argued that panel ARDL approach to cointegration provides better results for small sample data set such as in our case. The ARDL approach to cointegration estimates both long and short-run parameters and can be applied independently of variable order integration (independent of whether the regressors are purely $I(0)$, purely $I(1)$ or combination of both. The ARDL bounds test approach used in this study follows Ishioro (2017) and it is specified as follows:

$$\Delta \ln Y_{it} = \alpha_0 + \sum_{i=1}^m \pi_1 \Delta Y_{it} - i + \sum_{i=0}^m \pi_2 \Delta TR_{it} - i + \sum_{i=0}^m \pi_3 \Delta TAR_{it} - i + \rho \ln Y_{it} - 1 + \rho \ln TR_{it} - 1 + \rho \ln TAR_{it} - 1 + V_{it} \tag{4}$$

where Δ is the first-difference operator, α_0 is intercept, t is time element, π_i represent the short-run parameters of the model, ρ_i are long-run coefficients, while V_{it} is white noise error term and lastly, it represents country at a particular time period.

4. DISCUSSION OF RESULT

The study employs a panel analysis of data of three countries in the sub-Saharan region of Africa comprises of cross sectional and time series, the cross sectional consists of three countries; Kenya, Nigeria and Tanzania while the time series of the affected variables gross domestic product (GDP) at current price proxy for economic growth (EG), international tourism receipts (TR) in current US\$, covering a period of twenty three years and a data base of sixty-nine

Table 1: Result of descriptive statistics analysis

Variable	GDP	TR	TAR
Mean	131.5061	1.139275	0.002095
Median	59.37000	1.120000	0.001500
Maximum	546.6800	2.620000	0.006100
Minimum	12.71000	0.010000	0.000500
Std. Dev.	157.2487	0.701130	0.001569

Skewness	1.352055	0.241193	1.326109
Kurtosis	3.277390	2.009065	3.568236
Jarque-Bera	21.24382	3.492118	21.15181
Probability	0.000024	0.174460	0.000026
Sum	9073.920	78.61000	0.144550
Sum Sq. Dev.	1681447.	33.42766	0.000167
Observations	69	69	69

Source: Researcher's presentation

As depicted in the Table 1 The descriptive statistics analysis indicated that the measurement of skewness showed that only TR variable was leftward skewed (negatively skewed), and mirrored a negatively skewed distribution, implying that the distribution had a long left tail with lower values than the sampled mean, while GDP and TAR variables were rightly skewed (positively skewed), and mirrored a positively skewed distribution, implying that the distribution had a long right tail with higher values than the sampled mean.

The Jarque-Bera (JB) test measures the difference of skewness and kurtosis of the series with those from the normal distribution. The JB value of 3.492118 for the TR variable of interest, and its corresponding probability of greater than or equals to 0.05 percent confirms the normality of the series and a possibility of the absence of outliers in the data.

Table 2: Result of test of multicollinearity (correlation matrix)

Covariance Analysis: Ordinary			
Correlation			
Probability			
Observations	GDP	TR	TAR
GDP	1.000000		
	-		
	69		
TR	-0.195368	1.000000	
	0.1077	-	
	69	69	
TAR	0.807115	-0.209390	1.000000
	0.0000	0.0842	-
	69	69	69

Source: Researcher's presentation

Table 2 presented the correlation matrix result of the study variables; the correlation coefficient of the relationship between gross domestic product (GDP) and tourism receipts (TR) of the selected developing countries was negative and non-significant following its correlation coefficient of -0.1953 and p-value of 0.1077. The correlation coefficient of the relationship between gross domestic product (GDP) and tourism arrivals (TAR) of the selected developing countries was positive and significant following its correlation coefficient of 0.8071 and p-value of 0.0000. Lastly, the correlation coefficient of the relationship between tourism receipts (TR) and tourism arrivals (TAR) of the selected developing countries was negative and non-significant following its correlation coefficient of -0.2093 and p-value of 0.0842.

Table 3: Result of panel unit root test (levels)

Variable	Common Unit Root				Individual Unit Root			
	Levin, Lin & Chin t*		Im Pesaran and Shin W-stat		ADF - Fisher Chi-square		PP - Fisher Chi-square	
	Statistics	P	Statistics	P	Statistic	P	statistic	P
GDP	-1.33061	0.0917	0.39490	0.6535	6.45934	0.3737	5.30324	0.5055
TR	-1.69771	0.0448*	-1.15490	0.1241	10.8060	0.0946	11.6249	0.0709
TAR	-1.97321	0.0242*	-2.44433	0.0073*	17.0384	0.0091*	17.2116	0.0085*

Source: Researcher's presentation

Table 4: Result of panel unit root test (first difference)

Variable	Common Unit Root				Individual Unit Root			
	Levin, Lin & Chin t*		Im Pesaran and Shin W-stat		ADF - Fisher Chi-square		PP - Fisher Chi-square	
	Statistics	P	Statistics	P	Statistic	P	Statistic	P
GDP	-3.27861	0.0005*	-3.26196	0.0006*	20.9420	0.0019*	20.6103	0.0022*
TR	-7.75669	0.0000*	-8.89053	0.0000*	59.8077	0.0000*	58.6414	0.0000*

Source: Researcher's presentation from E-views 10.0 statistical software

From the Tables 3 and 4, the measurement of unit root in the data; only the TAR variable was found to be stationery at 5% significance at levels. Giving the information of the summarized unit root tests when conducted at their levels as presented in Table 2, the study rejected the null hypothesis for the TAR variable that the TAR variable does not have a unit root at 0.05 level of significance. However, when the GDP and TR series were subjected to further tests at first difference, the GDP and TR variables were found to have no unit root at 0.05 level of significance as shown in Table 4, hence, the null hypothesis was rejected. Since the study has confirmed the stationarity of the variables it therefore means that the variables chosen for this study are suitable to be used for further analysis.

Table 5: Pair-wise Granger causality test

Pair-wise Granger Causality Tests			
Lags: 2			
Null Hypothesis:	Observations	F-Statistic	Prob.
TR does not Granger Cause GDP	63	0.27564	0.7601
GDP does not Granger Cause TR		10.3665	0.0001
TAR does not Granger Cause GDP	63	2.20021	0.1199
GDP does not Granger Cause TAR		3.51932	0.0361
TAR does not Granger Cause TR	63	0.53874	0.5864
TR does not Granger Cause TAR		2.43760	0.0963

Source: Researcher's presentation

The result of the Pair-wise granger test for the causal relationship among the variables is depicted in Table 5. The result of the test as illustrated in the table showed that there was unidirectional relationship running from economic growth to tourism receipts. Lastly, there is also unidirectional causality from economic growth to tourism arrivals.

PMG/ARDL long run and short run dynamics (joint country analysis)

PMG/ARDL approach can be adopted irrespective of whether underlying variables are purely I(0), I(1) or mutually co-integrated given that the PMG/ARDL has estimated better small sample properties. With reference to the unit root test order of integrations ‘I(0) and I(1)’, this study seeks to confirm the assertion that there is a possibility of a long run cointegration between/among the variable of the same unique order of integrations. Given the result in Table 5, the long run coefficient measures the long run effect of individual independent variables on the dependent variable. The PMG/ARDL long run estimates revealed that, all things being equal, a percentage increase in tourism receipts (TR) will lead to a corresponding 0.49 percent decrease in economic growth(GDP) of the selected developing countries and was found to be statistically non-significant at five percent in the long run, ceteris paribus.

Table 6: PMG/ARDL long run and short run estimates (joint country analysis)

Dependent Variable: D(LGDP)				
Method: PMG/ARDL				
Maximum dependent lags: 1 (Automatic selection)				
Model selection method: Akaike info criterion (AIC)				
Dynamic regressors (1 lag, automatic): LTR LTAR				
Fixed regressors: C				
Number of models evaluated: 1				
Selected Model: ARDL(1, 1, 1)				
Note: final equation sample is larger than selection sample				
Variable	Coefficient	Std. Error	t-Statistic	Prob.*
	Long Run Equation			

LTR	-0.494792	0.684198	-0.723170	0.4726
LTAR	1.622151	0.972446	1.668113	0.1010
Short Run Equation				
COINTEQ01	-0.026067	0.036603	-0.712145	0.4794
D(LTR)	0.123942	0.057128	2.169538	0.0344
D(LTAR)	-0.020941	0.015807	-1.324847	0.1907
C	0.449088	0.533692	0.841473	0.4037
Mean dependent var	0.088259	S.D. dependent var	0.095460	
S.E. of regression	0.088999	Akaike info criterion	-1.872415	
Sum squared resid	0.435649	Schwarz criterion	-1.419118	
Log likelihood	78.59833	Hannan-Quinn criter.	-1.692577	
*Note: p-values and any subsequent tests do not account for model selection.				

Source: Researcher's presentation from E-views 10.0 statistical software

Lastly, the PMG/ARDL long run estimates further revealed that, a percentage variation in tourism arrivals (TAR) will lead to a corresponding 1.62 percent increase in economic growth (GDP) of the selected developing countries and was found to be statistically non-significant at five percent in the long run, *ceteris paribus*.

On the other hands, the PMG/ARDL in Table 6 revealed that the error term adjustment coefficient (COINTEQ01) is negative and non-significant on the significance level of 5%. Thus, a deviation of 0.026067 or 2.6067percent from the balance in short-term is balanced in long-term, that is, it can be stated that there is a long-term cointegration relationship between the variables but statistically non-significant. Further analysis of the PMG/ARDL result in Table 6 revealed that the value of the intercept which is 0.44 revealed that tourism development increased by 0.44 percent in the short run when all other variables (TR and TAR) are held constant and was statistically non-significant at five percent level of significance, *ceteris paribus*. In addition, the examination of the PMG/ARDL short-run estimates revealed that changes in the value of tourism receipts (TR) had a significant positive effect on economic growth (GDP) of the selected developing countries in the short run. The implication is that a percentage increase in TR will lead to a corresponding 0.12 percent increase in GDP in the short run, *ceteris paribus*.

Lastly, further examination of the PMG/ARDL short-run estimates revealed that changes in the value of tourism arrivals (TAR) had a non-significant negative effect on economic growth (GDP) of the selected developing countries in the short run. The implication is that a percentage increase in TAR will lead to a corresponding 0.02 percent decrease in GDP in the short run, *ceteris paribus*

Table 7: PMG/ARDL long run and short run estimates: Kenya

KENYA				
Variable	Coefficient	Std. Error	t-Statistic	Prob. *

COINTEQ01	-0.017110	0.000451	-37.96400	0.0000
D(LTR)	0.128669	0.003765	34.17729	0.0001
D(LTAR)	-0.007660	0.008322	-0.920398	0.4252
C	0.341460	0.097928	3.486852	0.0399

Source: Researcher's presentation

PMG/ARDL short run dynamics (individual country analysis): Kenya

The PMG/ARDL in respect of Kenya in Table 6 revealed that the error term adjustment coefficient (COINTEQ01) is negative and significant on the significance level of 5%. Thus, a deviation of 0.017 unit from the balance in short-term is balanced in long-term in Kenya, that is, it can be stated that there is a long-term cointegration relationship between the variables and was found to be statistically significant as theoretically expected.

Further analysis of the PMG/ARDL result in Kenya as showed in Table 7 revealed that the value of the intercept which is 0.34 revealed that economic growth in Kenya increased by 0.34 percent in the short run when all other variables (TR and TAR) are held constant and was statistically significant at five percent level of significance. In addition, the examination of the PMG/ARDL short-run estimates in Kenya revealed that changes in the value of tourism receipts (TR) had a significant positive effect on economic growth (GDP) in the short run. The implication is that a percentage increase in TR will lead to a corresponding 0.12 percent increase in GDP in Kenya in the short run, *ceteris paribus*. Lastly, further examination of the PMG/ARDL short-run estimates in Kenya revealed that changes in the value of tourism arrivals (TAR) had a non-significant negative effect on economic growth (GDP) in the short run. The implication is that a percentage increase in TAR will lead to a corresponding 0.007 percent decrease in GDP in Kenya in the short run, *ceteris paribus*.

Table 8: PMG/ARDL long run and short run estimates: Nigeria

NIGERIA				
Variable	Coefficient	Std. Error	t-Statistic	Prob. *
COINTEQ01	-0.093468	0.004845	-19.29130	0.0003
D(LTR)	0.022714	0.001059	21.44599	0.0002
D(LTAR)	-0.052427	0.222666	-0.235451	0.1037
C	1.422573	0.701077	2.029125	0.1355

Source: Researcher's presentation

PMG/ARDL short run dynamics (individual country analysis): Nigeria

The PMG/ARDL in respect of Nigeria in Table 8 revealed that the error term adjustment coefficient (COINTEQ01) is negative and significant on the significance level of 5%. Thus, a deviation of 0.09 unit from the balance in short-term is balanced in long-term in Nigeria, that is, it can be stated that there is a long-term cointegration relationship between the variables and was found to be statistically significant as theoretically expected.

Further analysis of the PMG/ARDL result in Nigeria as showed in Table 8 revealed that the value of the intercept which is 1.42 revealed that economic growth in Nigeria increased by 1.42 percent in the short run when all other variables (TR and TAR) are held constant and was statistically non-significant at five percent level of significance. In addition, the examination of the PMG/ARDL short-run estimates in Nigeria revealed that changes in the value of tourism receipts (TR) had a significant positive effect on economic growth (GDP) in the short run. The implication is that a percentage increase in TR will lead to a corresponding 0.02 percent increase in GDP in Nigeria in the short run, ceteris paribus. Lastly, further examination of the PMG/ARDL short-run estimates in Nigeria revealed that changes in the value of tourism arrivals (TAR) had a non-significant negative effect on economic growth (GDP) in the short run. The implication is that a percentage increase in TAR will lead to a corresponding 0.05 percent decrease in GDP in Nigeria in the short run, ceteris paribus.

Table 9: PMG/ARDL Long-run and Short-run estimates for Tanzania

TANZANIA				
Variable	Coefficient	Std. Error	t-Statistic	Prob. *
COINTEQ01	-0.032377	0.000589	54.95751	0.0000
D(LTR)	0.220443	0.011571	19.05066	0.0003
D(LTAR)	-0.002738	0.000522	-5.244071	0.0135
C	-0.416769	0.084169	-4.951601	0.0158

Source: Researcher's presentation

PMG/ARDL short run dynamics (individual country analysis): Tanzania

The PMG/ARDL in respect of Tanzania in Table 9 revealed that the error term adjustment coefficient (COINTEQ01) is negative and significant on the significance level of 5%. Thus, a deviation of 0.03 unit from the balance in short-term is balanced in long-term in Tanzania, that is, it can be stated that there is a long-term cointegration relationship between the variables and was found to be statistically significant as theoretically expected.

Further analysis of the PMG/ARDL result in Tanzania as showed in Table 4.10 revealed that the value of the intercept which is -0.41 revealed that economic growth in Tanzania decreased by 0.41 percent in the short run when all other variables (TR and TAR) are held constant and was statistically significant at five percent level of significance. In addition, the examination of the PMG/ARDL short-run estimates in Tanzania revealed that changes in the value of tourism receipts (TR) had a significant positive effect on economic growth (GDP) in the short run. The implication is that a percentage increase in TR will lead to a corresponding 0.22 percent increase in GDP in Tanzania in the short run, ceteris paribus. Lastly, further examination of the PMG/ARDL short-run estimates in Tanzania revealed that changes in the value of tourism arrivals (TAR) had a significant positive effect on economic growth (GDP) in the short run. The implication is that a percentage

increase in TAR will lead to a corresponding 0.002 percent decrease in GDP in Tanzania in the short run, ceteris paribus.

Histogram normality test of the long run equation

The histogram normality test is a test for the normality of the estimates of the model. The Jarque-Bera statistics was the basis for determining whether the residuals of the model were normally distributed or otherwise. The decision rule was that the probability of the Jarque-Bera statistics should be more than 5 per cent for the residuals of the model to be normally distributed. This is because the null hypothesis states that the residuals of the model are normally distributed. The result of the normality test is shown in the figure 4.1. The Jarque Bera statistics of 12.82944 with its corresponding probability of 0.16 per cent, less than 5 per cent, meant that the residual of the selected developing countries equation model was not normally distributed and this is not desirable as this does not meet the normality assumption of OLS.

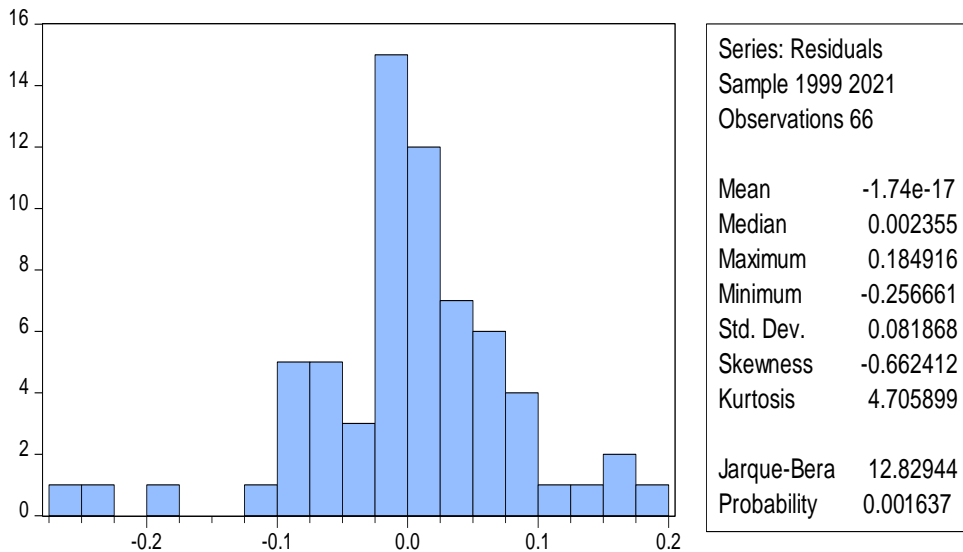


Figure 1: Normality test

Source: Researcher’s presentation from E-views 10.0 statistical software

5. CONCLUSION AND RECOMMENDATION

The critically examine relationship between tourism development and economic growth in some selected African countries precisely Kenya, Nigeria, and Tanzania from 1999 to 2021. The study employs tourism receipt and arrivals as proxies for tourism development and economic growth proxy by GDP at current market value, using the panel PMG/ARDL to determine the short and long run effects of tourism development on economic growth from the selected countries. The study affirms the tourism led growth hypothesis.

The result from the above findings, we discovered that tourism have a positive impact on economic growth of Tanzania, and negative impact on that of Nigeria and Kenya. The long-term effect of tourism development according to the analysis shows some degree of productivity with adequate funding and development to sustain the present state of the economy. The generation of revenue from the receipts and its significant role in promoting economic growth cannot be over emphasized. Thereby creating opportunities for local entrepreneurship, generating employment, generate income from the primary sector of the economy inclusive of trade, manufacturing, construction and agriculture of the host economy. We therefore recommend that sector administrators should harness the economic contributions of the tourism sector to employment and physical capital investment to boost economic activities.

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