Contribution of Sustainable Tourism to Economic Growth in Kenya: Implications for Policy

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Abstract

Sustainable tourism presents an essential engine for social and economic development, and has a great capability for stimulation of employment and enterprise, especially for youth and women. Over the last decades, the measurement of sustainable tourism has been expanded and diversified even as debates on the appropriate approaches continue. In spite of this, the significance of sustainable tourism to employment and GDP is mostly underestimated in policy-making and strategy in tourism development. In recent years, there have been limited studies that established the effects of sustainable tourism development on economic growth. A longitudinal research design was adopted in obtain secondary data about Kenya from the World Travel and Tourism Council and the International Monetary Fund. E-views 10 software was used to analyze the time-series data. Drawing on the data from 1995 to 2020, Johansen co-integration, Granger causality, and regression approaches were used. Tourism GDP and tourism employment were adopted as measures of sustainable tourism, while real GDP per capita was employed as a measure of economic growth. The study found out that tourism employment and GDP are positively connected to economic growth in Kenya (β = 0.546086, p=0.000 < 0.05). The results indicated unidirectional association between economic growth, contribution to GDP and tourism employment. The findings indicated that a rise in Kenya's economic growth significantly improves sustainable development of the tourism industry. The study suggests that legislators and tourism policymakers should focus on the policies aimed at promoting the ability of the tourism industry to provide more employment opportunities and contribute to GDP by tapping on the current economic growth. For long-term economic growth, tourism should be developed following the three pillars of sustainability.

Keywords: Domestic Tourism, Economic Growth, Moderate, Regional Tourism, Tourism
           Development

INTRODUCTION

Background of the Study

The growth and development of the global tourism industry have engendered a new paradigm of sustainable socio-economic advancement. The thought behind sustainable tourism is driven by visits to destinations without harming the natural environment or local communities. Tourism may incorporate visits to places of interest using local transportation, and some of the activities include lodging, relaxation, entertainment, shopping, and food (Manzoor, Wei, Asif, Haq & Rehman, 2019). In most cases, people travel for recreation, commerce, and to meet family or friends. Significantly, the focus on sustainability raises debates on the benefits of tourism to the national economy and livelihoods.

The decline in the global travel and tourism market in 2020 is attributable to the coronavirus (COVID-19) pandemic, and estimates show that 100.8 million jobs worldwide were lost. The Asia Pacific region bears the biggest brunt of the adverse impacts of COVID-19 having approximately 63.4 million job losses. Meanwhile, Africa's employment is forecasted to drop by 7.6 million as it comes as the fourth hardest-hit continent (Statista, 2020). A moderate scenario is exhibited in Jamaica with a possible 11 percent loss of Gross Domestic Product (GDP), even as tourism in the country contributes 20 percent in the gross domestic product (UNCTAD, 2020; WTTC, 2020). The tangible impacts of the pandemic to the tourism sector have been realized in regions, countries, and cities where tourism forms a core part of the economy. Therefore, this study aims to contribute to discussions and decision-making on tourism policy at local, national, and international levels. Additionally, it seeks to complement previous research by utilizing advanced econometric methodologies that can be applied to real-world policy scenarios.

Going forward, the industry must rethink its policy strategy regarding shortening the recovery period after the pandemic and sustaining tourism even as the crisis bites hard (Magical Kenya, 2020). Although international tourism is expected to slump in the short-term, the effects will be felt over the long-term. Magical Kenya has a recovery strategy where communities are seen as critical to the growth of tourism, and proposes a number of possible areas to explore in order to keep tourism businesses running. Domestic and regional tourism will stand out as the first point of call, and Kenya should leverage on digitization and reimage ways of enhancing tourism sustainability.

Statement of the Problem

Sustainable tourism presents an essential engine for social and economic development, and has a great capability for stimulation of employment and enterprise, especially for youth and women (ILO, 2017). Over the last decades, the measurement of sustainable tourism has been expanded and diversified even as debates on the appropriate approaches continue. In spite of this, the significance of sustainable tourism to employment and GDP is mostly underestimated in policy-making and strategy in tourism development. Furthermore, the susceptibility of tourism, especially during coronavirus pandemic, shows that minimal attention is given to its positive contribution to economic growth, trade, and employment. According to UNCTAD (2020), prolonged lockdown due to COVID-19 containment measures reduced supply, in addition to the demand for export products, which had a combined negative impact on the economic situation of several countries. The Kenyan tourism sector, based on the Ministry Of Tourism and Wildlife

Strategic Plan 2018-2022, shows that the sector has experienced growth over the last seven years (Republic of Kenya, 2020a). However, it still faces global, regional, and local challenges warranting policymakers' attention. The threat of infectious diseases such as Ebola and COVID 19 Pandemic to the Kenya tourism industry is real, and the long- term risk measures are required. This study, therefore, will contribute significantly to the review of the Draft Revised National Tourism Policy on Enhancing Sustainable Tourism in Kenya (Republic of Kenya, 2020b), including future policy discussions and decisions.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

This section elaborates on sustainable tourism and economic growth. It also postulates the study hypotheses which serve as a premise for empirical review.

Economic Growth

In Kenya, the tourism industry has the possibility to add, directly or indirectly, towards achieving the Vision 2030 Agenda through SDGs. Emphasizing on goal 8, Kenya can promote an inclusive and sustained economic growth if tourism will be taken as a prime and essential sector (Republic of Kenya, 2020b). The Ministry of Tourism and Wildlife in its Draft Revised National Tourism Policy, 2016 on Enhancing Sustainable Tourism in Kenya seeks for diversification of tourism in the light of the changing environment due to the Covid-19 pandemic. The policy document proposes the provision of incentives for domestic tourism. Domestic tourism is the future of Kenya's tourism industry with immense potential to become a strong sub-sector through education and awareness creation.

Kenya has experienced slower economic growth relative to some of the East African Community (EAC) countries over the last fifteen years (The Parliament of Kenya, 2020). Its share of EAC GDP declined from 42% in 2005-2007 to 39% over the last five years. Kenya's per capita GDP (current prices) grew from KES47000 in 2005 to KES204000 in 2019. Focus Economics Consensus Forecast panelists forecast GDP growth accelerating to 5.3% in 2021 even though the GDP growth in 2020 was a paltry 1.0% (Kenya Economic Outlook, 2020). The growth will be supported by investments under the "big four," growth in tourism and exports, and public investment to develop infrastructure. Despite the coronavirus pandemic, the Kenyan government continues to focus on providing continuous, equitable, accessible, and quality essential health care services (Ministry of Health, 2020). The government's commitment to revitalizing the Primary Health Care systems in Kenya is a critical pillar in the realization of Universal Health Coverage. However, there is no report on the progress of key policy reforms under this pillar such as the medical tourism strategy (The Parliament of Kenya, 2020).

Sustainable Tourism

The Kenyan tourism industry accounts for over 10% of total employment, 18% Foreign Exchange earnings, and 11% in the form of taxes. The sector also contributes 9% to GDP and is a major revenue source for the government. The Kenyan government collects most of the money from license fees and park entry fees (Republic of Kenya, 2020a). Chapter one of Kenya's Draft Revised National Tourism Policy of the year 2020 underscores the importance, and share of the tourism sector to the local and national economy, and employment creation. The covid-19 crisis is characterized by an unexpected rise in

unemployment, exacerbated to some extent by containment measures by the government (UNCTAD, 2020). The ban on international travel, as a COVID-19 containment measure, significantly reduced activity in this sector. To make it worse, local tourism diminished due to lockdown and the closure of bars and restaurants, except for takeaway services. Given that majority ofworkers in the Kenyan tourism industry are daily wage earners, it was easy for the employers to lay them off or have them take unpaid leave (Parliamentary Budget Office, 2020). Therefore, this study seeks to contribute to discussions and decisions on tourism policy at the local, national, as well as at the international levels.

Hypotheses

This study hypothesizes that:

H_{01}: *Tourism contribution to GDP and economic growth are not statistically related.*

H_{02}: *Employment in tourism and economic growth are not statistically related.*

H_{03}: *Sustainable tourism and economic growth have no statistically significant relationship.*

METHODOLOGY

This section elaborates on the data variables and the methods used in analyzing data. It also includes the theoretical underpinnings of the study.

Data and Variables

An analysis of the connection of sustainable tourism and the growth of the economy on the main macroeconomic variables is crucial. In this review study, the tourism contribution to GDP (TCGDP) was measured in US dollars and tourism contribution to employment (TCEMP) was measured by the number of jobs, with the data obtained from World Travel and Tourism Council. GDP per capita (GDPPC) was rated in US dollars and data was obtained from the International Monetary Fund. All data collected were for the periods of 1995 to 2020, and the analysis is doneusing Eviews 10 software.

Unit Root Test

Examining whether there is stationarity is the initial step of time series (Tabash, 2017). Baumöhl and Lyócsa (2009) point out that the regression results are simply misleading when the dependent and independent time series are non-stationary. Time series data requires separation from all effects for greater accuracy of results and correct model evaluation (Manzoor et al., 2019). Logarithms of time series were computed considering that the series needed to be stationary. The Augmented Dickey– Fuller (ADF) was employed to assess whether GDP per capita, tourism contribution to employment, and tourism contribution to GDP series were stationary.

Co-integration Test

This study employed the procedure developed by Johansen and Juselius (1990) to investigate the long-run relationship between variables. By conducting co-integration testing using the vector autoregression (VAR) approach, stationarity of the variables was established. After the determinants became stationary at the difference, the second step was to use Johansen and Juselius co-integration totest for co-integration. Johansen and Juselius formulated the trace test and the maximal eigen-value test to establish the number of the co-integrating vectors.

Granger Causality Test

In the event that two variables are co-integrated, as established by Granger (1988), then there must be at least a unidirectional causation. The Granger causality test allows researchers to statistically examine the causality direction between two variables. It was developed to predict present values of variable y, checking whether or not the inclusions of past values of a variable x do or do not help. Granger causality test was carried out using estimation of the equations with least-squares method, and it relies on time series data.

Regression Analysis

The linkage between sustainable tourism and economic growth established using a regression analysis technique is modified from (Manzoor et al., 2019). This study analyses the interconnection of tourism contribution to GDP and employment, and economic growth in Kenya.

Theoretical Perspective

Three Nested Dependencies

Dartmouth (2015) observed that the three-nested-dependencies model is a reflection of the co- dependent reality. For example, one would have to answer (Yes) if one were to ask if the devastating effect of COVI-19 in Kenya was listed as either an economic disaster, environmental disaster, or a social disaster. The response is a confirmation that human society is subsidiary and entirely owned by the environment. It is an indication that humans thrive under clean water, healthy food, fresh air, fertile soil, among other natural resources. Without these natural provisions, human society and the underlying economy cannot survive. The model of the three-nested-dependencies gives emphasis for people to decide how they are going to exchange goods and services. Because people create economies, then they decide the appropriate economic model to use, and whether or not the changes to the models are necessary to improve the quality of their lives. Sustainability is considered the new norm for every part of every economic sector and is no longer a niche in tourism alone (UNWTO, 2020).

According to Dushenko, Bjorbaek, and Steger-Jensen (2019), the empirical testing of the model is proof that the economic benefits of sustainable tourism are founded on social and environmental factors. It may be difficult to obtain a method of turning strategic sustainable tourism objectives at project-specific levels into concrete action. This means that the layout of the abstract sustainability models and the case-study outcomes are likely to conflict with one another. Consequently, using the qualitative study is a clear proof that decision-makers' strategic priority remains to be the economic issue despite the actual fact that the subject of sustainable development and environmental concerns are increasing in popularity.

Sustainable Development

Sustainable development theory combines the distinct goals of sustainability and development (Manzoor et al., 2019). Sustainable development advances improvements that meet the desires of the current times and balances the capability of humanity in the future to fulfill what they need (WCED, 1987). Essentially, this theory combines the theories of

sustainability and development. Sustainable development (SD) has turned out to be a fundamental method that provides direction to the world's social and economic transformation (Longyu, Linwei, Fengmei, and Lijie, 2019). Longyu et al. (2019)note that the popularity of developmental regulations and policies mainly specializing in economic boom accelerated the frequency of serious environmental challenges. Besides, tourism could pose threats to the protection of cultural and environmental resources, which are important for attracting travelers. One lesson learned is, reducing the disparities between actual and expected sustainability in tourism will require the taxation of poor environmental impacts and designing proactive environmental policies (Dushenko et al., 2019). The Covid-19 crisis presents an opportunity to achieve a more sustainable and resilient future and rethinking the tourism system (OECD, 2020). In the long run, UNCTAD (2020) is optimistic that international tourism will be possible to return within 19 months to pre-pandemic levels. Policy intervention is needed to avoid the return to the setbacks of tourism management, and to address the structural problems of the sector. Besides advancing key priorities, tourism management is expected to embrace digitalization and promote connectivity. Inculcating sustainable development values will be advanced by institutions such as higher education and government training centers (Maingi, 2020).

RESULTS AND DISCUSSIONS

This section presents the results and the discussion of the study. It consists of descriptive statistics, diagnostic tests, regressions and discussions.

Descriptive Statistics

This section presents the findings of descriptive statistics employed to measure the central tendency, dispersion and distribution as well as the Jarque-Bera test for normality. Economic sustainability of tourism was measured as total contribution of tourism to GDP in current USD dollars, social sustainability of tourism as total contribution of tourism to employment, and economic growth as GDP per Capita in current dollars. These statistics are shown in Table 1.

Table 1: Descriptive Statistics

Statistical Measure	TCGDP (Current USDBillions)	TCEMP	GDP Per Capita (Current USD)
Mean	5.948846	958806.3	917.4197
Median	6.186000	1031955.	819.3325
Max.	8.414000	1147280.	1997.550
Min.	3.191000	582536.0	-1.700000
Std. Dev.	1.510691	172779.2	508.8772
Skewness	-0.302429	-0.924405	0.486516
Kurtosis	1.927769	2.559113	2.321620
Jarque-Bera	1.641826	3.913521	1.524238
Probability	0.440030	0.141315	0.466676

The results in Table 1 show that the average GDP per capita growth from the year 1996 to 2020 was USD 917.4197. The minimum and the maximum GDP per capita growth

rate between 1996 and 2020 were USD 1997.550 and USD -1.700000 respectively. The sharp decline in the GDP per capita in 2020 may be attributed to the economic effects of the global Covid-19 disease outbreak. Its standard deviation was 508.8772 which indicated that GDP per capita varied throughout the period of measurement. The Jarque-Bera test had a probability value of 0.466676 and Kurtosis of 2.321620 which implies that $\alpha = 0.05$, the null hypothesis of normality of the data is accepted and the data is considered to be normal. According to Kline (2011), values of Skewness and Kurtosis are considered to be approximately normal if they lie within a range of ≤3 and ≤10 respectively. This data can therefore be subjected to parametric statistical analysis.

Further, the average total contribution of tourism to GDP in current USD billions was USD 5.948846 billion. The minimum total contribution of tourism to GDP during the period 1996-2020 was USD 3.191000 dollars, and the highest contribution to the economy was USD 8.414000 billion. The standard deviation was 1.510691 implying that TCGDP varied throughout the measurement period. Jarque-Bera test had a probability value of 0.440030 and Kurtosis of 1.927769 which implies that at $\alpha= 0.05$, the null hypothesis of normality of the data is accepted and the data is considered to be normal.

The average total contribution of tourism to employment was 582536 jobs, with the highest contribution being 1147280 jobs in 2012, and the lowest tourism contribution to employment of 582536 jobs so recorded in 2020. The standard deviation was 172779.2, implying that the total contribution of tourism to social sustainability varied throughout the measurement period, as shown in Table 2. The Jarque-Bera test had a probability value of 0.141315 and Kurtosis of 2.559113 which implies that at $\alpha = 0.05$, the null hypothesis of normality of the data is accepted and the data is considered to be normal.

Table 2: Correlation Analysis

Correlation Probability	LOGGDPPC	TCGDP	LOGTCEMP
d(LOGGDPPC)	1.000000		
	------		
d2(TCGDP)	0.905359	1.000000	
	0.0000***	-----	
d(LOGTCEMP)	0.706124	0.917023	1.000000
	0.0001***	0.0000***	-----

*Sig at 10% **sig at 5% ***sig at 1%KEY*

LOGGPDPC = Log of Gross Domestic Product Per Capita TTCGDP = Total contribution of tourism to gross domestic productLOGTCEMP = Log of Total contribution of tourism to employment

The correlation results found that the total contribution of tourism to GDP and GDP per capita have a strong positive and significant association (r=0.905359, p=0.0000<0.05). The positive sign of the correlation coefficient implies that the total contribution of tourism to GDP and GDP per capita move in the same direction, as tourism increases GDP per capita also increases.

Correlation results also showed that the total contribution of tourism to employment and GDP per capita have a strong positive and significant association (r=0.706124, p=0.0000<0.05). The positive sign of the correlation coefficient implies that the

total contribution of tourism to employment and GDP per capita move in the same direction, that is; as the total contribution of tourism to employment increases, GDP per capita also increases.

The findings of this study concur with those of Manzoor et al., (2019), who noted that tourism had a positive effect on economic increase and employment. Their research outcome confirmed that a positive correlation exists between employment and GDP, and tourism advancement. This implies that the total contribution of TCEMP and TCGDP increases as GDP per capita also increases.

Unit Root Test Results

Prior to running a regression analysis, most economic variables were non-stationary in nature. To establish whether the variables were stationary or non-stationary, it was important to undertake the ADF unit root test. This test is meant to avoid false regression results being generated through non- stationary series. The unit root results are presented in Table 3.

Table 3: Unit Root Tests

Variablename			10%			
	1% Level	5% Level	Level	ADF test	Sig.	Comment
d(logGDP per capita)	-3.752946	-2.998064	-2.638752	-3.517610	0.0168***	Stationary
d2(TCGDP)	-3.752946	-2.998064	-2.638752	-4.435187	0.0021***	Stationary
d(TCEMP)	-3.769597	-3.004861	-2.642242	-4.746407	0.0011***	Stationary

*Sig at 10% **sig at 5% ***sig at 1%

The natural logarithm of GDP per capita was not stationary at 1%, 5%, and 10% levels of significance. However, upon conducting the first differencing of the variable, GDP per capita became stationary at 1%, 5%, and 10% levels of significance. The total contribution of tourism to GDP was non-stationary at level and at first difference. However, at the 2nd level differencing, the totalcontribution of tourism to GDP became stationary and could be employed in generating the model of the paper. Further, the total contribution of tourism to employment was non-stationary at level. After 1st differencing, the variable became stationary at 1%, 5%, and 10% levels of significance and could be used in generating the model of the study.

This study draws similarity to the work of Akama (2017), which showed that all variables were non- stationary at level, being stationary at order one I (1) except for GDP/worker. Taking the second differencing for GDP/worker shows that it is stationary at the second difference.

Co-integration Test

A cointegration test is carried out in the case that variables are non-stationary, or have similar order of integration. By undertaking Johansen test, the study determined the long-run linkage between economic growth and sustainable tourism. Table 4 shows the Johansen Co-integration Test results.

Table 4: Test for Co-integration

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Prob.**
None *	0.904271	69.71931	29.79707	0.0000***
At most 1 *	0.541232	20.44838	15.49471	0.0082***
At most 2 *	0.176771	4.084937	3.841466	0.0433**

Trace test portray 3 co-integrating equation(s) - 0.05 level

* signifies rejection of the hypothesis - 0.05 level

**MacKinnon-Haug-Michelis (1999) p-values

*Significant at α = 0.10; **significant at α = 0.05; ***significant at α = 0.01 Null hypothesis: There is at least one co-integrating equation.

The Johansen Co-integration Test results in Table 4 shows that the probability value is 0.0000 < 0.05, hence the null hypothesis that there is at least one co-integrating equation is rejected. However, the trace statistic is greater than the Critical Value (69.71931 > 29.79707), and we reject the null hypothesis that there is at least one co-integrating equation. VECM is used to evaluate the short-run properties of the co-integrated series. Nevertheless, we directly precede to Granger causality tests and estimate OLS model to establish the causal links between variables and co-integration VECM is no longer required.

This study supports the work of Manzoor et al. (2019), who investigated the linkage between economic growth and annual tourism growth, in addition to employment. In this study, the max- eigenvalues and test-trace showed that the determinants (GDP, employment, and tourism growth)have a long-run connection.

Granger Causality Test

After finding the variables are not co-integrated, Granger causality test was employed to find out the direction and causality between TCGDP, TCEMP, and GDPPC. Table 5 shows the Pairwise Granger Causality Tests.

Table 5: Granger Causality Tests

Null Hypothesis:	Obs	F-Statistic	Prob.	Decision	Causality
TCGDP does not Granger Cause LOGGDPPC	20	1.58203	0.2588	Do not reject	No causality
LOGGDPPC does not Granger Cause TCGDP		11.1392	0.0012***	Reject Ho	Unidirectional
LOGTCEMP does not Granger Cause LOGGDPPC	20	1.19336	0.3843	Do not reject	No causality
LOGGDPPC does not Granger Cause LOGTCEMP		3.64995	0.0442*	Reject Ho	Unidirectional
LOGTCEMP does not Granger Cause TCGDP	20	0.40111	0.8374	Do not reject	No causality
TCGDP does not Granger Cause LOGTCEMP		0.24095	0.9352	Do not reject	No causality

*Sig at 10% **sig at 5% ***sig at 1%

The findings do not reject the null hypothesis that the total contribution of tourism to employment does not granger cause GDP per capita. Owing to no existence of

causality in the relationship, the study concludes that the total contribution of tourism to employment does not granger cause GDP per capita. Further, the null hypothesis that GDP per capita does not granger cause the total contribution of tourism to employment is rejected. As a result, the study concludes that GDP per capita granger causes the total contribution of tourism to employment, thus, unidirectional relationship.

The null hypothesis that the total contribution of tourism to employment does not granger cause the total contribution of tourism to GDP is not rejected. Hence, there is no causality relationship between TCEMP and TCGDP. Likewise, the null hypothesis that the total contribution of tourism to GDP doesnot granger cause the total contribution of tourism to employment is not rejected. Hence, there is no causality relationship between TCGDP and TCEMP.

According to Kibara et al. (2012), studies are showing that there has been no unanimous agreement on the causal connection of tourism development with economic growth. Alhowaish (2016) noted the existence of economy-led tourism growth direction in Saudi Arabia, Kuwait, United Arab Emirates, and Qatar. Similarly, this study confirms that that GDP per capita granger has a unidirectional causal relationship towards the TCGDP and TCEMP.

Regression Analysis

The study used OLS to estimate the model equation of the study. A multiple regression model was employed to determine the influence of TCGDP and TCEMP on GDP per capita. The hypothesis was tested using the p-value method and test of significance. Following the acceptance/rejection criterion, if the p-value is higher than 0.05, we accept the H0, but if it is less than 0.05 level of significance, the H0 is rejected. The results are presented in Table 6.

Table 6: Regression model
Dependent Variable: LOGGDPPC

Variable	Coefficient	Std. Error	t-Statistic	Prob.
TCGDP	0.546086	0.052039	10.49377	0.0000***
LOGTCEMP	-1.894899	0.375122	-5.051422	0.0000***
C	29.51607	4.874586	6.055092	0.0000***
R-squared	0.916511	Mean dependent var		6.740009
Adjusted R-squared	0.908921	S.D. dependent var		0.500192
S.E. of regression	0.150955	Akaike info criterion		-0.831506
Sum squared resid	0.501322	Schwarz criterion		-0.685241
Log likelihood	13.39383	Hannan-Quinn criter.		-0.790938
F-statistic	120.7534	Durbin-Watson stat		0.895868
Prob(F-statistic)	0.000000			

*Sig at 10% **sig at 5% ***sig at 1%

TCGDP and TCEMP in Table 8 were found to be satisfactory variables in GDP per capita. This fact issupported by the coefficient of determination also known as the R square of 0.916511. This implies that tourism contribution to GDP and employment explains 91.7%

variability of GDP per capita.

The results also revealed that tourism contribution to GDP and economic growth, measured using GDP per capita, have a positive and significant relationship (β = 0.546086, p=0.000 < 0.05). The regression of the coefficient implies that if tourism contribution to GDP increases by one unit, the GDP per capita increases by 0.546086 units. The null hypothesis was that tourism contribution to GDP does not influence economic growth. Results in Table 8 shows that tourism contribution to GDP and economic growth measured using GDP per capita are positively and significantly related, with p value=0.000<0.05. The null hypothesis was therefore rejected and the conclusion made that tourism contribution to GDP influences economic growth.

Model results also showed that total tourism contribution to employment and economic growth, measured using GDP per capita, have a negative and significant relationship (β=-1.894899, p=0.000<0.05). The regression of the coefficient implies that if tourism contribution to employment decreases by one unit, economic growth measured as GDP per capita decreases by -1.894899 units. The null hypothesis was that tourism contribution to employment does not influence economic growth. The null hypothesis was therefore rejected and the conclusion made that total tourism contribution to employment influences economic growth.

UNCTAD (2020) affirms that high unemployment contributes to significant losses in GDP. This implies that during the Covid-19, a greater part of the labour force may not be productive and does decrease economic growth. This is more pronounced from the impacts of Covid-19, where most of the employees in the tourism industry were affected by the containment measures to combat the spread of the pandemic, which limited their contribution to economic growth. The first hypothesis (H01) concluded that tourism contribution to GDP influences economic growth. Likewise, the second hypothesis (H02) also concluded that total tourism contribution to employment influences economic growth. Therefore, the third hypothesis (H03) that sustainable tourism does not influence economic growth was rejected and the conclusion made that sustainable tourism does influence economic growth.

The findings of this study also bear similarity to those of Manzoor et al (2019), who used regression analysis and found out that employment rate and annual tourism growth were positive and significantly related. From the regression analysis, this study confirms that sustainable tourism positively influences economic growth.

CONCLUSION AND RECOMMENDATIONS

This study sought to analyze the linkage between sustainable tourism and economic growth in Kenya. Sustainable tourism was measured using the tourism contribution to GDP and employment, whereas economic growth was measured using the gross domestic product per capita. The study findings clearly depict a long-run linkage between tourism contribution to GDP and employment, and economic growth in Kenya. Similar to the United Arab Emirates, Kuwait, Saudi Arabia, and Qatar, Kenya's economic growth has a unidirectional causality on tourism contribution to GDP and employment (Alhowaish, 2016). A decline in the economic growth in Kenya affects tourism's contribution to employment and GDP. The study confirms that high unemployment contributes to significant losses in GDP, especially during the Covid-19 pandemic period, hence, a greater part of the labour force becomes unproductive leading to a decrease in

economic growth. It is imperative to engender sustainable tourism that safeguards employment and the GDP contribution ability of the tourism industry in order to advance national economic growth. Therefore, based on the three-nested theory and sustainable development theory, this study suggests that the Kenyan government should focus on socio-economic and environmental policies to promote sustainable tourism as a significant contributorto economic growth.

Policy Implications

Sustainable tourism is a driving force for the Kenyan economy. The travel and tourism industry brings lots of hope to the economy of the country in the post-Covid-19 phase, especially concerning the earnings, GDP, generation of employment, and economic advancement. If the Kenyan tourism industry is developed systematically and supported, it will reveal a natural splendor and benefits to future generations.

This study emphasizes the importance of creating an enabling environment through public-private partnerships and industry-academia collaborations in product development and innovation. A key strategy includes establishing incubation centers where private sector experts can mentor and engage with the next generation of job creators, fostering a culture of entrepreneurship and sustainable economic growth.

The Covid-19 pandemic is characterized by an almost unprecedented increase in unemployment. This study recommends responsible recovery for the tourism sector that is based on sustainability, in the short-term, and in the long-term. Tourism policymakers should appreciate the realization that sustainability must no longer be a niche part of tourism but must be the new norm for every part ofour sector.

The COVID-19 heightens social tensions and engenders a general sense of insecurity within and among the population. It is necessary not only to strengthen social dialogue but also to build a strong basis for worker satisfaction as well as employer commitment at the enterprise-level.

The Kenyan Ministry of Health has noted that there is no report on the progress of key policy reforms under the tourism pillar such as the medical tourism strategy. The Ministry of Tourism and Wildlife should act with speed to develop and implement a medical tourism strategy for Covid-19, among other infectious diseases with global or national impacts.

With Covid-19 health restrictions still existing between countries, domestic tourism is expected to resume faster than international tourism. The tourism businesses should take note of the changes being witnessed in consumer behaviour such as trips closer to home or proximity travel, bookings closer to the departure dates of the trip, or a preference to travel by car in order to tailor their products to the needs of the new-normal clients. This will enhance their competitiveness and sustainability as well as redistribute opportunities for employment.

Covid-19 has reshaped the work structure of many economic sectors including tourism, where employees would remotely work from home. The tourism sector calls for creative, talented, and proficient people, with infrastructure that is well-developed in place. The government should engage experts with an array of techniques to stimulate income generation, employment opportunities, and revenue for the local population through support for digital platforms.

Governments should support economic diversification in the medium and longer-

term, where possible. Since high dependence on one sector or region increases vulnerability, it is imperative that governments pursue economic diversification through regional integration, targeted education, and training programs to boost resilience and mitigate the cost of shocks in areas prone to over-tourism. Education and training are key ingredients to the success of sustainability initiatives.

REFERENCES

Akama, E. (2017). International Tourism Receipts and Economic Growth in Kenya 1980 -2013. *MPRA*. Paper No. 78110.

Alhowaish, A.K. (2016) Is Tourism Development a Sustainable Economic Growth Strategy in the Long Run? Evidence from GCC Countries. MDPI. *Sustainability*, 8 (7), 605.

Baumöhl, E., and Lyócsa, Š. (2009) Stationarity of Time Series and the Problem of Spurious Regression. *MPRA*. Paper No. 27926.

Dartmouth (2015) *What is Sustainability?* Retrieved August 12, 2020, from http://www.dartmouth.edu/~cushman/courses/engs41/Mark%20Borsuk%27s%20version%20of%20course/Lectures/Lecture13_ENGS41_post.pdf.

Dushenko, M., Bjorbaek, C., & Steger-Jensen, K. (2019). Application of a Sustainability Model for Assessing the Relocation of a Container Terminal: A Case Study of Kristiansand Port./*Sustainability*, 11, 87; doi:10.3390/su11010087.

Granger, C. (1988). Some recent Developments in a Concept of Causality. *Journal of Econometrics*, 39, 199-211.

ILO (2017) *ILO Guidelines On Decent Work and Socially Responsible Tourism.* International Labour Office, Sectoral Policies Department – Geneva. 10.05.3.

IMF (2020) *World Economic Outlook (WEO), April 2020*. Retrieved August 10, 2020, from https://knoema.com/IMFWEO2020Apr/imf-world-economic-outlook-weo-april-2020.

Johansen, S., & Juselius, K. (1990). Maximum Likelihood Estimation and Inference on Cointegration - With Applications to the Demand for Money. *Oxford Bulletin of Economics and Statistics*, 52(2), 169-210.

Kenya Economic Outlook (2020) *Kenya-GDP*. Retrieved from https://www.focus-economics.com/countries/kenya.

Kline, R.B. (2011). *Principles and Practice of Structural Equation Modeling* (5th ed., pp. 3-427). New York: The Guilford Press.

Longyu, S., Linwei, H., Fengmei, Y., and Lijie, G. (2019) The Evolution of Sustainable Development Theory: Types, Goals, and Research Prospects. *Sustainability*, 11, 7158; doi:10.3390/su11247158.

Magical Kenya (2020) *Tourism Industry Post CoronaVirus*. Retrieved August 10, 2020, from https://magicalkenya.com/news/the-industry-must-re-think-its-strategy-in-order-to-survive-post-coronavirus.

Maingi, S. W. (2020). Case Study 6: Mainstreaming Overtourism Education for Sustainable Behavioral Change in Kenya's Tourism Industry Context. In H. Séraphin, T. Gladkikh, & T. Vo Thanh (Eds.), *Overtourism: Causes, Implications and Solutions* (pp. 383–399). Springer. https://doi.org/10.1007/978-3-030-42458-9_20.

Manzoor, F., Wei, L., Asif, M., Haq, M., & Rehman, H. (2019). The Contribution of Sustainable Tourism to Economic Growth and Employment in Pakistan. *International Journal of Environmental Research and Public Health*, 16. 3785. 10.3390/ijerph16193785.

Ministry of Health (2020) *CS Health Launches Primary Health Strategic Framework As A Pillar To Achieve UHC Nakuru July 16, 2020.* Retrieved August 12, 2020 from https://www.health.go.ke/cs-health-launches-primary-health-strategic-framework-as-a-pillar-to- achieve-uhc-nakuru-july-16-2020.

Ministry of Tourism and wildlife (2020) Impact of Covid-19 on Tourism in Kenya, the Measures taken and the Recovery Pathways. *Research Report*.

OECD (2020) *Tourism Policy Responses to the Coronavirus (COVID-19).* Retrieved August 15, 2020, from https://www.oecd.org/coronavirus/policy-responses/tourism-policy-responses-to-the-coronavirus-covid-19-6466aa20

Parliamentary Budget Office (2020) The COVID 19 global pandemic: *Impact to the economy and policy options*. Special Bulletin No. 1/2020.

Republic Of Kenya (2020a) *Ministry of Tourism and Wildlife Strategic Plan 2018-2022.* Revised April 2020. Retrieved from http://www.tourism.go.ke/wp-content/uploads/2020/06/Draft-   MTW-Strategic-Plan-2018-2022-June-2020-1.pdf.

Republic of Kenya (2020b) Draft Revised National Tourism Policy, 2016 On Enhancing Sustainable Tourism In Kenya. *Working Document*. Retrieved from http://www.tourism.go.ke/wp-content/uploads/2020/07/Policy-Tourism-Draft-May-2020-.pdf.

Statista (2020) *Predicted Employment Loss In The Travel And Tourism Industry Due To The Coronavirus (Covid-19) Pandemic Worldwide In 2020, by Region.* Retrieved from https://www.statista.com/statistics/1104835/coronavirus-travel-tourism-employment-loss.

Tabash, M. (2017). The Role of Tourism Sector in Economic Growth: An Empirical Evidence From Palestine. *International Journal of Economics and Financial Issues*, 7, 103-108.

The Parliament of Kenya (2020) *Unpacking Of The Budget Policy Statement & Medium-Term Debt Management Strategy 2020.* Retrieved from http://www.parliament.go.ke/sites/default/files/2020-03/Unpacking%20of%20BPS%202020%20final.pdf.

UNWTO (2020) *Sustainability as the New Normal" a Vision for the Future of Tourism.* Retrieved from https://www.unwto.org/covid-19-oneplanet-responsible-recovery.

WCED (1987). Report of the World Commission on Environment and Development: Our Common Future. UN Documents: *Gathering a Body of Global Agreements*. Google Scholar.

WTTC (2020) *World Travel and Tourism Council Data. Retrieved from* https://knoema.com/WTTC2019/world-travel-and-tourism-council-data