

THE IMPACT OF TOURISM ON ECONOMIC PERFORMANCE IN GHANA

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Abstract

This study examined the impact of tourism on economic performance in Ghana using Johansen's cointegration approach. It was found that all the variables, nominal gross domestic product per capita, domestic tourism per capita and international tourism per capita were integrated at first order. The results of Johansen's cointegration test indicated that there exist only short run relationships among all the variables being considered. The study found out that previous record of the international tourism had a positive impact on nominal gross domestic product per capita and this impact is elastic. As a result, improvement in international tourism will lead to increase in nominal gross domestic product per capita. The Granger Causality test also showed that was unilateral causality between international tourism and nominal gross domestic product per capita and domestic tourism as well as international tourism. Finally, it was recommendations that international tourism should be encourage in all media to publish the tourism centers in Ghana to the outside world to attract more international tourists. Also, Ghanaians should be encouraged to patronize the tourist centers as domestic tourism caused international tourism to improve.

Keywords: Economic performance, domestic tourism, international tourism, cointegration

Introduction

The growth of the global tourism industry is immense, with international arrivals growing by 51 percent over the last ten years, from 594 million in 1997 to an estimated 898 million in 2007 (UNWTO, 2008). In terms of tourism expenditure, a total of US\$733 billion was spent in 2006, marking an increase of US\$372 billion since 1996 (UNWTO, 2008). Based on this performance, it is forecasted that the world tourism arrivals will continue to increase in the coming years and reach 1.6 billion tourists by the year 2020.

In line with the overwhelming pace of tourism growth, tourism and hospitality have become an important source of employment for many countries, making it one of the key employers in the global economy. According to the estimates from the World Travel and Tourism Council (WTTC) in 2004, tourism generates around 214.7 million jobs worldwide (or 8.1% of world employment) and accounts for over 10% of global gross domestic product (GDP). Employment in the world's tourism and hospitality industry in 2007 is also estimated at 8.3% of total world employment, with 231 million jobs, or one in every 12 jobs worldwide. These figures clearly indicate that the role of tourism and hospitality as a job provider is significant. With more countries, especially those at the developing stage, giving priority towards making tourism an important income generator.

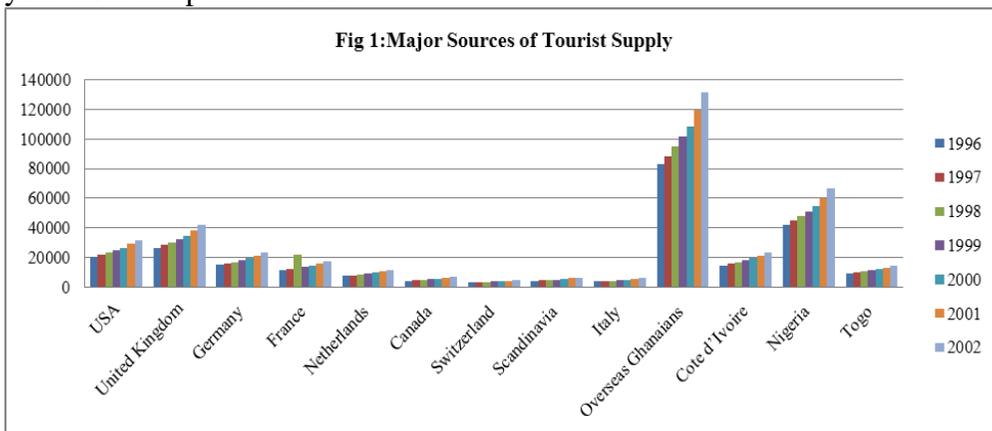
Since the late 1980s tourism has received considerable attention in the economic development strategy of Ghana. The number of tourist arrivals and amount of tourists' expenditure has steadily increased, while both public and private investment activity in various tourism sub-sectors have expanded. The government established a Ministry of Tourism in 1993 to underscore its commitment to tourism development, and with assistance from the United Nations Development Programme (UNDP) and the World Tourism Organisation (WTO). Tourism is a major social phenomenon of the modern society with enormous economic consequences. Its importance as an instrument for economic development and employment generation particularly in remote areas and a positive step for poverty elimination has been accepted the world over.

In Ghana, tourism is one of the important subsectors in the services sector. It is young and a developing industry in Ghana. Traditionally, the major foreign exchange earners of Ghana are gold, timber and cocoa. However, Ghana has shifted focus from over-dependence on these traditional commodities and sees tourism as a potential to become the number one foreign exchange earner. Tourism is placed third in terms of foreign exchange earnings for Ghana. The tourism sector has the potential to contribute to economic growth. This can be seen in the areas of employment creation as well as income generation potential. Thus, the tourism subsector has shown that it can contribute significantly to Gross Domestic Product, private sector investment, employment and export diversification, and contribution to foreign exchange earnings [The State of the Ghanaian economy (SGE), 1991].

Performance of the Tourism Sector of Ghana

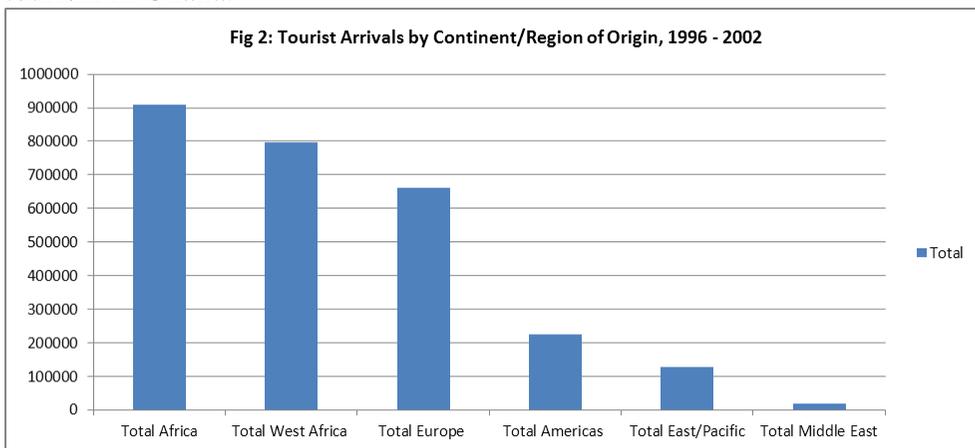
The major sources of tourist supply, 1996 – 2002, is illustrated in figure 1. From the figure, more tourists have been arriving from Nigeria, the UK and USA, the majority of these tourists being Ghanaians visiting from

abroad. However, from the figure, tourists who visited Ghana represent all the continents. Also, it is clear from the figure that tourists’ visit over the year were in upward trend.



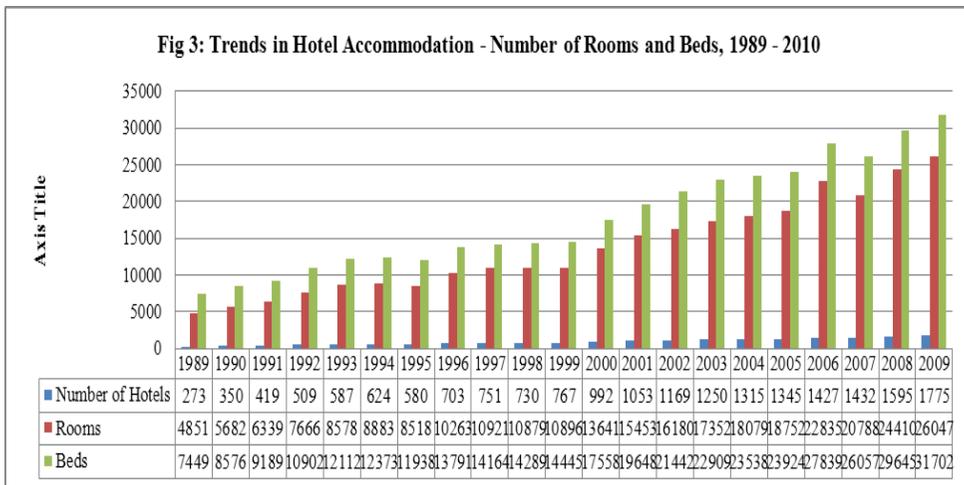
Source: *The State of the Ghanaian Economy, 2002.*

In general, more tourists have been arriving mostly from Africa, followed by West Africa, and then Europe as shown in figure 2 below. From the figure, tourists from Pacific and Middle East were not familiar with tourism in Ghana.



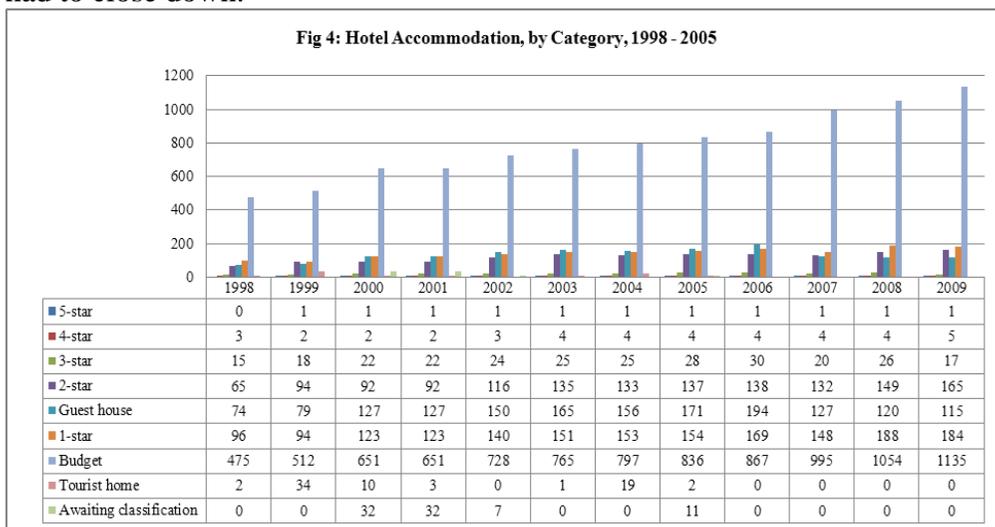
Source: *The State of the Ghanaian Economy, 2002.*

The tourism sector of Ghana has been doing well because of the improvement in the number of hotel facilities since 1989 as shown in figure 3. In the year 1999, the number of hotels increased from 273 in 1989 to 767 in 1999. The number of hotels increased greatly from 992 in 2000 to 1,797 in 2010. Correspondingly, the number of rooms and beds has also been increasing. These increments in rooms and beds may be attributed to the increasing number of hotel accommodation facilities in the Western Region of Ghana where the emerging oil sector is located.



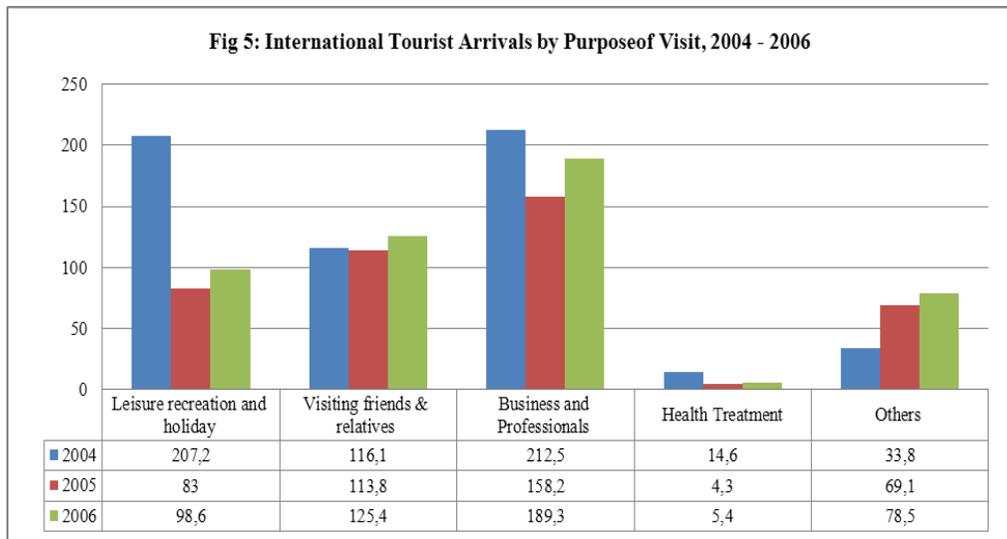
Source: The State of the Ghanaian Economy, 2002, 2009 and 2010.

Furthermore, 2009, recorded a significant drop in the number of 3–star hotels from 30 in 2006 to 17 in 2009, a drop of 43%. Also, 1– star hotels and guest houses all recorded a downturn in 2009. The number of 1– star hotels dropped from 188 in 2008 to 184 in 2009, a 2% decline. The reason was that some hotels could not meet Ghana Tourist Board requirements during the reappraisal of all hotels in 2009. As a result, some hotel operators had to close down.



Source: The State of the Ghanaian Economy, 2005

International tourist arrivals (‘000) by purpose of visit, 2004 – 2006, are shown 5 in figure below. More tourists visit Ghana for business and professionals purposes which is good for the country, followed by visiting friends and relatives and then for leisure, recreation and holiday.



Source: Economic Survey-Ghana Statistical Service, 2005 – 2007 (pp. 69).

The number of visitors to community –based ecotourism site, 2002 – 2004, is shown in table below. From the table, Bobeng-Fiema Monkey Sanctuary in Brong Ahafo was the most visited site in Ghana; this was followed by Paga Crocodile Pond (Chief Pond) in Upper East and Liate Wote in Volta. These community –based ecotourism sites attracted tourists from all over the world.

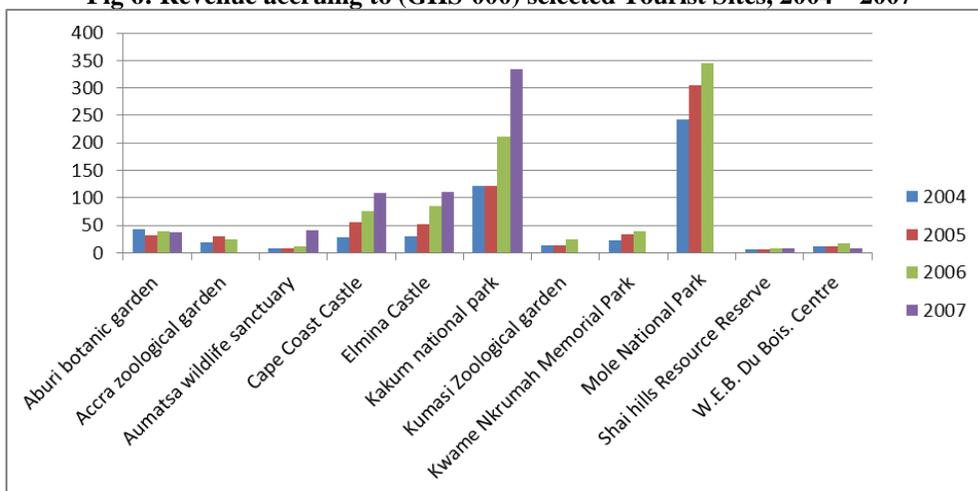
Table 1: Number of Visitors to Community –Based Ecotourism Site, 2002 – 2004

Site	Region	2002	2003	2004
Amedzofe	Volta	2127	2435	833
Liate Wote	Volta	2670	2692	1276
Tafi-Atome Monkey Sanctuary	Volta	2235	1727	1140
Xavi	Volta	44	309	212
Bobeng-Fiema Monkey Sanctuary	Brong Ahafo	6240	7330	3420
Tano Boase Sacred Grove	Brong Ahafo	413	895	181
Tongo Hills	Upper East	273	788	251
Paga Crocodile Pond (Chief Pond)	Upper East	5826	5473	2095
Wechiau Hippo Sanctuary	Upper West	901	985	1201
Bobiri Forest & Butterfly Sanctuary	Brong Ahafo	1470	2162	691
Bunso	Brong Ahafo	123	1420	815
Domama Rock shrine	Brong Ahafo	268	488	779

Source: The State of the Ghanaian Economy, 2004

The Revenue Accruing to Selected Tourist Sites, 2004 - 2007, is shown in figure 6 below. The leading tourist sites that generated a lot of revenue for Ghana between those periods were Mole National Park followed by Kakum National Park, Cape Coast Castle and then Elmina Castle. Therefore, improvement in these sites will give more revenue to Government of Ghana.

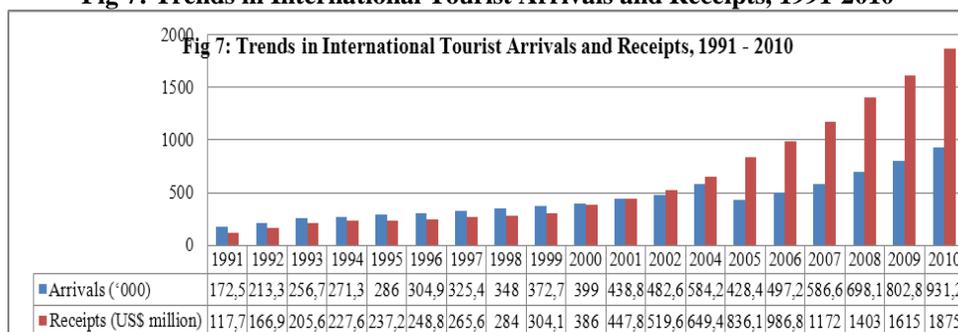
Fig 6: Revenue accruing to (GHS'000) selected Tourist Sites, 2004 – 2007



Source: Economic Survey-Ghana Statistical Service, 2005 – 2007.

Figure 7 below showed the International Tourist Arrivals and Receipts from 1991 to 2010. From figure 3, there is the general positive trend on tourist arrivals and earnings, with the rise in foreign exchange earnings partly due to the increase in arrivals. In 1998, an estimated 350,000 tourists arrived in Ghana, represented an increase of 7.5% over 1997. Currently, the increase in both tourist arrivals and receipts in Ghana is also due the oil find There is increasing number of tourist arrivals in Ghana; it is not surprising to note that receipts obtained from international tourist arrivals have more than doubled since 2005.

Fig 7: Trends in International Tourist Arrivals and Receipts, 1991-2010



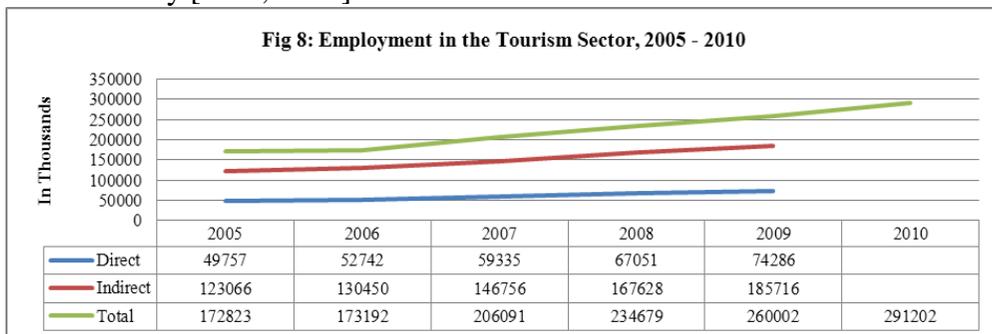
Source: Economic Survey-Ghana Statistical Service, 2005 – 2007 (pp. 68); the State of the Ghanaian Economy, various issues.

Contribution to Gross Domestic Product [GDP] and Employment

According to the Ghana tourist board, tourism contributes 3.7% to GDP, with a multiplier effect of 3.4 on income [SGE, 2004]. In 2004, tourism contributed 4.9% to GDP, with a multiplier effect of 3.4% on income. The multiplier effect on income remained the same in 2004. The

contribution of tourism to GDP in 2005 was 4.9% of GDP, to 5.8% in 2006 and to 6.3% in 2007.

The tourism industry provides direct and indirect employment to over 300,000 people [SGE, 1991]. Direct employment from tourism increased from 26,000 to 33,094 in 2002, with indirect and induced employment rising from 64,000 to 82,129 Over the same period [SGE, 2004]. The Ghana Tourist Board estimates an employment multiplier effect of 3.5 for tourism [SGE, 2004]. Direct employment from tourism rose from 33,094 in 2003 to 46502 in 2004, with indirect and induced employment rising from 82,129 to 115,015 over the same period. The multiplier effect on employment remained the same in 2004. Direct employment from tourism rose from 19,000 in 1996 to 52,742 in 2006, an increase of 180% in 10 years [SGE, 2007]. Indirect jobs created by the industry increased from 46000 in 1996 to 130450 in 2006. The rate of increment was 180% [SGE, 2006]. In 2007, the industry offered direct employment to almost 60000 people [SGE, 2007]. About 147,000 indirect jobs in 2007 [SGE, 2007] had been created. The amount of employment created in the tourism sector increased from 234,679 jobs in 2008 to 260,002 in 2009. In 2009, there were a total of 74,286 direct jobs created by the tourism industry [SGE, 2009]. Indirect jobs increased from 167,628 in 2008 to 185,716 in 2009 [SGE, 2009]. Finally, the total employment rose from 260,002 in 2009 to 291,202 in 2010. This could be seen that there is a general increase in the amount of employment. This might be due to the number of hotels, restaurants and other tourist facilities in the country [SGE, 2010].



Source: The State of the Ghanaian Economy, 2009.

Foreign exchange earnings

Foreign exchange earnings from tourism increased by an average of approximately 33 percent per annum since 1985 (SGE, 1991). Gross foreign receipts from tourism were US\$796 million in 2005, up by 22.62% over the 2004 value and each tourist spent an average of \$1,950 in 2005 [SGE, 2005]. Tourism receipts by end of 2007 as US\$1,172 million. This figure represented a 19% increase on 2006 value [SGE, 2007]. There are 14 small,

community based ecotourism sites located in almost all the regions. These 14 sites received about 34,000 and 39,000 visitors in 2005 and 2006 respectively, with the communities benefiting from tourist spending of GHS80, 200 in 2005 and GHS110, 000 in 2006.

The economic impact of tourism in Ghana is the main focus of this study. The contribution of tourism to the economic performance is widely acknowledged. Tourism generates job creation, contribution to GDP and a vital amount of foreign exchange earning that also contributes to the sustainable economic growth and development of Ghana's economy. However, the impact of tourism, overall, on economic growth of Ghana has not been effectively analysed, and the issue of causality between tourism and economic performance in Ghana is not known, hence, the need for this investigation.

Literature Review

In general, economic impact analysis estimates the changes in economic activity within a region resulting from some action. Archer (1989) states that impact analysis is an economic approach used to measure *inter alia* the amount of income, government revenue, employment and import generated in an economy by the direct and secondary (indirect and induced) effects of visitor expenditure. *Direct effects* are the changes in the industries associated directly with visitor spending. *Indirect effects* are sales, income, or jobs resulting from secondary rounds of purchases the hotel makes to other linked industries in the region. *Induced effects* are related to sales, income or jobs resulting from household spending as a result of income earned from visitor spending (either directly or indirectly). The employees of hotels and catering companies, for instance, will spend their salaries in the region and hence generate new rounds of sales, income and jobs. At each stage, however, some visitor's expenditure is lost to the system because it is used to purchase imported goods and services and some induced expenditure may be partially lost through savings. These losses from the system are generally referred to as leakages.

Clearly, the initial expenditure by visitors can have significant additional effects throughout the rest of the economy, resulting in increased income and expenditure by a wide range of household groups not necessarily directly connected with tourism. This process of spending and re-spending is commonly described as the “*multiplier*” effect. As pointed out in Archer (1982), the term of multiplier is used to describe the final change in output in an economy relative to the initial change in visitor expenditure and is central to any measure of the economic impact of tourism. Generally speaking, the larger the multiplier, the greater the impact an unit of visitor spending will have on the region's economy. Multipliers capture the size of all effects,

usually expressed as a ratio of total effects to direct effects (Miller and Blair 1985).

Considering China's tourism industry, there are several studies that examine the relationship between tourism and economic growth by using China's data. Wu (2003) found out that the development of tourism industry has largely promoted China's economic growth. According to Yang (2006) domestic tourism has little pulling effects on economic growth, but economic growth had significant driving effects on domestic tourism. Both studies directly took regression analysis on non-stationary variables such as domestic tourism income, inbound tourism income and GDP, thus spurious regression may occur. Chen, Liu and Xu (2006) used Granger causality test on the relationship between the development of China's tourism industry and economic growth based on the annual time series data from 1985 to 2003. Their study indicate that the development of China's tourism industry has significantly promoting effects on China's economic growth, but China's economic growth has little promoting effects on the development of China's tourism industry.

Making use of the data on China's domestic tourism revenue, inbound tourism revenue and GDP from 1985 to 2005, Liu and Wu (2007) found out that there are long-term and stable co-integration relationship among domestic tourism, economic growth and inbound tourism. Moreover, they find that there are Granger causalities from economic growth to domestic tourism and inbound tourism. Based on the data of China's inbound revenue per capital, domestic revenue per capital and GDP per capital from 1978 to 2007, Wu, Xie and Quan (2009) investigated the causal relations between tourism growth and economic expansion for China's economy by using Johansen Co-integration test approach and Granger causality test. They conclude that there is a long-term equilibrium between domestic tourism growth and economic expansion. Also, they found out there is not causal relationship between international tourism growth and economic expansion at the national level. According to Dritsakis (2004), tourism had a long-run economic growth effect in Greece. Balaguer and Cantavella-Jorda (2002) also confirmed the validity of the tourism-led growth hypothesis for long-run economic performance using Spanish economic data. Oh (2005) for Korea, Tosun (1999), and Gunduz and Hatemi (2005) for Turkey have also found empirical support for the tourism-led growth hypothesis. Similarly, employing the convergence approach based on Barro and Sala-i-Martin (1992a) type of analysis, Proenca and Soukiazis (2008) examined the impact of tourism on the per capita income growth of Portuguese regions and drew the conclusion that tourism can be considered as an alternative solution for enhancing regional growth in Portugal, if the supply characteristics of this sector are improved.

In particular a country or a place to be an attractive destination it has to be rich in land, water, vegetation and man-made creations. Islands like Seychelles, Maldives are rich in Sun, Sea and Sand while countries like Malaysia, Thailand and Kenya are rich in Culture, Nature and Adventure for keeping tourists attract. For example Seychelles island GDP contribution from tourism sector is 73% where the same in Maldives Islands is 60 %.(IMF, 2009). From all this literature it is clear that tourism is an important component of economic performance.

Methodology

In order to find out the impact on economic performance in Ghana the paper used Vector Autoregressive (VAR) model which is specified as:

$$\ln y_t = a_0 + \sum_{i=1}^p b_i \ln y_{t-1} + \sum_{i=1}^p c_i x_{t-1} + \sum_{i=1}^p c_i z_{t-1} + \varepsilon_t$$

where $\ln y$ is the natural log of nominal GDP per capita, $\ln x$ is the natural log of domestic tourism per capita and $\ln z$ is the natural log of international tourism per capita, t is time, p is the optimal lagged length and ε_t is the error term assumed to be white noise process.

This is used to test for the stationarity of the endogenous and exogenous variables will be checked using Augmented-Dickey-Fuller (ADF) test. If all the variables are integrated of order one then the Johansen Cointegration Test will be carried out to find out if there exist a long run relationship among the variables or not. The purpose of the cointegration test is to determine whether a group of non-stationary series is cointegrated or not. This study applied the Johansen Cointegration Maximum Likelihood Method of Cointegration developed by Johansen (1988) and applied by Johansen and Juselius (1990) to determine the number of cointegrating vectors. In this study, the maximum eigenvalue test is applied. According to Ender, 2004, this is usually preferred for trying to pin down the number of cointegrating vectors. If this test shows that there is no cointegrating vector then the paper will estimate VAR model, otherwise, the vector error correction (VEC) model will be estimated.

The directions of the relationships between the variables are tested using Granger causality test, Granger (1996). This is used to examine the linear causation between the concerned variables. The test is based on the model specified below as;

$$Y_t = \alpha_0 + \sum_{j=1}^m \beta_j Y_{t-j} + \sum_{i=1}^n \delta_i X_{t-i} + \mu_t,$$

If X_t Granger cause Y_t , then the current values of Y_t are determined by past values of X_{t-1} . The test of $H_0: \delta_i = 0$, is carried out using the F- test. The data

used in this study is sourced from World Development Indicators for Ghana and Ghana Statistical Service from 1991 to 2012.

Hypothesis

To guide the study the following hypotheses will be tested:

H₀: Domestic tourism does not have positive impact on economic performance in Ghana.

H₁: Domestic tourism has a positive impact on economic performance in Ghana.

H₀: International tourism does not have positive impact on economic performance in Ghana.

H₁: International tourism has a positive impact on economic performance in Ghana.

Results and Discussion

The result of the Augmented Dickey-Fuller (ADF) test for the variables under consideration is shown in table 2 below. From the table, all the variables at their first difference are stationary at 5 percent level of significance. Therefore, all the variables, nominal GDP per capita, domestic tourism per capita and international tourism per capita are integrated at first order, I(1). As a result, the Johansen's cointegration approach is applicable in determining the number of cointegrating equation(s).

Table 2: The Results of Augmented Dickey-Fuller Test (ADF) for Unit Root

Variable	None			Constant			Constant and Trend		
	Level	1st diff	Conclusion	Level	1st diff	Conclusion	Level	1st diff	Conclusion
	t-obs	t-obs		t-obs	t-obs		t-obs	t-obs	
lny	3.1758	-0.2264		0.4489	3.8813	I(1)	-4.623	6.7171	I(1)
p-value	0.9989	0.5889		0.8813	0.0095		0.0073	0.0003	
lnx	-0.8080	-6.1199	I(1)	-2.726	-6.045	I(1)	-3.462	5.8636	I(1)
p-value	0.3533	0		0.0864	0.0001		0.0701	0.0007	
lnz	2.7351	-3.6776	I(1)	0.5739	5.0012	I(1)	-2.836	4.8404	I(1)
p-value	0.9972	0.0009		0.8567	0.0008		0.2009	0.0051	

VAR is used to determine the optimal lag length for the Johansen cointegration test which is based on the AIC is one. Using the selected optimal lag length, the likelihood ratio test which depends on the maximum Eigen values of the stochastic matrix of the Johansen (1991) procedure, the Maximum Eigenvalue statistics show that there is no cointegrating vector at

5 percent level of significance. The null hypothesis of zero cointegrating vectors is not rejected. Therefore, it is concluded that there is no cointegrating vectors specified in the model, as a result the study used VAR to estimate the impact of tourism on economic performance in Ghana.

The table 3 below showed the VAR model for examining the impact of tourism on economic performance in Ghana. From the result, the tourism explains about 94 percent of the total variation in economic performance. Considering the domestic tourism, previous record had a negative impact on the current nominal GDP per capita. This showed that increase in previous year's domestic tourism will cause current nominal GDP per capita to fall. This effect on nominal GDP per capita, however, is not significant at 5 percent level of significance. This confirmed the null hypothesis that the domestic tourism does not have positive impact on economic performance in Ghana. Also, previous record of the international tourism had a positive impact on the nominal GDP per capita and this is significant at 5 percent level of significance (since by the rule of the thumb t-value (3.075) is greater than 2). The impact of international tourism on nominal GDP per capita is elastic as a result; a unit increase in previous year's international tourism will lead to 2.1 units increase in current nominal GDP per capita. This confirmed the alternative hypothesis that the international tourism has a positive impact on economic performance in Ghana. This confirms the finding of Wu (2003) that the development of tourism industry has largely promoted China's economic growth.

Table 3: The Result of Vector Autoregressive Model for Short Run Dynamics

Vector Autoregression Estimates
Sample (adjusted): 1992 2012
Included observations: 21 after adjustments
Standard errors in () & t-statistics in []

	LN _Y	LN _X	LN _Z
LN _Y (-1)	0.436000 (0.17942) [2.43009]	-0.590195 (0.31301) [-1.88553]	0.047397 (0.04287) [1.10566]
LN _X (-1)	-0.102831 (0.13153) [-0.78182]	0.143629 (0.22946) [0.62593]	-0.057623 (0.03143) [-1.83362]
LN _Z (-1)	2.131485 (0.69316) [3.07504]	1.509598 (1.20929) [1.24833]	0.728061 (0.16561) [4.39612]
C	-23.19546 (7.70650) [-3.00986]	-13.27064 (13.4448) [-0.98704]	3.334494 (1.84130) [1.81095]

R-squared	0.949476	0.389742	0.952262
Adj. R-squared	0.940560	0.282050	0.943838
Sum sq. resids	0.795060	2.419895	0.045387
S.E. equation	0.216260	0.377289	0.051670
F-statistic	106.4916	3.619025	113.0372
Log likelihood	4.577817	-7.109326	34.64130
Akaike AIC	-0.055030	1.058031	-2.918219
Schwarz SC	0.143926	1.256988	-2.719263
Mean dependent	3.624415	3.318875	12.06619
S.D. dependent	0.887027	0.445273	0.218032
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Determinant resid covariance (dof adj.)	1.62E-05		
Determinant resid covariance	8.61E-06		
Log likelihood	33.06461		
Akaike information criterion	-2.006153		
Schwarz criterion	-1.409284		

The table 4 below showed the result of the results of Granger Causality Test. From the table, the result shows that domestic tourism does not Granger caused nominal GDP per capita but nominal GDP per capita Granger caused domestic tourism at 10 percent level of significance. The international tourism Granger caused nominal GDP per capita at 1percent level of significance. Finally, international tourism does not Granger caused domestic tourism, however, domestic tourism also Granger caused international tourism. This showed that international tourism caused nominal GDP per capita to improve while domestic tourism also caused international tourism to increase. This confirm the findings of Chen, Liu and Xu (2006) that the development of China's tourism industry has significantly promoting effects on China's economic growth, but China's economic growth has little promoting effects on the development of China's tourism industry.

Table 4: The Results of Granger Causality Test

Null Hypothesis:	Obs	F-Statistic	Prob.
LNX does not Granger Cause LNY	21	0.05002	0.8255
LNY does not Granger Cause LNX		3.84373	0.0656
LNZ does not Granger Cause LNY	21	9.11499	0.0074
LNY does not Granger Cause LNZ		3.08837	0.0958
LNZ does not Granger Cause LNX	21	1.72168	0.2060
LNX does not Granger Cause LNZ		5.56455	0.0298

Conclusion

The study examined the impact of tourism on economic performance in Ghana using Johansen's cointegration approach. It was found out that all the variables, nominal GDP per capita, domestic tourism per capita and international tourism per capita are integrated at first order. The results of Johansen's cointegration test indicate that there exist only short run relationships among all the variables. The study found out that previous record of the international tourism had a positive impact on the nominal GDP per capita and this impact was elastic. As a result, improvement in international tourism will lead to increase in nominal GDP per capita. The Granger Causality test also showed that was unilateral causality between international tourism and nominal GDP per capita and domestic tourism as well as international tourism. Therefore, increase in international tourism will improve nominal GDP per capita while improvement in the domestic tourism will improve international tourism as well. Finally, the following recommendations are made based on the findings; international tourism should be encouraged in all media to publish the tourism centers in Ghana to the outside world to attract more international tourists. To attract more tourists, the Government of Ghana must endeavour to ensure socio-political and macroeconomic stability. Also, Ghanaians should be encouraged to patronise the tourist centers as domestic tourism caused international tourism to improve. Finally, the regulatory agencies strengthen monitoring to ensure top-quality customer services through-out the industry. Government intensifies its will to encourage private-led investment with an appropriate regulatory framework, which will ensure good economic returns.

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