

THE ECONOMIC AND INSTITUTIONAL DETERMINANTS OF INTERNATIONAL TOURISM DEMAND IN THE ECOWAS REGION

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Abstract

This study examines the economic and institutional determinants of international tourism demand in the Economic Community of West African States (ECOWAS) region. The study employs a static panel regression model using annual data between the years 2000 and 2015 across all countries in the West African region. The empirical result suggests that real effective exchange rate, level of corruption, income of international tourists, relative price of tourism and insecurity have a significant impact on the level of tourism demand in the ECOWAS region at 1%, 10%, 1%, 1% and 5% significant level respectively. The signs of the parameters of the variables show that income and political instability have positive impact on the tourism demand while relative price, corruption and insecurity have negative impact on the tourism demand in the region. The study recommends government, authorities in charge of crime prevention (security agencies) and other key players (both private and public) to team up and map out plans to tackle terrorism and insecurity in the West African region; the region should consider adopting single currency to stabilize prices; and ensure effective communication is maintained so that tourists are adequately informed about dangerous zones.

Keywords: Tourism demand; Real effective exchange rate; Corruption, Institutions

JEL classification Codes: L83; L89; C32; D74; H56

INTRODUCTION

The West African sub-region is one of the five sub-regions in Sub-Saharan Africa. The sub-region is considered as the second largest in the continent of Africa after East Africa with a total of 17 countries i.e. 16 African countries and 1 UK territory (Saint Helena) (Bada, 2018). The countries in the West African region are Niger, Chad, Mali, Senegal, Togo, Benin, Guinea Bissau, Ivory Coast, Guinea, Burkina Faso, Mauritania, Gambia, Sierra Leone, Liberia, Ghana, Nigeria and Cape Verde. The Gross Domestic Product (GDP) of the region grew at the rate 3.3% in the year 2018 with a projection for possible growth of 3.6% annually in the years 2019 and 2020 (Afdb, 2019a). Noteworthy also is the fact that contributions from the service sector to the growth of GDP in the region ranged between 47.4% in Mali and 81.8 % in Cape Verde signifying the service sector as the dominant sector in the region's value added (of the 3.3% GDP growth in West Africa, services sector accounted for 2%) in the year 2018 (Afdb, 2019b). However, the West African region only experienced high growth in its GDP up until 2014 when it was hit by an economic meltdown due to a sharp drop in commodity prices and Ebola outbreak (Afdb, 2019a). While Nigeria, the giant of Africa's economy and largest oil exporter fell into recession in 2016, gained gradual recovery in 2017 and 2018, other countries including Benin, Burkina Faso, Côte d'Ivoire, Ghana, Guinea, and Senegal saw growth of at least 5% in the past two years and are projected to maintain same in 2019

and 2020 (AfdB, 2019a). Therefore, it is hypothesized that a proper diversification of the economies within the region to tourism sector will go a long way to boost the contributions of the service sector to GDP growth of the region. This claim can also be supported by the 2017 tourism highlights of the United Nations which showed that income from tourism sector alone accounted for about 30% of the world's trade in service (UNTWO, 2017).

Correspondingly, the Sub-Saharan African region through growth in tourism sector is beginning to re-launch the image of the continent to the outside world, given that growth recorded from the sector in recent years is on the increase and because tourism has long been advocated as an alternative strategy for economic development and social reconstruction, especially in less developed countries (Viljoen et al., 2019).

The African continent is notable for its richness and abundance of natural endowment with potentials to develop a vibrant cultural heritage. These resources are expected to serve as a crowd puller for international tourists. But despite this, the continent's tourism resources have been underutilized and underdeveloped (Kareem, 2008). At the local level, improvements are being achieved gradually but a lot more needs to be executed from the public and private sectors to fully tap into the region's potential in the tourism sector (Signé, 2018). The slow pace in growth and development owes largely to the continent's deep-rooted growth challenges such as insecurity, lack of adequate infrastructural facilities, and the infancy stage of tourism especially in West Africa.

While several studies examining the economic determinant of tourism demand have been conducted in different parts of the world (Cao et al., 2017; Dogru et al., 2017; González & Moral, 1995; Ibrahim, 2011; Kusni et al., 2013; Muryani et al., 2020) only a few focused on Africa (Adeola et al., 2018; Christie et al., 2014; Viljoen et al., 2019). The studies used estimates of gravity model due to the vital roles played by income and prices of commodities in a demand model. González and Moral (1995) used industrial production index (IPI) as a proxy of income in the tourism demand model; Dogru et al. (2017) compared the efficacy of IPI to GDP but showed that GDP is a better proxy of income to IPI. For this reason, our study uses GDP per capita of West African countries as a proxy for income of all the 16 African countries in the West African region. The GDP per capita was chosen to account for the heterogeneity effect of countries in the region.

In addition, the independent use of exchange rate and prices as a determinant of tourism demand has generated controversies among scholars. Martin and Witt (1988) as cited by Dogru et al. (2017) argued that exchange rate alone cannot be used as a proxy of relative or substitute prices of tourism. Other studies argued that international tourists are more aware about the exchange rate compared to local currencies of goods of the destination countries (Martin & Witt, 1988; Oh & Ditton, 2005). Hence, they support the independent use of exchange rate and relative and substitute prices of tourists while (Song et al., 2003) used exchange rate alone to standardize both relative and substitute prices of commodity.

Meanwhile, the determinants of international tourism demand have generated controversies in prior studies given the different proxy used, specifically since West African countries have different currencies, of which majority of the countries adopt Financial Community of Africa (CFA franc) as a unified currency while other countries use their individual national currencies, the estimates cannot be regarded as conclusive. Hence, this study in an attempt to fill the void in prior studies used the real effective exchange rate and a relative price of tourists to weigh the average country's currency in relation to a basket of other currencies in the region. Equally, the study also considers the role of institutional factors on the demand of tourism in West Africa since this has not been properly explored by previous researchers.

Against this background and due to the shortfall of empirical studies on the economic determinants of tourism demand, this study aims to investigate the economic and institutional determinants of international tourism demand in the ECOWAS region. This is deemed significant because tourism receipt can help to complement other revenue sources while contributing to unleash the potentials of the region to international investors if engaged appropriately. This will also serve as an opportunity driver for West African nations, industry representatives and policymakers to take advantage of this opportunity to explore and put to judicious use the abundant natural resources available in the region. This is as Adeola et al. (2018) stated that dearth of literature and the underutilization of the natural endowments in African continents are among the plausible cause of inadequate policy guidance in the tourism industry.

LITERATURE REVIEW

Conceptual Definitions

Bankole and Babatunde (2009) sees tourism sector as a multiplicity of the economic activities that responds to different demands with specific characteristics to national and international levels. Tourism arrivals and receipt have been used interchangeably in the literature; the former measures the total number of international tourists that visit a particular country while the later means the proceeds from international tourists (WorldBank, 2019). Among the concept utilized in this study is the Real effective exchange rate (REER) which refers to a measure of the effective prices of goods and services in the destination country when the consumer price index (CPI) ratio is adjusted for differences in exchange rates between the currencies in the origin and destination countries (Lim & McAleer, 2002). Another concept is the relative price of tourism and this refers to those costs of goods and services that tourists are likely to pay for (deflated by local price) while at the destination including accommodation, local transportation, food, and entertainment (Lim, 1997).

Theoretical Framework

Following recent literature on international tourism demand, focus has been on Alfred Marshall's basic demand theory and the gravity model in estimating the determinants of tourism demand. Marshall's (2009) demand theory suggests that the demand for a commodity is determined by its price, price of substitute commodity, income level, and taste of the consumer among others. Gravity theory/model was developed by Isaac Newton as explained by Christie, 2002 The model explains the amount of interaction among cities and was later modified by international macroeconomists to explain how the gross domestic products of two countries and their distance can be explained by the bilateral trade flows between the countries. Some previous researchers used the gravity model because tourism is considered as an international commodity while price of a commodity and income suggested by Marshallian demand theory cannot be dismissed in modeling the demand of any commodity. Based on this, our study considers factors suggested by the gravity model, Marshallian's theory and relevant empirical studies.

Empirical review

Studies of Christie et al. (2014); Sahli and Nowak (2007); Signé (2018) reveal that tourism led growth is vital especially in developing countries as it assists in the creation of employment opportunities and driving economic growth. Among the macroeconomic benefits that will accrue to a nation from tourism are potentials to generate income, increase in foreign exchange earnings, state revenues, provide new employment opportunities, drive opportunities for domestic consumption, and to foster linkages and economic diversification (Ulucak et al., 2020; Viljoen et al., 2019). Similarly, in Signé's (2018) opinion, tourism provides much-needed diversification of countries' export earnings away from its dependence on agricultural and primary commodities, thereby contributing to broader patterns of economic modernization.

Due to the enormous benefits of tourism sector, Lim (1997); Lim and McAleer (2001); Zhang and Jensen (2007) among others have investigated the determinants of international tourism demand for different countries in the world. Some prominent key drivers of international tourism demand identified in this study are real-world income including income of tourists and income from the country of origin, exchange rates, relative prices of tourism goods and services, transportation/travel costs, real economic growth, competing destinations, immigration policies and marketing expenditures.

In the earlier years, Lim (1997) conducted a review of international tourism demand models and argued that the demand for international travel services is dependent on income of origin country, transportation cost between destination country and country of origin, relative prices, currency exchange rate, and qualitative factors in destination country. Lim and McAleer (2001) conducted their study for tourist arrival from Hong Kong and Singapore to Australia. The author applied some common macroeconomic variables to explain the relationship and they concluded that determining factors were incomes in Hong Kong and Singapore, tourism prices in Australia, and transportation costs and exchange rates between all the countries.

In another study between Malaysia and Australia, Lim and McAleer (2002) found Malaysian income, Australia tourism prices, real air fares and exchange rate were determining factors. Naudé and Saayman (2005) investigated determinants of tourism demand using cross-sectional data and panel data for the period 1996-2000 on 43 African countries, with particular focus on tourists' country of origin. They found strong argument that political stability, tourism infrastructure, marketing and information, and the level of development at the destination market are key determinants of travel to Africa. Zhang and Jensen (2007) from Denmark investigated international tourism flows in terms of supply-side factors associated with its production in destination countries. Their results render strong support for the relevance of supply-side factors such as natural endowments, technology, and infrastructure in explaining international tourism flow. Kareem (2008) found political instability, crime rate, exchange rate appreciation and consumer price index as signal to prospective tourists to the African continent. Santana-Gallego et al. (2010) found effect on trade, tourism and GDP per capita is high if a country shares a common currency with a trading partner or if it is a traditional origin of tourists.

Furthermore, in a recent study, Ibrahim (2011) investigated determinants of international tourism demand for Egypt using a panel data of the number of tourist arrivals from important generating countries during the period 1990-2008 with a total of 150 observations. The empirical results showed that consistent with demand theory prices, relative cost of living of tourists, real effective exchange rate, and trade openness contribute significantly to driving international tourism demand to the country. Kusni et al. (2013) examined the economic and non-economic determinants of tourism demand for Malaysia by tourists from the Organization for Economic Co-operation and Development (OECD) countries between 1995 and 2009. The study captured the economic determinants with the price of tourism in Malaysia, the GDP of OECD (income), and price of substitute's tourism (Thailand and Singapore) and they found that non-economic factor driving tourism demand are health challenges and global economic crisis.

Fourie and Santana-Gallego (2013) investigated determinants of African tourism using standard panel gravity equation. They found that the determinants of African-inbound and within-Africa tourism are similar as global tourism flows. Thus, repeat tourism, income, distance, land area and the standard dummy variables drive both global or OECD tourism and African tourism. Moyo and Ziramba (2013) investigated the impact of various types of crimes on tourist inflows with the aid of Autoregressive Distributive Lag (ARDL) bounds test approach. Using a monthly data over the period of March 2003 to April 2011, they

found that crime in the form of car hijackings, sexual crimes, murder and kidnapping have a long run and short run negative impact on tourist visits to South Africa.

Dogru et al. (2017) on the contrary analyzed the estimates of international tourism demand elasticity for Turkey from nine major countries using four different models. They found that the inclusion of exchange rates and prices, as mutually exclusive components, could be misleading; that IPI was not a good proxy for income; and country-specific coefficients must be analyzed further to accurately explain determinants of tourism demand for countries. Samitas et al. (2018) in their Greece study revealed that terrorism had significant negative impact on tourist arrivals and that causality was noted from terrorism to tourism only. Okafor et al. (2018) showed that common unofficial language is a significant determinant of international tourist flows. Another study found that taste formation, real exchange rate, infrastructure, political stability and absence of violence, per capita income, foreign direct investment (FDI), and trade openness are significant drivers of international tourism into Africa (Adeola et al., 2018).

More recently, Viljoen et al. (2019) examined intra-African tourism from the trade theory perspective and found that African tourism flows were consistent with the gravity theory which simply implies distance as a key determinant of African tourism. They equally found size and level of development of the destination and the cultural proximity of the origin and destination countries as determining factors. However, they could not find any statistical significance of other trade theories in explaining the patterns of African travel. Furthermore, Muryani et al. (2020) in their Indonesian study found that per capita income of tourists, relative price, and available rooms showed a positive effect on tourism expenditure in Indonesia, while distance, terrorist attacks and financial crisis had a negative effect.

Based on the above review, most of the previous studies that modeled determinants of tourism demand considered the economic factors with little attention on institutional factors; the use of IPI and GDP as a proxy of income which has generated controversies among the existing literature; relative price of tourism which has not been properly explored; and tourism demand modeling in West African region that is scanty. All these serve as the major contributions of this study to the existing literature.

METHODOLOGY

Nature and Sources of Data

Our study employed annual secondary data between the year 2000 and 2015 for all the countries in the West African region. We proxied tourism demand by tourism receipt of West Africa from the rest of the world (measured in current USD), relative price was proxy by the ratio of consumer price index of West African countries and the rest of the world, political stability index, corruption index, insecurity, Gross Domestic Product (GDP) of West Africa (also in current USD) and real effective exchange rates were computed and sourced from the WorldBank database (2019) and the African development bank database (2019) while the world GDP excluding West Africa was sourced from the International Monetary Fund (IMF) database (2019).

Model Specification

To examine the key determinants of tourism demand in West Africa, our study specified a simple linear model following the study of (Dogru et al., 2017). Whereas our main contributions as against existing studies are the inclusion of institutional variables such as corruption index, political stability index, the use of relative prices and real effective exchange rate as against the absolute prices and nominal exchange rate adopted by prior studies. Also, it is noteworthy that extant literatures used tourism receipts and number of tourist arrivals interchangeably, but our study used tourism receipts as the dependent variable due to its

role in the computation of gross domestic product (GDP) of nations. Therefore, below is our specified model:

$$TD_{it} = \beta_0 + \beta_1 Y_w + \beta_2 RP_{it} + \beta_3 PS_{it} + \beta_4 CORR_{it} + \beta_5 REER_{it} + \beta_1 DSEC_{it} + \mu_{it} \quad (1)$$

Where;

TD is the tourism receipts of West Africa from other regions in the world, Y is the income of the rest of the world excluding West Africa, RP is the relative price of tourism within West Africa, PS represents political stability index, CORR is the corruption index, REER is the real effective exchange rate, DSEC is the dummy variable for the level of insecurity in the West African region and μ is the error term.

RESULT AND DISCUSSION

Static Panel regression analysis (Pooled, fixed, and random effect) was employed in this study to estimate the economic and institutional determinants of tourism demand in West Africa. Hausman specification test was used to select the appropriate model among the pooled, fixed and random effect results. The choice of this technique is due to the panel data involving the pooling of cross-sectional data across a time frame. This technique is appropriate because the number of cross sections is greater than the time series ($N > T$).

Table 1: Empirical Results

Dependent Variable: lnTD

VARIABLES	(1) Pooled	(2) FE	(3) RE
LnY	0.219*** (0.0740)	0.211** (0.0859)	0.219*** (0.0740)
RP	-0.0416 (0.0253)	-0.0465* (0.0269)	-0.0416 (0.0253)
REER	-0.000258*** (5.88e-05)	-0.000262*** (6.24e-05)	-0.000258*** (5.88e-05)
PS	0.0154 (0.135)	-0.0843 (0.164)	0.0154 (0.135)
CORRUPTION	-12.22* (6.266)	-17.49** (8.165)	-12.22* (6.266)
DSEC	-0.0303** (0.0119)	-0.0324** (0.0126)	-0.0303** (0.0119)
Constant	15.12*** (2.310)	16.73*** (2.907)	15.12*** (2.310)
Observations	222	222	222
R-squared	0.405	0.370	0.416
Number of years		16	16

Note: Standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1, Hausman Stat: 0.9030

The table above shows the result of the Pooled, Fixed effect and Random effect regression. Prior to the estimation of this result, the Hausman test was conducted to determine the appropriate model between fixed and random effect. The probability value of the Hausman statistic is 0.9030 which is greater than 0.05 suggests that random effect is preferred. The random effect results show that the income of tourists to West African states (lnY) has a positive and significant impact on tourism demand in West Africa, signifying a percentage increase in the tourists' income will increase tourism receipt in West Africa by 0.02 US dollars. Relative price (RP) of tourism which was proxied by cost of living in West Africa had a negative impact on tourism receipt, although, insignificant. The real effective exchange rate (REER) also showed a negative and significant impact on tourism receipt in West Africa, implying a unit appreciation of West African currency against US dollars will lead to slight improvement in the tourist receipt.

Additionally, the result reveal that political stability (PS) does not significantly affect the demand for tourism in West African region while corruption had a negative and significant impact on tourism receipt during the year analyzed. Thus, increase in the level of corruption will reduce the tourist receipts in West African region by 12%. The level of insecurity also shows a negative and significant impact on tourism receipt for the years examined. This implies that a more secured environment will improve the tourism demand to the region. The coefficient of determination (R-squared) shows that 41% variation in tourism demand in West Africa is explained by the explanatory variables used in this study. The coefficient of determination shows that tourism demand is not only influenced by economic factors such as price, income and exchange rate but also influenced by other non-economic factors like corruption, insecurity (terrorism) and political stability.

Heteroscedasticity Test

The Breuch and Pagan langrangian multiplier test for random effect was used to test the existence of heteroscedasticity in the model. The null hypothesis says there is heteroscedasticity and holds true when the p-value is less than 0.05 (Bell & Jones, 2015). From the result in table 2 below, the P value of the Breuch Pagan LM test is >0 which suggests that the model is homoscedastic in nature.

Table 2: Breusch and Pagan Lagrangian multiplier test for random effects

	Var	sd = sqrt(Var)
-----+-----		
Intd	2.06127	1.435712
e	1.344031	1.159324
u	0	0

Test: Var(u) = 0

chibar2(01) = 0.00

Prob > chibar2 = 1.0000

Multicollinearity Test

We used correlation matrix as shown in table 3 to check if there is an existence of multicollinearity in the model. The correlation coefficients of all the variables used in the model are below 0.80 which implies that there is no proof of multicollinearity or exact linear relationship among the variable used in this study.

Table 3: Correlation Matrix

	lny	lntd	ps corruption	dsec	rp	reer	
-----+							
lny	1.0000						
lntd	0.5422	1.0000					
ps	0.7120	0.5077	1.0000				
corruption	-0.6706	-0.5028	-0.9319	1.0000			
dsec	0.0809	0.0837	-0.0309	0.0525	1.0000		
rp	-0.1396	-0.1976	-0.1244	0.1296	0.0864	1.0000	
reer	-0.3122	-0.3734	-0.2024	0.1642	0.1980	0.2269	1.0000

Discussion of Findings

The result of our analysis indicates that GDP proxy by income of tourists is a good determinant of tourism demand as against the IPI used by some prior studies. This is in line with the study of (Dogru et al., 2017). This study also revealed that relative price (RP) is not too significant when used independently with real effective exchange rate in modelling tourism demand. This implies that since the real effective exchange rate considers the average country's currency in relations to basket of goods of other currencies, preference should be given to the real effective exchange rate above the relative price of tourism. The estimates of the relative price and exchange rate support the findings of (Katafono & Gounder, 2004). However, corruption level based on our findings for the region is very high in recent time. Hence, the estimate shows that the high level of corruption in the region has led to the low level of tourism demand in the region. Tourists are more comfortable in a more secured environment and hence, they prefer to go visiting more secured places for business purposes and leisure. The finding shows that the incessant terrorist attack that has been plaguing the region since a decade back (Boko Haram insurgencies, transition of political power, Xenophobia among others) are negative contributory factors slowing down tourism growth and development in the region. The estimates of the institution variables such as insecurity and political stability support the work of Adeleke (2014) who opined that African governments who are desirous of high revenue inflow must enhance their governance and institution structure.

CONCLUSION AND RECOMMENDATION

Our study examined the economic and institutional determinants of tourism demand in West African region. The data covered all countries in West African region between the period 2000 and 2015. The random effect panel was appropriate and interpreted. The result shows that income of tourists, corruption, real effective exchange rate and the level of Insecurity all influenced the tourism demand in West Africa. The study used relative price and real effective exchange rate as against the consumer price index and

nominal exchange rate used by previous studies because the duo determines the real purchasing power of the International tourists in the region. The exchange rate fluctuation in the non-CFA zone of West African region has contributed significantly to the decrease in tourism demand in West African. The rising level of corruption in the region has not only discouraged foreign investors but has reduced the tourism demand to Africa from different parts of the world.

Based on our findings, we recommend the following. i) Government, authorities in charge of crime prevention (security agencies) and other key players (both private and public) should team up and map out plans to tackle terrorism and insecurity in the West African region. ii) Improving security systems, training and re-training of security personnel must be given utmost attention most especially on the use of advanced technologies and machines. Hence, authorities must put in proper place firm measures against insurgencies and terrorism, with adequate provision for measures to protect human life and properties. iii) We also recommend countries within the region to consider adopting single currency to stabilize prices which in eventuality may attract international tourists to the region. iv) Effective communication needs to be kept so that tourists will be adequately informed about danger zones and such areas must be avoided at all cost. This is vital for ensuring sustainable tourism growth, employment creation and poverty alleviation.

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