Tourism and Development Relations in West African States

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Abstract

Tourism is considered a factor of development, and it indeed represents a significant share of the GDP of some countries in Sub-Saharan Africa.Tourism has already generated more than 3 million jobs in the ECOWAS region and more than 3.73 billion US dollars in 2018.The regional tourism policy emphasizes local development, in particular by creating skilled jobs and unskilled for marginalized groups and regions and integrating local communities as custodians and beneficiaries of natural and cultural resources. However, it was adopted in a context of major challenges that affect both tourism assets and the safety of tourists and therefore limiting access to certain tourist sites. It is between climate change, armed conflict and terrorism. This paper focuses on Tourism movement and Development relations in the Economic Community of West African States. It is concluded that tourism has multiple effects on development.

Keywords: Tourism and development, ECOWAS, West Afrika.

1.   Introduction

Tourism is considered as a factor of development, and it indeed represents a significant share of the GDP of some countries in Sub-Saharan Africa. Developing countries recorded strong growth in their participation in the world tourism market, from 11% to 32% between 1978 and 2002 (Vu Manh, 2007). In West Africa, the regional policy of the Economic Community of West African States (ECOWAS) on tourism adopted in 2019 and accompanied by an action plan for 2019-2029, underlines that tourism has already generated more than 3 million jobs in the region and more than 3.73 billion US dollars in 2018. This represented, 2% of the added value of services in the region (WDI, 2020). In addition, analyzes of the growth in US \$ receipts from International Tourism in the region in three distinct periods show a good performance of the sector regardless of the period studied. Indeed, it was 11%, 4% and 16% respectively 1995-2018, 2008-2018 and 2015-2018 (Figure 1). However, the results are disparate as shown in Figure 1, with higher growth in the long and short term than in the medium term, on the one hand, relative performance in the coastal countries than those of Interland.

Nevertheless, sectoral growth is well above that of the regional GDP despite the drop in the number of tourists entering the ECOWAS region from 2015 to 2018. Indeed, the number of entries increased from 8,707,000 tourists in 2008 to 11,274,400 tourists in 2015 and 4,467,000 tourists in 2018. However, the downward trend in tourism demand from 2015 could reveal problems of international competitiveness due not only to price but also to 'other factors such as quality (infrastructure, services, etc.), tourist safety, etc.

Figure 1: Dynamics of International Tourism revenues growth in US $
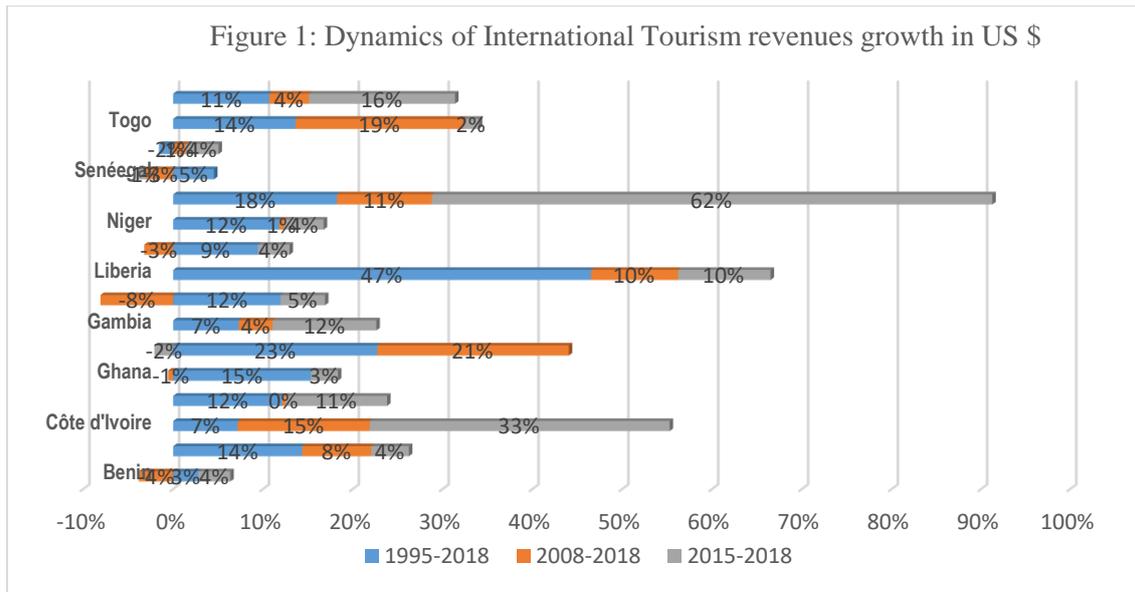
Despite this, it is well known that the tourism economy is more productive and contributes more to the economic growth of the region than other sectors. However, it is known that increased productivity is an essential source of improved economic well-being in modern societies (Solow, 1957). Also, tourism has become the main export sector for more than a third of developing countries, asserting itself as the only excess service production in trade between developed and developing countries (Vu-Manh, 2007). Vu-Manh's work shows that the region is recording an increase in the international competitiveness of the tourism sector in developing countries compared to the rest of the world. This is synonymous of an increase in productivity, an improvement in the total productivity of tourism factors and an increased of tourism contribution to rural development through the induced effects. However, in the long term, these productivity gains are more a consequence of technical progress still known as the Solow residue (1957) which according to him is the main source of growth. For the latter, the increase in the volume of production has three different causes: the increase in the capital factor, the increase in the labor factor, and the third that he calls "residue".

The rapid increase in the sector's Global Factor Productivity (TFP) not only allows the development of the countryside, but this situation has generally accelerated economic growth and job creation. The TFP being the interaction of other forms of capital (human, physical, technological, public) raises questions about the influence of the tourism sector in a context of insecurity on the PDF. From Kofi ANNAN, at the Council of Europe, Parliamentary Assembly (2011) it is admitted that armed conflicts have disastrous consequences on the environment, including the basis for the development of rural tourism. They destroy infrastructure, the pollution of water resources, poisoning of soils and fields, destruction of crops and forests, and overexploitation natural resources.

This study aims to measure, using a Cobb Douglas function on panel data, the impact of ourism on overall factor productivity.

2.   Theoretical framework

The ECOWAS tourism policy emphasizes local development, including creating skilled and unskilled jobs for marginalized groups and regions and integrating local communities as custodians and beneficiaries of natural resources and culture. Such an approach is not atheoretical, let alone anachronistic from the point of view of economic theory. For Norton (2005) the powerful effect of rural economic growth including tourism on overall economic growth comes from the structure of rural income and consumption. The fact that rural populations are on average poorer

than urban populations, they are more likely to spend than to save, unlike city dwellers. Their spending is proportionately more than that of urban consumers on domestic rather than imported products (Block and Timmer, 1994). Therefore, rural tourism development underlies strong income multiplier effects in rural areas. Experiences of South Asian countries show that growth in agriculture and by extension rural tourism brings, among other things, a beneficial stimulation by creating markets for non-rural goods and services, which diversifies the base rural economy (Mellor and More, 2000). Norton (2005) reported that "strong empirical evidence has shown that agricultural and spin-off rural growth not only is an effective weapon against poverty but also that it is better at combating urban poverty than industrial growth. "Along the same lines, Dupont (2002) explains that" tourism is undeniably a powerful factor of economic development, the importance of which varies according to the tourism potential of each country and its economic possibilities in other areas ". From Dupont's point of view, the growth of the tourism economy depends on the factors of production with which each country is endowed.

Economic growth is commonly defined as the sustained increase over a long period of production of goods and services in a country. For several decades it has been measured by the growth rate of the Gross Domestic Product (GDP). The GDP is itself obtained by the aggregation of the valuesof all economic sectors of a country. Thus, the sum of all the added values created by all the economic agents, of tourism, within a country and whatever the nationality of the agents constitutes the tourism GDP of the country. The annual change in tourism GDP is called the "economic growth" of the tourism sector.

According to theory, economic growth is explained first by the number of factors of production mobilized. Thus, the quantity of labor factor, that is to say, the increase in the working population, directly contributes to the evolution of the number of goods and services produced. But it is above all the accumulation of capital that plays an important role: the increase in the volume of the capital stock through net investment plays a more important role than the increase in the volume of labor in the process. growth. Production is obtained through a productive combination of said factors. An increase in one of the factors of production leads to an increase in production. Growth is said to be extensive. But, according to David Ricardo, an increase in one factor, the other being constant, leads to diminishing returns in the long run and brings the economy to a steady-state. However, during the thirty glorious years production grew faster than the increase in the factors of production. For Robert Solow (1956) the part of the unexplained growth is due to a residual factor. The emergence of an unexplained "residue" has helped to emphasize the role of productivity gains made possible by technical progress.

Total factor productivity (TFP) concentrates all the factors that will contribute to the increase in production and which are not necessarily linked to the increase in labor and capital. TFP best reflects that part of the growth due to the better efficiency of the factors of production, whether it is the labor factor or the capital factor. Production becomes intensive. However, Solow attributes this factor to an exogenous phenomenon. But Paul Romer (1986), Robert Lucas (1988), and Robert Barro, (1990) challenge Solow's theory by supporting the endogeneity of growth. For them, the unexplained residue of growth is a positive externality of economies of scale, public investment, investment in research and development, and investment in human capital. The residual factor is therefore endogenous. Under these conditions, poor integration of the listed forms of capital will negatively impact long-term economic growth. This opinion is still relevant today because authors like Rousseaux (2018) argue that a good part of the benefits generated by tourism is captured by international operators and what happens on-site is far from always being distributed equitably. and this regardless of social and environmental nuisances linked to tourism. In the same vein, Santillan and Guardado (2018) see ecotourism, a component of tourism, supposed to combine the economic advantages of the sector with social inclusion and environmental protection and therefore an alternative to mass tourism and its negative impacts as a scam. For them, the choices that claim to strengthen local and environmental awareness were, on the contrary, the engine of the expansion and massification of this market niche, which in reality is not harmless ". Also, some of its negative effects "result directly from the measures taken to guarantee the services, safety, and comfort of consumers little aware of the environmental

and social impacts to which they contribute. And above all, the real social relationships which contribute to this production are masked. "

3.   Methodology

The Economic Community of West African States (ECOWAS) is established on May 28 1975 via the treaty of Lagos. ECOWAS is a 15-member regional group with a mandate of promoting economic integration in all fields of activity, tourism including, of the constituting countries. Member countries making up ECOWAS are Benin, Burkina Faso, Cape Verde, Cote d'Ivoire, The Gambia, Ghana, Guinea,Guinea Bissau, Liberia, Mali, Niger, Nigeria, Sierra Leone, Senegal and Togo (figure 1).

Figure 1: ECOWAS Region
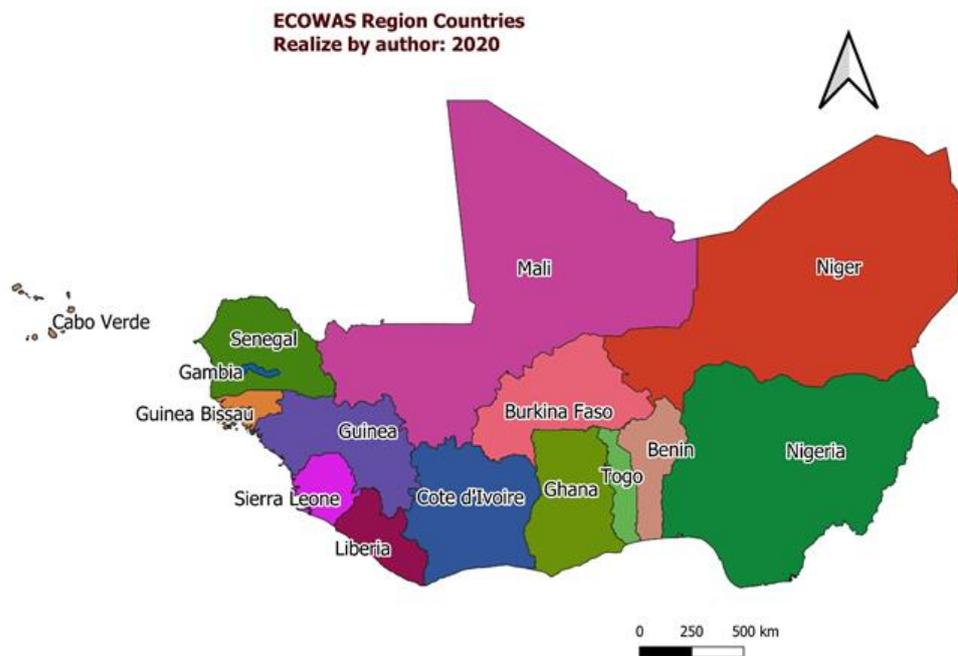
The GDP and the population increased by 9% and 3% respectively over the period 1995-2018. The GDP went from 97 billion to 725 billion $US while the population went from 203 to 377 million. This involves GDP per capita increased by 0.04% yearly over the period that has gone from 475 to $US 1923 per capita.
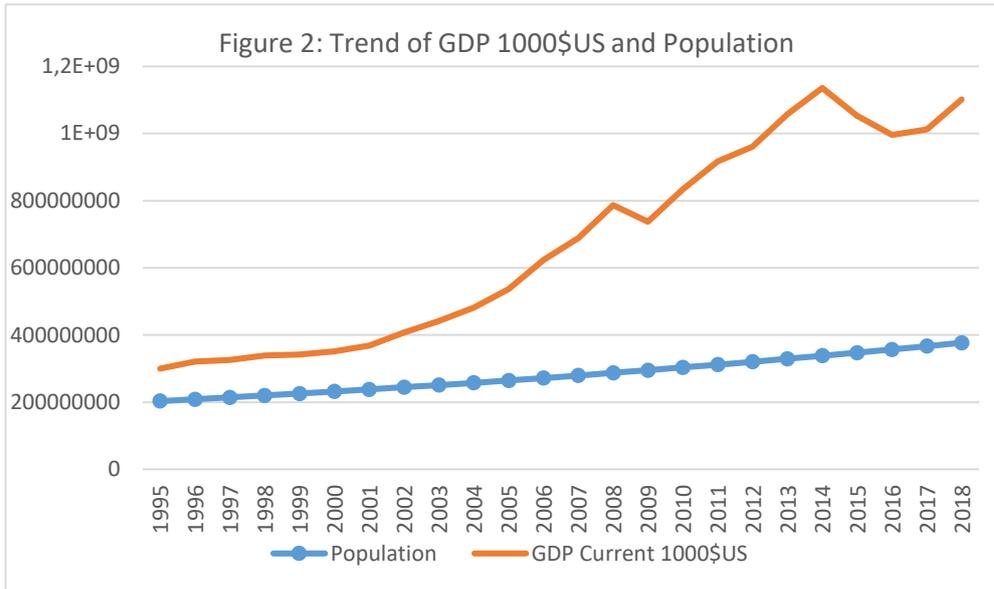
Source: WDI, (2020)

The entry of tourists to the ECOWAS region has increased since 1995 by 9.93% until 2018. Number of tourists has increased from 1.8 million in 1995 to 12 million in 2018. Tourist entrance generated revenues from $US 600 million to $US 5,6 billion respectively in 1995 and 2018 (figure 2). These represent revenues increased by 13% per year over the same period.
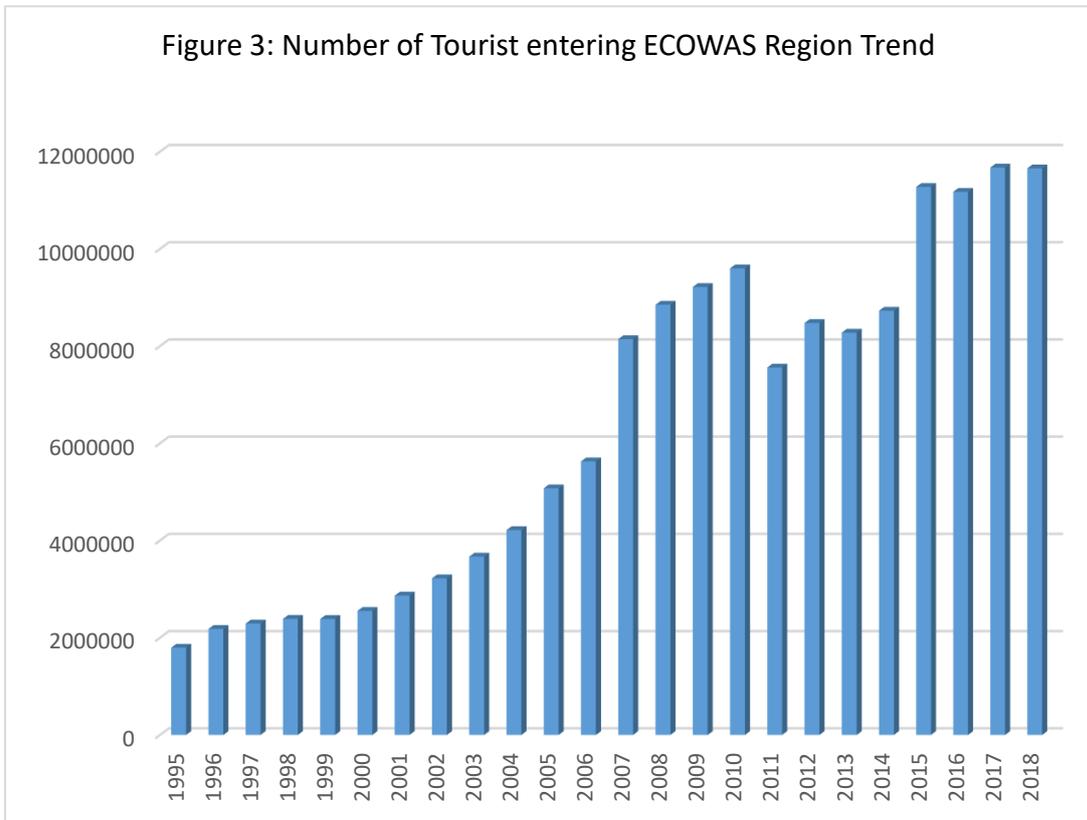
Source: WDI, (2020)

Expenses for passenger transport stations (current US $) are increasing. Transportation revenues increased from US $ 83 million to US $ 475 million at an average annual growth rate of 8%. The

share of tourism in relation to imports decreased by -1.5% between 1995-2018, while the share of tourism in exports increased by 0.04% per year over the said period. This implies an improvement in the trade balance over the years.

Data

Secondary data from "World Development Indicators" (WDI, 2020) are used in this study. The data relating to the indicators of ECOWAS countries over the period 1995-2018. Also, a review of the literature was carried out to identify the direction of this study.

Model Specification

This document aims to analyze the contribution of factors of production to TFP of the tourism economy of ECOWAS countries. During the last decade, the relationship between tourism and development in West African countries has animated economic debates. However, the idea that tourism is a stimulus to economic growth is not unanimous, especially since it is not based on the findings of any empirical study on the subject. It is to give an empirical answer to this postulate that this study is being carried out. This allows us to calculate the contribution of each of the factors of production in the growth of tourism GDP (here, International tourism, income (current US $) = Production), and their interaction with TFP. The factors of production selected are:

- GDP US$ current
- GDP per capita (US$ current)=GDPpercapita
- International tourism, expenses for passenger transport stations (current US $) =Transport
- International tourism, number of arrivals =Tourist

Specification tests or homogeneity tests

When considering a sample panel data, the very first thing to check is the homogeneous or heterogeneous specification of the data generating process. Econometrically, this amounts to testing the equality of the coefficients of the model studied in the individual dimension. Economically, specification tests come down to determining whether we are entitled to assume that the theoretical model studied is perfectly identical for all countries, or on the contrary whether there are specificities specific to each country.

In this case, we shall develop panel data using the following methods:

1) Pooled OLS Regression Model;
2) Fixed Effect or LSDV Model;
3) Random Effect

Here we have taken fifteen countries of the ECOWAS Region such, Benin, Burkina Faso, Cote d'Ivoire, Cabo Verde, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone, and Togo. And we have variables such as GDP (Current $); GDP per capita (current US$); International tourism, expenses for tourists transport items (current US $); International tourism, receipts (US $ current); International tourism, number of arrivals (people) and population (Upon 15 years old). We want to check the relationship between International tourism, receipts (Production), and other seven explanatory variables such GDP; GDP per capita; International tourism, expenses for tourists transport items (Transport); International tourism, number of arrivals (Tourist). Our data is from 1995 to 2018. So our observations would be 360.

If we denote by $Y_{i;t}$ the logarithm of Production (tourism GDP), $k_{i;t}$ the logarithm of the public capital stock (GDP), $c_{i;t}$ the logarithm of public capital per capita, $n_{i;t}$ the logarithm of expenditure on transport, $To_{i;t}$ the logarithm of the number of tourists, $P_{i;t}$ the logarithm of the population, The production function is of Cobb Douglass type, the general model is written in the form, for all i ϵ [1; 360]; t ϵ [1; 24]:

$$Y_{i;t} = a_i + b_i k_{i;t} + \eta_{iC_{i;t}} + \gamma_i n_{i;t} + w_i P_{i;t} + \lambda_i To_{i;t} + \varepsilon_{i;t}$$

The innovations $\varepsilon_{i;t}$ are supposed to be i.i.d: of zero mean and of variance equal to $\sigma 2$ whatever i $\epsilon[1; 360]$:

1) Pooled regression

Here we pool all 360 observations together and run the regression model, neglecting the cross-section and time-series nature of data as Ordinary Linear square model. The major problem with the model is that it does not distinguish between the various countries that we have. In other words, by combining fifteen countries by pooling we deny the heterogeneity or individuality that may exist among fifteen countries. In other words, the elasticities of employment and capital are the same for all countries ($\beta_i = \beta$; $\gamma_i = \gamma = \eta_i = \omega_i = \lambda_i$ for all $i \epsilon [1; 360]$ and the average level of total factor productivity, represented here by the constants α; is also identical for all countries. The model is then written in the form:

$$Y_{i;t} = \alpha + \beta k_{i;t} + \eta_C{}_{i;t} + \gamma n_{i;t} + \omega P_{i;t} + \lambda To_{i;t} + \varepsilon_{i;t}$$

However, when working with aggregate series, it is relatively unlikely that the macroeconomic production function is strictly identical for all the countries studied. If the assumption of total homogeneity is rejected, then it is appropriate to test whether the elasticities of the different factors are identical. If this is not the case, a priori there is no common production structure between the countries. In this case, the use of panel data is not justified and may even lead to estimation bias. We must therefore estimate the production functions of country by country.

2) Fixed effect or LSDV Model

The fixed effect model allows for heterogeneity or individuality among fifteen countries by allowing to have its own intercept value. The term fixed effect is due to the fact that although the intercept may differ across countries, but intercept does not vary over time, that is it is time invariant. In other words, the source of heterogeneity of the model can then come from the constants ai which represent the average of the total productivity of the factors of production (Solow's residual). The equation is written:

$$Y_{i;t} = \alpha_i + \beta k_{i;t} + \eta_C{}_{i;t} + \gamma n_{i;t} + \omega P_{i;t} + \lambda To_{i;t} + \varepsilon_{i;t}$$

In this case, the average level of total factor productivity, determined by $E(ai + \varepsilon_{i;t}) = ai$; varies across countries, even if the structure of production (the elasticities of the two factors labor and capital) is identical.

3) Random effect Model

The countries studied do not always have the same level of structural productivity because of the influence of a-temporal or structural factors, such as geographical position, climate, distance from major commercial axes, etc., therefore, to test the hypothesis of a constant common to all countries. If this hypothesis is rejected, we then obtain a model with individual effects which is written in the form:

$$Y_{i;t} = \alpha + \beta_i k_{i;t} + \eta_i C_{i;t} + \gamma_i n_{i;t} + \omega_i P_{i;t} + \lambda_i To_{i;t} + \varepsilon_{i;t}$$

Here are fifteen countries that have a common mean value for intercept.

4) Hausman test:

The specification test amounts to determining whether the data generating process can be considered as homogeneous, or if, on the contrary, it appears completely heterogeneous, in the case of the use of panel techniques cannot be justified. Between these two extreme cases, it is necessary to precisely identify the source of heterogeneity to properly include the model. Hence the application of the Hausman test to check which model (fixed effect or random effect) can accept.

- Null hypothesis: Random-effects model is appropriate;
- Alternative hypothesis: Fixed effects model is appropriate.

If we get a statistically significant P-value, we shall use the fixed-effect model, otherwise Random effect model.

5) Diagnostic checking

Finally, we shall check whether there is serial correlation in the residual. Here, we shall use the Pesaran CD (cross-sectional dependence) test to test whether the residuals are correlated across entities.

- Ho: there is no serial correlation
- H1: there is serial correlation

4.   Results and discussion

The Hausman test rejected the fixed-effect model for the random effect model because the P-value of Chi2 is 0.059, which is a bit more than 0.05. So the null hypothesis, that the Random-effects model is appropriate, is valid.

Ho: difference in coefficients, not systematic

- chi2(5) = 10.62
- Prob>chi2 = 0.059

Therefore, the random model was retained to explain the contribution of other factors to the formation of the TFP of tourism. In addition Pesaran's test of cross-sectional independence = -0.707, Pr = 0.4793 confirms that there is no serial correlation. In the test of Wald attests that the joint coefficients are not zero. So the results are valid.

Table: Random-effects GLS regression

Production	Coef.	Std.Err.	z	P>z	
gdp	-0.312	0.172	-1.82		0.069
gdppercapita	1.027	0.169	6.09		0
transport	0.116	0.024	4.84		0
tourists	0.376	0.052	7.16		0
population	0.722	0.259	2.78		0.005
_cons	0.619	1.981	0.31		0.755
sigma_u	0.847				
sigma_e	0.487				
rho	0.752	fraction of variance due to Ui			

R-sq: within = 0.652 ; between = 0.621; overall = 0.624

Wald chi2(5) =656.82 corr(u_i, X)=0   (assumed) Prob >chi2=0.000

The results of the estimates show, on the one hand, that the elasticity of production concerning the GDP factor is not significant and, on the other hand, that the elasticity of production concerning GDP per capita (1.027), the population (0.722) is much higher than the elasticity of production concerning public capital (GDP) (-0.312) to employment devoted to tourist transport (0.116) and the number of tourist entries (0.376). Also, public capital has a negative impact on total factor productivity. Indeed, an increase of 1% of the GDP leads to a fall of 0.312% of the TFP of tourism. This result should be linked to the fact that the tourism sector is extremely labor intensive and less capital intensive but above all, not a priority because of the low contribution of public investment to this sector. Vu-Manh (2007) made the same observation. For him, "In the case of developing countries or countries in transition, which have climatic or cultural attractiveness and natural resources, a specialization in the export of tourism products and services, apparently labor-intensive, would seem conforms to the principle of relative factor endowments, within the framework of a Heckscher-Ohlin-Samuelson type economy, or to the

principle of comparative advantages, within the framework of a Ricardo-Viner-Johnson type economy."

The sum of the coefficients associated with the factors of production is equal to 1.929, so there is indeed growth in marginal productivities. The sum of these coefficients being greater than 1, the returns to scale are therefore increasing.

The results also show that the total factor productivity of tourism is not statistically significant as shown by the P-value (0.755) which is greater than 0.05. This, poor integration of the forms of capital present to improve the contribution of the tourism sector to growth. In other words, the combination of producer factors fails to generate the expected externality.

5.   Conclusion

The tourism sector is experiencing sustained growth in most of the countries of the ECOWAS region, in the long term as well as the medium and short term. Despite the strong trend growth inflows, tourism demand shows great instability, in particular by reference to the countries considered individually. The analyzes show that growth is maintained by the GDP per capita, the cost of transport, the number of tourist arrivals, and the volume of the working population. However, the total factor productivity of tourism is not statistically significant. This reflects a poor integration of the forms of capital present to improve the contribution of the tourism sector to growth. In other words, the productive combination of production factors fails to generate the expected externality for lack of innovations in the said sector. However, the paucity of statistics requires qualification in the conclusions emanating from these results.

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