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**Working Paper**

## Tourism management synergies in Sub-Saharan Africa

AGDI Working Paper, No. WP/22/059

**Provided in Cooperation with:**

African Governance and Development Institute (AGDI), Yaoundé, Cameroon

*Suggested Citation:* Asongu, Simplice; Rahman, Mushfiqur; Adu-Gyamfi, Richard; Salahodjaev, Raufhon (2022) : Tourism management synergies in Sub-Saharan Africa, AGDI Working Paper, No. WP/22/059, African Governance and Development Institute (AGDI), Yaoundé

This Version is available at:

<https://hdl.handle.net/10419/269066>

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# A G D I Working Paper

WP/22/059

## **Tourism management synergies in Sub-Saharan Africa**

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## **Tourism management synergies in Sub-Saharan Africa**

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### **Abstract**

The purpose of this study is to assess how some governance dynamics such as political stability and the rule of law modulate the incidence of some macroeconomic factors (i.e. domestic investment and trade openness) on tourism development. The focus of this study is on 47 countries in sub-Saharan Africa with data from 2002 to 2018, and the Generalized Method of Moments is employed as the empirical strategy. From the findings, synergy effects are apparent in the role of the rule of law in modulating domestic investment for tourism development in terms of tourism receipts. It follows that, for the sampled countries, promoting tourism development can be most effective if policies for enhancing domestic investment and promoting the rule of law are implemented simultaneously.

*Keywords:* Tourism Management; Economic Growth; Sub-Saharan Africa

*JEL Codes:* O10, O40, Z3, Z32

## 1. Introduction

How do governance dynamics in terms of the rule of law and political stability modulate domestic investment and trade openness to influence tourism development? This is the research question underpinning this study. There are at least three fundamental reasons for exploring policy synergies that are relevant in promoting the development of the tourism industry in sub-Saharan Africa (SSA), notably; the importance of tourism in the economic development of the sub-region; the relevance of governance in creating favorable socio-economic outcomes and gaps in the tourism development literature. It is worthwhile to put these reasons into perspective.

First, both policy and scholarly literature are consistent on the importance of tourism in driving economic prosperity and/or economic development (UNEP, 2011; World Bank, 2011; Nyasha, Odhiambo & Asongu, 2021) and reducing poverty (Folarin & Adeniyi, 2020) in developing as well as developed countries (UNCTAD, 2013; IDC, 2018; WTTC, 2019). The underlying importance of tourism is substantiated by the UNCTAD (2013) which maintains that the criticality of tourism in promoting human and economic developments is more apparent when many stakeholders in society partake in the implementation of corresponding tourism development policy initiatives. The underlying perspectives are supported by Signe (2018) who opines that Africa stands a good chance to benefit from the positive development externalities of tourism, not least because the continent is characterized with beaches, wildlife, avenues of adventures and cultural heritages. The discussed advantages of tourism to economic development are very unlikely to be realized if good governance measures are not in place.

Second, the importance of good governance in driving economic prosperity (which embodies tourism development) is intuitive. Narrowing the framework to the context of the present study and in order for macroeconomic policy designed to favor tourism development, government should be effective at implementing them (Bramwell & Lane, 2011; Qian, Sasaki, Shivakoti & Zhang, 2016; Asongu, Nnanna, Biekpe & Acha-Anyi, 2019). Such implementation requires, *inter alia*: appropriate respect for the rule of law and a favorable political climate or political stability. Unfortunately, the already sparse literature on tourism development in SSA does not reflect how aspects of governance influence macroeconomic policies for tourism development in the sub-region.

Third, the attendant literature on tourism development has largely focused on drivers of tourism in both developed and developing countries (Alvarez & Campo, 2014; Pizam & Fleischer, 2002; Sönmez *et al.*, 1999; Kingsbury & Brunn, 2004; Saha & Yap, 2014;

Mehmood *et al.*, 2016; Sönmez & Graefe, 1998; Richter & Waugh, 1986; Enders *et al.*, 1992; Liu & Pratt, 2017 ; Llorca-Vivero, 2008; Pratt & Liu, 2016). Unfortunately, in spite of the evolving literature on such determinants, we are unaware of a contemporary study that assesses how political stability and the rule of law modulate macroeconomic factors (such as domestic investment and trade openness) to influence tourism development.

The closest study on tourism development to the current research in terms of periodicity and geographical focus is Nyasha *et al.* (2021) which has assessed how tourism affects economic development in SSA. The authors conclude that while tourism expenditure negatively affects economic development, tourism receipts have the opposite effect. The present research departs from Nyasha *et al.* (2021) on two main fronts. On the one hand, the present study focuses on tourism development as an outcome variable instead of per capita gross domestic product (GDP). On the other hand, instead of establishing a direct link between tourism and economic development, the present study is not framed as a linear additive model because interactive regressions are involved in examining how governance dynamics of political stability and the rule of law moderate trade openness and domestic investment to ultimately affect tourism dynamics in terms of tourism receipts and tourism expenditure. It follows that the study is framed in terms of macro management of trade openness and domestic investment for tourism development, contingent on political stability and the rule of law.

The study also departs from the attendant contemporary and non-contemporary literature on the nexus between political (in)stability and tourism which has largely focused on, *inter alia*: the management of tourism market borders and fluid goods in selected African countries (Akko, 2015); how terrorism influences tourist arrivals (Seabra, Reis & Abrantes, 2020); nexuses between tourism, terrorism and political instability (Sönmez, 1998); political transitions and transition events in the choice of a tourism destination (Seyfi & Hall, 2020) and the incidence of geopolitical risks on tourism (Lee, Olasehinde-Williams & Akadiri, 2021).

The rest of the study is organized as follows. Section 2 discusses linkages between political stability, the rule of law, trade openness, domestic investment and tourism development in order to consolidate the theoretical underpinnings. The data and methodology are covered in Section 3. The empirical results are presented in Section 4 while Section 5 concludes with implications and future research directions.

## **2. Political stability and rule of law in boosting domestic investment and trade openness for tourism**

This section of the research is framed to articulate the underpinning linkages between political stability, the rule of law, domestic investment, trade openness and tourism development in terms of tourism receipts. In essence, its purpose is to provide logical arguments which are supported by the attendant literature on the fact that domestic investment and trade openness affect tourism development on the one hand and on the other, that political stability and the rule of law modulate the incidence of domestic investment and trade openness on tourism development.

### **2.1 Domestic investment, trade openness and tourism development**

The importance of domestic investment in driving tourism is both intuitive and empirical. On the intuitive front, several perspectives are worth articulating. For instance, investment at the domestic level may be tailored to the tourism sector in order to promote the tourism industry. Hence, it is logical that with higher investments domestically that are designed to promote tourism, tourism development follows (Alam & Paramati, 2017). From a broader standpoint, investment that is destined to promote domestic infrastructure also favors the development of tourism. For example, investment in road infrastructure, information and communication technologies (ICT), hotels, *inter alia*, obviously promote tourism because tourists intuitively depend on such infrastructure before making travelling decisions (Paramati, Alam & Lau, 2018). On the empirical front, the importance of favorable domestic investment (public and private) for the development of domestic tourism has been substantially documented in the literature (Akama, 2002; Balalia & Petrescu, 2011; Ribarić & Ribarić, 2013; Nawaz, 2016).

Trade openness is a component of globalization which intuitively increases tourism. Accordingly, trade openness is the economic component of globalization and hence, the possibilities of importing and exporting goods and services also offer tourism opportunities for a plethora of reasons, *inter alia*: in accordance with Chaisumpunsakul and Pholphirul (2018), the nexus between international trade and international tourism is premised on three principles.

*Principle 1:* Business travel is stimulated by international trade (Turner & Witt, 2001) and such enhances networking at national, business and individual levels. Moreover in accordance

with White (2007), the network effect is bolstered by international trade which promotes exchanges and travels among nations as well as decreases costs of transaction.

*Principle 2:* Advertisements of products that are attractive to the attention of consumers is boosted by international trade, with a favorable externality that engenders awareness of not only the products or services in question, but also more knowledge about the country from which the product originates. Accordingly, as argued by Kulendran and Wilson (2000), the attention of consumers as well as their recognition increases the willingness to travel to the country where the product originates.

*Principle 3:* In order to ease corresponding activities, trade at the international level constraints domestic economies to develop the relevant infrastructure (e.g., communication and transportation systems) that are essential in facilitating the attendant trade. The position that infrastructural development attracts international tourists' arrivals is supported by Santana, Ledesma and Perez (2011).

In summary, in the light of the underlying principles, it is evident to posit that international trade is positively related to international tourists' arrivals (Leitao, 2010; Chaisumpunsakul & Pholphirul, 2018). Moreover, in many countries, governments play a critical role in the prosperity of the tourism industry (Akama, 2002), not least because, *inter alia*, governments ensure political stability and maintain the rule of law, which are also relevant in decreasing perceived risks on the part of tourists in relation to tourism destinations.

## **2.2 The role of political stability and rule of law in tourism development**

Given that tourism is an economic sector that is highly fragmented; many stakeholders are involved in the successful development of the sector. Among these stakeholders is the role of good governance in enhancing and easing the arrivals of international tourists through the guarantee of an enabling legal and socio-political environment that reduces perceived risks of tourists on the destination country (Akama, 1997, 2002; Hughes, 1994). Within this framework, it has been argued by Balalia and Petrescu (2011) that, the government has a critical role in supervising, facilitating and controlling tourism. Furthermore, as the authors have posited, the public sector is relevant in the growth of tourism because it engages some investments that are both essential in good governance and promotion of the domestic economy as an attractive destination through, *inter alia*: (i) maintenance of quality standards, (ii) development of infrastructure and (iii) protection of tourists against violence. In essence,

as argued by Ribarić and Ribarić (2013), the actions of the government to improve environmental conditions that are favorable for economic prosperity and overall production engender a direct incidence on the tourism industry.

In the light of the above, the intuition for considering the rule of law and political stability as government factors that modulate the importance of trade openness and domestic investment on tourism within an empirical framework of interactive regressions, builds on the following foundational elements: (i) when political stability is apparent within a country, the country is more likely to attract tourists, especially if the country has interesting tourist destinations. This foundation is based on the fact that it has been documented in the tourism literature that tourists prefer destinations that are characterized by less violence and political strife (Pizam & Mansfeld, 2006; Seabra, Dolnicar, Abrantes, & Kastenholz, 2013). (ii) The respect for the rule of law is important in promoting tourism in countries because the rule of law is a dimension of institutional governance which is conceived as the respect by the State and citizens of institutions that govern interactions between the government and citizens (Ajidé & Raheem, 2016a, 2016b; Ajide, Alimi, Asongu & Raheen, 2020). In essence, the supporting literature is consistent on the position that tourists are attracted to destinations in which perceived risks are reduced and the rule of law is highly respected (Lepp, Gibson, & Lane, 2011; Asongu & Acha-Anyi, 2020).

### **3. Data and methodology**

#### **3.1. Data**

The research focuses on 47 SSA countries using data of annual periodicity from 2002 to 2018 which are obtained from two principal sources, notably: World Governance Indicators (WGI) and World Development Indicators (WDI) of the World Bank<sup>1</sup>. Choosing the selected countries in SSA is premised on the availability of data at the time of the study. Moreover, consistent with the research closest to this study (Nyasha et al., 2021), in order for the data structure to be consistent with the empirical strategy to be adopted, the data is improved in terms of non-overlapping intervals. Accordingly, the choice of the generalized method of

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<sup>1</sup> The 47 sampled countries are: “Benin; Burkina Faso; Burundi; Central African Republic; Chad; Congo Democratic Republic; Eritrea; Ethiopia; The Gambia; Guinea; Guinea-Bissau; Liberia; Madagascar; Malawi; Mali; Mozambique; Niger; Rwanda; Sierra Leone; Somalia; South Sudan; Tanzania; Togo; Uganda; Angola; Botswana; Cabo Verde; Cameroon; Comoros; Congo Republic; Cote d'Ivoire; Equatorial Guinea; Eswatini; Gabon; Ghana; Kenya; Lesotho; Mauritania; Mauritius; Namibia; Nigeria; Sao Tome and Principe; Senegal; South Africa; Sudan; Zambia and Zimbabwe”.



moments (GMM) as estimation strategy in this study requires that the number of agents or countries should be significantly higher than the number of years in each country.

In the light of the above and in accordance with Nyasha et al. (2021), the current data structure consisting of 17 years (or  $T=17$ ) and 47 countries (or  $N=47$ ), is improved to reduce  $T$  with the help of data averages or three year non-overlapping intervals which yield 6 data points (i.e.  $T=6$ ), notably: 2002-2003, 2004-2006, 2007-2009, 2010-2012, 2013-2015 and 2016-2018. Accordingly, because 17 is not divisible by three, the first data point consists of a two year non-overlapping interval. The technique of improving a data structure to be consistent with the estimation technique is in accordance with contemporary GMM-centric literature (Asongu, 2020; Asongu & Odhiambo, 2020a, 2020b). It follows that reducing  $T$  from 17 to 6 improves the analytical perspective because instrument proliferation would be mitigated in the post-estimation diagnostic tests to assess the validity of the overall GMM model.

The outcome variable adopted in this study for tourism development is tourism receipts as a percentage of total exports. The choice of this proxy is in line with contemporary tourism literature (Osinubi & Osinubi, 2020; Sahni, Nsiah & Fayissa, 2021).

Consistent with the motivation of the study and the extant literature, domestic investment is proxied by gross fixed capital formation as a percentage of GDP (Nyasha et al., 2021) while trade openness is measured with imports plus exports of goods and services as a percentage of GDP (Asongu, Nnana & Acha-Anyi, 2020). Moreover, the choices of political stability/no violence and the rule of law indicators from WGI indicators of the World Bank to proxy for political stability and law are consistent with contemporary governance literature (Ajide & Raheem, 2016a, 2016b).

In order to account for variable omission bias, the following variables are involved in the conditioning information set, namely: tourism expenditure (Rosselló-Nadal & He, 2020), GDP per capita (Masron & Subramanian, 2020), financial development (Khalid, Okafor & Shafiullah, 2020; Al-Mulali, Solarin, & Gholipour, 2021) and tourist arrivals (Rosselló-Nadal & He, 2020). In essence, all the adopted elements in the conditioning information set are expected to positively influence tourism receipts in line with the attendant literature. Accordingly, the choice of these control variables is also supported by the corresponding tourism development literature (Alvarez & Campo, 2014; Pizam & Fleischer, 2002; Sönmez *et al.*, 1999; Kingsbury & Brunn, 2004; Saha & Yap, 2014; Mehmood *et al.*, 2016; Sönmez & Graefe, 1998; Richter & Waugh, 1986; Enders et al., 1992; Liu & Pratt, 2017; Llorca-Vivero, 2008; Pratt & Liu, 2016).

The appendix section discloses the definitions of variables as well as their corresponding sources in Appendix 1. Appendix 2 provides the summary statistics while the correlation matrix is captured in Appendix 3.

## 3.2 Methodology

### 3.2.1 Specification

Building on recent GMM-specific literature (Asongu & Minkoua, 2018; Tchamyu, 2019; Asongu, le Roux & Biekpe, 2017; Tchamyu, Erreygers & Cassimon, 2019), the adoption of the GMM technique is founded on three main motivational elements. First, it is apparent from the previous section that restructuring the dataset to make it compatible with the GMM strategy has yielded the  $N > T$  condition which is imperative for the adoption of the attendant estimation strategy. Second, the outcome variable (i.e. tourism receipts) is characterized by some degree of persistence owing to the fact that the correlation between its level and first lags series is higher than the rule of thumb critical mass of 0.800 established in the corresponding GMM-centric literature (Tchamyu, 2020, 2021). Third, the estimation technique is also tailored to account for endogeneity in view of the fact that: (i) the unobserved heterogeneity is controlled with the help of time fixed effects that also control for cross sectional dependence and (ii) simultaneity or reverse causality is also taken on board through an internal instrumentation process.

Equation (1) and Equation (2) below present the standard system estimation approach with respectively, level and first difference specifications:

$$TR_{i,t} = \sigma_0 + \sigma_1 TR_{i,t-\tau} + \sigma_2 M_{i,t} + \sigma_3 G_{i,t} + \sigma_4 MG_{i,t} + \sum_{h=1}^4 \delta_h W_{h,i,t-\tau} + \eta_i + \xi_t + \varepsilon_{i,t} \quad (1)$$

$$TR_{i,t} - TR_{i,t-\tau} = \sigma_1 (TR_{i,t-\tau} - TR_{i,t-2\tau}) + \sigma_2 (M_{i,t} - M_{i,t-\tau}) + \sigma_3 (G_{i,t} - G_{i,t-\tau}) + \sigma_4 (MG_{i,t} - MG_{i,t-\tau}) + \sum_{h=1}^4 \delta_h (W_{h,i,t-\tau} - W_{h,i,t-2\tau}) + (\xi_t - \xi_{t-\tau}) + (\varepsilon_{i,t} + \varepsilon_{i,t-\tau}), \quad (2)$$

where  $TR_{i,t}$  represents the tourism receipts variable of country  $i$  in period  $t$ ;  $M$  denotes a macroeconomic channel (trade openness or domestic investment);  $G$  reflects one of the two governance dynamics (political stability or the rule of law);  $MG$  is the interaction between a macroeconomic channel and a governance moderating proxy (“political stability× trade”, “political stability× domestic investment”, “rule of law× trade” & “rule of law× domestic investment”);  $\sigma_0$  is a constant;  $\tau$  is the degree of auto-regression which is a three-year lag (i.e., denoted by one in the equation) because such a one period lag appropriately captures previous information to explain the model;  $W$  is the vector of control variables (*tourism*

*expenditure, GDP per capita, financial development and tourists arrivals*);  $\eta_i$  is the country-specific effect;  $\xi_t$  is the time-specific constant; and  $\varepsilon_{i,t}$  is the error term.

Among available GMM options, this research adopts the Roodman (2009) extension of Arellano and Bover (1995) which, previous GMM-centric studies have established to be superior to the less contemporary difference and system GMM approaches because it controls for cross sectional dependence and mitigates the proliferation of instruments. It follows that that GMM approach adopted in this study is based on forward orthogonal deviations instead of previous differences as in Arellano and Bover (1995). The specification is *two-step* because it controls for heteroscedasticity. In essence, the *one-step* approach accounts for homoscedasticity.

### 3.2.2 Identification and exclusive restrictions

Insights into properties of identification and exclusive restrictions are very relevant for a robust GMM specification, not least because such is paramount for the information criteria essential for the validity of estimated models. The identification process is a narrative that entails the attribution of three categories of variables, namely: the outcome variable, the endogenous explaining or predetermined variables and the strictly exogenous variables. Obviously, the outcome variable in this study is annual tourism receipts while the endogenous explaining variables constitute the main macroeconomic channels (i.e. trade openness and domestic investment), the governance modulating variables (i.e. the rule of law and political stability) and control variables (tourism expenditure, GDP per capita, financial development and tourists arrivals). Moreover, the choice of the strictly exogenous variable as the years or time invariant variable is consistent with arguments in the GMM-centric literature which maintain that it is not likely for years to become endogenous upon a first difference (Roodman, 2009; Tchamyou & Asongu, 2017; Asongu & Odhiambo, 2020c; Tchamyou et al., 2019).

The corresponding validation of the assumption of exclusive restriction entails establishing that the strictly exogenous variable can affect the outcome variable exclusively via the exogenous components of the adopted endogenous explaining variables. In the light of the above insights, in the findings that are disclosed in the next section, the null hypothesis corresponding to the difference-in-Hansen test (DHT) should not be rejected in order for the discussed assumption of exclusive restriction to be valid. This narrative on the assessment of

exclusive restrictions in GMM regressions based on forward orthogonal deviations is consistent with the recent studies (Odhiambo, 2020; Tchamyou, 2020, 2021).

#### 4. Empirical results

The empirical findings are disclosed in this section in Tables 1-2. While the first focuses on nexuses between tourism receipts, domestic investment, political stability and the rule of law, the second is concerned with linkages between tourism receipts, trade openness, political stability and the rule of law. Each of the tables is presented in two main categories: one on political stability and the other on the rule of law. Moreover, each category entails four main specifications, with the first specification encompassing one control variable and the fourth specification adopting four control variables. It follows that the control variables are increased from one specification to the other given that the second and third specifications respectively, have two and three control variables.

Borrowing from the contemporary GMM-oriented literature, four criteria of information are employed to determine the validity of estimated models<sup>2</sup>. In the light of these criteria, the models are overwhelmingly valid with the exception of the last specification in Table 1 in which the Hansen test is rejected. It is relevant to articulate that the Hansen test takes precedence over the Sargan test in case of any apparent conflict of interest. This is essential because in the light of the information criteria, while the Hansen test is robust and unfavorably affected by the proliferation of instruments, the Sargan test is not robust and not unfavorably influenced by instrument proliferation. Hence, it is worthwhile for the Hansen test to be preferred and a measure taken to avoid instrument proliferation by making assessing that for each specification, the number of countries is higher than the corresponding number of instruments.

In order to assess the overall incidence of a governance dynamic in modulating a macroeconomic channel for tourism receipts, net effects of the modulating variables are computed, as in contemporary literature on interactive regressions (Tchamyou, 2021; Asongu et al., 2020). To put this point into perspective, in the penultimate specification of Table 1, the net effect of domestic investment on tourism receipts from the modulating role of the rule of law is 0.0058 ( $[0.238 \times -0.753] + [0.185]$ ). In the calculation, the unconditional effect of

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<sup>2</sup> “First, the null hypothesis of the second-order Arellano and Bond autocorrelation test (AR (2)) in difference for the absence of autocorrelation in the residuals should not be rejected. Second the Sargan and Hansen over-identification restrictions (OIR) tests should not be significant because their null hypotheses are the positions that instruments are valid or not correlated with the error terms. In essence, while the Sargan OIR test is not robust but not weakened by instruments, the Hansen OIR is robust but weakened by instruments. In order to restrict identification or limit the proliferation of instruments, we have ensured that instruments are lower than the number of cross-sections in most specifications. Third, the Difference in Hansen Test (DHT) for exogeneity of instruments is also employed to assess the validity of results from the Hansen OIR test. Fourth, a Fisher test for the joint validity of estimated coefficients is also provided” (Asongu & De Moor, 2017, p.200).

domestic investment is 0.185, the mean value of the rule of law is -0.753 while the conditional impact from the interaction between the rule of law and domestic investment is 0.238.

**Table 1: Tourism receipts, domestic investment, political stability and rule of law**

	Dependent variable: International Tourism Receipts (% of total exports)							
	Domestic Investment and Political Stability				Domestic Investment and Rule of Law			
Tourism Receipts (-1)	<b>1.034***</b> (0.000)	<b>0.923***</b> (0.000)	<b>0.930***</b> (0.000)	<b>0.865***</b> (0.000)	<b>1.049***</b> (0.000)	<b>1.1001***</b> (0.000)	<b>1.054***</b> (0.000)	<b>0.937***</b> (0.000)
Domestic Investment (DI)	0.018 (0.814)	-0.041 (0.519)	-0.078 (0.180)	-0.017 (0.547)	<b>0.305***</b> (0.000)	<b>0.357***</b> (0.000)	<b>0.185***</b> (0.005)	<b>0.164***</b> (0.000)
Political Stability (PS)	-1.615 (0.303)	-0.076 (0.944)	<b>-2.894*</b> (0.063)	<b>-2.186*</b> (0.067)	---	---	---	---
Rule of Law (Law)	---	---	---	---	- <b>10.717***</b> (0.000)	<b>-9.374***</b> (0.000)	<b>-5.356***</b> (0.000)	<b>-5.495***</b> (0.000)
DI× PS	0.054 (0.196)	0.032 (0.221)	<b>0.181***</b> (0.004)	<b>0.112**</b> (0.013)	---	---	---	---
DI× Law	---	---	---	---	<b>0.355***</b> (0.000)	<b>0.319***</b> (0.000)	<b>0.238***</b> (0.000)	<b>0.233***</b> (0.000)
Tourism Expenditure	0.295 (0.205)	<b>0.591***</b> (0.007)	<b>0.348</b> (0.114)	<b>0.798***</b> (0.000)	0.290 (0.190)	0.132 (0.586)	0.281 (0.107)	<b>0.366**</b> (0.013)
GDP per capita (log)	---	-0.998 (0.313)	<b>-2.647**</b> (0.032)	<b>-2.689***</b> (0.005)	---	0.361 (0.768)	0.623 (0.707)	0.277 (0.782)
Financial Development	---	---	0.027 (0.410)	<b>0.046**</b> (0.046)	---	---	-0.065 (0.304)	-0.027 (0.369)
Tourist Arrivals (log)	---	---	---	<b>0.668*</b> (0.066)	---	---	---	0.085 (0.744)
Time Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Net Effect of DI	na	na	na	na	0.0376	0.1168	0.0058	nsa
AR(1)	(0.078)	(0.057)	(0.048)	(0.049)	(0.055)	(0.048)	(0.062)	(0.062)
AR(2)	<b>(0.547)</b>	<b>(0.493)</b>	<b>(0.407)</b>	<b>(0.559)</b>	<b>(0.550)</b>	<b>(0.584)</b>	<b>(0.525)</b>	<b>(0.485)</b>
Sargan OIR	(0.041)	(0.075)	<b>(0.153)</b>	<b>(0.149)</b>	<b>(0.311)</b>	<b>(0.428)</b>	<b>(0.169)</b>	(0.055)
Hansen OIR	<b>(0.297)</b>	<b>(0.204)</b>	<b>(0.647)</b>	<b>(0.474)</b>	<b>(0.323)</b>	<b>(0.168)</b>	<b>(0.141)</b>	(0.078)
DHT for instruments								
(a) Instruments in levels								
H excluding group	<b>(0.207)</b>	<b>(0.373)</b>	<b>(0.665)</b>	<b>(0.232)</b>	<b>(0.666)</b>	<b>(0.833)</b>	<b>(0.974)</b>	<b>(0.373)</b>
Dif(null, H=exogenous)	<b>(0.368)</b>	<b>(0.186)</b>	<b>(0.537)</b>	<b>(0.611)</b>	<b>(0.228)</b>	(0.080)	(0.045)	(0.063)
(b) IV (years, eq(diff))								
H excluding group	<b>(0.522)</b>	<b>(0.146)</b>	<b>(0.507)</b>	<b>(0.320)</b>	<b>(0.397)</b>	<b>(0.211)</b>	<b>(0.185)</b>	(0.038)
Dif(null, H=exogenous)	<b>(0.148)</b>	<b>(0.491)</b>	<b>(0.731)</b>	<b>(0.796)</b>	<b>(0.263)</b>	<b>(0.223)</b>	<b>(0.204)</b>	<b>(0.697)</b>
Fisher	<b>102.25**</b> *	<b>83.64***</b>	<b>232.30***</b>	<b>690.86***</b>	<b>57.49***</b>	<b>64.22***</b>	<b>1200.10**</b> *	<b>375.15***</b>
Instruments	23	27	31	35	23	27	31	35
Countries	39	39	39	37	40	40	40	38
Observations	172	172	169	162	173	173	170	163

\*\*\*, \*\*, \*: significance levels at 1%, 5% and 10% respectively. DHT: Difference in Hansen Test for Exogeneity of Instruments Subsets. Dif: Difference. OIR: Over-identifying Restrictions Test. The significance of bold values is twofold. 1) The significance of estimated coefficients and the Fisher statistics. 2) The failure to reject the null hypotheses of: a) no autocorrelation in the AR(1) & AR(2) tests and; b) the validity of the instruments in the Sargan and Hansen OIR tests. Constants are included in all regressions. na: not applicable because at least one estimated coefficient needed for the computation of net effects is not significant. nsa: not specifically applicable because the model does not pass all post-diagnostics tests. The mean value of the rule of law is -0.753. The mean value of political stability is -0.562.

The following findings can be established from Tables 1-2. First, there are synergy effects from the role of the rule of law in modulating domestic investment for tourism receipts. The

synergy effects build on the perspective that both the unconditional and conditional effects used in the computation of the corresponding net effects are positive. The understanding of synergy effects is consistent with contemporary interactive regressions literature (Asongu & Acha-Anyi, 2017; Asongu & Nwachukwu, 2017). Second, in spite of significant interactive effects from the other combinations of macroeconomic and governance variables, net effects are not computed because at least one estimated coefficient needed for their computations in the corresponding specifications is not significant. Third, most of the significant control variables have the expected signs.

**Table 2: Tourism receipts, trade openness, political stability and rule of law**

	Dependent variable: International Tourism Receipts (% of total exports)							
	Trade Openness and Political Stability				Trade Openness and Rule of Law			
Tourism Receipts (-1)	<b>0.872***</b> (0.000)	<b>0.928***</b> (0.000)	<b>0.949***</b> (0.000)	<b>0.860***</b> (0.000)	<b>0.966***</b> (0.000)	<b>1.001***</b> (0.000)	<b>1.101***</b> (0.000)	<b>0.955***</b> (0.000)
Trade Openness (TO)	-0.011 (0.551)	0.005 (0.792)	-0.006 (0.657)	<b>-0.026*</b> (0.061)	0.031 (0.202)	0.023 (0.210)	-0.014 (0.216)	0.008 (0.542)
Political Stability (PS)	<b>3.074*</b> (0.075)	0.184 (0.887)	<b>1.364*</b> (0.092)	1.114 (0.135)	---	---	---	---
Rule of Law (Law)	---	---	---	---	-1.751 (0.564)	-0.228 (0.918)	<b>3.944*</b> (0.067)	0.320 (0.841)
TO× PS	<b>-0.035*</b> (0.065)	-0.004 (0.780)	-0.015 (0.102)	-0.013 (0.207)	---	---	---	---
TO× Law	---	---	---	---	-0.0005 (0.985)	-0.011 (0.567)	<b>-0.043**</b> (0.029)	-0.004 (0.721)
Tourism Expenditure	0.430 (0.113)	0.224 (0.227)	0.199 (0.277)	<b>0.554***</b> (0.000)	<b>0.338*</b> (0.079)	<b>0.359**</b> (0.030)	<b>0.233**</b> (0.047)	<b>0.273**</b> (0.012)
GDP per capita (log)	---	-0.116 (0.834)	-0.023 (0.955)	-0.416 (0.337)	---	0.541 (0.401)	<b>1.166**</b> (0.014)	0.394 (0.229)
Financial Development	---	---	-0.008 (0.701)	0.013 (0.361)	---	---	<b>-0.076**</b> (0.023)	-0.040 (0.100)
Tourist Arrivals (log)	---	---	---	0.266 (0.428)	---	---	---	0.181 (0.381)
Time Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Net Effect of TO	na	na	na	na	na	na	na	na
AR(1)	(0.058)	(0.057)	(0.049)	(0.049)	(0.058)	(0.058)	(0.059)	(0.049)
AR(2)	<b>(0.428)</b>	<b>(0.504)</b>	<b>(0.466)</b>	<b>(0.494)</b>	<b>(0.624)</b>	<b>(0.619)</b>	<b>(0.576)</b>	<b>(0.580)</b>
Sargan OIR	<b>(0.276)</b>	<b>(0.334)</b>	<b>(0.377)</b>	<b>(0.516)</b>	<b>(0.906)</b>	<b>(0.974)</b>	<b>(0.843)</b>	<b>(0.568)</b>
Hansen OIR	<b>(0.676)</b>	<b>(0.632)</b>	<b>(0.592)</b>	<b>(0.334)</b>	<b>(0.880)</b>	<b>(0.972)</b>	<b>(0.656)</b>	<b>(0.339)</b>
DHT for instruments								
(a) Instruments in levels								
H excluding group	<b>(0.183)</b>	<b>(0.190)</b>	<b>(0.385)</b>	<b>(0.461)</b>	<b>(0.536)</b>	<b>(0.646)</b>	<b>(0.904)</b>	<b>(0.466)</b>
Dif(null, H=exogenous)	<b>(0.832)</b>	<b>(0.805)</b>	<b>(0.620)</b>	<b>(0.291)</b>	<b>(0.864)</b>	<b>(0.966)</b>	<b>(0.439)</b>	<b>(0.294)</b>
(b) IV (years, eq(diff))								
H excluding group	<b>(0.515)</b>	<b>(0.643)</b>	<b>(0.466)</b>	<b>(0.163)</b>	<b>(0.724)</b>	<b>(0.884)</b>	<b>(0.633)</b>	<b>(0.174)</b>
Dif(null, H=exogenous)	<b>(0.699)</b>	<b>(0.430)</b>	<b>(0.684)</b>	<b>(0.953)</b>	<b>(0.840)</b>	<b>(0.955)</b>	<b>(0.489)</b>	<b>(0.922)</b>
Fisher	<b>63.54***</b>	<b>74.16***</b>	<b>2323.35**</b> *	<b>2034.90**</b> *	<b>71.24***</b>	<b>1003.99**</b> *	<b>333.22***</b>	<b>40735.04*</b> **
Instruments	23	27	31	35	23	27	31	35
Countries	39	39	38	36	40	40	39	37
Observations	173	173	170	163	174	174	171	164

\*\*\*, \*\*, \*: significance levels at 1%, 5% and 10% respectively. DHT: Difference in Hansen Test for Exogeneity of Instruments Subsets. Dif: Difference. OIR: Over-identifying Restrictions Test. The significance of bold values is twofold. 1) The significance of estimated coefficients and the Fisher statistics. 2) The failure to reject the null hypotheses of: a) no autocorrelation in the AR(1) & AR(2) tests and; b) the validity of the instruments in the Sargan and Hansen OIR tests. Constants are included in all regressions. na: not applicable because at least one estimated coefficient needed for the

computation of net effects is not significant. The mean value of the rule of law is -0.753. The mean value of political stability is -0.562.

The findings are further discussed in two main strands, notably: the findings pertaining to domestic investment and those related to trade openness. On the front of domestic investment, the findings are broadly consistent with the strand of literature supporting the role of domestic investment or infrastructural development in tourism promotion (Akama, 2002; Balalia & Petrescu, 2011; Ribarić & Ribarić, 2013; Nawaz, 2016; Alam & Paramati, 2017; Paramati, Alam & Lau, 2018). Moreover, the findings also support the importance of governance in providing domestic infrastructure for tourism development (Akama, 1997, 2002; Hughes, 1994; Balalia & Petrescu, 2011).

On the other hand, the findings are not very supportive of the importance of trade openness in promoting tourism contingent on good governance in the perspectives of the rule of law and political stability. It follows that the principles outlined in Section 2 underpinning the relevance of trade openness in tourism development (Kulendran & Wilson, 2000; Turner & Witt, 2001; White, 2007; Santana et al., 2011) do not withstand empirical scrutiny within the remit of the study. This may be explained by the fact that most of the sampled countries have registered trade deficits over the past decade (Moussa, 2016) and by extension, have registered more trade imports which simulate tourists to leave the domestic economy to foreign destinations. In accordance with the principles outlined in Section 2, exports in goods and services are more likely to promote domestic tourism than imports of goods and services.

## **5. Concluding implications and future research directions**

While domestic investment is relevant in providing the much needed infrastructure for the development of tourism and international trade also increases the perception of the country for potential tourists, some governance mechanisms are worthwhile to ensure that domestic investment and trade openness channels to tourism development are effective. The purpose of this study has been to assess how some governance dynamics (in terms of the rule of law and political stability) modulate the incidence of some macroeconomic factors (i.e. domestic investment and trade openness) on tourism development, in order to establish synergy effects between the policy governance variables and macroeconomic channels. The focus of this study is on 47 countries in SSA with data for the period 2002 to 2018. The Generalised Method of Moments is employed as the empirical strategy. From the findings, synergy effects are apparent in the role of the rule of law in modulating domestic investment for tourism development in terms of tourism receipts.

The main policy implication of this study is that for the sampled countries, promoting tourism development can be most effective if policies of enhancing domestic investment and promoting the rule of law are implemented simultaneously. Moreover, in order to improve the established synergy effects, it is worthwhile for the sampled countries to boost the rule of law further. This is essential because since the rule of law variable is negatively skewed and by extension, the net effects are computed on the negative value, the corresponding negative outcomes from the interactions dampen the overall potential positive synergy effects. In other words, had the mean value of the rule of law been 0.753 instead of -0.753, overall synergy effects would have been much higher. It follows that improving the rule is imperative in order to benefit more from the role of the rule of law in modulating domestic investment for the promotion of tourism.

We do not want to claim to have accomplished more than what the findings have produced. We have build on an existing gap in the literature to position the study and established findings which have enabled us to recommend that the rule of law and domestic investment should be considered simultaneously. The findings of an empirical analysis can either support or reject existing policy initiatives, especially if such is based on updated data. Hence, the fact that this study, based on contemporary data confirms what may have been applied in some countries, does not undermine the relevance of the policy implications, not least, because the findings are for a given geographical area and for a specific period. Moreover, we are not aware of contemporary empirical studies supporting the policy initiative of simultaneously enhancing domestic investment and the rule of law in order to promote tourism in the sampled countries.

In terms of governance dynamics, we have established that political stability which is a dimension of political governance is less significant than the rule of law which is dimension of institutional governance. It follows that the election and replacement of political leaders (i.e. political governance) is less significant compared to institutional governance or the respect by citizens and the State of institutions that govern interactions between them (i.e. institutional governance). These definitions are consistent with recent governance literature (see Tchamyu, 2021).

Future research can consider assessing how the findings are relevant to other developing regions in the world such as Asia and Latin America. Moreover, considering other mechanisms by which governance standards can influence tourism development would improve insights into other policy synergies that are relevant for the promotion of tourism.



In GMM, while cross sectional dependence is considered, country-specific effects are not. Cross-sectional dependence is taken into account by controlling for time effects. Country-specific effects are eliminated in order to avoid the correlation between country-specific effects and the lagged dependent variable, which is a source of endogeneity. In the light of this caveat, future research can consider country-specific studies with the relevant empirical strategies in order to provide findings with more country-specific implications.

Caveats in the study (partly owing to data availability constraints at the time of the study) that are worth incorporating in the suggested future research directions include: (i) an understanding that tourism development also has strong elements of domestic tourism. This form of tourism supports a large number of tourism actors in any destination and contributes significantly to national level development. The predictor variables which affect domestic tourism development are not captured in this component of tourism. (ii) The use of international tourism receipts supposes that countries reflect a uniform way of capturing earnings from tourism and by extension, there is an assumption of the presence of tourism satellite accounts.

## Appendices

### Appendix 1: Definitions of Variables

Variables	Signs	Definitions of variables (Measurements)	Sources
Tourism Receipts	Tourism R.	International tourism, receipts (% of total exports)	WDI
Domestic Investment	Domestic I.	Gross fixed capital formation (% of GDP)	WDI
Political Stability	Political St.	<i>“Political stability/no violence (estimate): measured as the perceptions of the likelihood that the government will be destabilized or overthrown by unconstitutional and violent means, including domestic violence and terrorism”</i>	WGI
Tourism Expenditure	Tourism E.	International tourism, expenditures (% of total imports)	WDI
GDP per capita	GDPpc	Logarithm of GDP per capita (constant 2010 US\$)	WDI
Financial Development	Finance D.	Domestic credit to private sector by banks (% of GDP)	WDI
Tourist Arrivals	Tourists	Number of yearly International tourists’ arrivals	WDI
Rule of law	Law	<i>“Rule of law (estimate): captures perceptions of the extent to which agents have confidence in and abide by the rules of society and in particular the quality of contract enforcement, property rights, the police, the courts, as well as the likelihood of crime and violence”.</i>	WGI
Trade Openness	Trade	Imports plus Exports of goods and services (% of GDP)	WDI

WDI: World Bank Development Indicators of the World Bank. WGI: World Governance Indicators of the World Bank.

### Appendix 2: Summary statistics

	Mean	SD	Minimum	Maximum	Observations
Tourism Receipts	13.801	15.066	0.102	72.087	229
Domestic Investment	22.112	9.296	0.000	56.138	257
Political Stability	-0.562	0.903	-3.273	1.064	273
Tourism Expenditure	6.107	4.124	0.118	21.123	233
GDP per capita (log)	7.045	1.003	5.297	9.879	271
Financial Development	18.269	16.979	0.599	102.556	266
International Tourists Arrivals (log)	12.608	1.522	8.366	16.144	239
Rule of law	-0.753	0.647	-2.486	1.065	274
Trade Openness	72.219	33.452	20.762	279.333	261

S.D: Standard Deviation.

### Appendix 3: Correlation matrix (uniform sample size: 182)

	Tourism R.	Domestic I.	Political St.	Tourism E.	GDPpc	Finance D.	Tourists	Law	Trade
Tourism R.	1.000								
Domestic I.	0.067	1.000							
Political St.	0.360	0.148	1.000						
Tourism E.	0.371	-0.096	0.073	1.000					
GDPpc	0.086	0.151	0.352	0.071	1.000				
Finance D.	0.316	0.183	0.437	-0.023	0.648	1.000			
Tourists	-0.079	0.216	0.119	-0.062	0.471	0.470	1.000		
Law	0.430	0.254	0.760	0.098	0.444	0.672	0.386	1.000	
Trade	-0.156	0.282	0.363	-0.211	0.434	0.313	0.077	0.221	1.000

Tourism R: Tourism Receipts. Domestic I: Domestic Investment. Political St: Political Stability. Tourism E: Tourism Expenditure. GDPpc: logarithm of GDP per capita. Finance D: Financial Development. Tourists: International Tourists Arrivals. Law: Rule of law. Trade: Trade Openness.

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