



Role of Governance in Trade openness and FDI in various regional group countries: Africa Eastern and Southern, Africa Western and Central, North Africa

Úloha riadenia v otvorenosti obchodu a priamych zahraničných investíciách v rôznych krajinách regionálnej skupiny:

Východná a Južná Afrika, Západná Afrika a Stredná, Severná Afrika

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Abstract:

This paper investigates the critical role of governance in shaping trade openness and Foreign Direct Investment (FDI) inflows in three distinct regional groups within Africa: Eastern and Southern Africa, Western and Central Africa, and North Africa. Using several tests as OLS regression and granger causality, The study employs a comprehensive analysis of governance indicators, trade openness measures, and FDI data to discern the impact of governance on economic integration and investment attractiveness across these regions. The findings reveal significant variations in governance quality and its influence on trade and FDI within and among these regional groups. The research underscores the importance of good governance as a fundamental driver of economic development and integration in the African context.

Keywords: Governance, Trade Openness, Foreign Direct Investment (FDI), Africa, Regional Groups



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Abstrakt:

Tento dokument skúma kritickú úlohu riadenia pri formovaní otvorenosti obchodu a prílevu priamych zahraničných investícií (PZI) v troch odlišných regionálnych skupinách v rámci Afriky: východnej a južnej Afrike, západnej a strednej Afrike a severnej Afrike. Štúdia využíva niekoľko testov ako regresiu OLS a kauzalitu Granger a využíva komplexnú analýzu ukazovateľov správy vecí verejných, opatrení otvorenosti obchodu a údajov o priamych zahraničných investíciách, aby bolo možné rozoznať vplyv správy vecí verejných na ekonomickú integráciu a investičnú atraktivitu v týchto regiónoch. Zistenia odhaľujú významné rozdiely v kvalite správy a jej vplyve na obchod a priame zahraničné investície v rámci týchto regionálnych skupín a medzi nimi. Výskum podčiarkuje dôležitosť dobrej správy vecí verejných ako základnej hnacej sily hospodárskeho rozvoja a integrácie v africkom kontexte.

Kľúčové slová: *Správa vecí verejných, otvorenosť obchodu, priame zahraničné investície (PZI), Afrika, regionálne skupiny*

Introduction

The African continent is marked by a diverse range of countries, each with unique economic, political, and social characteristics. Regional groupings have emerged as a means to foster economic integration and cooperation among neighboring nations. In this paper, we focus on three major regional groups in Africa: Eastern and Southern Africa, Western and Central Africa, and North Africa. These regional groupings encompass a wide array of countries with varying levels of governance quality, trade openness, and FDI attractiveness.

Governance, encompassing political stability, rule of law, transparency, and effective government institutions, serves as a linchpin in shaping the economic destinies of nations. In the African context, where a diverse array of countries coexists with unique challenges and opportunities, the role of governance becomes particularly critical in driving economic integration and attracting Foreign Direct Investment (FDI).

This paper embarks on a comprehensive exploration of the pivotal role that governance plays in influencing trade openness and FDI across three distinct regional groups in Africa: Eastern and Southern Africa, Western and Central Africa, and North Africa. These regional blocs, each comprising countries with their own socio-political landscapes, present a fascinating backdrop for examining the multifaceted relationship between governance, economic integration, and investment attractiveness.

As African nations strive for sustainable economic growth and development, understanding how governance quality impacts their ability to engage in global trade and attract FDI is of paramount importance. This paper seeks to shed light on these intricate dynamics, offering insights that can inform policy decisions, foster regional cooperation, and ultimately contribute to the advancement of the African continent.

1. Literature Review

T- Governance and Economic Development

Governance, often measured by indicators such as political stability, rule of law, control of corruption, government effectiveness, and regulatory quality, is widely recognized as a pivotal factor in determining a country's economic prospects. Good

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governance is fundamental to creating an environment conducive to sustainable economic growth and development (Kaufmann et al., 2019; World Bank, 2017). It fosters investor confidence, ensures the protection of property rights, and reduces transaction costs, all of which are crucial for attracting FDI and promoting trade openness (Acemoglu et al., 2008).

- Trade Openness and FDI

Trade openness and FDI are critical components of economic development. Countries that engage actively in international trade are more likely to experience higher economic growth rates (Frankel and Romer, 1999). Similarly, FDI inflows, driven by factors like market access and business-friendly regulatory environments, contribute significantly to economic expansion (Blomström and Kokko, 2003). The nexus between trade and FDI is complex, with trade openness often serving as a magnet for FDI, and FDI promoting further trade integration (UNCTAD, 2020).

- Governance and FDI Attraction

The relationship between governance and FDI attraction is well-documented. Countries with strong governance structures are more likely to attract FDI due to the reduced risks associated with political stability and the enforcement of contracts (Wei, 2000). Moreover, good governance is conducive to creating transparent and efficient business environments, which are essential factors for foreign investors when choosing their investment destinations (Busse and Hefeker, 2007).

- Governance and Trade Openness

Governance quality also significantly influences a country's capacity to engage in international trade. Transparent and predictable regulatory frameworks, underpinned by good governance, reduce trade barriers, facilitate customs procedures, and encourage compliance with international trade agreements (Gwartney et al., 2019). Conversely, poor governance can lead to corruption, inefficient bureaucracies, and protectionist policies that hinder trade (Leite and Weidmann, 1999).

- Regional Dynamics in Africa

Within Africa, regional integration initiatives have gained prominence as mechanisms for enhancing trade openness and attracting FDI. The African Union's Agenda 2063, the African Continental Free Trade Area (AfCFTA), and various regional economic communities (RECs) aim to promote economic integration and governance improvements (African Union, 2015). However, the effectiveness of these initiatives varies across regions due to differences in governance quality and economic structures (UNCTAD, 2021).

- Research Gap

While existing literature provides valuable insights into the relationships between governance, trade openness, and FDI, there is a need for region-specific analyses within Africa. This paper addresses this gap by focusing on three diverse regional groups—Eastern and Southern Africa, Western and Central Africa, and North Africa—to examine how governance quality influences trade openness and FDI attraction within each context. By doing so, it contributes to a nuanced understanding

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of the role of governance in shaping economic outcomes in these distinct African regions.

2. Methodology

The research methodology employed in this study aims to comprehensively analyze the role of governance in influencing trade openness and Foreign Direct Investment (FDI) in three distinct regional groups in Africa: Eastern and Southern Africa (countries), Western and Central Africa, and North Africa in the period between 2000 and 2020 for 53 African countries. To achieve this, a quantitative methods approach is adopted.

In other words, this paper intends to develop an empirical study based on, firstly, a Pearson correlation between governance trade and FDI indicators (table 1) to detect the presence and strength of a relationship between variables

Secondly it will be a regression analysis based on two models: the first one started from the dataset of indicators of governance quality and the trade indicator: The second one will analysis the effect of governance on the FDI. During this research, I will make the evidence if other factors like economic growth, natural resource and population growth affect more the trade and FDI than governance.

The last applicable test will be the causality test which will identify the direct causer of the trade development and FDI.

Tab. 1 Description of the Variables

ID	Variable	Proxy
TRD	Trade Openness	Trade (% of GDP)
FDI	Foreign direct investment	Foreign direct investment, net inflows (% of GDP)
VA	Voice and accountability	Voice and accountability (Score between -2.5 and 2.5)
PS	Political stability	Political stability (Score between -2.5 and 2.5)
GE	Government effectiveness	Government effectiveness (Score between -2.5 and 2.5)
RL	Rule of law	Rule of law (Score between -2.5 and 2.5)
CC	Control of corruption	Control of corruption (Score between -2.5 and 2.5)
RQ	Regulatory quality	Regulatory quality (Score between -2.5 and 2.5)
GDP	Economic growth	GDP per capita (current US\$)
TNR	Natural resources	Total natural resources rents (% of GDP)
POP	Population growth	Population growth (annual %)

Source : World Bank 2020

3. Result and discussion

This study includes 53 African countries for which all datasets were available. a geographical classification of these countries is reported. It can be observed that the majority of African countries are based in the Eastern and Southern (26 countries)

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followed by the Western and Central (22 countries) and the less proportion was for the north African countries (5 countries) which explain the importance of the demography in the sub-Saharan countries.

Tab. 2 Correlation Matrix: Africa Eastern and Southern

	TRD	LFDI	VA	PS	GE	RL	CC	RQ	LGDP	TNR	POP
TRD	1										
LFDI	0.155	1									
VA	0.409***	-0.014	1								
PS	0.509**	0.103	0.296	1							
GE	0.66*	-0.373***	0.419***	0.309	1						
RL	0.233	0.013	0.535**	-0.211	0.494**	1					
CC	0.723*	-0.406***	0.51**	0.298	0.873*	0.343	1				
RQ	0.265	-0.312	0.19	-0.141	0.682*	0.744*	0.536*	1			
LGDP	-0.347	0.685*	-0.245	-0.062	-0.86*	-0.409***	-0.719*	-0.665*	1		
TNR	0.842***	0.36	0.374***	0.577*	0.319	0.017	0.45**	-0.129	0.072	1	
POP	0.235	0.856*	0.186	0.282	-0.328	-0.049	-0.234	-0.311	0.7*	0.5**	1

Note: *, ** & *** indicate 1%, 5% & 10% level of significance respectively.

Source : Own calculation using the world bank data

Tab.3 Correlation Matrix: Africa Western and Central

	TRD	LFDI	VA	PS	GE	RL	CC	RQ	LGDP	TNR	POP
TRD	1										
LFDI	-0.243	1									
VA	-0.548**	0.276	1								
PS	0.619*	-0.584*	-0.584*	1							
GE	0.251	-0.73*	-0.049	0.292	1						
RL	-0.209	0.044	0.675*	-0.425***	0.21	1					
CC	-0.157	-0.272	0.521**	-0.24	0.651*	0.759*	1				
RQ	0.614*	0.148	-0.302	0.178	0.052	0.074	0.165	1			
LGDP	-0.571*	0.874*	0.557*	-0.838*	-0.603*	0.29	-0.017	-0.082	1		
TNR	0.817*	-0.22	-0.688*	0.613*	0.024	-0.513**	-0.44**	0.433**	-0.574*	1	
POP	0.689*	-0.075	-0.746*	0.736*	-0.127	-0.609*	-0.603*	0.285	-0.519*	0.735*	1

Note: *, ** & *** indicate 1%, 5% & 10% level of significance respectively.

Source : Own calculation using the world bank data

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All governance indicators are measured with scores from approximately -2.5 (weak) to 2.5 (strong) governance performances. As a result, the country which has the score of its governance indicators nearest to 2.5 indicates a best practice of good governance and vice versa. However, the FDI and the trade are based on the percentage form GDP.

The correlations' results, reported in Table 2,3 and 4 confirm the existence of an inverse relationship between the governance indicators, Trade, FDI and other indirect factors in different African regions even if it was different from factor to another.

Tab.4 Corrélation Matrix: North Arica

	TRD	LFDI	VA	PS	GE	RL	CC	RQ	LGDP	TNR	POP
TRD	1										
LFDI	0.598*	1									
VA	-0.458**	-0.095	1								
PS	0.344	-0.166	-0.886	1							
GE	0.229	-0.353	-0.78*	0.906*	1						
RL	0.277	-0.316	-0.771*	0.901*	0.913*	1					
CC	-0.017	-0.511**	-0.45**	0.61*	0.777*	0.794*	1				
RQ	0.495**	-0.118	-0.836*	0.936*	0.885*	0.84*	0.581*	1			
LGDP	0.595*	0.884*	0.137	-0.388***	-0.496	-0.443**	-0.561*	-0.303	1		
TNR	0.832*	0.202	-0.605*	0.648*	0.625*	0.582*	0.394***	0.792*	0.154	1	
POP	-0.081	0.099	-0.289	0.268	0.202	0.236	0.214	0.106	-0.138	-0.111	1

Note: *, ** & *** indicate 1%, 5% & 10% level of significance respectively.

Source : Own calculation using the world bank data

The regression results are displayed in the model 1 related to the trade (Table 5) and model 2 related to FDI (table 6), where the dependent variable are FDI and Trade measured by it percentage in the total GDP and the independent variables are designed by the six worldwide governance indicators. On the other hand, the control variables are presented on the population growth , natural resources and the GDP per capita. the regression results mentioned the importance of some governance indicators and it influence on the trade and FDI. Various robustness tests are applied and verified that both models are corrects.

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Tab.5 Model 1 OLS Regression test

Trade	Africa Eastern and Southern			Africa Western and Central			North Africa		
	Coefficient	t-Statistic	Prob.	Coefficient	t-Statistic	Prob.	Coefficient	t-Statistic	Prob.
VA	-15.384	-0.509	0.621	35.702	1.470	0.170	-8.671	-1.391	0.192
PS	-2.629	-0.126	0.902	-4.425	-0.236	0.818	-12.256**	-2.279	0.044
GE	-16.480	-0.491	0.633	133.820**	3.023	0.012	-28.793***	-1.940	0.079
RL	-5.610	-0.111	0.914	101.506**	2.315	0.041	45.739*	3.335	0.007
CC	15.359	0.524	0.610	-136.904***	-2.202	0.050	-40.596**	-2.509	0.029
RQ	17.768	0.504	0.624	103.726**	2.751	0.019	12.619	1.282	0.226
LGDP	-19.820	-1.701	0.117	-1.075	-0.112	0.913	17.880**	2.554	0.027
TNR	1.510*	4.001	0.002	0.782	2.239	0.047	1.258*	5.662	0.000
POP	28.355	1.541	0.152	40.058***	1.838	0.093	2.674***	1.848	0.092
C	122.994**	2.249	0.046	132.025	1.427	0.181	-144.124**	-2.720	0.020

Note: *, ** & *** indicate 1%, 5% & 10% level of significance respectively.

Source : Own calculation using the world bank data

Tab.6 Model 2 OLS Regression test

FDI	Africa Eastern and Southern			Africa Western and Central			North Africa		
	Coefficient	t-Statistic	Prob.	Coefficient	t-Statistic	Prob.	Coefficient	t-Statistic	Prob.
VA	-4.533	-1.351	0.204	1.087	1.188	0.260	-0.653	-0.780	0.452
PS	-0.508	-0.220	0.830	-0.374	-0.529	0.607	0.386	0.534	0.604
GE	3.776	1.013	0.333	-0.667	-0.400	0.697	-1.483	-0.744	0.472
RL	7.614	1.358	0.202	-2.033	-1.231	0.244	-1.626	-0.883	0.396
CC	-2.254	-0.694	0.502	3.043	1.300	0.220	0.014	0.006	0.995
RQ	-4.975	-1.271	0.230	0.656	0.462	0.653	0.588	0.445	0.665
LGDP	0.526	0.407	0.692	3.194*	8.868	0.000	3.693*	3.928	0.002
TNR	0.000	0.001	0.999	0.023	1.754	0.107	-0.003	-0.087	0.932
POP	6.010**	2.943	0.013	5.238*	6.384	0.000	0.298	1.535	0.153
C	2.847	0.469	0.648	-16.564*	-4.755	0.001	-15.187**	-2.135	0.056

Note: *, ** & *** indicate 1%, 5% & 10% level of significance respectively.

Source : Own calculation using the world bank data

The estimation Models used in this study for each regional group are:

$$TRD = \alpha + \beta_1VA_t + \beta_2PS_t + \beta_3GE_t + \beta_4RL_t + \beta_5CC_t + \beta_6RQ_t + \beta_7GDP_t + \beta_8TNR_t + \beta_9POP_t + u$$

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$$FDI = \alpha + \beta_1VA_t + \beta_2PS_t + \beta_3GE_t + \beta_4RL_t + \beta_5CC_t + \beta_6RQ_t + \beta_7GDP_t + \beta_8TNR_t + \beta_9POP_t + u$$

The results of the regression analysis showed that In Africa Eastern and Southern region, governance variables have insignificant impact on Trade (Table 5).

However, In Africa Western and Central region, Government effectiveness, Rule of law, Regulatory quality have positive while Control of corruption has negative impact on trade (Table 5). Population growth appears as a strong factor to influence the trade development in this region.

In addition, Rule of law has positive while Political stability, Government effectiveness, Control of corruption have negative impact on trade in North Africa region (Table 5). GDP per capita and Population growth has impact on the trade.

Tab.7 Granger Causality Test

Null Hypothesis:	Africa Eastern and Southern		Africa Western and Central		North Africa	
	F-Statistic	Prob.	F-Statistic	Prob.	F-Statistic	Prob.
LFDI → TRD	1.365	0.287	2.575	0.112	0.180	0.837
TRD → LFDI	2.241	0.143	0.237	0.792	0.203	0.818
VA → TRD	2.215	0.146	1.075	0.368	2.796***	0.095
TRD → VA	0.591	0.567	13.851*	0.000	1.060	0.373
PS → TRD	3.625***	0.054	3.309***	0.067	2.282	0.139
TRD → PS	1.483	0.261	0.239	0.791	1.043	0.378
GE → TRD	1.348	0.291	0.277	0.762	2.402	0.127
TRD → GE	0.406	0.674	0.703	0.512	0.475	0.632
RL → TRD	0.533	0.598	1.829	0.197	1.423	0.274
TRD → RL	0.272	0.766	1.503	0.256	0.413	0.669
CC → TRD	1.568	0.243	1.295	0.305	1.017	0.387
TRD → CC	0.666	0.529	0.815	0.462	0.127	0.882
RQ → TRD	0.174	0.842	2.195	0.148	2.467	0.121
TRD → RQ	2.617	0.108	1.181	0.336	0.316	0.734
VA → LFDI	0.615	0.555	0.828	0.457	0.772	0.481
LFDI → VA	0.833	0.455	0.530	0.600	2.662	0.105
PS → LFDI	6.115**	0.012	7.396*	0.006	0.626	0.549
LFDI → PS	0.757	0.487	0.477	0.631	0.906	0.427
GE → LFDI	0.128	0.881	3.050***	0.080	0.220	0.805
LFDI → GE	2.055	0.165	1.161	0.342	0.503	0.615
RL → LFDI	1.212	0.327	2.850***	0.092	1.471	0.263
LFDI → RL	0.036	0.965	0.361	0.703	0.225	0.802
CC → LFDI	0.564	0.582	3.456***	0.060	1.363	0.288
LFDI → CC	3.727***	0.050	0.398	0.679	0.225	0.802
RQ → LFDI	2.065	0.164	0.426	0.661	0.120	0.888
LFDI → RQ	3.479***	0.059	1.467	0.264	1.582	0.240

Note: *, ** & *** indicate 1%, 5% & 10% level of significance respectively.

Source : Own calculation using the world bank data

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In the other hand, Table 6 results prove that for all three regional groups, governance variables have insignificant impact on FDI. The Population growth influence the increase of the FDI.

Table 7 shows the granger causality test results between Trade and governance variables and FDI and governance variables for each regional group. The results highlighted that there is one-way granger causality from Political stability to trade and FDI in all regions. It means that Political stability is important factor or primordial for the trade and FDI development in the African continent.

In the Africa Western and Central region, there is a significant result which showed that Government effectiveness, Rule of law and control of corruption caused the development of FDI. Contrarily to the Africa Eastern and Southern region, the development of FDI was necessary to the improve the control of corruption and to regulatory quality.

For the north African region, the Voice of accountability, Government effectiveness and Regulatory quality caused the development of trade.

Conclusion

Governance quality is a crucial determinant of trade openness and FDI attraction in the African context. While Eastern and Southern Africa outperforms Western and Central Africa in terms of governance and FDI inflows, North Africa occupies an intermediate position. This study underscores the importance of good governance as a foundational element for economic integration and investment attractiveness in regional groupings across Africa. Political stability is primordial factor to implement the trade development and FDI growth for all the regions. The other governance factors are important also as Government effectiveness and Regulatory quality to achieve the economic goals of regional integration (FDI and trade) in Western and Central and north African region. However, the increase in the FDI was the important factor to improve the control of corruption and to regulatory quality in the Africa Eastern and Southern region which is known by its rich natural resources. Despite this influence of the governance indicators and its importance, the population growth appears as another strong factor which effect the growth of trade and FDI in the African continent especially in the sub-Saharan region.

Policymakers should focus on improving governance, reducing trade barriers, and enhancing investment climates to foster sustainable economic development in these regions. Future research can delve deeper in how Africa can profit from this high potential of population growth which can make it as a large-scale market with strong GDP which will have of course an impact on trade and FDI within each regional group.

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