

Does instutional quality contribute to increasing labour productivity in Sub-saharan Africa? An empirical analysis



Koffi KPOGNON, PhD Candidate in Economics, PAUGHSS – AU, E-mail: kkoffide7@gmail.com

Introduction & Literature review

- Sub-Saharan Africa (SSA) has the lowest labour productivity compared to other developing regions (World Bank, 2018).
- The region has: the highest vulnerable employment rate in the world: 66% (ILO, 2018), employment sectors with a high degree of vulnerability to work.
- SSA has relatively poor governance performance (Global Competitiveness Index, 2018).
- Our objective: measure the effect of the indicators of the institutional quality on the labour productivity in SSA,
- Link between institutional quality and labour productivity: Hall and Jones (1999), Meon and Weill (2005), Lio and Liu (2008), Zhang, Hall, and Yao (2018), Mustafa and Jamil (2018).

Data & Methodology

This study follows the one-stage model suggested by Battese and Coelli (1995) to simultaneously estimate the stochastic frontier production function and the equation of inefficiency. We assume a Cobb-Douglas production fonction.

$$Y_{it} = f(X_{it}, \beta) \exp(V_{it} - U_{it})$$
(1)

$$ln(Y/L)_{it} = \alpha_0 + \alpha_1 ln(K/L)_{it} + \alpha_2 ln(H/L)_{it} + V_{it}$$
(2)

with
$$U_{it} = f\left(inst_{Qual_{it}}\right)$$

$$ln(Y/L)_{it} = \alpha_0 + \rho \ln\left(\frac{Y}{L}\right)_{it-1} + \alpha_1 ln(K/L)_{it} + \alpha_2 ln(H/L)_{it} + V_{it} - U_{it} (3)$$

Data and Sources: WDI (2018), WGI (2018), Barro and Lee (2013), La Porta et al. (1999).

Results & Interpretation

Table 1: Classification of the last 10 low labourproductivity countries (1996-2016 average) in SSA

The last 10 countries with low average labour productivity	Average labour productivity (constant 2011 PPP \$)	Average governance indices
Sierra Leone	3423.66	-0.86
Togo	2816.79	-0.87
Malawi	2414.98	-0.36
Rwanda	2337.81	-0.58
Mozambique	2277.41	-0.39
Liberia	2244.66	-1.12
Central Africa Republic	2095.98	-1.35
Niger	2060.02	-0.63
Burundi	1775.43	-1.25
DRC	1619.23	-1.66

Table 2: Effect of institutional quality indicators on Labour

 productivity in SSA

Estimation Methods: Use of Within and GMM System Estimators

Graph 1: Crossed-evolution of institutional quality and labour productivity indicators in SSA (1996-2016 average)



Institutional Quality Indicators	Within Estimators	GMM-System Estimators	GMM-System with external instruments	GMM-System with additional controls
Government Efficiency (GE)	0.0774	0.0740*	0.0530**	0.0818***
	(0.945)	(0.0407)	(0.0211)	(0.0260)
Corruption Control (CC)	0.0339	0.0679*	0.0491**	0.0652
	(0.421)	(0.0381)	(0.0200)	(0.0616)
Political stability and Absence of violence (PSAV)	0.0257	0.0627***	0.0585***	0.0557**
	(0.813)	(0.0185)	(0.0181)	(0.0218)
Regulatory Quality (RQ)	0.0912	0.0672**	0.0561**	0.0575**
	(1.186)	(0.0260)	(0.0216)	(0.0232)
Rule of Law (RL)	0.119	0.0825*	0.0850*	0.0772*
	(1.602)	(0.0442)	(0.0440)	(0.0414)
Voice and Accountability (VA)	0.0941	0.0514*	0.0603**	0.0742**
	(1.369)	(0.0297)	(0.0292)	(0.0314)
Average Governance (GG)	0.120	0.0867**	0.0485**	0.0833**
	(1.236)	(0.0377)	(0.0225)	(0.0363)

Conclusion: Institutional quality indicators have a positive and significant influence on labour productivity. Political stability and absence of violence, government effectiveness and the rule of law are the indicators that contribute most to increasing labour productivity in Sub-Saharan Africa (SSA). A closer look at policies that promote good governance needs to be taken in order to ensure political stability and the protection of property rights, thereby reducing uncertainty and the inefficiency of market systems, boosting competitiveness and the effectiveness of public policies. All of these should promote productive employment creation, especially for young people.