

## Human Development Index in Sub-Saharan Africa and Southeast Asia: Does Good Governance Matter?\*

Ben Katoka\*\* and Sungsoo Kim\*\*\*

Understanding Sub-Saharan Africa (SSA) requires explaining whether, why, and how it responds differently to particular variables (i.e., institutional) compared to other developing regions. This study contributes to this exercise and adds to the recent research comparing development processes and outcomes between SSA and Southeast Asia (SEA). According to these studies, based on SEA experience, good governance “as defined by donors” should not be regarded as a prerequisite for development success in SSA. This study calls this view into question by examining the relationship between governance and development performance in SSA and SEA from 1995-2015. It defines good governance according to the governance effectiveness (GE) indicator of the World Bank’s Worldwide Governance Indicators. It focuses on development performance as progress in the Human Development Index of the United Nations Development Program. It uses the hybrid (or within-between) random effects model, which accounts for heterogeneity. The study finds a positive and significant association between improvements in GE in a given period and

\* This work was supported by the Ministry of Education of the Republic of Korea and the National Research Foundation of Korea (NRF-2018S1A5B8070773).

\*\* Ben Katoka (lead author) is currently an Assistant Professor in the Division of African Studies at Hankuk University of Foreign Studies, Republic of Korea. His research focuses on state fragility, development, and foreign direct investment, particularly in Sub-Saharan Africa and Southeast Asia. He obtained his PhD in Public Policy from Seoul National University. Email: bkat@hufs.ac.kr

\*\*\* Sungsoo Kim (corresponding author) is a Professor in the Department of Political Science and International Studies and the Director of the Institute for Euro-African Studies at Hanyang University, Republic of Korea. His research covers the relationship between capitalism and democracy as well as African Studies. He obtained his PhD in Political Science from USC, CA, USA. Email: skim14@hanyang.ac.kr

development progress in the subsequent period. The results also reveal considerable variations in the relationship between governance and development across countries, suggesting the importance of context. The paper concludes by providing some recommendations for institutional reform and further research on governance and development.

Keywords: Sub-Saharan Africa, Southeast Asia, governance, development, human development index.

## 1. INTRODUCTION

From the early 1990s, international organizations such as World Bank and the International Monetary Fund have stressed the role of good governance in socio-economic development. However, existing empirical findings appear to contradict each other in providing support for (Easterly and Levine, 2003; Kaufmann and Kraay, 2002) or against (Chang, 2011; Khan, 2012) the benefits of governance for development performance. A question that still needs to be studied is whether Sub-Saharan Africa (SSA) countries need good governance.

A recent body of research has investigated this question, focusing on a comparison of historical development trajectories of SSA and Southeast Asia (SEA) (Berendsen et al., 2013; Booth, 2012; Henley, 2015). These studies highlight institutional similarities across the two regions (corrupt governments and a lack of democratic accountability). They stress that, in the last four decades, SEA experienced better development performance relative to SSA due primarily to policy differences. These

include policies aimed at macroeconomic stability, rural sector development, and economic freedom for small entrepreneurs and workers. Therefore, these studies conclude that “good governance” as advocated by Western donors should not be regarded as a prerequisite to economic development in SSA.<sup>1)</sup>

Against this view, the current article sets out to explore the relationship between governance and development performance in SSA and SEA from 1995 - 2015. It focuses on one prominent governance indicator, the governance effectiveness (GE) indicator from the World Bank’s Worldwide Governance Indicators (WGIs). GE uses and combines data from more than 30 different sources, including the Transparency International’s Corruption Perception Index (CPI), the Afrobarometer, the Country Policy and Institutional Assessments (CPIA) from the Asian Development Bank and African Development Bank, the Business Environment Survey, and many others. Additionally, development performance is defined as progress in the Human Development Index (HDI) of the United Nations Development Program (UNDP).

The patterns of HDI and GE in SSA and SEA suggest considerable variations across countries (see Appendix A). In countries like Rwanda, Vietnam, and Kenya, progress in HDI and GE seem closely related, but in countries like Cambodia, Angola, and Myanmar, there are diverging trajectories in HDI and GE. These patterns suggest cross-country heterogeneity in the relationship between governance and development performance, irrespective of whether the country is in SSA or SEA.

---

<sup>1)</sup> For example, World Bank (1992) defines governance as the manner in which power is exercised in the management of a country’s economic and social resources for development.

Overlooking such heterogeneity may result in incorrectly estimating the impact of governance on development performance. Accordingly, this study uses the hybrid random effects model proposed by Allison (2009). The model is well suited for estimating and comparing the relationship between the two variables within and between countries.

The next section of this article provides an outline of the few studies comparing development performance between SSA and SEA. Section 3 discusses some of the features of cross-region and cross-country performance on the key variables. Section 4 discusses data and the empirical specifications. Section 5 presents the empirical results and discussion. The final section provides some recommendations for institutional reform as well as for further research on governance and development in SSA.

## 2. A REVIEW OF EXISTING STUDIES

For international aid agencies, in particular the World Bank and IMF, good governance is essential for development. Their good governance agendas implied support for political pluralism and participation (usually democracy), political values (for example, respect for human rights), and/or for legal framework to fight corruption, or for establishing transparent and accountable public administration in developing countries (Smith, 2007). In line with this perspective, Acemoglu et al. (2014) argued that democracy can foster such governance capabilities as control

of corruption and effective government, thereby leading to higher growth.

In general, the evidence that good governance leads to higher development performance differs from one study to another. In the African context, for example, it is unclear whether the widespread introduction of representative elections brought about reduced corruption or weakened patronage and clientelism. In fact, there is consistent evidence that multi-partyism even has intensified neo-patrimonialism in Africa (Lindberg and Morrison, 2008; Mac Giollabhui, 2015; Driscoll, 2018; Carlson, 2018). Increased corruption and political violence following multiparty elections in the Democratic Republic of Congo, for example, led donors to reduce their aid flows to the country (Katoka, 2018). In this regard, many have argued that good governance, as advocated by international aid agencies, should not be regarded as a prerequisite to economic development in SSA. What matters for economic success is not the formal structures of institutions—complying with generally accepted liberal-democratic norms and practices—but the degree to which the political settlement is oriented to the long-term development (Kim, 2019; Booth and Golooba-Mutebi, 2014). In some cases, institutional settings that are generally viewed as detrimental to economic development—for example, authoritarianism, rent-seeking, clientelism, and corruption—can be compatible with rapid growth and poverty-reduction (Khan, 2009). Drawing from the experience of East and Southeast Asian recent development experience, Kelsall (2013: 76) also notes that neo-patrimonialism can be harnessed for developmental ends.

Recently, a body of research has focused on investigating differences in development performance between SSA and SEA. This research has established that SSA and SEA share aspects of their institutional landscape (for example, corruption, lack of democracy) but differ widely in development outcomes. This literature stresses the policy differences across the two regions, including the interest by political leaders to promote economic development.

For instance, Van Dongue et al. (2012) highlight three factors explaining the divergent development trajectories followed by SSA and SEA: differences in the adoption of policies aimed at rural development, macroeconomic stabilization, and economic freedom for small entrepreneurs and farmers. Their analysis is based on a pairwise comparison of Indonesia and Nigeria on the one hand and Malaysia and Kenya on the other. In a similar vein, Berendsen et al. (2013) show that the divergence between the two regions lies in differences in the adoption of policies aimed at pro-poor agricultural and rural development. The study draws from a series of comparative case studies of four SEA countries (Cambodia, Indonesia, Malaysia, and Vietnam) and four SSA countries (Kenya, Nigeria, Tanzania, and Uganda).

As noted above, neo-patrimonialism can be compatible with development. Booth (2012), for example, concludes that neopatrimonial regimes have contributed to economic transformation in SEA countries such as Indonesia, Malaysia, and Vietnam. He shows that, in SSA, the most successful countries (i.e., Ethiopia and Rwanda) tend to have a combination of the following factors: (1) a strong and visionary leader, with centralized management of the main economic rents in support of

a long-term vision; (2) a single or dominant party system; (3) a competent and confident economic technocracy; (4) consensual decision-making; and (5) a sound policy framework. In a similar vein, Henley (2015) examined the drivers of economic performance in SSA and SEA—specifically, he compares two countries in SEA (Indonesia and Malaysia) with two in SSA (Kenya and Nigeria). He concludes that governance matters less than the content of policy in explaining the differential performance between the two regions.

Another major study examines variables that influence economic performance in 10 high-growth performers in SSA (Cameroon, Cote d'Ivoire, Kenya, Malawi, and Mozambique) and SEA (Indonesia, Laos, Malaysia, Thailand, and Vietnam). The study concludes that inclusive institutions such as the rule of law, the absence of corruption, and property rights do not explain performance in the two regions (Kelsall, 2013). Instead, the study finds a combination of three factors to be the main determinants of good performance in SSA and SEA: (1) regulations that promote private sector development, in particular foreign direct investment and industrial development; (2) resilience to external shocks; and (3) sound policy-making either through an effective bureaucracy insulated from political pressure or through a tradition of consensual decision-making and leadership succession.

One significant implication that emerges from this discussion is that good governance does not play a role in the differential development performance between SSA and SEA. In other words, as mentioned, good governance should not be regarded as a prerequisite for development success in SSA. It has been also stated that many countries in SSA and

SEA have similar social structure and history, ethnic and religious diversity, and an institutional landscape dominated by authoritarian regimes, corruption, patronage, and elite rent-seeking (Lewis 2013: 52). That is, both SSA and SEA are similar with respect to governance.

Considering such institutional similarities between SSA and SEA, there remain several aspects of the association between governance and development performance in the two regions that require further investigation. One with which the current paper is particularly concerned is cross-country heterogeneity. Despite the overall similarities between countries in SSA and SEA, as pointed out by Lewis (2013), there are country-specific factors correlated with governance. Therefore, identifying such correlations is the key to understanding whether GE affects development performance in the SSA and SEA contexts. This article contributes to such an exercise by using a hybrid random effects model. The existing few studies comparing development processes and outcomes between SSA and SEA are generally narrative or based on comparative case studies.

It is also significant that there is already a massive amount of empirical studies examining the relationship between governance and economic development. For instance, studies based on the WGI include De Groot et al. (2004), Jalilian et al. (2006), Arusha (2009), Gani (2011), and Fayissa and Nsiah (2013). So far, however, no existing studies on the issue of governance and development in SSA and SEA have employed a hybrid random effects model.

The next section puts things in perspective by providing an overall picture of good governance and development performance in SSA and SEA.



### 3. GOVERNANCE EFFECTIVENESS AND HDI IN SSA AND SEA

Complete time series data on GE and other WGI's have been available since 1996 for more than 200 countries and territories. GE captures perceptions of the quality of public services, the quality of the civil service and the degree of its independence from political pressures, the quality of policy formulation and implementation, and the credibility of the government's commitment to such policies (see Kaufmann et al., 2011). The GE indicator has scores ranging from 0 to 100, with scores close to 0 representing poor governance and scores close to 100 representing good governance. Meanwhile, HDI is an unweighted average of three variables: income per capita, education (enrollment rates and literacy rates), and health care (life expectancy at birth). The UNDP provides time series data on HDI for more than 150 countries and territories since 1990.

Table 1 contrasts HDI and GE data for two groups of SSA and SEA countries based on averaged data from 1995 - 2015. The first group comprises the top-10 performers in HDI (Brunei, Malaysia, Seychelles, Mauritius, Thailand, Gabon, Philippines, South Africa, Indonesia, and Botswana), and the second includes the bottom-10 performers in HDI (Burkina Faso, DR Congo, Guinea, Mali, Sierra Leone, Mozambique, Chad, Central African Republic, Burundi, and Niger). The top-10 performing countries in HDI have higher GE than do their poorly

performing counterparts.

Table 1: HDI and GE (percentile rank) in the Top-10 and Bottom-10 Performing Countries in HDI, 1995 - 2015

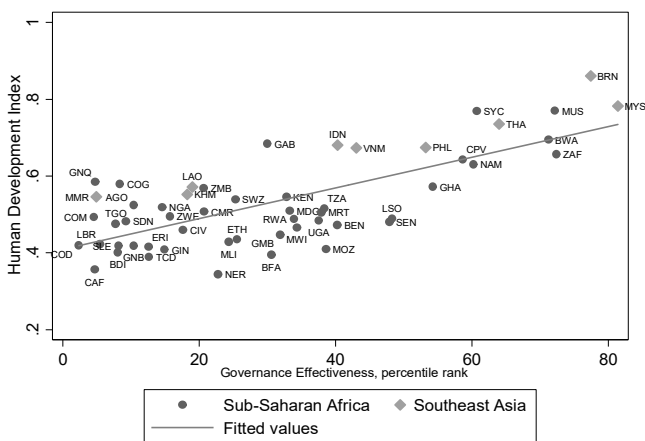
Group	Country	HDI (Average 1995-2015)	Governance Effectiveness (Average 1995-2015)
<b>Top-10 Performers in HDI</b>	Brunei	0.835	77.75
	Malaysia	0.741	80.77
	Seychelles	0.739	63.16
	Mauritius	0.712	74.18
	Thailand	0.683	63.74
	Gabon	0.653	27.98
	Philippines	0.643	54.96
	South Africa	0.634	70.36
	Indonesia	0.623	42.51
	Botswana	0.623	70.13
<b>Bottom-10 Performers in HDI</b>	Burkina Faso	0.371	30.95
	DR Congo	0.369	2.55
	Guinea	0.355	13.86
	Mali	0.35	22.51
	Sierra Leone	0.348	8.70
	Mozambique	0.344	35.47
	Chad	0.341	10.68
	Central Afr. Republic	0.331	4.30
	Burundi	0.319	9.26
	Niger	0.289	24.45

Source: Authors' calculations based on data from UNDP and WGI

Next, a scatter plot further illustrates the tendency toward lower HDI among the poorly performing countries in GE. Figure 1 displays the relationship between GE (averaged from 1995 - 2010) and HDI (averaged from 2011 - 2015) to show whether and how good performance in GE during the decades of the 1990s and 2000s (1995 - 2010) is correlated with higher HDI in subsequent years (2011 - 2015).

The figure shows a positive correlation between HDI and GE. That is, having a higher average GE score in the period 1995 - 2010 is associated with a higher HDI in the period 2011 - 2015, in both SSA and SEA. Countries with high HDI, including Brunei, Mauritius, Malaysia, Botswana, South Africa, Thailand, Seychelles, Cape Verde, and the Philippines, are presented in the upper-right area of Figure 1. Most countries are concentrated in the lower-left area of Figure 1, suggesting low HDI and low GE score.

Fig. 1: GE Percentile rank (average 1995-2010) vs. HDI (average 2011 - 2015)



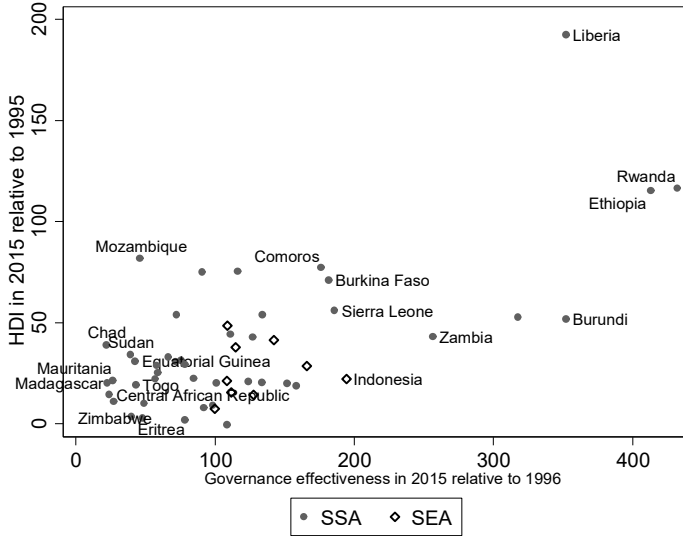
Source: Authors' calculations based on data from World Bank WGI and the UN.  
 Note: ISO codes represent countries

Figure 2 illustrates a more dynamic relationship between GE and HDI. For each country, it compares performance in both GE and HDI

in 2015 relative to performance in the earliest year for which data are available. Performance in HDI is computed as the ratio (in percentage) of HDI in 2015 to HDI in 1995 (). Similarly, performance in GE is computed as the ratio (in percentage) of the GE score in 2015 to the GE score in 1996 (). Figure 2 shows that Rwanda, Ethiopia, and Liberia experienced notable improvement in their 2015 HDI and GE relative to their conditions in 1995 and 1996. In contrast, countries like the Central African Republic, Mauritania, Togo, and Zimbabwe have not registered significant improvement in either HDI or GE. In other words, bad performance in HDI has been concentrated in the poorly performing countries in GE. Figure 2 thus confirms that good governance influences development performance.

As noted earlier, however, there are varieties of experiences in the relationship between HDI and GE at the within-country level (see Appendix A). In countries like Namibia, Rwanda, Kenya, Vietnam, and Indonesia, progress in HDI is closely related to improvement in GE. In other countries, improvement in HDI and GE seems to follow different trajectories (i.e., Chad, Myanmar, Angola). This suggests that country-specific characteristics influence the relationship between HDI and GE. Thus, context needs to be considered to accurately explain the relationship between governance and development performance.

Fig. 2: Top 10 Performers in GE Score in 2015 Relative to the 1996 Level



Source: Authors' calculations based on data from UNDP and WGI

Note: Only the top-10 and the bottom-10 performers in GE are represented.

The next sections present a regression analysis using the hybrid random effects model (Allison, 2009), also referred to as the within- and between-effects estimators (Bell and Jones, 2015).

## 1) DATA AND ESTIMATION STRATEGY

This study employs panel data for 54 SSA and SEA countries from

1995 - 2015. The aim is to examine whether ex-ante governance conditions predict development conditions in the subsequent period, that is, in . Therefore, data are averaged based on 10 different periods spanning 1995 - 2015. Specifically, independent variables are taken as averages over 10 two-year non-overlapping periods (1995-1996; 1997-1998; 1999-2000; 2001-2002; 2003-2004; 2005-2006; 2007-2008; 2009-2010; 2011-2012; and 2013-2014). Dependent variables are taken as follows: 1999; 2001; 2003; 2005; 2007; 2009; 2011; 2013; and 2015. Although the choice for two-year averages is arbitrary, it accounts for the endogenous nature of the governance variable.<sup>2)</sup>

Furthermore, the analysis considers the within-country and between-country effects simultaneously. The basic idea is that the relationship between GE and HDI is heterogeneous across countries in both SSA and SEA. In some countries (i.e., Rwanda, Namibia, Kenya, Indonesia, the Philippines), GE and HDI seem to follow the same trend. In other countries (i.e., Zimbabwe, Chad, Sudan, Myanmar), progress in HDI does not seem to follow GE. This suggests that GE is correlated with some country-specific factors that affect the relationship between HDI and GE. Accordingly, equation (1) provides an empirical representation of the hybrid model in the context of the current study:

---

<sup>2)</sup> It has been argued that institutional variables are generally endogenous (Aron, 2000). For instance, causality can run from improved institutions to economic development and from economic development to institutional enhancement (e.g., Kurtz and Schrank, 2007).

(1)

where  $\delta_i$  is the within-country effect of time-variant independent variables(s) on  $Y$  (HDI).<sup>3)</sup> This is computed by deviating each observation (of each time-varying independent variable) from its country-specific mean. Hence, for the GE variable, for example,  $\delta_i$  represents how, on average, a within-country change in governance effectiveness is associated with a within-country change in HDI ( $\delta_i$ ).  $\beta$  is the between-country effect of time-varying variables, that is, the country-specific mean of the time-varying independent variable(s) relative to the sample mean. Thus,  $\beta$  can be interpreted as a country's average time-varying variable(s) association with change in average HDI.  $Z$  is a matrix of time-invariant variables (in this case, regional location or whether a country is SSA or SEA).  $\epsilon_i$  and  $\eta_i$  denote the between and within error terms, respectively. Note that  $\delta_i$  are computed for all the time-varying independent variables included in the model.

While the focus of this study is on the impact of GE on HDI, other variables that can potentially influence development are taken into consideration. These include official development assistance (ODA), the proportion of natural resource exports in total merchandise exports, foreign direct investment (FDI), annual growth rates of gross domestic product (GDP), and the proportion of urban population to the total population. Further, to measure the effects of regional location, the study includes a time-invariant variable capturing whether or not a country is SSA.

---

<sup>3)</sup> Note that within-country effects in the hybrid model are identical to the fixed-effects estimates (see Bell and Jones, 2015).

ODA is believed to benefit development performance. Aid increases investment in physical and human capital (Clemens et al., 2012). Thus, a developing country that receives an increased inflow of foreign aid is likely to experience positive socio-economic outcomes, including higher growth, reduced poverty, and lower infant mortality (Arndt et al., 2016).

Urbanization is suggested to have positive implications for development (Njoh, 2003). For instance, populations living in cities might be more productive than those living in rural areas (e.g., Bertinelli and Black, 2004), which in turn may affect their standard of living.<sup>4)</sup>

FDI is expected to affect development performance positively. FDI can create and maintain productive growth and bring together know-how and technology diffusion, employment generation, and expansion of access to infrastructure and social services in host economies (Borensztein et al., 1998; Lim, 2001). Therefore, a country that receives more FDI may experience development, including changes in economic structures, expansion of employment, and access to infrastructure.<sup>5)</sup>

The effects of natural resources on development performance cannot be predicted a priori. Empirical findings on the impact of natural resources on economic performance provide mixed evidence (Gamu et al., 2015). For instance, the effects run from significantly negative (Lee and Gueye, 2015) to either positive or negligible (Alexeev and Conrad, 2011).

---

<sup>4)</sup> At the same time, it is essential to note that rapid urbanization in many developing countries is fueled by uncontrolled rural-to-urban migration, producing a number of development problems (e.g., access to clean water, improved sanitation facilities, essential infrastructure).

<sup>5)</sup> For instance, it has been argued that FDI has played a leading role in major changes in economic structure of most SEA countries (Thomsen, 1999). However, FDI is the largest resource flow available to SSA.



Concerning GDP growth rate, one might intuit that it affects development performance. However, although high rates of growth constitute an instrument for achieving development (Stiglitz et al., 2009), any association with improvements in welfare for the population can be controversial. For instance, Dulani et al. (2013) found that, despite high reported growth rates in many African countries, poverty at the grassroots level remains little changed. Meanwhile, Arndt et al. (2016) found that the effect of growth on welfare, living conditions, and poverty is widely diverse across SSA. In the case of Asian countries, economic growth is associated with both reduced poverty and increased inequality (Perera and Lee, 2013).

Table 2 reports the summary statistics based on data from 1995 - 2015. It shows the between- and within-country mean and variance for the time-varying variables. Table 3 shows three notable points. First, in both SSA and SEA, most variation in HDI, GE, ODA, natural resources, and urban population size is between countries. Second, most of the variance in GDP growth and FDI in SSA is due to within-country variation. That is, at the within-country level in SSA, there are sizeable changes in GDP growth and FDI over time. Third, most of the variance in GDP growth and FDI in SEA is due to between-country variation. That is, GDP growth and FDI inflows differ significantly across SEA countries.

The next section presents and discusses the empirical findings.

Table 2: Summary Statistics

Variable		SSA and SEA		SSA		SEA	
		Mean	Std. Dev.	Mean	Std. Dev.	Mean	Std. Dev.
<b>HDI</b>	Overall	0.480	0.131	0.452	0.113	0.623	0.123
	Between		0.125		0.106		0.123
	Within		0.043		0.043		0.041
<b>Governance effectiveness (GE)</b>	Overall	3.13	2.264	2.852	2.103	4.499	2.535
	Between		2.172		1.992		2.622
	Within		0.697		0.73		0.499
<b>ODA</b>	Overall	3.782	6.341	3.655	6.435	4.491	5.774
	Between		3.695		3.596		4.414
	Within		5.176		5.361		4.001
<b>GDP growth (%)</b>	Overall	5.22	6.573	5.149	7.042	5.593	3.363
	Between		3.596		3.789		2.545
	Within		5.521		5.959		2.343
<b>Natural resource abundance (NR)</b>	Overall	3.46	3.01	3.844	3.085	1.547	1.551
	Between		2.745		2.794		1.433
	Within		1.285		1.368		0.747
<b>Urban population (URB)</b>	Overall	3.679	1.568	3.591	1.505	4.12	1.795
	Between		1.549		1.492		1.84
	Within		0.315		0.289		0.423
<b>Foreign direct invest (% GDP)</b>	Overall	4.61	9.08	4.823	9.837	3.44	2.239
	Between		5.29		5.738		1.731
	Within		7.38		8.026		1.479

## 5. EMPIRICAL RESULTS

The regression analysis aims at determining how changes in GE in a given period affect changes in HDI in the subsequent period among countries in SSA and SEA. The study employs a hybrid (or within-between) model for this purpose. The model has a constant intercept (capturing the effect on HDI of being an SEA country), a

time-invariant dummy that captures the impact on HDI of being an SSA country, a covariate of GE, and a series of time-varying control variables. The analysis is based on 10 two-year non-overlapping periods from 1995 - 2015. The results reported in Table 3 show the between-country and within-country effects.<sup>6)</sup>

The hybrid model estimates the between-country effect of GE on HDI as 0.029 ( $p < 0.01$ ). That is, countries that increase (or improve) GE in a given period have, on average, an HDI 0.029 higher in the subsequent period relative to countries that do not experience an improvement in GE. Meanwhile, the within-country effect of GE is estimated to be 0.012 ( $p < 0.01$ ). That is, within an SSA or SEA country, increases (or improvements) in GE in a given period increase HDI by 0.012 in the subsequent period, all else being constant.

A Wald test is used to assess the equivalence between the within-country and between-country effects for each of the time-varying independent variables (see Appendix D). With respect to GE, the within-country effect is statistically different from the between-country effect at  $p < 0.01$ . Therefore, the within-country effect is more efficient than the between-country effect (Bell and Jones, 2015: 138). In this way, the effect on HDI of GE is correlated with unobserved country-specific factors. The magnitude of the unobserved country-specific factors is measured by the difference between the estimated between-country (0.029) and within-country (0.012) effects. As  $0.029 > 0.012$ , the impact of GE on HDI is overestimated if country-specific

---

<sup>6)</sup> For the sake of comparison, estimates for the hybrid, random-effects, and fixed-effects models are reported in Appendix F.

characteristics are not considered. This result holds even after controlling for more control variables or using different independent variables.<sup>7)</sup>

Similarly, the effects of increases in ODA and urban population size on HDI are explained by unobserved country-specific factors (see results of the Wald test in Appendix D). With respect to ODA, not accounting for country-specific variables would result in underestimating the effect on HDI. Specifically, the estimated effect of ODA on HDI is significantly larger within-country (0.005) than between-country (-0.017). In other words, if country-specific characteristics are not taken into consideration, increases in ODA result in reduced HDI if all else is equal. In contrast, within an SSA or SEA country, an increase in ODA in a given period increases HDI by 0.005 in the subsequent period.

With respect to urban population size, the within-country effect (0.092) is also significantly larger than the between-country effect (0.022). Put differently, once country-specific characteristics are taken into consideration, increases in urban population size in a given period significantly increase HDI by 0.092 in the subsequent period.

Conversely, the Wald test fails to reject the null hypothesis of equivalence between the between-country and within-country effects for natural resources, GDP growth, and FDI. For these variables, country-specific unobserved characteristics do not influence the impact on HDI. Therefore, the between-country effects for these three variables are

---

<sup>7)</sup> Equation (1) was also estimated with additional control variables (population growth, inflation rate, and government expenditure), using different dependent variables (i.e., infant mortality, access to improved sanitation, and proportion of the population undernourished), as well as using four four-year averages of the independent variables. Results are not reported in this article but are accessible upon request.

more efficient than the within-country effects (see a brief discussion in Appendix D) and will be retained to explain the impact on HDI.

With respect to natural resources, the model estimates the between-effect on HDI as not statistically significant. That is, being rich in natural resources does not affect HDI in a significant manner. As mentioned in the data and estimation strategy section, an empirical study found the overall effect of natural resource wealth on a country's welfare as either positive or negligible (Alexeev and Conrad, 2011). Another study found that natural resources deteriorate the standard of living of SSA countries (Lee and Gueye, 2015). This result is of particular interest for SSA, where many economies are highly dependent on primary commodities such as oil and other minerals.

With respect to GDP growth, the estimated between-country effect (0.002) is not statistically significant. This suggests that countries achieving higher growth rates of GDP do not necessarily experience improvements in HDI. This result is in line with the discussion in the previous section concerning the controversial relationship between growth rates of GDP and development. For instance, a summary of statistics of the dataset used in the current study shows that Equatorial Guinea had the highest average GDP growth (86 percent) in the period 1995 - 2015. However, Equatorial Guinea did not experience notable improvement in HDI level from 1995 - 2015 (see Figure 2 in section 2).

As for FDI, the estimated between-country effect (0.001) on HDI is also not significant. This result suggests that a country that receives increased amounts of FDI in a given period will not necessarily experience improvement in HDI compared with a country that gets less

FDI. Of course, the question of how FDI affects development has spurred a substantial amount of empirical literature, providing contradicting findings (e.g., Moran et al., 2005).

Finally, the coefficient of SSA, which is a time-invariant dummy capturing whether a country is located in SSA, is also informative. Simply put, it shows that, for an average SSA country, HDI is 0.104 lower relative to that of an average SEA country, all else being constant.

Table 3: Results of the hybrid model (527 observations; 53 countries) excluding the less efficient variables; Dependent variable = Human Development Index

Variable	Coefficient and standard error
<b>Between</b>	
Governance effectiveness	0.029*** (0.044)
ODA	-0.017** (0.063)
Natural resources (% total merchandise exports)	0.003 (0.004)
GDP growth	0.002 (0.004)
Urban population (% total population)	0.022*** (0.081)
Foreign direct invest (% GDP)	0.001 (0.003)
<b>Within</b>	
Governance effectiveness	0.012*** (0.019)
ODA	0.005*** (0.010)
Natural resources (% total merchandise exports)	0.006*** (0.011)
GDP growth	-0.001** (0.002)
Urban population (% total population)	0.092*** (0.042)
Foreign direct investment (% GDP)	0.0004** (0.002)
<b>Time-invariant</b>	
SSA	-0.104*** (0.027)
Constant	0.456*** (0.054)
Observations	527
Number of countries	53

Standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

The remainder of this section provides a discussion of these findings with an emphasis on the relationship between HDI and GE. For a broader understanding, the discussion uses good governance and development performance instead of GE and HDI, respectively.

### *Discussion*

There is a view based on SEA experience that governance as usually advocated by donors is not a prerequisite for economic development in SSA. These studies point out the differential development trajectories followed by countries in the two regions despite their similarities in corruption and democratic accountability (Berendsen et al., 2013; Booth, 2012; Henley, 2015; Kelsall, 2013). Therefore, these studies have argued that policy differences, not good governance, explain the differential development performance between the two regions. Findings in the current paper call into question this view.

In sum, the results presented in this paper suggest that, in both SSA and SEA, good governance is a significant predictor of development performance. These findings, however, should be interpreted by defining good governance as good performance in the governance effectiveness indicator of World Bank in the period from 1995 - 2015. Countries that improve their GE score in a given period tend to experience improvements in the UNDP's HDI in the subsequent period. However, it has been noted that, without accounting for cross-country heterogeneity, one can overestimate the effects of governance on development performance. By controlling for country-specific characteristics, the significant positive effect of governance on

development performance is less than half the amount. Put differently, for an SSA or SEA country, good governance in a given period is a significant predictor of good development performance in the subsequent period, but this impact is overestimated if country-specific characteristics are not taken into consideration.

The cross-country heterogeneity in the relationship between governance and development performance is well illustrated in Appendix A. In Rwanda, for example, the recent improvement in HDI is closely related to improvement in governance. In the Central African Republic, the poor performance in HDI is closely related to the poor governance. In contrast, in Mozambique, improvement in HDI is not closely related to good governance, as is the case for Myanmar.

It is essential to note that numerous empirical studies have already investigated the relationship between governance and development. Building on the recent experience of SSA and SEA countries, this paper contributes in showing the importance of heterogeneity in this relationship. As Eicher and Leukert (2009: 197) stated, “it is unclear whether the identified institutions matter to the same degree across all countries.”

Therefore, the study prompts the question of what differences or unobserved country-specific factors affect the relationship between governance and development performance in SSA and SEA. Perhaps institutional arrangements across countries are different, which in turn explains why good governance positively affects development in some countries but not in others (Rothstein and Teorell, 2009). Such differences are well illustrated by Andrews (2010), arguing that “good



government means different things in different countries.” He found, for example, that countries labeled as reflecting good governance according to World Bank have varying characteristics that are not captured by the WGI indicators. Such differential characteristics include, for example, policy choices, outcomes, and other institutional characteristics (i.e., democracy or lack of freedom). When these differences are considered, as is the case using the hybrid model, governance significantly benefits development performance.

Several countries in SSA and SEA have recently undertaken dramatic reforms aimed at promoting good governance. Although many of these reforming nations are still among the world’s poorest, it is likely that institutional reforms will lift them from their poor conditions. The benefits of these reforms can already be seen in several of these countries (i.e., Rwanda, Ethiopia, Indonesia, Vietnam).

## 6. CONCLUSION

This paper is against the view that draws from the SEA experience and suggests that “good governance, ‘as advocated by donors,’ is not a prerequisite for development progress in SSA.” The paper defines good governance according to the governance effectiveness indicator of the World Bank’s Worldwide Governance Indicators. It focuses on development performance in terms of progress in the UNDP’s HDI. It uses the hybrid (or within-between) random effects, which accounts for

cross-country heterogeneity. The results indicate that good governance in both SSA and SEA in a given period leads to a good development performance in the subsequent period. However, the results also reveal that, when country-specific characteristics are not taken into account, one can overestimate the positive impact of governance on development performance. In effect, the study finds significant variations in the relationship between governance and development indicators across countries in both SSA and SEA. The study also reveals that other determinants of good development performance include ODA and urbanization. Other factors such as natural resource abundance, FDI, and GDP growth appear to have no significant effect on development performance. These results are robust to changes in the development indicators, the inclusion of additional predictors (i.e., population growth and macroeconomic stability), and changes in time.

Therefore, the paper suggests that a better understanding of context can help to better develop and test hypotheses about how governance affects development performance in SSA and SEA. Institutional reforms aimed at enhancing governance structures in one country should identify the specific practices that matter for development. Reformers should keep in mind that the institutional arrangements that matter for development in Vietnam or Indonesia, for example, are not necessarily the same for the DR Congo or Ethiopia. That is, context should always be a fundamental principle for governance reform.

(Submitted 2020. 3. 12. Examined 2020. 5. 11. Accepted 2020. 5. 20)

## REFERENCES

- Acemoglu, D., Naidu, S., Restrepo, P. & Robinson, J.A., 2014. "Does democracy cause growth." NBER Working Paper, (20004).
- Andrews, M. 2010. "Good Government Means Different Things in Different Countries." *Governance*, 23(1): 7-35.
- Arndt, C., Jones, S., & Finn Tarp. 2016. "Assessing Foreign Aid's Long Run Contribution to Growth and Development." *World Development*, 69: 6–18.
- Bell, A., & Jones, K. 2014. Explaining Fixed Effects: Random Effects Modeling of Time-Series Cross-Sectional and Panel Data
- Berendsen, B., Dietz, T., Nordholt, H.S., & van der Veen, R. 2013. *Asian Tigers, African Lions: Comparing the Development Performance of Southeast Asia and Africa*. Brill. London.
- Bertinelli, L., & Duncan, B. 2004. "Urbanization and growth." *Journal of Urban Economics*, 56(1): 80-96.
- Booth, D. 2012. *Development as a Collection Action Problem: Addressing the Real Challenges of African Governance*. London.
- Booth, D. & Golooba-Mutebi, F. 2014. "How the international system hinders the consolidation of developmental regimes in Africa." *Developmental Regimes in Africa Project Working Paper 4*. Overseas Development Institute, London.
- Carlson, E., 2018. "The Relevance of Relative Distribution: Favoritism, Information, and Vote Choice in Africa." *Comparative Political Studies*, 51(12):1531-1562.
- Chang, Ha-Joon. 2011. "Institutions and Economic Development: Theory, Policy and History." *Journal of Institutional Economics*, 7 (4): 473– 98
- Driscoll, B., 2018. "Why political competition can increase patronage." *Studies in Comparative International Development*, 53(4):404- 427.
- Dulani, B., R. Mattes, and C. Logan (2013). "After a Decade of Growth in Africa, Little Change in Poverty at the Grassroots", *Afrobarometer Policy Brief* No. 1,

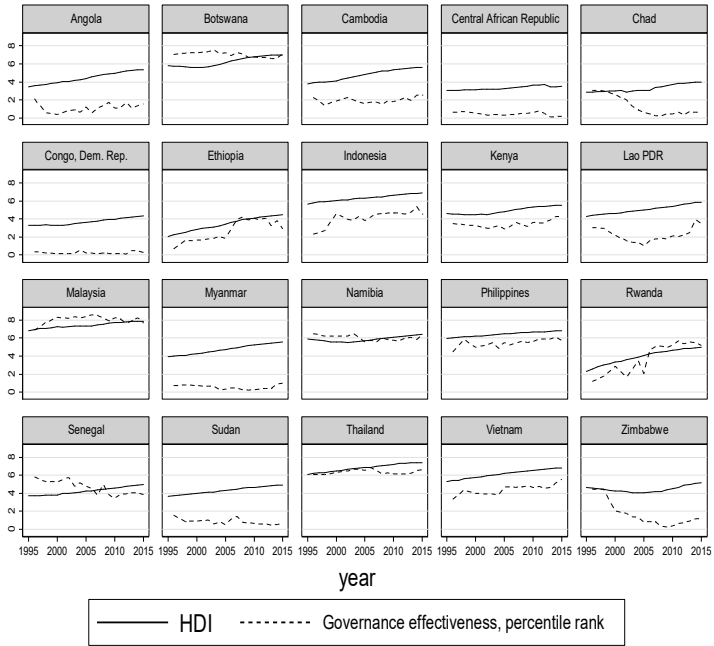
October.

- Easterly, W., & Levine, R. 2003. "Tropics, germs and crops: how endowments influence economic development." *Journal of Monetary Economics*, 50(1): 3-39.
- Fayissa, B. & Nsiah. 2013. "The Economic Impact of Governance on Economic Growth in Africa." *The Journal of Developing Areas*, 47(1): 91-108.
- Gamu, J., Le Billon, P., & Spiegel, S. 2015. "Extractive industries and poverty: A review of recent findings and linkage mechanisms." *The Extractive Industries and Society*, 2: 162-176.
- Henley, D. 2012. "The Agrarian Roots of Industrial Growth: Rural Development in South-East Asia and Sub-Saharan Africa." *Development Policy Review*, 30: S25-47.
- Henley, D. 2015. *Asia-Africa Development Divergence: A Question of Intent*. London: Zed Books.
- Huang, C-J., & Ho, Y-H. 2017. "Governance and economic growth in Asia." *North American Journal of Economics and Finance*: 39: 260-272.
- Katoka, B., 2018. "How good is aid for institution building in the Democratic Republic of Congo?." *Global Social Policy*, 18(2): 228-234.
- Kaufman, D., & Kraay, A. 2002. "Growth without governance." *Brookings Institution Press*, (1): 169-229.
- Kaufmann, D., Kraay, A., & Mastruzzi, M. 2011. "The Worldwide Governance Indicators: Methodology and Analytical Issues." *Hague Journal on the Rule of Law*, 3(2): 220- 46.
- Kim, Sungsoo. 2019. "Sustainable Development of Small and Medium sized counties in Africa and its Challenge." *Peace Studies*, 20(3): 217-226.
- Kelsall, T., 2011. "Rethinking the relationship between neo-patrimonialism and economic development in Africa." *IDS bulletin*, 42(2):76-87.
- Khan, M. 2012. "Governance and Growth: History, Ideology, and Methods of Proof." In *Good Growth and Governance in Africa: Rethinking Development Strategies*. Eds.

- Lee, Munseob, and Cheikh Anta Gueye. 2015. "Do Resource Windfalls Improve the Standard of Living in Sub-Saharan African Countries ? Evidence from a Panel of Countries". IMF Working Paper 15/83. Washington, D.C.: International Monetary Fund
- Lim, E. 2001. "Determinants of, and the relation between, foreign direct investment and growth: a summary of the recent literature." *International Monetary Fund, Middle Eastern Department, Working Paper* 01/175.
- Limberg, S.I. and Morrison, M.K., 2008. "Are African voters really ethnic or clientelistic? Survey evidence from Ghana." *Political Science Quarterly*, 123(1): 95-122.
- Moran, R.H., Graham, E.M., & Blomstrom, M. (Eds.). 2005. *Does Foreign Direct Investment Promote Development?* Peterson Institute. Washington D.C.
- Mottaleb, K.A. & Kalirajan, K. 2010. "Determinants of foreign direct investment in developing countries: a comparative analysis." *The Journal of Applied Economic Research*, 4(4): 369-404.
- Noman, Akbar, Kwesi Botchwey, Howard Stein, and Joseph E Stiglitz. Oxford: Oxford University Press
- Njoh, A.J. 2003. "Urbanization and Development in Sub-Saharan Africa." *Cities*, 20(3): 167-74.
- Perera, Liyanage Devangi H., and Grace HY Lee. "Have economic growth and institutional quality contributed to poverty and inequality reduction in Asia?" *Journal of Asian Economics* 27 (2013): 71-86.
- Sachs, J.D., & Warner, A.M. 1995. "Economic Convergence and Economic Policies." *NBER Working Paper Series* 47.
- Selaya, P., & Sunesen, E.R. 2012. "Does Foreign Aid Increase Foreign Direct Investment?" *World Development*, 40(11): 2155-76.
- Schunck, R. 2017. "Within and between estimates in random-effects models : Advantages and drawbacks of correlated random effects and hybrid models." *The*

- Stata Journal*, 13(1) : 65-76.
- Smith, B.C., 2007. *Good governance and development*. Macmillan International Higher Education.
- Stiglitz, J.E., Sen, A., & Fitoussi, J.P. 2009. *Report by the Commission on the Measurement of Economic Performance and Social Progress*. [www.stiglitz-sen-fitoussi.fr](http://www.stiglitz-sen-fitoussi.fr) (January 26, 2017).
- Thomsen, S. 1999. "Southeast Asia: The Role of Foreign Direct Investment Policies in Development." *OECD Working Papers*. <http://dx.doi.org/10.1787/431857742281> (February 1, 2017).
- UNDP (United Nations Development Program). 2015. *Human development Report*. Geneva.
- van Donge, K., "Henley, D., & Lewis, P. 2012. Tracking Development in Southeast Asia and Sub-Saharan Africa; The Primacy of Policy." *Development Policy Review*, 30(1): 5-24.
- World Bank. 2006. *Where is the Wealth of Nations*. Washington D.C.
- World Bank. 1992. *Good Governance and Development*. Washington D.C.

Appendix A: HDI and Governance Effectiveness trends in 20 SSA and SEA countries, 1995-2015



Source: HDI: WGI

Note: For better visualization of the trends, both HDI and GE data have been rescaled. Specifically, HDI is measured as  $(HDI \times 10)$ , and GE is measured as  $(GE/10)$ .

## Appendix B: Variables and sources

Variable	Description	Source
<b>HDI</b>	Human Development Index (score)	United Nations Development Program (UNDP)
<b>Governance Effectiveness (GE)</b>	Governance effectiveness, percentile rank scores	Kaufman et al. (2011) and available online at the World Bank's Worldwide governance indicators (WGI)
<b>GDP growth</b>	GDP growth (annual %)	World Bank: World Development Indicators (WDI)
<b>Resource dependence</b>	Share of natural resource exports in total merchandise exports (%). It is obtained using the following formula:  where <i>Total Exports</i> is the total merchandise exports in current US\$, <i>Oil</i> is the oil (mineral fuels, lubricants and related materials) exports in current US\$, and <i>Minerals</i> is the minerals (ores, metals, precious stones and non-monetary gold) exports in current US\$.	United Nations Conference on Trade and Development (UNCTAD)
<b>Foreign direct investment</b>	Logarithm of foreign direct investment inflows in current US\$. Since data on FDI inflows includes both positive and negative values, the log of FDI was computed as follows using Stata: $-\ln(-\text{FDI} + 1)$ if $\text{FDI} \leq 0$ ; and $\ln(\text{FDI} + 1)$ if $\text{FDI} > 0$	UNCTAD
<b>Urban population</b>	Logarithm of urban population (% of total population)	UNCTAD
<b>ODA</b>	Net disbursement of official development assistance (100 million \$)	OECD



Appendix C: Hybrid, Random-effects, and Fixed-effects models;

Y=Human Development Index

VARIABLES	(1) Hybrid	(2) Random Effects	(3) Fixed Effects
<b>Between</b>			
Governance effectiveness	0.293*** (0.0501)		
ODA	-0.174** (0.0677)		
Natural resources (% total merchandise exports)	0.0276 (0.0418)		
GDP growth	0.0179 (0.0374)		
Urban population (% total population)	0.223*** (0.0811)		
Foreign direct invest (% GDP)	0.00779 (0.0254)		
<b>Within</b>			
Governance effectiveness	0.115*** (0.0185)		
ODA	0.0518*** (0.0102)		
Natural resources (% total merchandise exports)	0.0634*** (0.0105)		
GDP growth	-0.00529** (0.00240)		
Urban population (% total population)	0.912*** (0.0416)		
Foreign direct invest (% GDP)	0.00462** (0.00181)		
SEA	1.038*** (0.273)	1.423*** (0.247)	
Governance effectiveness		0.123*** (0.0185)	0.115*** (0.0185)
ODA		0.0494*** (0.0111)	0.0518*** (0.0103)
Natural resources (% total merchandise exports)		0.0605*** (0.0111)	0.0634*** (0.0105)
GDP growth		-0.00558** (0.00262)	-0.00529** (0.00241)
Urban population (% total population)		0.721*** (0.0371)	0.912*** (0.0418)
Foreign direct invest (% GDP)		0.00518*** (0.00197)	0.00462** (0.00182)
Constant	3.528*** (0.489)	1.103*** (0.177)	0.624*** (0.168)
Observations	527	527	527
R-squared			0.596
Number of country	53	53	53

Standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

The estimates from the hybrid model are the same as those from the fixed-effects model because both models estimate the same within-country effects.

#### Appendix D: Results of the Wald test for each independent variable

Variable	Wald Chi <sup>2</sup> (1)
Governance effectiveness (GE)	11.04***
ODA	10.8***
Natural resource abundance	0.69
Urban population	58.88***
GDP growth	0.40
FDI (% GDP)	0.01

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

A Wald test is used to assess the equivalence between the within- and between-country effects (i.e., whether the effect of a within-country effect and between-country effect are not statistically significantly different from each other. The null hypothesis for the Wald test is that the two effects are the same. Hence, if one fails to reject the null hypothesis (that is, in equation (1)), this would suggest that one can use the standard random-intercept model (which assumes a zero correlation between and ). See Bell and Jones (2015) and Schunck (2017: 96) for a discussion of the Wald test in a hybrid model.

## 남동아시아와 섬사하라아프리카의 인간개발지수: 굿 거버넌스의 역할이란?

Ben Katoka(한국외국어대) · 김성수(한양대)

사하라이남 아프리카의 인간개발지수를 실질적으로(제도적 접근) 이해하기 위하여서는 다른 개발도상국가지역과 비교하는 것이 유용한 방법론으로 볼 수 있다. 본 논문은 동남아시아와 사하라의 발전과정과 결과를 비교함으로써 상이성과 유사성을 찾아 정책적 대안을 제시하고 있다. 본 연구의 시작은 동남아시아의 경험 사례를 볼 때 사하라이남 의 발전에서 굿 거버넌스는 전제조건이 아닐 수 있다는 의문을 가지고 시작했다. 이를 증명하기 위하여 1995년과 2015년 기간 동안의 발전 성과와 거버넌스와의 관계를 찾아 분석하였다. 분석을 위하여 세계은행에서 정의하는 거버넌스 효율성 지표를 굿 거버넌스 로 정의하고 있으며, 인간발전지수 변화를 발전성과로써 초점을 맞추고 있다. 본 연구는 양적연구방법중의 하나인 임의효과모델로 상호 다른 집단의 관계를 분석했다. 분석결과를 보면 본 연구 설정기간에서, 거버넌스 효율성(GE) 은 긍정적 영향을 미치고 있으며 거버넌스와 발전은 매우 중요한 변수관계라는 것을 찾을 수 있었다. 본 연구 결과를 통하여 경제성장을 위하여서는 제도적 변혁이 필요하다는 점을 제안하고 있다.

**주제어:** 사하라이남 아프리카, 동남아시아, 거버넌스, 발전,  
인간개발지수