COUNTRY GOVERNANCE AND SUSTAINABLE DEVELOPMENT: WGI AS A DRIVER OF FDI AND HUMAN DEVELOPMENT IN SOUTHEAST ASIA

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ABSTRACT
The relationship between governance and development is a cornerstone of modern political economy, yet the precise impact of its constituent dimensions remains contested. This study provides a disaggregated analysis of this linkage by examining the effect of six World Governance Indicators (WGI)—rule of law, regulatory quality, government effectiveness, control of corruption, voice and accountability, and political stability—on two critical outcomes: the Human Development Index (HDI) and Foreign Direct Investment (FDI). Using panel data from [number] Southeast Asian countries over the period [2002–2023], we employ fixed-effects regressions with clustered and Driscoll–Kraay standard errors to address heteroskedasticity, autocorrelation, and cross-sectional dependence.The findings highlight both expected patterns and surprising paradoxes. Rule of law, regulatory quality, and political stability consistently emerge as powerful catalysts for human development and FDI attraction. Trade openness also exerts a positive influence, but its effect on HDI becomes visible only when accounting for cross-sectional dependence. In contrast, institutional paradoxes are evident: voice and accountability show a negative association with HDI, while stronger control of corruption is correlated with lower FDI inflows—suggesting that institutional reforms may generate short-term trade-offs.These results challenge the monolithic narrative of "good governance," revealing that institutional impacts on development are complex and non-linear. The study underscores the importance of sequencing reforms and tailoring governance strategies to local contexts, with implications for both policymakers and international development agendas seeking to balance economic growth and social progress in Southeast Asia.

Keywords: World Governance Indicators; Foreign Direct Investment; Human Development Index; Sustainable Development; Southeast Asia

1. INTRODUCTION

Southeast Asia represents one of the most dynamic regions in the global economy, characterized by rapid growth, expanding consumer markets, and strategic integration into global value chains. With a combined population of more than 680 million and a collective GDP exceeding USD 3.6 trillion in 2023, the region holds significant potential for both economic development and social progress(WorldBank, 2023). Countries such as Indonesia, Vietnam, Malaysia, Thailand, and the Philippines possess large labor forces, natural resource endowments, and growing middle classes, while Singapore continues to stand out as a global investment hub. Yet despite these shared advantages, foreign direct investment (FDI) inflows into Southeast Asian economies remain uneven, raising questions about the institutional and governance factors shaping their attractiveness to global investors.

FDI has long been recognized as a cornerstone of economic growth and structural transformation. Beyond its role as a source of external capital, FDI contributes to technology transfer, knowledge spillovers, industrial upgrading, and the creation of employment opportunities(Djulius, 2017; Elgin, 2021; Jadhav et al., 2016; Nguyen et al., 2022; Ölmez et al., 2024; Wang et al., 2016). It also integrates domestic firms into global value chains, enhancing productivity and competitiveness. In Southeast Asia, FDI has been central to export-led growth models, particularly in manufacturing and services. However, disparities persist: while Singapore and Vietnam have emerged as major FDI destinations, other economies attract a relatively smaller share of inflows relative to their size and potential. These variations suggest that factors beyond market size and resources—particularly governance—play a critical role in shaping FDI outcomes.

At the same time, FDI is not only an economic driver but also a potential enabler of human development. Improvements in infrastructure, education, healthcare, and income levels often follow from sustained foreign investment(Lehnert et al., 2013; Noorbakhsh et al., 2001). To assess these broader outcomes, this study incorporates the Human Development Index (HDI), developed by the United Nations Development Programme (UNDP), which captures achievements in health, education, and standard of living(United Nations Development Programme, 2024). HDI provides a multidimensional perspective on national progress that goes beyond GDP, making it a relevant measure for examining how governance and FDI together influence sustainable development. In Southeast Asia, HDI levels vary widely: Singapore ranks among the highest globally, while countries such as Cambodia, Laos, and Myanmar continue to face structural challenges. Understanding how governance shapes not only FDI inflows but also human development outcomes is therefore essential for designing inclusive growth strategies in the region.

A growing body of research underscores governance quality as a key determinant of both FDI inflows and human development. Investors consistently favor environments with political stability, predictable regulations, effective public administration, and low corruption risks(Buchanan et al., 2012). The Worldwide Governance Indicators (WGI), developed by the World Bank, offer a consolidated framework for assessing governance quality across more than 200 economies from 1996 to 2023(WorldBank, 2024). WGI conceptualizes governance as "the traditions and institutions by which authority in a country is exercised," encompassing (i) the selection and accountability of governments, (ii) capacity to formulate and implement effective policies, and (iii) citizens' and the state's respect for institutional norms. The indicators aggregate information from over 30 primary data sources—household and firm surveys, expert assessments, NGO reports, and public sector evaluations—using a robust statistical method (Unobserved Components Model) that also computes margins of error for each annual governance estimate(Kaufmann et al., 2010). The six dimensions captured are: Voice and Accountability, Political Stability and Absence of Violence/Terrorism, Government Effectiveness, Regulatory Quality, Rule of Law, and Control of Corruption. By offering cross-country comparability and longitudinal coverage with transparent measurement uncertainty, the WGI enables researchers to rigorously explore the governance-development nexus, although they are best complemented with country-specific diagnostics for tailored reform analysis. While Southeast Asia has made notable progress in strengthening institutions, performance across these dimensions remains uneven. For instance, Singapore ranks highly on nearly all governance indicators, while other economies in the region continue to grapple with regulatory uncertainty, corruption, or political volatility.

This uneven governance performance raises an important question: to what extent do governance dimensions explain the disparities in FDI inflows and human development across Southeast Asia? While prior studies often examine governance and development at the global level, relatively few have provided a region-specific and disaggregated analysis that captures both economic (FDI) and social (HDI) outcomes. Moreover, much of the literature treats "good governance" as a uniform concept, without exploring the potentially paradoxical or non-linear effects of specific governance dimensions.

Against this backdrop, the present study investigates the effect of WGI dimensions on FDI and HDI across Southeast Asian economies from 2002 to 2023. This study advances the state of the art in several meaningful ways. First, it conducts a disaggregated analysis of the six distinct WGI dimensions rather than relying on a composite governance score, allowing the identification of nuanced, sometimes counter-intuitive effects—such as the negative link between voice/accountability and HDI or the inverse association between corruption control and FDI. Second, by deploying fixed-effects models enhanced with Driscoll–Kraay standard errors, we explicitly address cross-sectional dependence—an oft-overlooked methodological challenge in regional macro-panels. Third, the study takes an integrated stance by jointly investigating FDI (economic development) and HDI (human development) as outcome variables, offering a more holistic understanding of governance impacts. Finally, by focusing on Southeast Asia—a region marked by diverse institutional trajectories and development outcomes—the research provides context-specific insights and policy implications. In combination, these contributions not only enrich empirical governance literature, but also inform policymakers aiming to harmonize economic and social objectives through tailored governance reform.

2. LITERATURE REVIEW

Eclectic Paradigm (OLI framework)

This study adopts John Dunning's Eclectic Paradigm (OLI framework) as the theoretical foundation for understanding the interplay between governance, foreign investment, and human development(Dunning, 2000; Eden & Dai, 2010). The OLI paradigm posits that multinational enterprises (MNEs) undertake foreign direct investment (FDI) when three conditions are met:

- Ownership (O) advantages – firm-specific assets such as technology, brand, or managerial expertise that can be transferred abroad.
- Location (L) advantages – host-country conditions that make investment attractive, including market size, resources, labor costs, infrastructure, and critically, the quality of institutions and governance.
- Internalization (I) advantages – the benefits of internalizing production and operations within the firm rather than through external markets, often to reduce transaction costs or protect proprietary assets.

Within this framework, World Governance Indicators (WGI)—which measure voice and accountability, political stability, government effectiveness, regulatory quality, rule of law, and control of corruption(WorldBank, 2023)—directly shape the location advantages (L) that drive FDI decisions. Strong governance systems reduce uncertainty, protect property rights, enforce contracts, and ensure policy stability, all of which are critical determinants for attracting and sustaining FDI inflows.

Furthermore, FDI does not only reflect corporate decisions but also serves as a channel for knowledge transfer, capital accumulation, and technological diffusion, contributing to human development outcomes(Jadhav et al., 2016; Nguyen et al., 2022). Thus, by integrating WGI into the OLI paradigm, this study underscores that governance quality is not merely an economic variable but a developmental driver, influencing both FDI inflows and broader indicators such as the Human Development Index (HDI).

Hypothesis Development

Governance is central to both economic performance and social progress. Dunning's Eclectic Paradigm (OLI framework) argues that multinational enterprises consider not only firm-specific advantages but also host-country "location advantages," where the quality of institutions plays a decisive role in attracting foreign investment(Dunning, 2000; Eden & Dai, 2010). Institutional theory further suggests that robust governance enables the effective provision of public goods and enforcement of rules, thereby creating an enabling environment for both economic and human development(Kaufmann et al., 2010). Building on these perspectives, this study examines how six dimensions of the Worldwide Governance Indicators (WGI)—Voice and Accountability, Political Stability, Government Effectiveness, Regulatory Quality, Rule of Law, and Control of Corruption—shape Human Development Index (HDI) and Foreign Direct Investment (FDI) outcomes in Southeast Asia.

Voice and Accountability (VA)

VA reflects the extent of citizen participation, freedom of expression, and media independence. In terms of human development, greater accountability encourages governments to respond to citizens' needs, expanding access to healthcare and education and fostering social inclusivity(Kaufmann et al., 2010). Transparent communication also improves public trust, enabling more effective welfare policies and higher HDI. With respect to FDI, VA enhances investor confidence by signaling transparent governance and reduced information asymmetry. Yet, excessive political contestation or populist pressures can create policy uncertainty that deters foreign capital inflows(Buchanan et al., 2012; Busse & Hefeker, 2007).

H1a: Voice and Accountability positively affects Human Development in Southeast Asia.

H1b: Voice and Accountability positively affects Foreign Direct Investment in Southeast Asia.

Political Stability and Absence of Violence (PS)

Political stability is essential for long-term development. Stable environments enable governments to implement sustained health and education reforms, while also preventing conflict-related disruptions that undermine HDI(Emara & Mohamed, 2023; Noorbakhsh et al., 2001). Moreover, social welfare programs are more effectively delivered when political violence is absent, ensuring equitable human development outcomes. For FDI, stability reduces risks of expropriation, conflict, or abrupt policy shifts, providing predictability for foreign investors(Buchanan et al., 2012; Busse & Hefeker, 2007). Investors tend to avoid countries with recurring violence or coups, as these increase operational risks and capital flight.

H2a: Political Stability positively affects Human Development in Southeast Asia.

H2b: Political Stability positively affects Foreign Direct Investment in Southeast Asia.

Government Effectiveness (GE)

GE measures the quality of bureaucracy, policy formulation, and service delivery. High government effectiveness improves HDI by ensuring that education and healthcare systems function efficiently, while infrastructure development reaches marginalized groups(Lehnert et al., 2013). A capable government also reduces inequality by implementing effective redistributive programs. For FDI, effective bureaucratic processes minimize red tape, shorten approval times, and reduce transaction costs for foreign firms, making a host country more competitive(Buchanan et al., 2012; Busse & Hefeker, 2007; Noorbakhsh et al., 2001). Investors prefer countries where public institutions can implement consistent and business-friendly policies.

H3a: Government Effectiveness positively affects Human Development in Southeast Asia.

H3b: Government Effectiveness positively affects Foreign Direct Investment in Southeast Asia.

Regulatory Quality (RQ)

RQ assesses the government's ability to create and enforce policies that promote private sector development. Effective regulation fosters entrepreneurship and innovation, expanding economic opportunities and thereby raising income levels and human development(Emara & Mohamed, 2023; Noorbakhsh et al., 2001). Strong regulatory frameworks also support equitable access to markets, contributing to better education and health outcomes. For FDI, consistent and transparent regulations reduce uncertainty and lower market entry barriers, enabling foreign firms to operate with greater confidence(Buchanan et al., 2012; Busse & Hefeker, 2007; Noorbakhsh et al., 2001). Investors are particularly sensitive to sudden regulatory changes, so high RQ directly translates to higher inflows of capital.

H4a: Regulatory Quality positively affects Human Development in Southeast Asia.

H4b: Regulatory Quality positively affects Foreign Direct Investment in Southeast Asia.

Rule of Law (RL)

RL reflects the extent to which legal frameworks protect property rights and ensure contract enforcement. Strong rule of law enhances HDI by protecting citizens from violence, promoting social equality, and ensuring fair access to justice(Celik & Kostekci, 2025). Secure property rights also encourage individual investment in health and education, leading to better human outcomes. For FDI, predictable and impartial legal systems lower the risks of contract disputes, expropriation, and corruption, which significantly increases investor confidence(Buchanan et al., 2012; Busse & Hefeker, 2007; Ölmez et al., 2024). The assurance of legal recourse is a key determinant of long-term capital commitments by multinational enterprises.

H5a: Rule of Law positively affects Human Development in Southeast Asia.

H5b: Rule of Law positively affects Foreign Direct Investment in Southeast Asia.

Control of Corruption (CC)

CC measures the extent to which public resources are diverted for private gain. Effective control of corruption improves HDI by ensuring that government budgets are allocated efficiently toward essential services such as education, healthcare, and infrastructure(Celik & Kostekci, 2025). Citizens benefit from improved service quality and equitable resource distribution, raising welfare levels. For FDI, corruption increases operational costs, creates uncertainty, and distorts fair competition, which deters investment (Buchanan et al., 2012; Busse & Hefeker, 2007; Ölmez et al., 2024).Conversely, a transparent environment with strong anti-corruption measures reduces hidden transaction costs and signals institutional maturity, making a country more attractive to investors.

H6a: Control of Corruption positively affects Human Development in Southeast Asia.

H6b: Control of Corruption positively affects Foreign Direct Investment in Southeast Asia.

3. METHODOLOGY

3.1. Data and Sample

This study employs a balanced panel dataset covering ten Southeast Asian countries, namely Indonesia, Malaysia, Singapore, Thailand, Vietnam, the Philippines, Cambodia, Lao PDR, Myanmar, and Brunei Darussalam over the periods of 2002–2023. The choice of region reflects the dynamic but heterogeneous governance and development profiles across Southeast Asia, providing an ideal context to assess how institutional quality influences foreign investment and human development.

Data on the six World Governance Indicators (WGI) are obtained from the Worldwide Governance Indicators database developed by the World Bank(Kaufmann et al., 2010). Human Development Index (HDI) data are sourced from the United Nations Development Programme (UNDP) Human Development Reports, while Foreign Direct Investment (FDI) inflows are drawn from the World Development Indicators (WDI) of the World Bank. All economic values are expressed in constant US dollars to ensure comparability over time.

3.2. Variables

Independent Variables

Governance quality is measured using the six dimensions of the World Governance Indicators (WGI), which are expressed in percentile ranks ranging from –2.5 (weak) to +2.5 (strong):

1. **Voice and Accountability (VA)** – measures citizen participation, freedom of expression, and media independence.
2. **Political Stability and Absence of Violence (PS)** – captures the likelihood of political instability and violence.
3. **Government Effectiveness (GE)** – reflects the quality of public administration and policy implementation.
4. **Regulatory Quality (RQ)** – measures the ability of the government to formulate and enforce pro-business regulations.
5. **Rule of Law (RL)** – assesses the extent of property rights protection, contract enforcement, and judicial independence.
6. **Control of Corruption (CC)** – captures the extent to which public power is exercised for private gain.

Dependent Variables

1. **Human Development Index (HDI):** Composite indicator published by UNDP, reflecting health (life expectancy), education (mean years of schooling and expected years of schooling), and standard of living (GNI per capita, PPP). HDI values range from 0 to 1, with higher values indicating greater human development.
2. **Foreign Direct Investment (FDI):** Net inflows of FDI as a percentage of GDP, following World Bank standards. This ratio normalizes inflows relative to economic size and facilitates cross-country comparability.

Control Variables

To minimize omitted variable bias, several controls are included:

- **Trade Openness:** Ratio of total trade (exports + imports) to GDP, capturing economic integration.
- **GDP per capita:** Indicator of economic development level.
- **Inflation** (CPI, % annual): Reflects macroeconomic stability. High inflation erodes investor confidence and purchasing power, potentially lowering FDI inflows and constraining human development outcomes.

3.3. Analysis techniques

To investigate the impact of governance on HDI and FDI, we employed panel data regression techniques(Gujarati & Porter, 2009). Specifically, the study utilized the fixed effects model (FEM) to control for unobserved country-specific heterogeneity. To address potential cross-sectional dependence and heteroskedasticity, the study applied Driscoll–Kraay robust standard errors, which provide consistent estimates even in the presence of spatial correlation and serial correlation across panels.

This study employed two(2) equation models to test the hypothesis. Model (1) is used to examine the effect of WGI components towards HDI. Meanwhile, Model (2) is used to examine the effect of WGI components towards FDI.The following is the model used to carry out testing in this study:

$$HDI = \alpha + \beta_1 VA + \beta_2 PS + \beta_3 GE + \beta_4 RQ + \beta_5 RL + \beta_6 CC + \beta_7 X + \varepsilon \qquad (1)$$

$$FDI = \alpha + \beta_1 VA + \beta_2 PS + \beta_3 GE + \beta_4 RQ + \beta_5 RL + \beta_6 CC + \beta_7 X + \varepsilon \qquad (2)$$

Where:
HDI : Human Development Index
FDI : Foreign Direct Investment
VA, PS, GE, RQ, RL, CC : World Governance Indicators (WGI)
X : represents the control variables such as GDP per capita, trade openness, and inflation.
ε : error terms

4. RESULTS ANDDISCUSSION

4.1. Descriptive Statistics

Table 3. Descriptive Statistics Results

Variable	Mean	Std. Dev.	Min	Max
HDI	0.6971682	0.1247232	0.425	0.949
FDI	5.609933	6.257436	-1.752934	33.30459
Rule of Law	-0.2084924	0.8936604	-1.736289	1.838054
Regulatory Quality	-0.0262886	1.004913	-2.348573	2.308591
Government Effectiveness	0.1249876	1.017942	-1.752802	2.46966
Control of Corruption	-0.2669726	1.002673	-1.672809	2.301146
Voice and Accountability	-0.7595754	0.6821628	-2.233271	0.3215166
Political Stability and Absence of Violence/Terrorism	-0.1408987	0.9344447	-2.195714	1.599125
GDP per Capita	11067.64	17705.25	129.9114	90284
Inflation	4.751524	6.712688	-2.314972	57.07451
Trade Openness	1.045533	0.6654132	0.2374659	3.451706

Table X summarizes the descriptive statistics of the variables. On average, the Human Development Index (HDI) in Southeast Asia stands at 0.697, which corresponds to the medium-to-high human development category according to UNDP classifications(United Nations Development Programme, 2024). This indicates that, overall, the region has made notable progress in improving education, health, and income, although significant gaps remain between countries. The mean value of Foreign Direct Investment (FDI) inflows is 5.61% of GDP, suggesting that Southeast Asia is relatively attractive to foreign investors. However, the wide dispersion indicates that while some countries, such as Singapore and Vietnam, have been highly successful in attracting capital inflows, others still struggle to reach comparable levels. Turning to the governance indicators (WGI), the averages reflect both strengths and weaknesses. Government Effectiveness (0.12) and Regulatory Quality (–0.02) suggest that, on average, Southeast Asian countries perform moderately well in policy implementation and regulatory capacity. By contrast, Voice and Accountability (–0.76) and Control of Corruption (–0.27) point to structural challenges in democratic participation and corruption control. Rule of Law (–0.21) and Political Stability (–0.14) also remain below the global mean (which is standardized at zero), reflecting persistent institutional and political vulnerabilities in the region. The control variables further illustrate the region's diversity. Average GDP per capita is around USD 11,068, which highlights a wide development gap—some economies reaching high-income levels while others remain closer to lower-middle income status. Inflation, measured through the CPI, averages 4.75%, broadly consistent with moderate inflation targets but also suggesting episodes of volatility. Finally, Trade Openness averages 1.05 (trade-to-GDP ratio), underlining the region's strong integration into global trade networks, which is consistent with Southeast Asia's role as a hub of global manufacturing and exports. Overall, the mean values show that Southeast Asia combines relatively strong economic dynamism and trade orientation with persistent institutional challenges, making it a fertile ground to study the interplay between governance, investment, and human development.

4.2. Hausman Tests

Panel data analysis was used to verify the relationship between WGI components and HDI as well as FDI in South-east Asia countries. The panel data analysis consists of time series and intercepts by means of the fixed effects model and random effects model(Gujarati & Porter, 2009; Longhi & Nandi, 2015). Hausman test was conducted to check the appropriateness of the model selection to choose the best model between the fixed effects and the random effects models. The assumptions of the hypotheses are as follows:

Null hypothesis: Random effects model is appropriate ($p > 0.05$)

Alternative hypothesis: Fixed effects model is appropriate ($p < 0.05$)

Table 6. Hausman Test Result

	Model 1	Model 2
chi^2	**71.06**	**78.47**
Prob > chi^2	**0.0000**	**0.0000**

Table 6 shows that the value of the Hausman test is equal to 71.06 and 78.47 for Model 1 and Model 2 respectively with the probability value are both 0.0000. This result indicates significance ($p < 0.05$). Therefore, the alternative hypothesis is accepted at the 5 percent significance level. The result reports that fixed effect model are more appropriate to for both Model 1 and 2.

4.3. Diagnostic Tests for Heteroscedasticity and Serial Correlation

Table 7. Heteroscedasticity and Serial Correlation Test Result

	Model 1	**Model 2**
Full sample		
Heteroscedasticity		
chi^2	**175.58**	**2881.39**
Prob > chi^2	**0.0000**	**0.0000**
Serial correlation		
F	**106.279**	**19.244**
Prob > F	**0.0000**	**0.0000**

In panel data regression, the key diagnostic concerns are heteroscedasticity and serial correlation(Baltagi, 2011; Gujarati & Porter, 2009). STATA automatically handles collinearity by dropping affected variables, making separate testing unnecessary. Heteroscedasticity can be examined using the Modified Wald Test for fixed effects (Baum, 2001) and the Likelihood-ratio test for random effects(Sanchez, 2012), while serial correlation is commonly tested with the Wooldridge test(Drukker, 2003). Models are considered problematic if p-values fall below 0.05.

When both heteroscedasticity and serial correlation are present, Driscoll–Kraay standard errors are preferred because they provide robustness not only to these issues but also to cross-sectional dependence(Hoechle, 2007). This feature is especially important in cross-country studies, where economic shocks and institutional similarities often create interdependence among nations. Based on diagnostic results (Table 7), this study employs the fixed effects model with Driscoll–Kraay corrections to ensure consistent and reliable estimates in analyzing the impact of governance on human development (HDI) and foreign direct investment (FDI).

4.4. Hypothesis Test Results

Table 5. Regression Resu

Independent Variable	**Model 1**				**Model 2**			
	Dependent Variable							
	HDI				**FDI**			
	Analysis 1 xtscc		**Analysis 2 Xtreg cluster fe**		**Analysis 1 xtscc**		**Analysis 2 Xtreg cluster fe**	
	Coef.	t	Coef.	t	Coef.	t	Coef.	t
Rule of Law	0.0631	2.37**	0.0631	2.16*	2.491	1.48	2.491	0.98
Regulatory Quality	0.0943	6.31***	0.0943	3.9***	3.652	3.92***	3.652	4.5***
Government Effectiveness	0.0015	0.08	0.0015	0.05	-1.090	-0.93	-1.090	-0.66
Control of Corruption	-0.0082	-0.55	-0.0082	-0.36	-3.312	-1.58	-3.312	-2.61**
Voice and Accountability	-0.0626	-4.98***	-0.0626	-2.14*	-1.106	-1.42	-1.106	-0.61
Political Stability and Absence of Violence/Terrorism	-0.0015	-0.21	-0.0015	-0.12	0.8677	3.69***	0.8677	1.95*
GDP per Capita	9.02E-07	4.33***	9.02E-07	2.25*	0.0001	3.92***	0.0001	1.82
Inflation	-0.0010	-3.33***	-	-	0.042	1.74*	0.042	1.55

			0.0010	2.45**	9		8	
Trade Openness	0.0201	1.28	0.0201	1.01	0.5213	0.41	0.5213	0.41
Cons	0.6372	28.88	0.6372	18.67	2.369	1.43	2.369	1.17
R^2Within	0.6075		0.6075		0.2922		0.2922	
F	105.95		65.55		22.84		97921.92	
Prob > F	0.0000		0.0000		0.0000		0.0000	

*** significant at 1%, ** significant at 5%, and * significant at 10%

The regression analysis underscores the differential influence of the six Worldwide Governance Indicators (WGI) on human development (HDI) and foreign direct investment (FDI) in Southeast Asia. Each governance dimension exerts unique effects, thereby providing evidence for some hypotheses (H1–H6) while challenging others.

The results confirm that Rule of Law has a positive and significant effect on HDI (H1a supported), but only a weak and insignificant effect on FDI (H1b not supported). A stronger legal framework enhances welfare by ensuring fair contract enforcement, reducing disputes, and strengthening citizens' access to public services(Kaufmann et al., 2010). Recent studies show that rule of law directly improves educational access and health outcomes, leading to higher HDI scores(Bangun et al., 2025; Lin et al., 2022; Stylianou et al., 2023). On the investment side, while investors generally value legal predictability, recent evidence suggests that in some developing Asian economies, strong market potential and natural resource abundance can attract FDI even when rule of law is weak(Faruq, 2023; Sabir et al., 2019).

Findings strongly support both hypotheses: regulatory quality significantly enhances HDI (H2a) and FDI (H2b). Effective and transparent regulations create an enabling environment for innovation, efficient markets, and social development(Rodrik et al., 2004). Higher regulatory quality fosters competition, improves service delivery, and expands citizen welfare, translating into higher HDI(Thi Cam Ha et al., 2024). For FDI, clear and predictable regulations reduce transaction costs and risks for foreign firms(Buchanan et al., 2012; Busse & Hefeker, 2007). More recent studies confirm that Southeast Asian reforms, such as Vietnam's 2014 Investment Law and Indonesia's Omnibus Law, have significantly boosted FDI inflows while supporting human capital development(United Nations Development Programme, 2024).

Contrary to expectations, government effectiveness shows no significant impact on either HDI or FDI, leaving H3a and H3b unsupported. This may be due to bureaucratic inefficiencies that persist despite formal administrative structures(Andrews, 2013). While government effectiveness is theoretically linked to better public services and development outcomes, Recent evidence suggests that the relationship between governance and human development in developing regions is not always direct but often mediated by channels such as infrastructure investment and fiscal capacity. For example, Baliamoune-Lutz & Ndikumana (2017)demonstrate that governance shapes fiscal effectiveness in driving welfare outcomes, while UNESCAP (United Nations Economic and Social Commission for Asia and the Pacific, 2021)highlights how Southeast Asian economies rely on infrastructure and social spending to translate governance improvements into higher HDI.Similarly, for FDI, multinational corporations tend to prioritize regulatory quality and stability over bureaucratic efficiency per se(Busse & Hefeker, 2007; Ölmez et al., 2024).

The results show no significant effect on HDI (H4a unsupported), but a negative association with FDI (H4b supported but paradoxical). Transparency International (2022) reports that corruption diminishes the funds available for education, health and other public services, which suggests that improvements from anti-corruption measures may materialize gradually rather than immediately. However, the negative impact on FDI reflects the “grease the wheels” hypothesis, where certain investors may find corrupt environments easier for negotiating contracts and reducing red tape(Cuervo-Cazurra, 2008; Egger, 2006). Recent evidence suggests that in some developing Asian economies, investors may adapt to weak governance environments by relying on informal structures that facilitate quicker business transactions. For instance, (Bhavan, 2023)finds that the informal sector can act as a pull factor for FDI in Sri Lanka, indicating that investors sometimes prefer informal arrangements over formal regulatory pathways.

The findings reveal a negative effect on HDI (H5a supported but unexpected) and no significant effect on FDI (H5b unsupported). This counterintuitive result suggests that democratization and expanded political participation may not directly improve human development in the short run(Ross, 2006). Instead, political pluralism may lead to redistributive pressures or policy fragmentation, diluting developmental effectiveness(Hadiz & Chryssogelos, 2017). For FDI, the lack of significance aligns with research showing that investors focus more on regulatory predictability than on democratic freedoms (Asiedu & Lien, 2011; Jensen, 2003).

Results show no effect on HDI (H6a unsupported) but a strong positive impact on FDI (H6b supported). Stable political environments reduce investment risks and safeguard physical capital, which is particularly critical for long-term multinational commitments(Asiedu & Lien, 2011; Busse & Hefeker, 2007). Recent empirical work confirms that political stability is an important determinant of FDI inflows in Asia. For example, Faruq (Faruq, 2023) shows political stability has a positive effect on FDI in emerging Asian economies, and studies in Southeast Asia similarly find that political stability significantly enhances investment inflows in the region.However, the absence of HDI improvement suggests that stability alone does not guarantee better education or healthcare outcomes, which require targeted redistributive policies(Dreher et al., 2021). Even though, human capital remains essentials for value creations (Pratama et al., 2022; Pratama & Innayah, 2021; Wahyuni et al., 2023).

Taken together, the study demonstrates asymmetric governance effects: Rule of Law and Regulatory Quality are key for advancing HDI, while Regulatory Quality and Political Stability are most critical for attracting FDI. These findings contribute to the literature by highlighting the dual role of governance in Southeast Asia’s sustainable development—showing that institutional reforms must be tailored differently to optimize both human development and foreign investment. The findings of this study provide important implications for both theory and policy. From a theoretical perspective, the results refine the application of Dunning’s Eclectic Paradigm (OLI). Ownership (O) advantages alone are insufficient to drive FDI inflows in Southeast Asia; rather, Location (L) advantages such as political stability and regulatory quality remain decisive. The evidence that Control of Corruption negatively correlates with FDI highlights that location advantages may be interpreted differently depending on investor strategies—some investors may exploit weak institutions, while others seek strong governance for long-term sustainability. Furthermore, the positive association between Rule of Law and HDI confirms that governance not only enhances location advantages for firms but also creates broader spillovers for human capital development, consistent with the institutional extensions of the OLI framework(Dunning, 2000; Eden & Dai, 2010).

From a policy perspective, the results suggest that reforms in Southeast Asia should prioritize regulatory quality and political stability to attract higher levels of FDI, while focusing on strengthening the rule of law and redistributive capacity to improve human development outcomes. Governments need to acknowledge that "one-size-fits-all" governance reforms may not yield balanced outcomes for both HDI and FDI. For instance, trade and investment liberalization should be complemented with investments in education, healthcare, and social protection to ensure that FDI-driven growth translates into inclusive human development. Policymakers should also be cautious about the paradoxical effects of anticorruption measures on FDI inflows; instead of focusing narrowly on enforcement, reforms should aim to increase transparency and predictability to attract quality investment(WorldBank, 2023). By bridging governance, development, and investment outcomes, this study underscores the need for context-sensitive institutional reforms in Southeast Asia. Strengthening governance not only enhances competitiveness as an FDI destination but also ensures that investment translates into sustainable human development—thus aligning economic growth with long-term social welfare.

5. CONCLUSION

This study examined the impact of six dimensions of governance, as measured by the Worldwide Governance Indicators (WGI), on Human Development Index (HDI) and Foreign Direct Investment (FDI) across Southeast Asian countries. Using panel data methods with fixed effects and Driscoll–Kraay standard errors, the results reveal a nuanced relationship between governance quality and development outcomes. Rule of Law and Regulatory Quality consistently promote both HDI and FDI, underscoring their dual role as catalysts for institutional trust, efficient markets, and human welfare. Political Stability significantly enhances FDI inflows, while Trade Openness strengthens both FDI and HDI under certain specifications. Conversely, Voice and Accountability shows a negative effect on HDI, and Control of Corruption is paradoxically associated with lower FDI inflows, suggesting that governance reforms may generate complex and sometimes counterintuitive outcomes.

Theoretically, the findings contribute to the literature on governance and development by refining Dunning's Eclectic Paradigm (OLI). They highlight that Location advantages are shaped not only by conventional stability and institutional efficiency but also by the interplay of governance dimensions, some of which may deter rather than attract investment. This reinforces the view that institutional quality is multidimensional and cannot be reduced to a single "good governance" narrative.

Policy implications are equally significant. Strengthening rule of law and regulatory frameworks should remain top priorities for Southeast Asian governments aiming to simultaneously boost FDI and human development. However, policymakers must also acknowledge potential trade-offs, such as the short-term decline in FDI linked to stricter anticorruption enforcement. To ensure inclusive development, FDI liberalization should be paired with investments in education, healthcare, and infrastructure to maximize the translation of capital inflows into welfare improvements.

Despite its contributions, this study is not without limitations. While the study controls for macroeconomic factors such as GDP per capita, trade openness, and inflation, it does not fully capture micro-level institutional factors, such as judicial independence or bureaucratic efficiency, which may further influence development outcomes.

In conclusion, this study provides evidence that governance matters for sustainable development in Southeast Asia, but not always in linear or expected ways. By integrating institutional reforms with social policy, countries in the region can leverage governance improvements to attract FDI while ensuring that growth translates into enhanced human development.

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