

# RELATIONSHIPS AND DETERMINANTS OF THE RULE OF LAW IN HUMAN DEVELOPMENT: AN EMPIRICAL ANALYSIS

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## ABSTRACT

The rule of law is a fundamental pillar for democratic governance and sustainable development, yet its impact on human development is complex and multifaceted. This study examines the relationships and determinants of the rule of law in human development, using a quantitative approach based on data from 136 countries over the period 2012-2021. Through correlation and linear regression techniques, the effects of various rule of law-related variables, such as government transparency, access to justice, and limitations on governmental power, on human development were assessed. The empirical results highlight that government transparency is a key factor for overall well-being, serving as a central variable that explains differences in human development levels across countries. Furthermore, it is observed that in developing countries, the primary priority is to ensure order and security, while in advanced economies, the focus is on limiting governmental power and protecting civil rights. These findings suggest that rule of law policies should be tailored to the specific characteristics of each national context, taking into account both the level of development and the socioeconomic particularities of each region to maximize their effectiveness.

**KEYWORDS:** Human development; Rule of law; Government; Empirical research.

## INTRODUCTION

The rule of law has been widely recognized internationally as a key factor in both economic and human development (Lin *et al.*, 2022; Lisitsyn-Svetlanov *et al.*, 2018; Shevchuk *et al.*, 2020; Tomita, 2022). This concept refers to an institutional framework where both public authorities and citizens are subject to legal norms established through democratic and transparent processes (Byrka-Kita *et al.*, 2023). Recent studies have documented its close association with human development, understood as the expansion of individual and collective capabilities to lead a fulfilling life, ensuring equitable access to education, healthcare, security,



and active participation in social and economic life (Stylianou *et al.*, 2023). Within this context, the rule of law emerges as a structural condition for sustained progress in economic and fiscal well-being, and as a decisive factor influencing both happiness and health (Grier *et al.*, 2022; Lin *et al.*, 2022; Xu, 2011).

The cross-cutting role of the rule of law as a catalyst for holistic development has prompted growing academic interest in examining its relationship with human development from a longitudinal perspective. This approach is particularly relevant in light of the setbacks observed in key dimensions of the rule of law following the COVID-19 pandemic, especially in developing countries. These setbacks raise questions not only about the temporal stability of this relationship but also about its variability according to geographic contexts and levels of development.

Empirical assessment of both constructs relies on internationally validated composite indices. For the rule of law, the World Justice Project (WJP) Index assesses critical dimensions such as constraints on government powers, absence of corruption, and protection of fundamental rights (World Justice Project, 2022). In turn, the Human Development Index (HDI), developed by the United Nations Development Programme (UNDP, 2022), integrates indicators related to health, education, and standard of living. The systematic use of these metrics has enabled the identification of consistent patterns: countries such as Denmark and Norway rank among the highest in both indices, while Latin American nations like Venezuela and Haiti exhibit significantly lower performance.

Against this backdrop, the present article aims to examine the relationships and determinants of the rule of law in relation to human development at a global level over the 2012–2021 period. The central hypothesis posits that the influence of rule-of-law components varies depending on the level of development across regions. Testing this assumption would provide policymakers with valuable insights for designing strategies tailored to the specific conditions of each region, particularly in emerging countries, where institutional interventions are presumed to have a greater impact.

At present, persistent challenges such as corruption, impunity, and barriers to justice continue to constrain the possibilities for human development and undermine democratic stability in various contexts (Struthmann *et al.*, 2023; Urbina & Rodríguez, 2022). In this regard, approaches advanced by scholars such as Amartya Sen (Unión Interparlamentaria & Naciones Unidas, 2016) and Martha Nussbaum (Nussbaum, 2011) have underscored the role of the rule of law as a guarantor of human rights and a foundation for the development of individual capabilities. From this perspective, its effective implementation is not only a prerequisite for more just and equitable societies, but also a strategic component for peace, institutional stability, and sustainable economic growth (Li & Sun, 2022). These dimensions reinforce the



relevance of empirically analyzing its connection with human development from a comparative and long-term perspective.

The remainder of this article is structured into five sections. Following this introduction, a literature review is presented on the relationship between the rule of law and human development. The third section describes the research methodology, with an emphasis on the treatment of the analyzed variables. The fourth section outlines the main results and discusses their implications. The final section offers the study's conclusions.

## Theoretical framework

### Empirical Relationship Between the Rule of Law and Development

The impact of the rule of law on the social and economic progress of nations, as well as the factors influencing its successful implementation, has been extensively studied over the past decades. Shevchuk *et al.* (2020) found that an effective rule of law system is fundamental to achieving sustainable economic growth. The absence of such a system can hinder development, whereas its proper implementation creates enabling conditions for investment, safeguards property rights, and promotes more equitable progress.

Along similar lines, Lisitsyn-Svetlanov *et al.* (2018) analyzed how the rule of law contributes to economic growth by protecting property rights, attracting foreign investment, and enhancing business confidence. Their findings underscore that effective rule of law enforcement is essential for a sustainable development framework. These conclusions are consistent with the studies by Haggard and Tiede (2011) and Haggard *et al.* (2008), who not only confirmed the link between these variables but also emphasized the importance of strengthening political institutions and implementing sound macroeconomic policies to promote equity, drive growth, and improve living standards, particularly in less developed countries.

More recent research, including studies by Bakkar and Ögçem (2019), Luong *et al.* (2020) and Tomita (2022), further supports the significance of the rule of law for sustainable growth. These works highlight the importance of fostering both the rule of law and democratic institutions, not only to create an environment conducive to development but also to curb the informal economy, which undermines governments' capacity to collect taxes and finance public services. Moreover, these studies argue that adherence to the rule of law should be considered an integral component of public policy across all countries, including those undergoing structural transitions toward more stable systems.

In a comparative perspective, Głowacki *et al.* (2021) examined the influence of the rule of law and its social perception on the development of Poland and Germany. Their findings reveal that differences in citizen perceptions and legal culture can significantly affect economic performance. Specifically, the study suggests that a more favorable public perception of the



rule of law contributes to the improvement of institutional quality and fosters national growth. This supports the notion that both the strengthening of legal systems and their social legitimacy are essential to advancing development in diverse national contexts.

Other studies have focused on the effects of key determinants of the rule of law—such as corruption, public order and security, and institutional structure—on economic development. Empirical evidence shows that corruption negatively affects human well-being. Struthmann *et al.* (2023) identified that transparency and accountability mechanisms can enhance financial stability and foster progress. Similarly, Urbina and Rodríguez (2022) demonstrated that corruption adversely impacts economic growth, human development, and natural resource management in both Latin American and Nordic countries. In response, they advocate for increased citizen participation and the design of effective institutional oversight mechanisms.

In this regard, Borja (2020) warns that corruption can weaken the positive impact of income sources such as remittances on human development in Latin America. Accordingly, he stresses the need to improve the rule of law and promote accountability to ensure the efficient use of these resources. Aidt (2009) also highlights the role of political, legal, and administrative institutions in combating corruption and promoting economic well-being. His analysis points out that institutional quality is critical to fostering integrity and curbing corrupt practices, although caution must be exercised regarding potential unintended consequences of certain government interventions.

In this sense, trust in civil justice systems and the rule of law are key determinants of sustainable progress, as they facilitate access to public goods, services, and markets. Effective judicial systems are indispensable for achieving development goals and consolidating peace, especially in fragile or conflict-affected states (Horák & Lacko, 2023). Moreover, within these contexts, conventional normative frameworks frequently posit that security and progress are foundational and inextricably linked elements. This implies that diminished security and socioeconomic development mutually reinforce each other, creating a vicious cycle that further obstructs peacebuilding efforts (Nilsson & Marín, 2021). Therefore, it is critical to consider the interdependence of these elements, alongside the political and structural context, in designing public policies aimed at fostering sustainable development trajectories (Stern & Öjendal, 2010).

Based on the foregoing, this study poses two main research questions: (1) How is the rule of law and its key determinants related to human development? and (2) What is the specific impact of these determinants across regions with varying levels of development? In line with these questions, this research posits that there is a positive and significant relationship between the rule of law, human development, and its constituent elements. However, it is expected that the strength and nature of these associations will vary depending on each country's socioeconomic, political, and cultural context. This approach seeks to provide a more



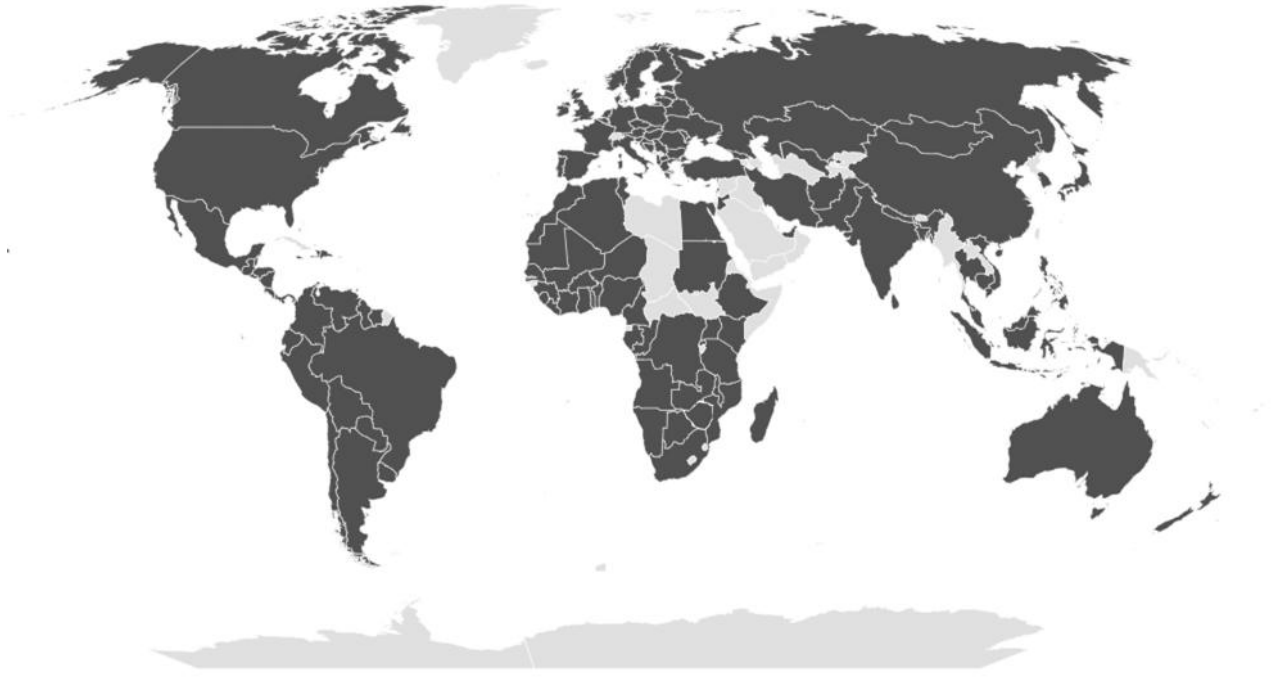
nuanced and precise understanding of how the rule of law influences human development across diverse national settings.

## Methodology

This study employed a quantitative, cross-sectional, descriptive-correlational design to analyze the relationship between the rule of law and human development using globally comparable statistical data.

The sample comprised 136 countries with available and consistent data, stratified by world region (European Union, European Free Trade Association [EFTA], Americas, Asia, Africa, and Oceania). Figure 1 shows the countries included in the analysis, highlighted in dark gray.

**Figure 1**  
*Countries included in the sample*



*Note.* Author's elaboration.

The data sources were reports from the World Justice Project's Rule of Law Index and the United Nations Development Programme's Human Development Index (HDI). The analysis covered the years 2012 to 2021, selected based on the continuous and consistent availability of comparable data and its relevance for capturing structural variations before and after the impact of the COVID-19 pandemic.

The HDI is a composite index based on three components: health (life expectancy at birth), education (mean and expected years of schooling), and income (GDP per capita

adjusted for purchasing power parity, PPP) (Zevallos *et al.*, 2020). This index allows for a multidimensional assessment of development beyond conventional macroeconomic variables. Each component is measured on a scale from 0 to 1, and the overall HDI is calculated as their geometric mean. Countries are classified into four groups according to their HDI scores: very high, high, medium, and low (Djokoto & Wongnaa, 2023).

The WJP Rule of Law Index evaluates the quality and effectiveness of a country's legal and judicial systems across eight pillars: constraints on government powers, absence of corruption, open government, fundamental rights, order and security, regulatory enforcement, civil justice, and criminal justice (World Justice Project, 2022). Each dimension is scored from 0 to 1, with higher values indicating a stronger rule of law. Unlike other indicators such as the World Governance Indicators, the International Country Risk Guide, or the Index of Judicial Independence, which rely solely on expert assessments, the WJP Index combines inputs from both expert and population-based surveys, providing a more accurate and empirically-grounded assessment of legal systems (Shevchuk *et al.*, 2020).

The analysis was conducted in three stages. First, descriptive techniques were used to characterize the distribution of the data (mean, range, standard deviation, skewness, and kurtosis). HDI scores ranged from 0.35 (Niger) to 0.96 (Norway), with a mean of 0.73, while WJP scores ranged from 0.27 (Venezuela) to 0.90 (Denmark), averaging 0.56. Table 1 presents the definitions, ranges, and main statistics of the variables.

**Table 1**

*Definitions and statistical characteristics of the data, 2012–2021*

Variable	Definition	Mean	Range	SD	SK	KT
HDI	Human Development Index	0.731	0.38– 0.96	0.150	-0.445	-0.857
WJP	Rule of Law Index	0.564	0.30– 0.89	0.140	0.559	-0.574
F1	Constraints on Government Powers	0.566	0.19– 0.94	0.157	0.328	-0.480
F2	Absence of Corruption	0.528	0.17– 0.95	0.188	0.508	-0.737
F3	Open Government	0.531	0.27– 0.86	0.146	0.553	-0.522
F4	Fundamental Rights	0.589	0.25– 0.91	0.154	0.127	-0.773
F5	Order and Security	0.722	0.33– 0.94	0.124	-0.474	0.450
F6	Regulatory Enforcement	0.542	0.24– 0.86	0.146	0.659	-0.295
F7	Civil Justice	0.554	0.27– 0.85	0.133	0.416	-0.589
F8	Criminal Justice	0.491	0.15– 0.85	0.159	0.469	-0.750

SD = Standard deviation, SK = Skewness coefficient, KT = Kurtosis coefficient

*Note.* Author's elaboration.

Second, Spearman's rank correlation coefficient was used to determine the strength of association between variables, as the Kolmogorov–Smirnov test confirmed the non-normal distribution of the variables under analysis ( $p < 0.05$ ). Correlation strength was classified into



five ordinal levels: very low ( $r < 0.2$ ), low ( $0.2 \leq r < 0.4$ ), moderate ( $0.4 \leq r < 0.6$ ), high ( $0.6 \leq r < 0.8$ ), and very high ( $r \geq 0.8$ ). The study hypothesizes that human development is significantly associated with both the overall rule of law and each of its eight constituent pillars.

Lastly, the influence of the rule of law and its components was assessed using linear regression analysis based on the Ordinary Least Squares (OLS) method. The regression equation is represented by the following mathematical function:

$$Y_i = \beta_0 + \beta_1 X_{1i} + \dots + \beta_k X_{ki} + \varepsilon_i \quad (1)$$

Where  $Y_i$  denotes the human development level of country  $i$ ;  $\beta_k$  are the estimated coefficients;  $X_{ki}$  represent the values of the rule of law factors for country  $i$ ; and  $\varepsilon_i$  is the error term.

The validity and reliability of the model were assessed using significance tests (Student's  $t$  and Snedecor's  $F$ ), the coefficient of determination ( $R^2$  and adjusted  $R^2$ ), Ramsey's RESET test (to check for functional specification), and the White test (to detect heteroscedasticity). The model assumes that the selected predictors have a positive effect on the dependent variable representing human development outcomes.

Statistical processing was performed using IBM SPSS Statistics 24, Minitab Statistical Software 17, and GRETL 2023a.

Table 2 summarizes the core aspects of the methodological design.

**Table 2**  
*Summary of the study's methodological design*

Category	Description
Approach and design	Quantitative, correlational-descriptive, cross-sectional.
Sample	136 countries with comparable data, stratified by region (EU, EFTA, Americas, Asia, Africa, Oceania).
Variables	Dependent: HDI (scale 0–1). Independent: WJP Index (scale 0–1) and its eight dimensions.
Data sources	HDI: UNDP. WJP: World Justice Project.
Period	2012-2021.
Analysis techniques	Descriptive statistics (mean, range, standard deviation, skewness, kurtosis). Spearman correlation (non-normality confirmed). Ordinary Least Squares (OLS) regression with tests for significance ( $t$ , $F$ ), fit ( $R^2$ , adj. $R^2$ ), specification (RESET), and heteroscedasticity (White test).
Software	IBM SPSS 24, Minitab 17, GRETL 2023a.

*Note.* Author's elaboration.



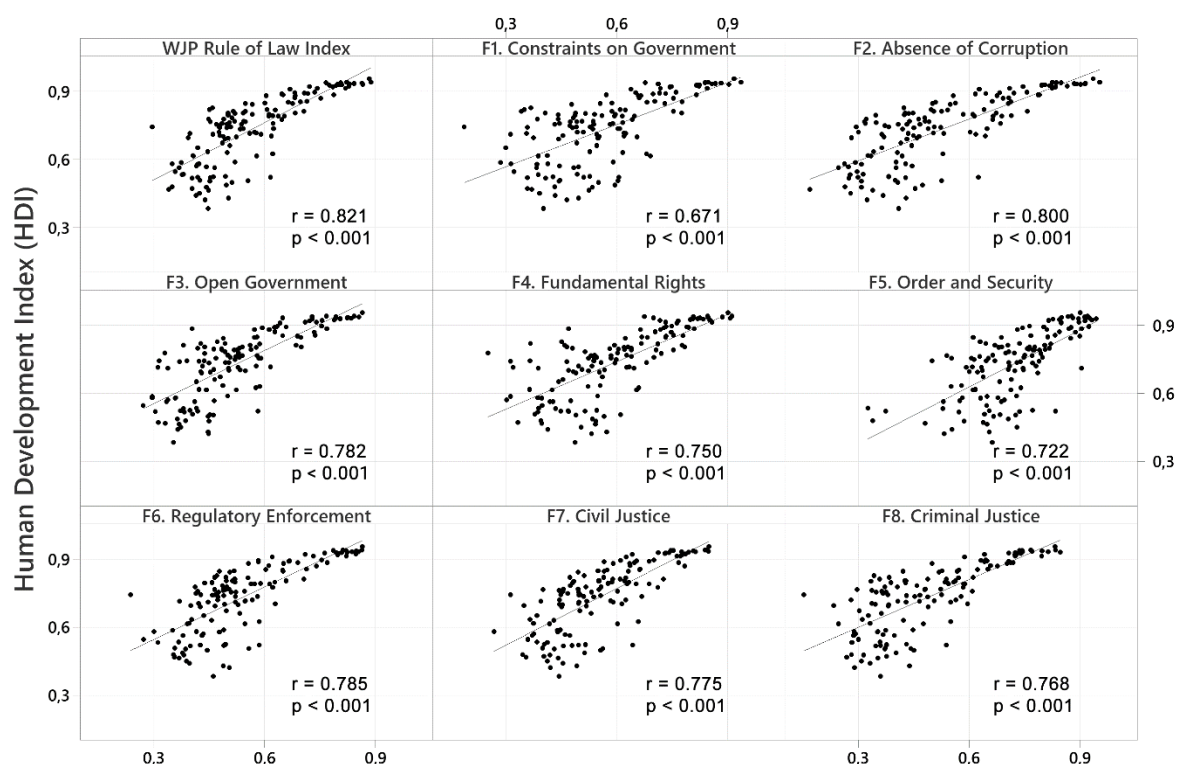
## Results

### Correlation Analysis

At the global level, the results shown in Figure 2 confirm a strong, positive, and statistically significant correlation between average levels of human development and the rule of law ( $r = 0.82$ ,  $p < 0.001$ ). Similarly, all components of the rule of law exhibit significant and positive associations with human development ( $p < 0.001$ ), especially absence of corruption ( $r = 0.80$ ), regulatory enforcement ( $r = 0.79$ ), open government ( $r = 0.78$ ), civil justice ( $r = 0.78$ ), and criminal justice ( $r = 0.77$ ). To a lesser extent, correlations were observed with fundamental rights ( $r = 0.75$ ), order and security ( $r = 0.72$ ), and constraints on government powers ( $r = 0.67$ ).

**Figure 2**

*Correlations between the Human Development Index and the Rule of Law Index and its Components*



*Note.* Author's elaboration.

At the regional level, Table 3 shows that the relationship between both indicators reaches a high and statistically significant magnitude only in regions with elevated levels in both dimensions. This pattern is evident in the European Union, EFTA, and North America ( $r = 0.87$ ), East Asia and the Pacific ( $r = 0.88$ ), and Latin America and the Caribbean ( $r = 0.70$ ), where high human development coincides with consistently strong rule of law indicators. In

contrast, in areas with moderate or low development, the WJP Index displays greater heterogeneity and lower maximum values, as illustrated in Figure 3.

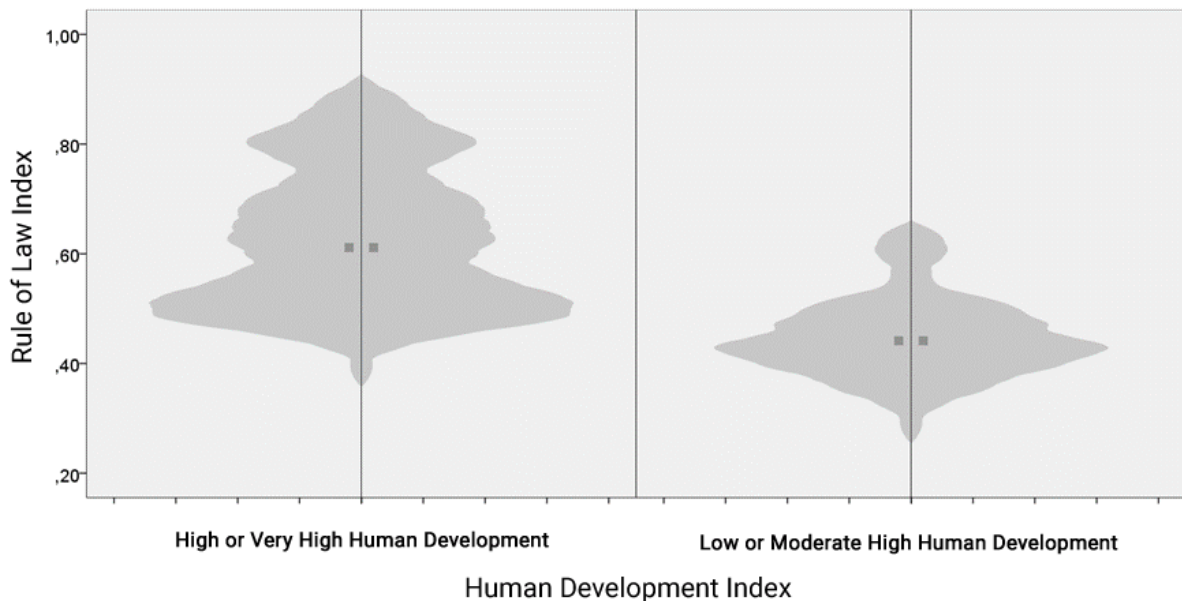
**Table 3**  
*Correlations between HDI and WJP by Region, 2012–2021*

Region	Avg. HDI	Avg. WJP	Spearman's rho	Sig. (2-tailed)	N
EU + EFTA + North America	0.895	0.735	0.869***	0.000	31
East Asia and the Pacific	0.792	0.606	0.882***	0.000	15
Latin America and the Caribbean	0.742	0.530	0.700***	0.000	32
Eastern Europe and Central Asia	0.786	0.506	-0.224	0.484	12
Middle East and North Africa	0.747	0.511	0.143	0.736	8
South Asia	0.603	0.445	0.657	0.156	6
Sub-Saharan Africa	0.534	0.469	0.295	0.101	32

\*\*\*p < 0.01

Note. Author's elaboration

**Figure 3**  
*Distribution of the Rule of Law Index by Level of Human Development*



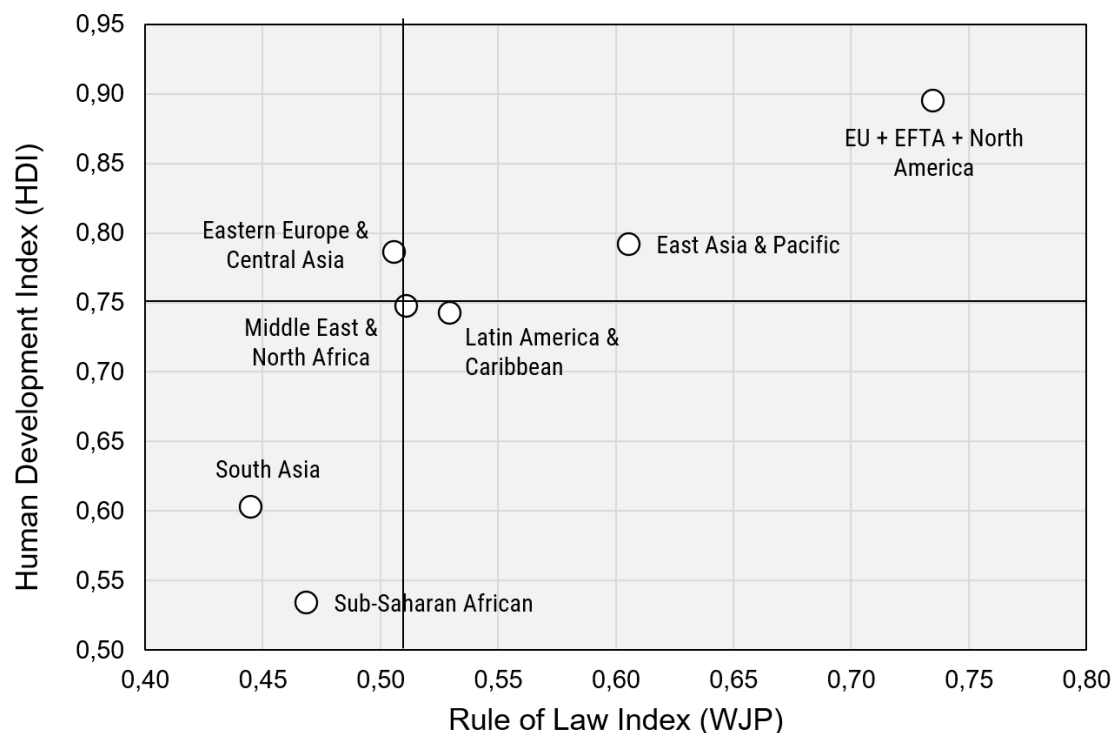
Note. Author's elaboration.

Figure 4 further classifies regions based on their relative standings in both dimensions. Regions with stronger institutional consolidation and social development, such as the European Union, EFTA, North America, and East Asia and the Pacific, occupy the upper quadrant. In contrast, Sub-Saharan Africa and South Asia fall within the lower quadrant. These findings underscore that, while the association between human development and rule of law

is evident globally, its strength and stability vary according to the level of development attained in each territory.

**Figure 4**

*Matrix of Human Development Index and Rule of Law Index by Region, 2014–2021 (Average)*



Note. Author's elaboration.

### Regression Analysis

The heteroscedasticity-corrected regression model demonstrated a good fit ( $R^2 = 0.77$ ) and revealed a strong, positive, and statistically significant effect of the rule of law on human development ( $\beta = 0.71$ ,  $p < 0.001$ ), underscoring the close relationship between the two variables (see Table 4).

**Table 4**

*Adjusted Linear Regression Model*

Variable	Coefficient ( $\beta$ )	Std. Error	t-value	p-value
Constant	0.338	0.026	13.16	0.000***
WJP	0.712	0.033	21.37	0.000***

Adjusted  $R^2$ : 0.771 | F(1, 134): 456.585 | p-value (F): 0.000\*\*\*  
 Dependent variable: Human Development Index. \*\*\*p < 0.01.

Note. Author's elaboration.



Disaggregated regression analysis of the rule of law components identifies three factors with significant associations to human development: constraints on government power ( $\beta = -0.73$ ,  $p < 0.001$ ), open government ( $\beta = 0.82$ ,  $p < 0.001$ ), and absence of corruption ( $\beta = 0.41$ ,  $p < 0.01$ ). The model exhibits a solid overall fit (adjusted  $R^2 = 0.72$ ), indicating these factors explain a substantial portion of the variance in human development (see Table 5).

**Table 5**  
*Linear Regression Model of Rule of Law Components*

Variable	Coefficient ( $\beta$ )	Std. Error	t-value	p-value
Constant	0.279	0.055	5.038	0.000***
F1	-0.726	0.149	-4.857	0.000***
F2	0.411	0.132	3.105	0.002***
F3	0.821	0.143	5.759	0.000***
F4	0.207	0.129	1.598	0.112
F5	0.163	0.103	1.588	0.115
F6	-0.183	0.202	-0.909	0.365
F7	0.025	0.180	0.140	0.889
F8	0.122	0.161	0.755	0.451

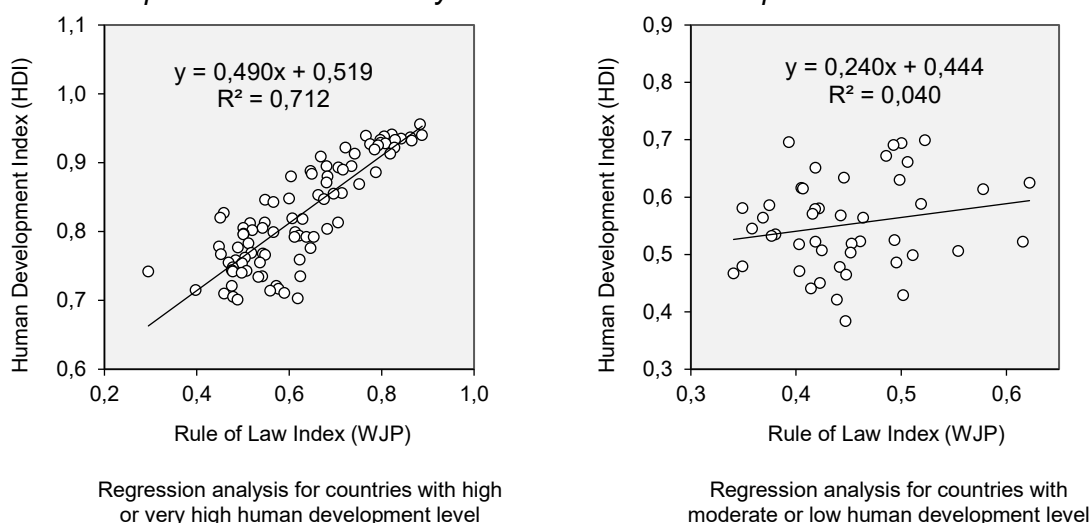
Adjusted  $R^2$ : 0.717 | F(8, 127): 43.839 | p-value (F): 0.000\*\*\*

Dependent variable: Human Development Index. \*\*\*  $p < 0.01$ .

*Note.* Author's elaboration.

Segmented regression by human development level reveals substantial differences. In countries with high or very high human development, the model shows a robust fit ( $R^2 = 0.71$ ) and a significant relationship between rule of law and human development ( $\beta = 0.49$ ,  $p < 0.001$ ). Conversely, in countries with moderate or low human development, the model's explanatory power is limited ( $R^2 = 0.04$ ), and the relationship is not statistically significant ( $\beta = 0.24$ ,  $p = 0.18$ ) (see Figure 5).

**Figure 5**  
Scatterplot of HDI and WJP by Level of Human Development



*Note.* Author's elaboration.

Lastly, the component-based regression analysis by development level reveals that government transparency (open government) has a positive effect in both contexts: high-development countries ( $\beta = 0.33$ ,  $p < 0.001$ ) and low-development countries ( $\beta = 0.79$ ,  $p < 0.01$ ). In high-development settings, constraints on government powers are negatively associated with human development ( $\beta = -0.26$ ,  $p = 0.02$ ), while in less developed countries, order and security becomes moderately relevant ( $\beta = 0.25$ ,  $p = 0.09$ ). Notably, only the model for high development countries achieves significant variance explanation (adjusted  $R^2 = 0.75$ ;  $p < 0.001$ ) (see Table 6).

**Table 6**  
Regression Models by Level of Human Development (OLS)

Var.	Countries with HDI $\geq 0.7$				Countries with HDI $< 0.7$			
	Coef. ( $\beta$ )	Std. Error	t-value	p-value	Coef. ( $\beta$ )	Std. Error	t-value	p-value
F1	-0.264	0.111	-2.386	0.019**	-0.045	0.241	-0.185	0.854
F2	0.129	0.088	1.468	0.146	-0.034	0.229	-0.150	0.882
F3	0.333	0.093	3.569	0.001***	0.785	0.262	3.000	0.005***
F4	0.081	0.090	0.907	0.367	-0.314	0.223	-1.409	0.167
F5	0.122	0.079	1.557	0.123	0.254	0.145	1.748	0.089*
F6	0.109	0.156	0.698	0.487	0.052	0.277	0.189	0.851
F7	-0.088	0.119	-0.734	0.465	-0.098	0.283	-0.347	0.731
F8	0.108	0.109	0.990	0.325	-0.254	0.283	-0.897	0.376
Const.	0.495	0.041	12.16	0.000***	0.361	0.087	4.133	0.000***
Model	Adjusted $R^2 = 0.751$				Adjusted $R^2 = 0.155$			
Fit	F(8, 81): 34.599   p-value (F): 0.000***				F(8, 37): 2.029   p-value (F): 0.070*			

Dependent variable: Human Development Index. \* $p < 0.1$ , \*\* $p < 0.05$ , \*\*\* $p < 0.01$ .

*Note.* Author's elaboration.



## Discussion

The results obtained confirm a consistent relationship between a strong rule of law and higher levels of human development, which broadly supports previous literature (Bakkar & Ögçem, 2019; Haggard & Tiede, 2011; Lisitsyn-Svetlanov *et al.*, 2018; Tomita, 2022). The empirical evidence suggests that countries with functional legal frameworks tend to offer better living conditions, greater access to education, and higher per capita income, reinforcing the hypothesis that the rule of law acts as an enabler of sustainable human progress.

Among the components evaluated, those related to transparency, judicial effectiveness, and control of corruption stand out. Their positive correlations with human development suggest that these factors function as key institutional mechanisms. By ensuring greater predictability in social interactions and reducing transaction costs, they strengthen public trust and create a favorable environment for investment and inclusive growth (Mollaesmaelli-Dehshiri *et al.*, 2012; Shevchuk *et al.*, 2020).

However, the strength of this relationship varies significantly depending on the development level of the regions analyzed. In countries with high HDI—such as EU and EFTA members, North America, and advanced economies in East Asia and the Pacific—the rule of law tends to exhibit high and stable values. In contrast, in regions such as Sub-Saharan Africa and South Asia, where institutions are more fragile, the association between both indicators weakens. This suggests that institutional consolidation is a prerequisite for legal improvements to have lasting effects on well-being (Haggard *et al.*, 2008; Haggard & Tiede, 2011). These regional nuances highlight the importance of examining institutional contexts more closely to fully understand the observed interaction.

Among the specific factors, corruption remains a structural obstacle to human development. Its negative impact undermines the effectiveness and efficiency of public services, limiting access to essential resources such as education, health, and security, while eroding citizens' trust in public institutions. This dynamic restricts political participation and harms the economy by exacerbating inequality and benefiting power groups at the expense of the most vulnerable (Aidt, 2009; Borja, 2020; Urbina & Rodríguez, 2022). Moreover, its connection to inequality and exclusion underlines the need for more effective anti-corruption policies as a core strategy for promoting social equity (Struthmann *et al.*, 2023).

Accordingly, the effective implementation of regulations and the establishment of open government are fundamental for strengthening institutional trust and stimulating the economy. Consistent regulations, applied without undue interference, foster a culture of compliance and investment while protecting citizens' rights and promoting social justice (Musa *et al.*, 2023; Rivas, 2012). In contrast, non-compliance can lead to negative outcomes in terms of safety, health, environmental protection, and institutional legitimacy. Open government facilitates



access to information and civic participation, thereby preventing corruption and improving quality of life (Attard *et al.*, 2015; Baack, 2015; Zhao & Fan, 2018).

Similarly, an effective judicial system—both civil and criminal—is essential for safeguarding individual freedoms and advancing human development. Civil justice promotes legal stability and the protection of social and economic rights, while criminal justice ensures public safety and procedural guarantees. When both systems operate independently, accessibly, and efficiently, they strengthen institutional trust, reduce corruption, and create favorable conditions for sustainable socioeconomic growth (Denis, 2017; Horák & Lacko, 2023).

Within this framework, the use of information technologies in public administration reinforces the concept of open government by enhancing transparency and decision-making efficiency. Digitalization not only facilitates online access and service automation but also has the potential to strengthen citizen participation and improve administrative performance. The challenge lies in ensuring that these tools not only streamline processes but also reinforce public trust and optimize state management (Plantinga & Adams, 2021).

The findings from the regression model further support the notion that improvements in the rule of law have a positive impact on human development, particularly in countries with high development levels (Lin *et al.*, 2022; Tomita, 2022). In such contexts, robust legal systems allow individuals to protect their rights and property, fostering a stable and predictable environment for investment. In contrast, countries with weak legal institutions face greater constraints in advancing their economic and social development.

The comparative analysis also reveals that governmental transparency is critical for national progress, regardless of a country's development level. Its continued promotion is essential for achieving sustainable and equitable progress. The dimensions of open government—transparency, participation, and collaboration—are relevant across all settings, and their effective implementation enhances democratic quality and aligns public action with collective well-being (Barria *et al.*, 2019; González-Gallego *et al.*, 2021; Janssen *et al.*, 2012).

Furthermore, it is worth noting that the most influential rule-of-law factors vary by development level. In less developed countries, order and security are prioritized, whereas in more developed nations, accountability and governmental efficiency are more prominent. In advanced economies, excessive regulation may hinder decision-making, while in developing contexts, establishing a safe and orderly environment is fundamental to implementing deeper reforms.

This implies that strategies to strengthen the rule of law must be tailored to the specific dynamics of each territory. In developed countries, it is essential to optimize regulation and transparency; in those still consolidating institutions, ensuring basic conditions of stability and legality is critical.



In summary, the relationship between the rule of law and human development is a key determinant of long-term economic and social growth. While further research is needed to establish causal relationships and explore the influence of other contextual factors, the findings suggest that institutional strengthening has a positive effect on living conditions. Promoting robust and democratic legal systems offers a pathway to building more just, prosperous, and sustainable societies. Key measures include: (1) corruption control at all levels, (2) strengthening the regulatory framework and ensuring impartial enforcement, (3) consolidating accountability and transparency mechanisms, (4) improving judicial independence, and (5) fully protecting human rights.

Finally, some limitations of the study should be acknowledged. First, the indices used (HDI and WJP) are based on national aggregates that may mask intraregional asymmetries. Second, the cross-sectional design of the analysis prevents the establishment of firm causal relationships. Third, limited data availability in some countries may introduce omission biases. Lastly, unobserved factors—such as political culture, conflict, or external shocks—may influence the relationship analyzed but were not controlled for in this study.

## CONCLUSIONS

This study confirms a strong and significant association between the rule of law and human development, in line with a growing empirical body of evidence supporting its bidirectional nature. The consistency of this relationship throughout the period analyzed reinforces the hypothesis that a robust legal framework serves as a catalyst for social well-being, although its intensity varies depending on the level of regional development. In highly developed contexts, the positive effects of the rule of law are more pronounced, whereas in regions with weak institutions, its impact is constrained by structural factors such as institutional fragility, systemic corruption, and insecurity.

Among the components of the rule of law, governmental transparency, regulatory effectiveness, citizen participation, and judicial independence stand out for their relevance. These elements not only promote institutional predictability and accountability but also strengthen public trust and foster conditions conducive to equitable growth. The analysis also revealed substantive regional differences: while in developed countries regulatory quality and institutional oversight mechanisms are key, in less advanced regions demands are centered on stability, order, and the provision of basic security.

These findings highlight the importance of designing differentiated institutional strengthening strategies tailored to the specific characteristics of each territory. Public policies should be sensitive to the level of development, prioritizing the consolidation of safe environments in fragile regions and the enhancement of oversight and accountability mechanisms in more consolidated settings.



In conclusion, this study contributes to a deeper understanding of the complex interaction between institutional frameworks and human well-being, offering comparative evidence that supports the promotion of the rule of law as a normative foundation for sustainable human development. However, given the complexity of these relationships, future research should incorporate longitudinal analyses and mixed-method approaches to explore causal effects and contextual mediators. Such developments would help consolidate a more comprehensive analytical framework to guide more effective and context-sensitive interventions in governance and development.

## **REFERENCES**

Please refer to the articles in Spanish Bibliography.

## **BIBLIOGRAPHICAL ABSTRACT**

Please refer to articles Spanish Biographical abstract.

